



# **Saint Paul Regional Water Services**

*Annual Report 2010*

# Mission Statement and Core Values

## Our Vision

*To be a regional and national water industry leader emphasizing quality product, services and cost containment.*

## Our Mission

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

## Statement of Values

*We commit to these values and expectations, taking pride in what we do together and promoting a positive image of Saint Paul Regional Water Services.*

### Sense of Community

*We...*

- *Show respect to other's differences, take time to learn about each other, and treat each person as a unique individual.*
- *Create and maintain a positive, inclusive, and diverse workforce to better serve our customers.*
- *Approach our work and interactions in a way that promotes and supports our community.*
- *Communicate openly and honestly, acting in a respectful and tactful manner.*

### Commitment to Excellence

*We...*

- *Have a shared vision of the future that gives us a clear sense of direction.*
- *Establish clear roles and responsibilities for all employees.*
- *Strive for excellence, continually improving and finding ways to be more effective and efficient.*
- *Keep our expertise current and willingly take on development opportunities.*
- *Demonstrate commitment and effort in the work that we do.*

### Sustainable Stewardship

*We...*

- *Build trustworthy relationships, internally and externally, to achieve desired common goals.*
- *Establish stewardship goals to protect our water supply, water treatment facility and distribution infrastructure for future generations.*

### Quality Customer Service

*We...*

- *Demonstrate our customer service standards of responsiveness, empathy, honesty, respectfulness, and reliability.*
- *Promise only what we can deliver and deliver what we promise.*
- *Promote improved customer service options to our customers.*
- *Carry out our work in a professional manner.*

### Building for the Future

*We...*

- *Promote innovation, change, and continuous improvement as we plan for the future.*
- *Commit to doing things effectively, making calculated decisions that result in organizational stability and desired change.*
- *Demonstrate adaptability and flexibility, adjusting to changing priorities and multiple demands within the organization and community.*
- *Exercise fiscal responsibility.*



# 2010 Board of Water Commissioners

**President**

Pat Harris

**Vice President**

John Zanmiller

**Commissioner**

Matt Anfang

**Commissioner**

Lee Helgen

**Commissioner**

James J. Bykowski

**Commissioner**

Gregory Kleindl

# 2010 SPRWS Management

## General Manager

Steve Schneider

## Division Managers

**Engineering**

Dave Schuler

**Production**

Jim Graupmann

**Distribution**

Dave Wagner

**Business**

Steve Gleason



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Photo: Saint Paul Regional Water Services main office building at 1900 Rice Street.  
Front cover: The interior of the 30-million-gallon reservoir at Dale Street.  
Inside, opposite front cover: Staff at a public hearing of the Board of Water Commissioners held at 1900 Rice St.  
Back cover: Water fountain at 1900 Rice St.

# A message from the General Manager

## A commitment to retain your trust in the water we provide



**Steve Schneider**

*General Manager*

Thank you for your interest in our organization.

Saint Paul Regional Water Services (SPRWS) has existed for over 125 years and takes pride in providing water and services to all our customers. We do so, gladly, 24 hours a day, 7 days per week.

In 2010, water consumption dropped to levels that we had not seen since before our suburban expansion in the early 1960's. A combination of factors had an impact on our water sales, including optimum growing conditions, a significant economic recession, and the continued influx of water conserving plumbing fixtures and appliances.

Despite the reduced revenue and mid-year budget adjustments, SPRWS employees continued to perform their duties to ensure we provide the necessary services to our customers.

In this annual report, you will read about what our organization accomplished in 2010 and how we are planning to ensure our system will continue to serve you into the coming generations.

Great water quality, excellent customer service, efficiency in our operations, and investment in the future are the themes you will read about, as these strategic goals guide our everyday decisions.

Thank you for your trust in SPRWS. We take our business seriously and know that we play a vital part in making Saint Paul and all the communities we serve great places to live and work.

Our commitment to you is to retain your trust in the water that comes from your tap and to provide that water to you at a reasonable cost.

A handwritten signature in blue ink that reads "Steve Schneider". The signature is written in a cursive, flowing style.



# Distribution

## Maintaining Our Infrastructure



Work in the distribution division includes capital construction for distribution system piping, maintenance of our existing distribution system, fleet management, and warehouse operations.

### Replacing and Upgrading Infrastructure

We continue to replace and upgrade an aging infrastructure, including unlined, cast iron water mains, hydrants, and lead water services. The utility's water main and lead replacement work was primarily accomplished in coordination with street reconstruction projects.

In 2010, we performed a significant water main cleaning and lining project. This project involved cleaning and lining 1.8 miles of 30-inch diameter pipe. This main is one of the two main supply lines to the Highland reservoir and this work will bring longer life to an old, but structurally sound main.

