



2013  
ANNUAL REPORT  
SAINT PAUL REGIONAL WATER SERVICES

The background of the entire page is a repeating pattern of stylized water drops. Some drops are solid colors in shades of light blue, teal, and dark blue, while others are just thin outlines. The drops are scattered across the page, creating a sense of movement and fluidity.

## MISSION

To provide reliable, quality water  
and services at a reasonable cost

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# Dear Customers:

Safe, reliable drinking water is essential to every community. Saint Paul Regional Water Services provides that water to more than 415,000 people in Saint Paul and neighboring cities. A staff of 250 employees ensures we are true to SPRWS' mission of providing water to its customers at a reasonable cost.

In 2013, we completed several multi-year projects that will serve us well into the future. The water meter replacement project will ensure accurate metering and billing of our customers. The completion of our well field will provide us with a reliable back-up water supply if the Mississippi River becomes unavailable as a water source. The Pleasant Lake oxygenation system will increase the quality of our source water by minimizing the incidence of algae blooms in our lakes. Finally, the new heating system in our McCarrons treatment plant will reduce our energy consumption and our cost of maintaining the decades old system.

We replaced nearly 10 miles of water main this year, continuing our ongoing commitment to invest in our aging, buried infrastructure. We installed several blocks of water main using trenchless technology and will be evaluating costs and construction results. This will prepare us for future increases in construction activity as we expand our program to include replacement outside of the street reconstruction areas.

Finally, staff from business and engineering are preparing and planning for the future as we migrate to new financial and timekeeping systems and develop a 40-year plan for asset maintenance and replacement across the utility.

It takes contributions from each of our employees on a daily basis to continue to provide excellent service to our customers. Based on a recent customer survey, we are rated high by our customers in overall satisfaction with our water and services. We will continue to look forward to the future and work towards ensuring SPRWS remains a successful utility for many generations to come.

I am proud of our accomplishments and the daily efforts put forth by our employees. I hope you share in that sentiment and I thank you for your interest in SPRWS.

Sincerely,



Steve Schneider

General Manager



# Board of Water Commissioners



2013 Board of Water Commissioners, from left: Commissioner Greg Kleindl, Commissioner James Bykowski, Commissioner Kathy Lantry, President Matt Anfang, Vice President Amy Brendmoen, Commissioner Will Rossbach, Commissioner Chris Tolbert.

