

Focus on

Organization, Practices and Technology

Paying Off for Tampa

“Who’s going to do the heavy lifting?”

I *t is a question that many employees undoubtedly had on their minds during the early months of the project. One person had the courage to ask it. The answer that Tampa found is that all of the employees need to help do the hard work that it takes to make this kind of change and savings possible.*



The City of Tampa sits on the west-central side of Florida, a port of entry with an impressive harbor tucked along Tampa Bay. The City of Tampa is progressive, launching its e-government initiative in 2000 with 24/7 interactivity online, including the ability for customers to pay their utility bills. Serving a steadily growing population of 303,000, the Tampa Department of Sanitary Sewers (DSS) has been serving the area since 1950. With more than 100,000 accounts, DSS operates a 96 mgd advanced treatment plant and more than 200 pumping stations.

At the height of the utility privatization activity in the late 90s, DSS decided not to sit back but to move the organization swiftly ahead. DSS began an optimization program at its advanced wastewater treatment plant in 1999. Utility management put together a business case for advancement, including what it would cost and why they should proceed. Together with EMA, treatment plant employees took on the challenge to achieve their vision: to become a world-class competitive organization within five years. EMA led DSS employees in conducting an assessment of the plant as well as the collections and stormwater divisions and also led plant employees in implementing recommendations.

By focusing on people, practices and technology, the plant has achieved significant progress toward meeting its goal of becoming a world-class competitive organization. In order to facilitate people skills, a significant training and certification program was developed. Practices were evaluated and modified to support more flexible and productive employees. Technology was assessed with an eye toward achieving the best practices by using appropriate supporting technologies.

After the first year of the program, both the collections and stormwater divisions signed on to optimize their departments, making some adjustments to the process used at the plant. Several of the other 17 city departments also are considering using the same methods.

Teams Involve and Develop Employees

DSS understood that employee involvement was essential to the optimization program's success. Almost all employees were involved.

Figure 1: Tampa's Productivity Improvement Shows Greater Efficiency Per Hour Worked

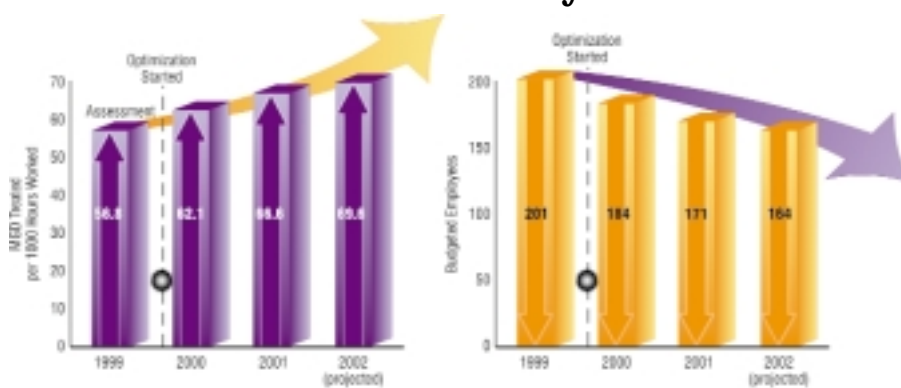
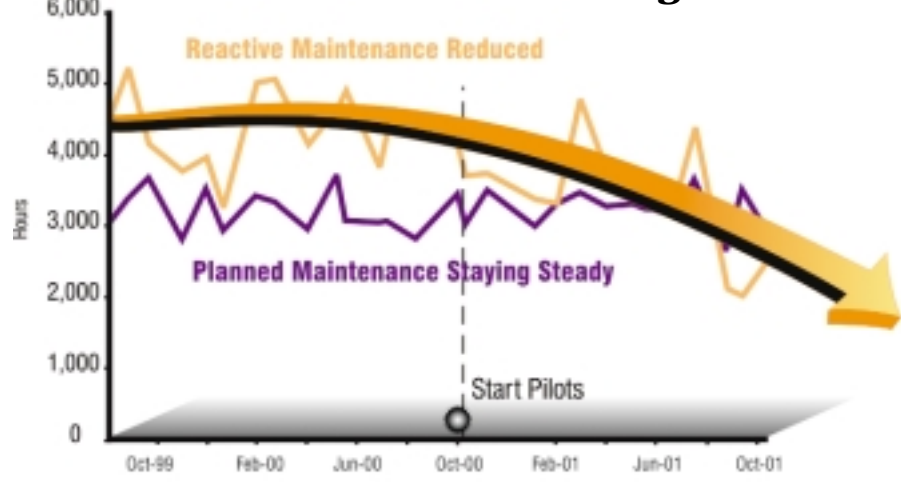