### Water Mains, Lead Service Lines, and Hydrants Replaced

We replaced 5.5 miles of water main and 563 lead water services in 2010, primarily in street reconstruction areas. We conducted lead replacements in those areas where property owners previously replaced their portion of the lead service in private property and where old services were leaking and required replacement. In addition, we replaced 184 of the 9,500 system hydrants.

### Increased Preventive Maintenance

We continue to focus on our preventive maintenance program. Preventive maintenance of the distribution system is needed to ensure adequate reliability and improve distribution system water quality.

Preventive maintenance work includes hydrant inspection, a Unidirectional Flushing (UDF), program, and large valve exercising program. UDF helps improve distribution water quality by directing water through water mains in such a way as to create thorough flushing and scouring of the mains.

The purpose of the valve exercising program is to operate system valves to ensure operability. We performed unidirectional flushing in about 4 percent of our system area. For our large valve exercising, we operated 25 percent of our 24" and larger valves.



**Photo this page:** Top, reconstruction crews pour concrete as they put in a new section of sidewalk along Snelling Ave. Above, pipes in storage await installation. **Photo opposite:** Crews prepare to cut into the street to repair and reline a 30-inch main. In 2010, we cleaned and relined 1.8 miles of 30-inch main.

## Hydrants Flushed and Kept in Working Order

We inspected all public fire hydrants in the system. This work involved operation of system fire hydrants and performing minor repair work as necessary.

## Emergency Maintenance

Emergency maintenance is ongoing and we respond and repair to many emergencies throughout the year, though most main breaks occur in the winter season.

We provide repair services for water main breaks to other municipalities outside our service area, including the city of Oakdale and White Bear Township. Last year we repaired 108 main breaks in our service area and 42 repairs in communities outside our service area.



## Distribution Division - Future Operations

In 2011 and 2012, we will emphasize construction surrounding the Central Corridor Light Rail Transit project, which is running between Saint Paul and Minneapolis along University Avenue.

This project involves construction of new water mains and services along the light rail

transit route.

Much work will take place installing new valves for providing adequate shut-offs for construction, installation of temporary water mains and services, and new hydrant installations.

Capital funding for 2011 will be maintained at the 2010 level.

We will continue to focus on

preventive maintenance work with our UDF and large valve operating program for the long range care of the system.

We will continue to inspect all of the nearly 9,500 hydrants on our system, as we have done in each of the last four years.



# Engineering

## Planning for the Future



Engineering work in the distribution system includes planning and construction coordination for water main construction, valve replacement, and lead service replacement programs. The engineering division also supports planning and construction coordination for the supply and production areas of the utility.

### Dale Street Reservoir

We demolished the 30-million-gallon reservoir at Dale Street in 2010, after more than 90 years of service.

The structure will be replaced by a 10-million-gallon, pre-stressed concrete tank. The new tank will be constructed within the footprint of the original structure.

Completion of the new water tank is expected in 2011.



### GIS Applications

The division has adopted and implemented state-of-the-art modeling techniques to model distribution system hydraulics and water quality.

This GIS based application is much more comprehensive and powerful than previous models.

The programming and calibration of the distribution system model is complete.

### Central Corridor, Light Rail Transit

Saint Paul Regional Water is involved with the Central Corridor Light Rail Transit project, relocating our water mains out of the utility-free zone immediately beneath the train tracks.

The 4th Street portion of the project was completed in 2010 and the Civil East portion, from Cedar Street in Saint Paul to Minneapolis, will begin in 2011 and continue through 2014.



# Source Water Protection

The Upper Mississippi River Source Water Protection Initiative (UMRSWPI) has moved ahead in 2010 by continuing to develop plans to bring resources to the various watershed groups throughout the upper Mississippi

River watershed.

The group is also actively pursuing funding to achieve Total Daily Maximum Loads (TMDL) on several reaches of the Mississippi River between St. Cloud and the Minneapolis intake.

This initiative involves the cooperative agreement with the cities of St. Cloud and Minneapolis and the Minnesota Department of Health working to develop drinking water protection measures in the upper Mississippi River watershed.



Photo by Dick Rohland, Saint Paul Public Works

Swans feed in the glow of sunset on Vadnais Lake, the final holding lake for water pumped from the Mississippi River.

## Engineering Division - Future Operations

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

- Increase our effectiveness and efficiency using available programs and tools.
- Work on and assist with completing the E.Coli Total Maximum Daily Load programs (TMDL) for the Upper Mississippi River and County Ditch No. 14 in relationship with the Vadnais Lake Area Watershed Management Organization and the Upper Mississippi River Source Water Protection Initiative.
- Enhance our asset management program.