## SPRWS Division Managers



**Dave Wagner**  
*Distribution*



**Dave Schuler**  
*Engineering*



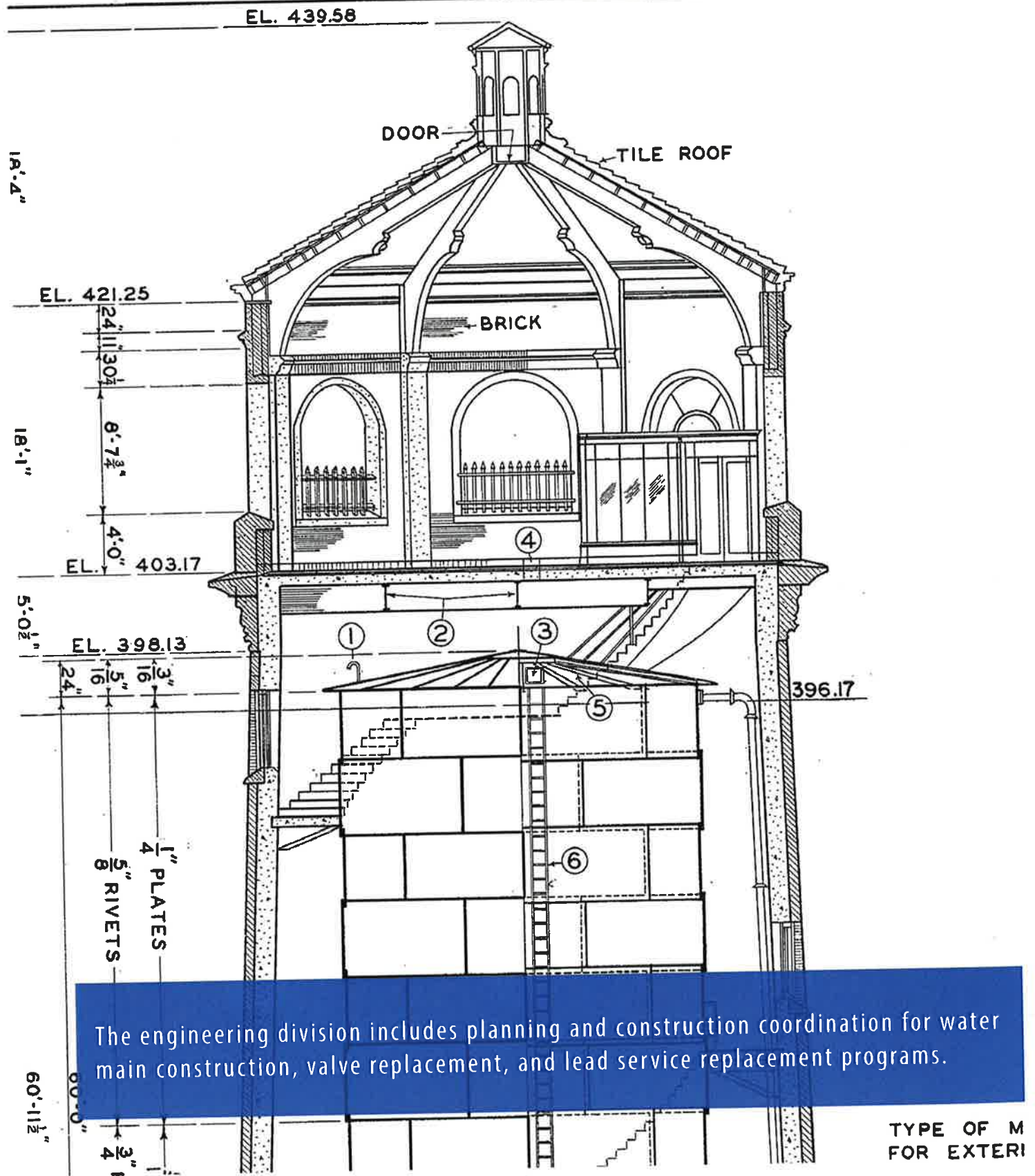
**Jim Graupmann**  
*Production*



**Steve Gleason**  
*Business*



# Engineering



The engineering division includes planning and construction coordination for water main construction, valve replacement, and lead service replacement programs.

# Improvements and Updates

Significant progress on a number of large projects was made in 2013 that will serve Saint Paul Regional Water Services and its customers well into the future.

## Pipe Rehabilitation

We enhanced the current buried pipe rehabilitation program to include replacing all the small diameter cast iron pipes within street reconstruction projects. We are continuing to investigate trenchless technologies to expand our rehabilitation program outside the street reconstruction areas.

## Well Field Supply

We completed the expansion of the well field supply by increasing the number of wells from six to ten. The maximum yield of the system has increased from 27 million gallons a day (MGD) to 45 MGD. The well field can supply our average daily flow and acts as an alternate raw water feed to the filtration plant.

## Pleasant Lake

We completed the installation of the Pleasant Lake oxygenation system. The system is fully operational and is expected to significantly improve the water quality of the reservoir.

## Partnership for Safe Water

In the Partnership for Safe Water, we initiated a distribution system pressure monitoring program with the installation of two data loggers in the low service pressure zone. This program will evaluate service pressure fluctuations following the Partnership for Safe Water guidelines and will be expanded into other pressure zones in 2014.

## Future Opportunities

The engineering division will continue to focus primarily on three initiatives:

- Leverage the electronic programs and tools that are now available to increase our effectiveness and efficiency.
- Focus on further enhancement of our asset management program.
- Work with the Vadnais Lake Area Watershed Management Organization and the Upper Mississippi River Source Water Protection Initiative to assist in completing E. coli Total Maximum Daily Load programs (TMDL), specifically looking at the Upper Mississippi River and county ditch No. 14.