Figure 2: Decline in Corrective Work Order Staff Hours Since Pilot Inception Means Fewer Breakdowns and Emergencies



During the first year, DSS created a new mission in support of their vision to be world class: "A team of professionals committed to the relentless pursuit of excellence in environmental protection and customer satisfaction through efficient wastewater services."

A **Steering Team** consisting of employees representing virtually every level and function of the organization was formed, and employees were trained to work together effectively as a team. The Program Plan they developed included activities and tasks to address the three focus areas of people, organization and technology. EMA led the teams in using scenario modeling. Based on their vision, the teams defined a more streamlined approach, including improved practices, a "flattened" organization and applied technology. These models of the future became the blueprint for designing new skill sets for employees and new technologies.

The **Communication Team** was formed to communicate the program throughout the utility and to other stakeholders. They developed a Communication Plan and began publishing a monthly newsletter for interested persons both internal and external to the utility.

By focusing on people, practices and technology, the Tampa Department of Sanitary Sewers has achieved progress toward meeting its goal of becoming a world-class competitive organization.

“We needed to overcome the fear that changes meant something bad was happening. The best way to do that was communicate. If you think you were clear, then say it again,” Director Ralph Metcalf said.

A third team was created to address technology needs to support optimization. This **Technology Team** drafted a Technology Plan for later use as the framework or process to identify, prioritize and implement technology tools. Each project identified in the plan was evaluated using a business case tool to determine the cost/benefit for priority ranking purposes.

Finally, in the first year, pilot studies or tests were designed for plant and pump station operation and maintenance to allow utility employees to try new work practices and organization models.



Improved work practices allow fewer DSS employees to treat more wastewater per hours worked.

Phase II

In year two, the Leadership Training Program was designed with the needs of a changing organization in mind. Utility supervisors and managers designed the program around what new knowledge would be required to lead the organization of the future.

The training program was designed by having the managers and supervisors respond to two questions.

- If you were promoted to the next higher level in your organization, what new knowledge would you need to perform that work?

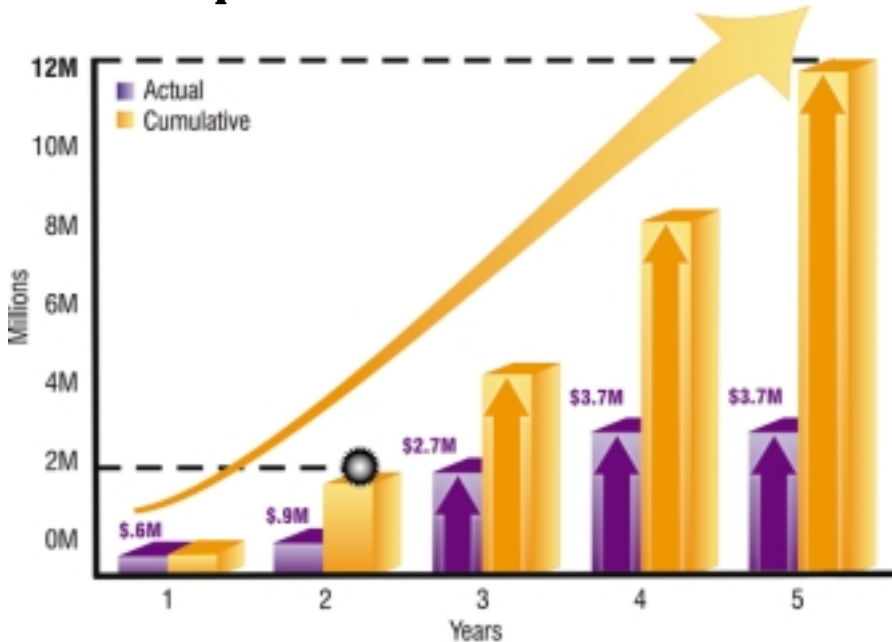
- If your facility were to become a private operation and you were placed in charge of the project, what knowledge would you need to perform your job?