Photos opposite: Top, engineers check the site plans for Sandy Lake. Bottom, the demolition of the Dale Street reservoir to make room for the new reservoir. This page, above, work replacing water main on the Central Corridor-Light Rail Transit project in downtown Saint Paul.

# Production

## Ensuring Water Quality



### Water Production Continues to Drop

The year 2010 saw water production levels back to where they were prior to most of the suburban areas being built. Rainfall was very regular, unusually so. There were no prolonged dry stretches of weather. That being the case, it may be that 2010 will set a standard for minimal water production. After experiencing lower than expected demands through four years of drought, our concerns about very low demands during a normal year of precipitation were shown to be quite accurate. Our average pumping rate for 2010 was 40.8 million gallons per day (MGD), the lowest figure we've seen since 1962. Precipitation during 2010 was more than 5 inches above normal, but beyond that, it fell at regular intervals during the growing season. This led to very light demands on our system as there was little need to sprinkle lawns.

### GAC Filters Continue to Keep Taste and Odor Issues in Check

Water quality leaving the treatment plant continued to be excellent. We had no positive coliform tests in our distribution system. We had only fifteen taste and odor complaints for the year. This is roughly a 90 percent reduction from the number of complaints we received yearly prior to installing our Granular Activated Carbon (GAC) filters. We have now had four excellent years in a row in terms of complaints for taste and odor. We did observe some lower chlorine levels in our distribution system in the last half of 2010. We believe this is due to longer residence times in the system, which is in turn due to the low demands on the system. We continue to watch for signs that our GAC filters are losing their effectiveness. To date, the filters continue to effectively remove our taste and odor compounds.

### Chemical Costs Decrease

Some good news with lower water production is the fact that the costs for production were also lower.

Electrical costs were down due to less pumping, and chemical costs stabilized after several years of increases. Our unit cost for chemicals was nearly the same as it was in 2009, and so with less production, our total costs were less.

The price of sodium hydroxide fell by 63 percent, and alum pricing was down slightly.

**Photo left: A water quality specialist shows a water sample from the plant to a group of visiting school students.**



**Above: Filters are cleaned regularly by backwashing the water back up through the filter beds and out a trough.**



## Zebra Mussels Continue to Flourish in Conduits



**Adult zebra mussels cluster together after being removed from underwater equipment. The mussels prefer water currents, and as such, often cluster in water conduits, intake areas, and pipes.**

This has been our fourth year dealing with the zebra mussel infestation in our lakes, intake structures, and conduits.

We successfully cleaned the heavily infested surfaces of the intakes and conduits in 2010 and placed the conduits back in service without causing any taste and odor episodes.

It appears that we will be doing this cleaning yearly for the foreseeable future.

At present, it is still more economical to manually clean our facilities rather than chemically treat the water to prevent the mussels from attaching.

## Production Division – Future Operations

At the end of 2010, plans were underway for several large projects for production.

We will proceed to harden our control room at the plant, increasing the security for that room and thereby our entire system.

Also, we plan to install pumps and motors on four wells that have been drilled along our conduit right-of-way, increasing our ground water capacity to equal or exceed our average day demand.

We plan to allow for the discharge from these wells to be capable of entering either of our supply conduits. This will allow us more flexibility than what we have currently.

As it is today, only well D can pump to our older conduit; the other five wells all pump to the newer steel conduit.

We plan to design a new pump No. 5 for the Fridley



**Photo above: Pump No. 5 at the Fridley pumping station has reached the end of its useful life and will be replaced.**

pumping station, to replace the pump that has reached the end of its useful life.

# Business

## Putting Our Customers First



*Infinity.Link*, a new system for paying bills online, was soft-launched in the winter of 2010. Customers will be able to begin using the system in early 2011. The new system will allow customers to pay their water and sewer bills online. Customers will be able to elect to have only electronic bills sent to them to avoid paper bills.

The business division includes the five business units of financial services, information services, meter operations, billing, and customer service. This division offers support services to other divisions within the utility, as well as direct contact with individual customers and communities at large. Recognizing that the entire billing process, including meter reading, billing, and answering customer service calls are strongly interdependent, meter operations was transferred from the distribution division to business. We believe managing them together will improve overall effectiveness and customer service.

### New Customer Information System Implemented

The utility implemented a new Customer Information System called CIS Infinity in November of 2009. Accordingly, 2010 was a year of continued learning and adjustment for staff. By year-end, staff became proficient in the use of the new software.