New groundwater well (above). Drawing of the Highland Park water tower (opposite).

## LRT relocation

During the light rail transit construction, Saint Paul Regional Water Services has been relocating the underground water utilities to make way for the new line. Largely complete in 2012, we continued to correct deficiencies and ensured smooth operations through 2013.

# Production

The production division is responsible for processing raw water into finished water, all the equipment required in processing, and for the water supply chain.



Pleasant Lake oxygenation system (top). Pump No. 5 at the Fridley station (middle). Newly installed boilers (bottom).

## Improvements and Updates

A number of improvements were made in 2013 ensuring that Saint Paul Regional Water Services maintains excellent water quality and superior service to the customer.

- ◆ A new hot water heating system for the treatment plant building replaced the steam heat and 45-year-old boilers.
- ◆ New catalytic converters were installed on our generators in the plant in accordance with new regulatory laws.
- ◆ We switched from the Ramsey County Sheriff's office to a private company to provide security services for our facilities. New security cameras were installed replacing the 10-year-old system. We are continuing to work to optimize security levels.
- ◆ The new oxygenation system for Pleasant Lake was installed and operable by the end of 2013. Using the system over the winter should increase water quality for next spring.
- ◆ Field No. 4, north of Roselawn Avenue, had reached lime sludge capacity. The lime was removed for agricultural application and operations resumed. Currently, this will likely need to be done in 5-7 year intervals. However, we are investigating ways to reduce our lime sludge output to this field.
- ◆ Pump No. 5 at the Fridley pumping station went on-line and now provides more options and better capacity from our river source.



## Chemical and Electrical Costs

Chemical and electrical costs had a slight increase in 2013. Chemical costs included an increase in lime prices and cost of oxygen for aerators. Electricity costs increased by 11 percent when normalized for pumping.

## Water Use for 2013

Above average precipitation in the winter months and through June alleviated any concerns about drought and potentially low river levels. With cool spring temperatures, water demand was low. In June, we pumped just 43.5 million gallons per day (MGD) — the lowest for any June since 1957. Demand picked up in August as temperatures rose and precipitation dropped. We finished the year pumping an average of 42.8 MGD, roughly the average for the past five years.

## Water Quality

Water quality continued to be excellent with just 20 water quality complaints from the 415,000 people served. This year marked seven consecutive years of minimal water quality complaints as our Granular Activated Carbon filters continue to be top performers.



Inside the 10-million-gallon reservoir at Roseville, which replaces the old reservoir.

