

Saint Paul
Regional
Water
Services
Annual Report
2009



Our Vision, Our Mission

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.

2009 Board of Water Commissioners

President	Pat Harris
Vice President	John Zanmiller
Commissioner	Matt Anfang
Commissioner	Dave Thune
Commissioner	Melvin Carter III
Commissioner	Will Rossbach
Commissioner	Gregory Kleindl

2009 SPRWS Management

General Manager	Steve Schneider
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Division Managers

Engineering	Dave Schuler
Production	Jim Graupmann
Distribution	Dave Wagner
Business	Christine Meyer



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Photo: The boathouse and intake station at Vadnais Lake.

Front cover: Vadnais Lake at the mouth of the canal to Sucker Lake.

Back cover: Wheat grows as ground cover for the native grasses and wildflowers planted at Sandy Lake.

A message from the General Manager

Making our water quality and services the best they can be



Steve Schneider

General Manager

Saint Paul Regional Water Services is an organization with 250 individuals working to ensure quality water and services are delivered to our customers at a reasonable cost 24 hours per day, 7 days per week.

We come from varied backgrounds, from diverse parts of the world, and all have personal lives outside work hours. However, we share one thing in common. We all play vital roles in making SPRWS the best water utility it can be.

From customer service to our engineering department; from production to distribution divisions; from finance to revenue management, we all make contributions to the success of SPRWS.

In this annual report, you will read about many accomplishments achieved in 2009. While our successes are many, we are also faced with many future challenges. We must be up to these challenges to ensure the long-term success of the utility.

First, we must continue to provide water to our customers of the highest quality. We have a proud history of accomplishment in this area. The aesthetic quality of our water has never been better and we continue to meet all required quality criteria issued by the Environmental Protection Agency and the Minnesota Department of Health.

Second, we must continue to strive for excellence in customer service. Our newly installed Customer Information and Billing System will assist us in these efforts by offering unprecedented access to information and additional payment options for our customers.

Finally, we must utilize our available resources wisely, including significant investment in our buried infrastructure. We must take every opportunity to continue our renewal efforts, including raising our resource level to fund these necessary improvements.

We take great pride in serving our customers. Safe, reliable drinking water is critical to the success of any community. SPRWS employees take that responsibility seriously and we look forward to continued success in our service area.

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

Distribution

Maintaining our Infrastructure



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

Water distribution capital program

We continue to replace and upgrade aging infrastructure, especially unlined cast iron water mains, hydrants, and lead water services.

SPRWS water main replacement work is done primarily in coordination with street reconstruction projects.

In 2009 we performed a significant water main cleaning and lining project. This project involved cleaning and lining 3.3 miles of 30" diameter pipe. This main is one of the two main supply lines to the Highland Reservoir. This work will bring longer life to an old, but structurally sound main.

In addition, we replaced 2.3 miles of water main primarily in street reconstruction areas.

Temporary mains provide water

Where water main replacement work is done, temporary water main must be installed to serve customers during construction. This presents a project management coordination challenge and a customer service opportunity that is well received by customers.

Lead service lines replaced

We replaced 574 lead water services last year. Most of these replacements are within street reconstruction projects. Lead replacements were also performed in those areas throughout the SPRWS service area where property owners have previously replaced their portion of the lead service in private property and where old services were leaking and required replacement.

Fire hydrants replaced

We replaced 155 of the 9,500 system hydrants during the year.

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.

We increased our preventive maintenance work by 11 percent over 2008; of the maintenance work we did in 2009, forty-two percent was preventive. This work includes hydrant inspection, unidirectional flushing, and valve exercising.

Photo this page: Crews install temporary water mains, providing water from a fire hydrant.
Photo opposite: Cleaning and lining work on one section of 30-inch main. We cleaned and lined 3.3 miles of 30-inch main in 2009.

Hydrants flushed and kept in working order

In 2009 we inspected all public fire hydrants in the SPRWS system. This work involved operation of system hydrants and performing minor repair work as necessary.

We also conducted a unidirectional flushing (UDF) program. The purpose of this program is to operate system valves to ensure operability and to clean mains for improved distribution water quality.