The answers were grouped into 12 categories. Each workshop participant was given a number of “votes” to apply to those issues they felt were most needed.

Seven course modules were provided to all supervisors and managers.

- Communication
- Leadership
- Motivation
- Personnel
- Teams
- Problem Solving/Decision Making
- Change Management

Figure 3: DSS Will Save \$12 Million from Optimization Over a Five-Year Period



“One of the biggest outcomes has been seeing how much employees have grown in these non-technical skill areas. Another is their appreciation for costs and the impact of their actions,” Deputy Director Brad Baird said.

Many of the managers and supervisors who completed this program have stated that it is one of the most significant leadership training programs they have ever taken. Team training was provided for all employees volunteering for pilots and teams in a week-long session. It focused on establishing working agreements, commitments within the group and personal responsibility and accountability.

Progress

The first six-month pilot was completed and a second pilot was designed to continue learning new ways to work. Completion of the first pilot saw payment of the first of three performance bonuses. The Tampa Mayor approved sharing plant program savings with employees. The first bonus was more than \$659 per person. Every person at the plant, from front line workers to the plant manager, received the same bonus amount. The allowance gave 20 percent of the savings back to employees, while 80 percent went toward reducing the operating costs of the department. Savings came from labor, chemical and power reductions. The labor savings were calculated by demonstrating that the areas piloted were operated and maintained by fewer employees than previously needed. As Figure 1 shows, improved work practices allow fewer DSS employees to treat more mgd per 1,000 hours worked.

On completion of the second pilot, another performance bonus of \$466 per employee was paid. "Obviously, employees are a crucial part of making this work. So, we forged new territory with paying bonuses that are tied to results," Plant Manager Dave Pickard said.

Meanwhile, several technology initiatives from the Technology Plan were started and some were completed in the same year. Initiatives included projects to automate processes and to get information to employees in the quickest and easiest way possible. Technology initiatives with the best return on investment were given highest priority. Examples of technology being put in place include online analyzers and automatic sampling. Plant equipment including the primary clarifiers also is being automated. Whenever possible, technology initiatives are being designed and implemented by employees rather than contracting out. Some of the freed-up resources from operating more efficiently are contributing to technology projects.

Workforce Flexibility and Skill-Based Compensation

Another team began looking at current job descriptions and pay scales in support of workforce flexibility/skill-based compensation (WFF/SBC). The WFF/SBC Team designed new job descriptions based on what it learned from the pilots. With the help of city human resources staff, new job descriptions were created and pay scales were developed that were significantly higher.

Personnel Manager Richard Coane who was intricately involved throughout the process, stated, "This was a test of our ability to devise a system that was driven by the needs of the organization without compromising the integrity of the civil service law."

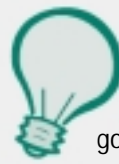
An interesting aspect of this WFF/SBC program is that employees can move up through the new system as quickly as they qualify for the next level of multi-skilled worker. No longer will employees have to wait for a position to be vacated before being promoted. Now, employees are able to move into higher positions based solely on qualifications.