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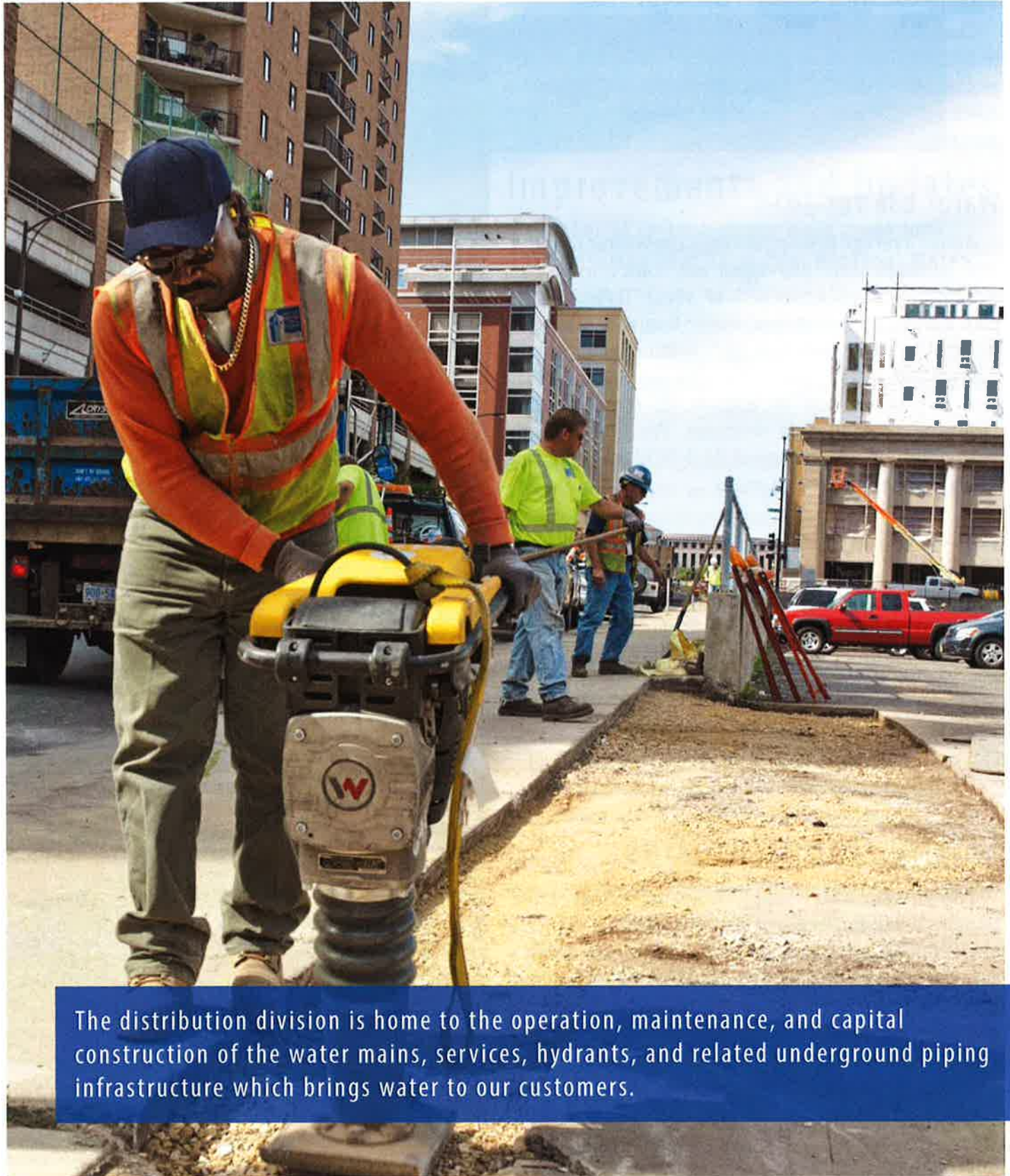
## Future Opportunities

The 90-inch water supply valve on Vadnais Lake is scheduled for repairs. During repairs we can also replace existing screen slides with copper screen slides. Installing new screens at Vadnais and Pleasant lakes will limit zebra mussel attachment and save maintenance and labor costs.

Our Supervisory Control and Data Acquisition (SCADA) software is being phased out by General Electric. Alternatives exist that will be more versatile and less costly. We will likely make the improvements in 2014.

White Bear Lake water levels that have been declining over the past 10 years are near all-time low levels due to increased ground water usage. The Met Council is trying to move northeast communities toward surface water supplies. SPRWS can supply either finished water through the McCarrons plant or raw water to a new treatment plant through our chain of lakes supply. This appears to be feasible from our viewpoint on an appropriation and capacity basis. However, extensive further discussion on a course of action and funding is needed.

# Distribution



The distribution division is home to the operation, maintenance, and capital construction of the water mains, services, hydrants, and related underground piping infrastructure which brings water to our customers.

## Water Distribution Capital Program

In 2013, we continued our water distribution capital program. We replaced and upgraded the aging infrastructure of unlined cast iron mains, hydrants, and lead water services. Many of the upgrades and replacements were accomplished in coordination with street reconstruction projects. This year we replaced 9.5 miles of our 1,200 miles of water main.

During water main replacement, temporary water mains need to be installed in order to continue to serve customers. For every one mile of water main replaced, three to four miles of temporary water main must first be set up, and then taken down when the project is completed. It requires significant coordination on our part and allows us to continue

to offer our customers excellent service.

In addition to our water main service upgrades, we replaced 245 lead water services in 2013. Done in coordination with street reconstruction, we focused on service areas where property owners had previously replaced a portion of their lead service on private property and where old services were leaking and required maintenance.