This involves flowing hydrants by directing water through water mains in such a way as to create thorough flushing and scouring of the mains. In 2009 we performed unidirectional flushing in about 4 percent of our system area. We will begin working a large valve exercising program in 2010.



Emergency maintenance

Emergency maintenance is also needed and we respond and repair to many emergencies throughout the year. 2009 was an unseasonably cold winter and we thawed 31 frozen services.

In 2009, we continued to provide maintenance repair services to other municipalities outside our service area, responding to main breaks and valve replacement in the cities of Oakdale and White Bear Township. Last year we repaired 132 main breaks in the SPRWS service area and 29 repairs in communities outside our service area.

Meter replacement of all 94,000 water meters in the system will take place beginning in 2010.



Meter Operations

SPRWS has more than 94,000 metered accounts. Our meter reading accuracy continues to be outstanding, obtaining nearly 98 percent of actual reads.

Distribution Division - Future Operations

We will best focus on infrastructure needs with the resources we have. Additional funding in this vital area is needed to ensure proper investment of aging underground infrastructure.

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 10,000 hydrants on

our system, as we have done in each of the last three years.

We will be commencing a 2.5 - year program to change out all water meters beginning in mid - 2010.



Engineering

Planning for the Future

A number of large projects were completed in 2009 that will serve Saint Paul Regional Water Services and its customers well into the future.

Engineering work in the distribution system included planning and construction coordination for its water main construction, valve replacement, and lead service replacement programs.

The SPRWS revenue funded capital plan has increased significantly in 2009 and the increase will be applied each year through the next ten years.

Reducing the age of our infrastructure

Engineering is planning a mains rehabilitation program in an effort to reduce the age of our infrastructure. Currently, the mains rehabilitation cycle is about 150 years; the goal of the project is to achieve replacement or rehabilitation on a 100-year cycle.

Meter Replacement

SPRWS engineering is planning to replace all water meters in our service area. About 94,000 meters will be installed during the period 2010-2013.

Light Rail Transit

SPRWS is involved with the light rail project relocating our water mains out of the “utility-free zone” immediately beneath the train tracks.

The Fourth Street portion of the project will continue through 2010 and the Civil East portion, from Cedar Street to Minneapolis, will begin in 2010 and continue through 2014.

Hypolimnetic Aeration

SPRWS plans to replace the existing hypolimnetic aeration units that are currently installed in Vadnais and Pleasant lakes. A preliminary study determined the oxygen demand on the proposed aeration system for Vadnais Lake. A diffuser system with a pure oxygen feed was identified to be the most cost efficient system. Installation is scheduled for the summer of 2011. Pleasant Lake is still being studied.

Distribution System Modeling

The SPRWS engineering division has adopted and implemented state of the art modeling techniques to model distribution system hydraulics and water quality. These GIS based applications are much more comprehensive and powerful than previous models.

Photo this page: Water main installation in connection with the light rail project in downtown Saint Paul.

Source Water Protection

The Upper Mississippi River Source Water Protection Initiative (UMRSWPI) has moved ahead in 2009 by developing 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.



The Mississippi River as it flows past the Fridley intake station.

Dale Street Reservoir

The 30-million-gallon Dale Street reservoir was built in 1919 and is scheduled for demolition and replacement in 2009-2010. The structure will be replaced by a 10-million-gallon, pre-stressed concrete tank, and will be constructed within the foot print of the original structure.