In conjunction with the new CIS, our vendor, Advanced Utility Systems, worked with SPRWS to conduct a formal on-site review of the utility's business processes. Working together, we enhanced the effectiveness of the system.

### Geospatial Information System Refined and Improved

We continued to improve the retrieval and display of asset information in our Geospatial Information System (GIS) and provide this information both in the office and in the field.

### Water Meter Replacement Project Gets Underway

We began the installation of approximately 94,000 replacement water meters that will now be equipped with a radio transmitter.

The new meters will be fitted with new radio-read technology and will use an automated drive-by system for capturing water meter readings.

We hired Northern Water Works Supply as a contractor to install the new meters, which replace meters that are approximately 25 years old. This project will require on-going coordination between the contractor and our meter operation, billing, and customer service units. We look for the radio-read system to significantly increase meter-reading efficiency, reduce meter reader exposure to injury, and reduce the number of estimated reads in the winter months.



The meter replacement project will continue to 2013.

**Above, a new water meter with integrated radio transmitter for sending water readings remotely.**



## Public Outreach Efforts

We held open houses at the Highland Park water tower and hosted a teacher's session of the Drinking Water Institute, as well as several tours of the water treatment facilities for teachers and students.

We continued to produce several external publications, including *Customer Service Connections*, a quarterly newsletter for customers, and the annual Water Quality Report.

Internally, we provided employees with communication updates by featuring timely articles in our bi-weekly employee newsletter, the *Pipeline Express*.

We continued to promote and provide assistance in paying water and sewer bills to low-income families through the *WaterWorks* program.

We ensured the preservation of historic images of the Dale Street reservoir by providing the Roseville,



Ramsey County, and state historical societies with images of the interior and exterior of the reservoir and gate houses for their records.

Several metro area and regional newspapers feature articles on the reservoir.

## Water Meter Replacement Public Outreach

To improve public outreach and provide information about the meter replacement project, we:

- Solicited and received newspaper coverage from the *StarTribune*, *Pioneer Press*, and *Finance & Commerce* publications.
- Launched a website dedicated solely to providing information about the meter replacement project.
- Produced a four-minute Public Service Announcement video demonstrating the exact notification and installation processes for our customers. This ran on local cable channels in our coverage areas and on the city and meter project websites.
- Featured information on the project in our *Customer Service Connections* quarterly newsletter sent directly to customers.
- Sent information packets on the project to all suburban mayors and Saint Paul council members, mayor, and district councils.

## Business Division - Future Operations

In 2011, we anticipate implementing additional modules to CIS Infinity.

*Infinity.Link* will provide online access to account information and bill payment options for customers who register to use it.

Consolidated billing will offer customers owning more than one property the ability to get one bill summarizing the charges of accounts and properties they own.

The *Infinity* backflow module will help us better manage the testing of backflow preventers as required by the state plumbing code.

The city of Saint Paul is implementing a new Lawson finance system. This implementation will significantly impact the utility's information

systems. Finance and information services staff will support design, software configuration, and testing required to facilitate our business processes.

Data conversion and testing to implement a new chart of accounts in both CIS Infinity and our Computerized Maintenance Management System (CMMS) will require significant staff resources.

We will review and amend our business practices as needed to optimize the effectiveness of the new radio-read water meter system and the new finance system. We will continue to examine workflow processes throughout the utility looking for improved efficiency and enhanced delivery of information to our employees and customers.

# Select Financial Information 2010

## Condensed Statement of Net Assets (in thousands)

	Fiscal Year 2010
<b>Assets</b>	
Cash and Investments	\$ 15,695
Other Current Assets	11,576
Capital Assets - net	231,060
Other Noncurrent Assets	7,099
Total Assets	<u>\$ 265,430</u>
<b>Liabilities</b>	
Current Liabilities	\$ 13,980
Noncurrent Liabilities	34,215
Total Liabilities	<u>\$ 48,195</u>
<b>Net Assets</b>	
Invested in Capital Assets Net of Related Debt	\$ 198,975
Restricted for Debt Service	9,230
Unrestricted	9,030
Total Net Assets	<u><u>\$ 217,235</u></u>

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

	Fiscal Year 2010
Operating Revenues	\$ 41,996
Operating Expenses	37,383
Operating Income	<u>\$ 4,613</u>
Nonoperating Expenses	\$ 1,542
Income (Loss) Before Contributions	<u>\$ 3,071</u>
Capital Contributions	<u>\$ 1,650</u>
Change in Net Assets	\$ 4,721
Net Assets - January 1	<u>\$ 212,514</u>
Net Assets - December 31	<u><u>\$ 217,235</u></u>

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

The complete financial report for 2010 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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