This year, 167 out of the 9,500 system hydrants were replaced. Newly installed hydrants featured Storz connections on hydrant nozzles in the majority of our service area. The Storz connection is a quick connecting coupling that easily accommodates fire hoses.

## Water Distribution System Maintenance

We provide preventative and emergency maintenance on the water distribution system. Preventive maintenance ensures reliability of the water system and keeps water quality standards high. This includes hydrant inspection, Uni-Directional Flushing (UDF), and valve exercising. All public fire hydrants in the system were inspected during the year and were ensured to be operational. Improvements in field automation were done to collect information while performing inspections.

We perform emergency repairs on our water mains and services as well as for other municipalities outside our service area. We began performing main break repair services for the city of Newport, in addition to continuing services to Oakdale and White Bear Township. We repaired 142 main breaks within our service area and 25 outside our service area in other communities.

In 2013 we amicably stopped water operations for the community of Birchwood Village and no longer operate or maintain their distribution system.



Workers replace a water main (above). Replacing the sidewalk after work is complete (opposite).

## Future Opportunities

In 2014, focus will be placed on water main replacement in conjunction with street reconstruction project areas. We will continue our hydrant maintenance as well as emphasize valve maintenance and UDF. Our infrastructure

funding for 2014 will allow for 9.37 miles of main replacement in project areas. Additional funding in this area is vital to ensure proper investment for the future.



# Business

The business division offers support services to the other divisions within the water utility as well as direct contact with individual customers and communities at large. The division includes the Business Improvement Unit (BIU), billing, customer service, meter operations, financial and information services.



Visitors enjoy the Highland Park water tower open house.

## Communication in the community

We continued to be active in the community by holding open houses at the Highland Park water tower and producing several publications including the quarterly customer newsletter *Customer Service Connections*. We also continued to publish the water quality report, which continues to be online in accordance with the Minnesota Department of Health requirements. We continued to update our employees on larger happenings through our internal, bi-weekly employee newsletter, the *Pipeline Express*.

## Business Improvement Unit (BIU)

In 2013, the BIU developed a process to evaluate, prioritize and track vetted projects in addition to adopting a formal, structured, project approach template. By the end of 2013, the BIU had 68 projects at various stages of progress being tracked. The unit researches industry trends and standards seeking continuous improvement of SPRWS operations.

## Technology Systems

During 2013, the financial services unit and the city of St. Paul worked closely to implement the new finance system. We designed and implemented a new business process for managing a financial management system. We implemented a new chart of accounts in the Lawson financial management system, CMMS system, and CIS system. We also transitioned from a stand-alone, fixed-asset system to a module of the new Lawson system. For each system, the work included new configuration, several data conversion iterations, and a significant testing effort.

During 2013, the information services unit continued to improve the retrieval and display asset information on our Geo-spatial Information System

(GIS) and provided this information both in the office and in the field. We continued to implement our Storage Area Network (SAN) and our Virtual Server Environment by adding our CIS system and Laboratory Information Management System (LIMS). We also upgraded our backup system to an optical disk to eliminate the redundant magnetic tape system.

Work continued to expand our Document Management System (DMS). The CIS, GIS, and CMMS systems now link to supporting documents housed in our DMS. DMS was enhanced to more readily present our standard of operating procedures, policies, safety information, and paid invoices.

## Radio Meter Reading System

We completed a three-year contract to replace each water meter in our service area. Contracting with Northern Water Works Supply in 2010, we replaced approximately 93,000 water meters with a radio meter reading system. Only 1,000 meters were outstanding as of January 2013. With a collaborative effort from all parties, including customers, contractors and SPRWS staff, the project was a huge success.

As a direct result of the radio meter project, we reduced our meter readers from five to two and now operate drive-by meter reading. The number of estimated water bills issued in 2013 was significantly reduced, especially during periods of deep snow, which historically hampered reading access.