Engineering Division - Future Operations

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

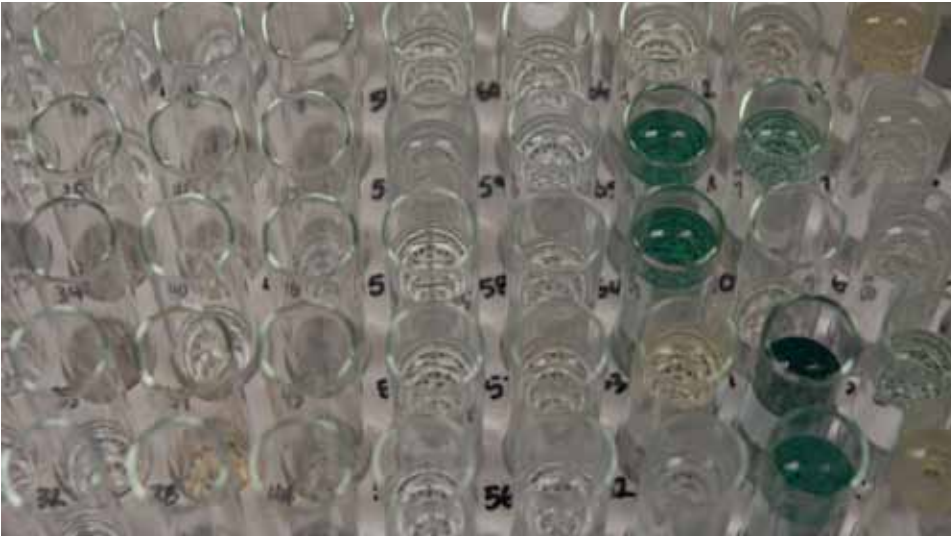
- developing the GIS system, linking it to the computerized maintenance management system (CMMS), and pushing out to the field applications
- working with the local watershed district and the UMRSWPI to provide water quality protection and enhancement
- developing applications and tools to meet future regulatory requirements, and customer needs.



Checking a valve on a temporary water main providing water to a downtown office building in conjunction with the light rail utility relocation work.

Production

Ensuring Water Quality



Water production continues to drop

This was technically another drought year, though it was within three inches of average precipitation for the year. The Mississippi River stayed above our restriction trigger levels for the entire summer. Average pumping was down to 44.99 million gallons a day, the lowest figure we've seen since 1965. The low pumping total shows the effects of conservation and lifestyle changes on our water demands. Current trends would indicate that even if 2010 is an average year for precipitation, our pumping will likely be down again, and we will not meet projected sales volumes.

Water quality leaving the treatment plant continued to be excellent. We had no positive coliform tests in our distribution system, and we met our goals for chloramine residuals in the system.

GAC filters continue to keep taste and odor issues in check

Our granular activated carbon (GAC) filters continued to perform wonderfully. In 2009, we had only thirteen taste and odor complaints. In contrast, our four-year average for complaints before we installed the GAC filters was 167 complaints per year.

We continue to receive compliments on the taste of our water. This is in spite of the fact that we suffered through a dose of water laden with odor levels that we haven't seen since 2001. The GAC filters managed to remove the odors to non-detectable limits, which exceeds their design basis. We continue to monitor the treated water for taste and odor issues that may signal depletion of the GAC media, but as yet we have not seen any signals that they need replacement.

Chemical costs continue to rise

As expected, prices for chemicals pushed our treatment costs up about 16 percent in 2009. Bids taken at the end of 2009 lead us to believe that prices will stay the same or drop for most chemicals, perhaps ending a five-year inflationary period.

Electricity costs stabilized somewhat in 2009, due to lower fuel prices, and came in under the budget.

Nitrification still an issue

Cooler water throughout the summer helped limit our nitrification problems. We continue to battle this problem in some areas of our system, and are learning more to stay on top of it and not let it get to be a major problem.



Photo top left: Testing for water quality occurs several times a day.

Photo above: Repairs take place in the clarifiers inside the treatment plant.

Zebra mussels continue to flourish in conduits



Photo Credit: Scott Camazine: New York Sea Grant

This was our third year of dealing with zebra mussels in our lakes, intakes, and conduits.

Other utilities' experience has been that the mussels reach near maximum levels

after about three years, and level out after that.

We found very large numbers of mussels in our west Vadnais conduit, particularly in the first half-mile from the intake.

We took the conduit out of service in the fall, and spent many weeks removing the mussels from the conduit. The mussels die upon exposure to air.

They are then scraped off the walls. Finally, we vacuum the mussels out of the conduit.

This removal process is highly labor-intensive work.