"I've seen employees take on greater responsibility to do a better job. They now have a real stake in the operation," Chief Administrative Officer Sam Halter said.

The higher the overall qualifications of the workforce, the lower the number of total employees that will be required to operate and maintain the facilities.

The pilots provided employees with the first opportunity to cross-train into new job skills. Within the pilot areas, the ratio of planned maintenance (PM) to reactive maintenance (RM) improved from about 40 percent to about 80 percent PM, based on the number of work orders completed. Figure 2 shows the decline in the number of corrective work order man hours since the pilots started, translating to fewer emergencies, experiencing less breakdowns and being more in control. There also has been about a 20 percent decrease in overtime callouts.

This decrease was due mainly to the implementation of a 30-day work plan for pilot area employees and development of a maintenance standard operating procedure (SOP). The success of the pilots in transitioning to mostly planned work is attributed to the creation of a new position, O&M Planner/Schedulers. Tony Leon and Eddy Drovie are two of the employees in this role who work together using weekly planning sessions. Sharing an office, they work out a schedule of work/week by teams, not separate skill areas as historically was done. These Planner/Schedulers were given the responsibility of developing tools and practices to reduce equipment failures by increasing planned maintenance activities. They make a 30-day forecast of work and track the performance.



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"There are new standards for reports. Now if someone is out, someone else can pick up the project," Leon said.

"We've worked hard on establishing open communication. For example, mechanics need to understand what's important to electricians and vice versa. We were free to take some risks and try new things. Where it didn't work, we tried again," Drovie said.

Finally, the second year of the program saw the start of negotiations for Service Level Agreements (SLAs) between the utility and several supporting city departments including Fleet Maintenance and MIS. The SLAs have taken several different forms (e.g., from a formal contractual agreement to less formal defined expectations).

Results

"We wanted to be a model for the rest of the city and made the decision to track our results," Metcalf said. In just two years, DSS did what it set out to do. As shown in Figure 3, the hard savings to date are \$1.6 million.

Optimization also has resulted in these other benefits.

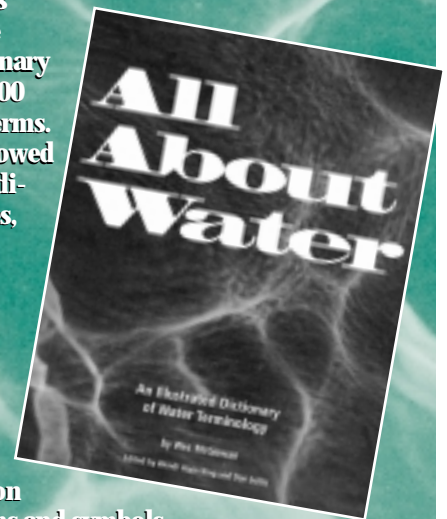
- More knowledgeable employees that results in better customer service.
- Shift of attitudes and culture to one of self-responsibility and self-motivation, creating feeling of ownership.

Illustrated Water Dictionary

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- Elimination of private contract operation concerns.
- More department involvement and best practice sharing to achieve world class goal.
- Ease of retaining employees and recruiting new ones.

As the third year begins, a Transition Team has been formed and a Transition Plan has been developed to help the whole organization move from old structures, work habits and practices to new organization strategies, streamlined work practices and technology enablers. A radically different organization model has been developed with only three levels: team members, team leaders and the leadership team. This compares to an old organization structure that had as many as seven layers.

Many hurdles are ahead for these teams and others that will be formed. However, confidence is high that the strength of working in teams and keeping focused on people, practices and technology will enable Tampa to complete its successful conversion to a world-class competitive utility.



Cross-training into new job skills allowed Tampa's planned maintenance to double when compared to reactive maintenance.

About the Author

Barb Luck is the marketing manager for EMA, Inc., St. Paul, Minn.