New radio meter

## Emergency Response

A water main break on Wall Street in downtown St. Paul in February 2013 caused us to lose pressure in most of our low service system. This prompted a do not drink order for the area, which serves 30,000-50,000 people. Numerous meetings were held to discuss our response. We received high marks for initial response and restoration of service. However, there is room for improvement communicating orders and working with customers and health officials to bring back water service, especially for customers in the food service. We took a few lessons away and are now better prepared to deal with a similar incident in the future. We've updated our website to offer an emergency notification "Code Red" registration opportunity.

## Online Bill Pay

We continued to increase the number of registered users of our online bill and payment system, Infinity Link. This Customer Information and Billing System (CIS) module allows customers to choose to view their account and pay their bill online. In addition, customers can now receive their bill electronically. By the end of 2013, we had 19,032 registered users.

## Customer Service Center

The customer service center received 166,872 calls in 2013, a slight decrease from 2012, perhaps due to the completion of the meter replacement project. Forty-nine percent of calls were handled by call center staff and 85,719 by the self-serve Interactive Voice Response Unit (IVR). Our abandoned call percentage was under 1 percent, lower than our goal of less than 2 percent. The IVR offers responses in both English and Spanish and approximately 1,421 callers took advantage of the Spanish option.

## Future Opportunities

A new timekeeping, attendance, and scheduling system (TASS) is planned for implementation at SPRWS during the second quarter of 2014. We will continue to become proficient with the new Lawson financial system. In 2015, we anticipate implementing V4, a version upgrade to CIS Infinity. The new version is written in .NET computer language that facilitates broad search and filtering capabilities, enhanced reporting, writing, and data retrieval. It's an easier system to use and more reliable.

We will continue to examine workflow processes through the utility looking for ways to improve efficiency and enhance delivery of services. We will continue to review and amend our business practices to optimize the effectiveness of the new radio meter reading system. Another big initiative is to merge our billing and customer service units to ensure a broad base of qualified billers and a responsive, knowledgeable, expanded customer service team.

# Finance

Select financial information from the 2013 fiscal year.

## Condensed Statement of Net Assets (in thousands)

| Assets                                       | Fiscal Year 2013 |
|--|------------------|
| Cash and Investments                         | \$23,225         |
| Other Current Assets                         | \$12,505         |
| Capital Assets - Net                         | \$275,065        |
| Other Noncurrent Assets                      | \$6,676          |
| Total Assets                                 | \$317,471        |
| <b>Liabilities</b>                           |                  |
| Current Liabilities                          | \$14,857         |
| Noncurrent Liabilities                       | \$54,297         |
| Total Liabilities                            | \$69,154         |
| <b>Net Assets</b>                            |                  |
| Invest in Capital Assets Net of Related Debt | \$226,053        |
| Restricted for Debt Service                  | \$11,371         |
| Unrestricted                                 | \$10,893         |
| Total Net Assets                             | \$248,317        |

## Condensed Statement of Revenue, Expenses, and Changes in Net Assets (in thousands)

|                                    | Fiscal Year 2013 |
|------------------------------------|------------------|
| Operating Revenues                 | \$52,008         |
| Operating expenses                 | \$44,494         |
| Operating Income                   | \$7,514          |
| Nonoperating Expenses              | \$5,604          |
| Income (Loss) Before Contributions | \$1,910          |
| Capital Contributions              | \$1,333          |
| Change in Net Assets               | \$3,243          |
| Net Assets- January 1              | \$245,074        |
| Net Assets - December 31           | \$248,317        |

*The notes to the financial statements are an integral part of these statements.*

The complete financial report for 2013 is available from Saint Paul Regional Water Services. To obtain a copy please visit us at [www.stpaul.gov/water](http://www.stpaul.gov/water) or contact the Financial Services Department at 1900 Rice Street, Saint Paul, MN 55113.



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**SAINT PAUL  
REGIONAL  
WATER  
SERVICES**

1900 RICE STREET  
SAINT PAUL, MN 55113  
TEL: 651.266.6350  
FAX: 651.266.6357  
EMAIL: [WATERINQUIRIES@CI.STPAUL.MN.US](mailto:WATERINQUIRIES@CI.STPAUL.MN.US)