Adult zebra mussels cluster together. The mussels prefer water currents, and as such, often cluster in water conduits, intake areas, and pipes.

Production Division – Future Operations

With 2009 being the fourth year of drought conditions in our area, it seems unlikely that 2010 will be another drought year.

A wet year, combined with the current poor economic conditions, will likely bring the lowest pumping levels we have seen in the last fifty years. Consequently, our sales projections will be lowered to stay more in line with actual usage.

We have had three excellent years in a row in terms of com-

plaints for taste and odor.

We are hoping our GAC filters will again perform well removing these taste and odor compounds.

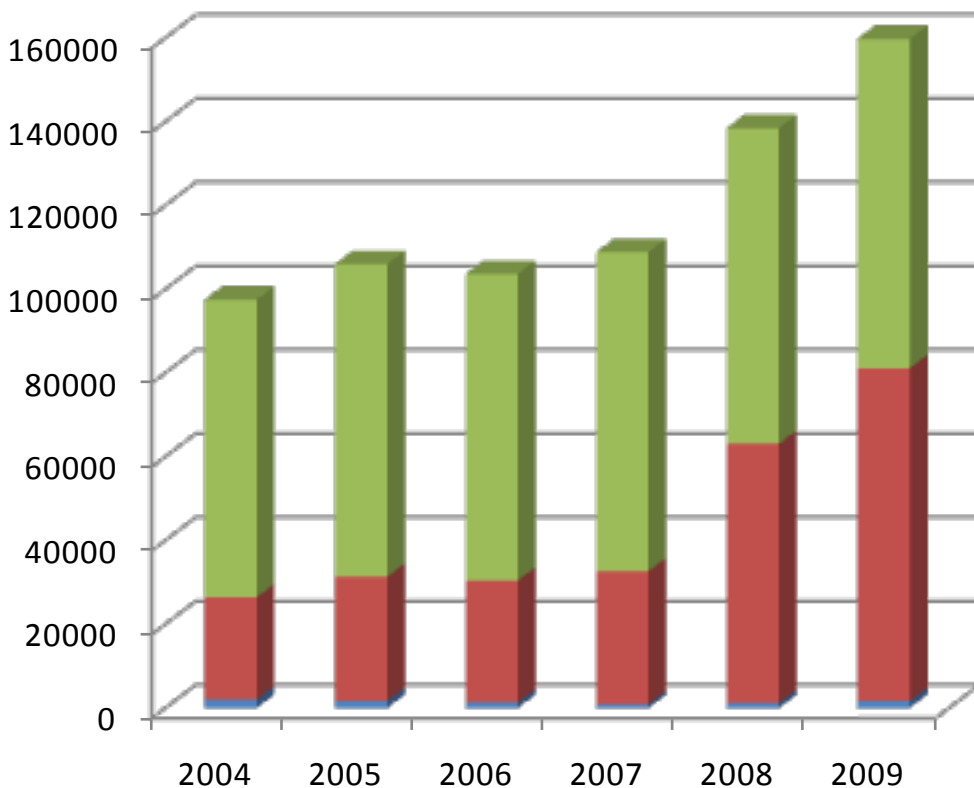
Zebra mussels will continue to be a nuisance, forcing us into increased costs for cleaning screens, conduits, and chambers. If labor costs to manually clean the conduits get to be prohibitive, we will look at chemical dosing to

prevent mussels from establishing colonies in our intake chambers and conduits.

The chemicals are expensive, and we will be comparing our labor costs with the expected chemical costs before making such a switch. Taste and odor issues resulting from the mussels, if serious enough to affect our finished water, will also be a large factor in how we deal with the mussels.

Business

Putting Our Customers First



Our call center took in nearly 160,000 calls in 2009. Customer service representatives answered nearly 79,000 calls. Half of the incoming calls were taken by the Voice Response Unit (VRU). About 1 percent of callers using the VRU chose the Spanish language option. About 1 percent of the calls are abandoned, far less than our company goal of 2 percent.

- Staff
- VRU
- Abandoned

Photo below: Customer service reps learn the new Customer Information System implemented in November.

The business division includes the customer service, information services, revenue management, and finance sections. We offer support services to other divisions within the utility as well as direct contact with individual customers and communities at large.

New Customer Information System implemented

To better serve our customers, we purchased a new Customer Information System (CIS) from Advanced Utility Systems and began a year-long implementation process. This was a major project using resources from many areas of the utility. We started using the new CIS in November of 2009.

Call center staff answers more than 78,000 calls

The customer service call center received 159,791 calls in 2009, of which 79,464 (or 50 percent) were handled by the Interactive Voice Response unit (IVR) and 78,662 by call center staff. The abandoned call percentage was just over 1 percent, substantially lower than our goal of less than 2 percent.



Spanish speakers select language alternative option

New functionality added to our IVR offers menu options and responses in both English and Spanish. Approximately 1 percent of callers took advantage of the Spanish language alternative.

Information in GIS improves

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.

Document management system expands

Work continued on expanding the use of our document management system (DMS). Our CIS, GIS, and Work and Asset Management System now link to supporting documents housed in our DMS. DMS also houses our standard operating procedures, policies, safety information, and paid invoices for easy look-up by staff.

Financial report earns recognition

Our financial services unit was recognized for its outstanding work preparing SPRWS 2008 Annual Financial Report for audit.



Customer service reps and IS staff work together to test the new Customer Service Information System during the year.

WaterWorks assists 134 families with water bills

The WaterWorks program received \$18,578 in customer contributions (an increase of 7.7 percent over 2008).

The Board of Water Commissioners authorized an additional \$5,000 transfer over the normal annual Board authorized amount of \$5,000 from the Sus-

pense Account because of the difficult economic times many of our customers were facing.

The program provided grants for water/sewer bills to 134 disadvantaged families, with an average grant of \$213.26 per family.

Public outreach efforts continue

To improve public outreach and provide information, we updated our website, hosted a day of the Drinking Water Institute for teachers, held open houses at the McCarrons Water Treatment Plant and the Highland Park Water Tower.

We produced several external publications, including *Customer Service Connections*, a quarterly news-

letter for customers, and the annual Water Quality Report.

Internally, we provided employees with updates of the CIS project through the newsletter, *From Here to Infinity*, and emphasized safety by featuring safety articles in our bi-weekly employee newsletter, the *Pipeline Express*.

Business Division - Future Operations

We anticipate expanding our public website, www.stpaul.gov/water in the second quarter of 2010.

We will provide our customers with online access to their account information and an online payment option.

We will also be researching ways to provide

better access to customer information system for our suburban customers.

We will continue to examine workflow processes throughout the utility looking for improved efficiency and enhanced delivery of information to our employees.

Select Financial Information 2009

Condensed Statement of Net Assets (in thousands)

	Fiscal Year 2009
Assets	
Cash and Investments	\$ 16,026
Other Current Assets	10,234
Capital Assets - net	227,891
Other Noncurrent Assets	5,929
Total Assets	<u>\$ 260,080</u>
Liabilities	
Current Liabilities	\$ 11,179
Noncurrent Liabilities	36,386
Total Liabilities	<u>\$ 47,565</u>
Net Assets	
Invested in Capital Assets Net of Related Debt	\$ 194,631
Restricted for Debt Service	7,718
Unrestricted	10,165
Total Net Assets	<u><u>\$ 212,514</u></u>

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

	Fiscal Year 2009
Operating Revenues	\$ 43,251
Operating Expenses	37,956
Operating Income	<u>\$ 5,295</u>
Nonoperating Expenses	\$ 2,186
Income (Loss) Before Contributions	<u>\$ 3,109</u>
Capital Contributions	<u>\$ 557</u>
Change in Net Assets	\$ 3,666
Net Assets - January 1	\$ 208,848
Net Assets - December 31	<u><u>\$ 212,514</u></u>

The notes to the financial statements are an integral part of this statement.

The complete financial report for 2009 is available from Saint Paul Regional Water Services.

To obtain a copy, please visit us at www.stpaul.gov/water.





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