Saint Paul Regional Water Services Annual Report 2007 - 2008



# **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.

## 2007 - 2008 Board of Water Commissioners

President	Pat Harris
Vice President	John Zanmiller
Commissioner	Matt Anfang
Commissioner	Dave Thune
Commissioner	Debbie Montgomery (2007)
Commissioner	Will Rossbach
Commissioner	Gregory Kleindl
Commissioner	Melvin Carter III (2008)

### 2007 - 2008 SPRWS Management

General Manager Steve Schneider

## **Division Managers**

Engineering Production Distribution Business Dave Schuler Jim Graupmann Dave Wagner Steve Gleason

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# A message from the General Manager

# Investing in our future as we provide quality water today



Steve Schneider General Manager

Over the past two years, SPRWS has continued its rich history of providing great quality water to all of our customers at a reasonable cost.

We continue to perform the necessary routine maintenance to ensure the sustainability of our assets while we make strategic investments in our system to provide quality services well into the future.

Our Distribution Division has a renewed maintenance focus by performing hydrant flushing and valve exercising to improve the quality of our water and identifying where to invest in asset replacement.

Our Engineering Division has worked to improve our analysis of this new data to further refine our investment decisions. They have also provided additional revenue by beginning to locate underground utilities for the Saint Paul Sewer Department on a fee for service basis.

Production is continuing to provide great quality water for our customers.

Customer Information and Billing System. This joint project is being led by the Business Division and will go live in 2009.

Each and every employee of SPRWS strives to provide our customers with great value for the dollars they spend for our water and services.

This truly joint effort has resulted in an upgrade in our bond rating to AAA from Standard and Poor's.

SPRWS is one of the few utilities in the country with a Standard & Poor's AAA bond rating. It is a testimony of our success as an organization.

Our taste and odor complaints are at historic lows due to the success of our GAC filtration project.

We are also nearing the completion of our well field that will provide a solid backup supply in the event our surface waters are unavailable.

We are in the process of implementation of our

We are one of very few water utilities to have this top rating. It is a testimony of our success as an organization. We are proud of our achievements and look forward to continuing to serve our customers in Saint Paul and the surrounding region.



# Distribution

## **Bringing Water to Your Tap**



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 aging infrastructure, especially unlined, cast-iron water main, hydrants and lead water services. SPRWS water main replacement work is done primarily in coordination with cities' street reconstruction projects. In 2007, SPRWS installed four miles of new and replacement water main. In 2008, SPRWS replaced/rehabilitated six miles of water main. In addition, nearly one mile of large diameter water main was cleaned and cement mortar lined to improve/restore flow capacity in each of those years.

Where water main replacement work is done, temporary water main must be installed to serve customers during construction. This presents a coordination challenge for project management and a customer service opportunity that was generally well received by customers. We continue to replace lead services, with 436 lead water services replaced in 2008 and about 550 in 2007. Most of these replacements are done in coordination with 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.

We replaced about 430 system hydrants over the last two years.

### Water Distribution System Maintenance

Routine maintenance of the distribution system is needed to ensure adequate reliability and improve distribution system water quality.

We inspected all public fire hydrants in the SPRWS system each of the last two years. This work involved operation of system hydrants and making minor repair work as necessary.

We also performed a uni-directional flushing 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 to create thorough flushing and scouring of



the mains. In 2007, we performed unidirectional flushing in about six percent of our system, and about two percent in 2008. We continued responding to main breaks and miscellaneous maintenance needs across SPRWS service area and two other communities; the city of Oakdale and White Bear Township. On average, we repair about 150 main breaks a year. In 2008, we repaired 116 main breaks in the SPRWS service area and 26 in Oakdale and White Bear Township. We are proud of our main break response and expertise.

#### **Meter Operations**

SPRWS has some 95,000-metered accounts. The meter reading system has been well operated as we continue to consistently obtain nearly 98 percent actual reads. We continue to install radio-read systems for difficult to read accounts. We replaced 2,000 meters in 2007 and set more than 1,300 meters in 2008.



### **Distribution Division - Future Operations**

In 2009, funding was increased to allow for the replacement of the aging underground infrastructure including water main replacement, lead service replacement and hydrant replacement work at a more appropriate level. This level of funding now allows for a water main replacement cycle of 140 years.

In addition, greater emphasis on system maintenance is needed, including uni-directional flushing and large valve exercising for the long-range care of the system. It is our goal to begin a large valve exercising program in the future.

We anticipate commencing a meter replacement project in early 2010.



# **Engineering** Planning for the Future

A number of large projects were completed in 2007 -2008 that will serve Saint Paul Regional Water Services and its customers well into the future.

Some of these large projects included:

#### **Back-Up Water Supply**

We started construction on two wells in both 2007 and 2008. The completion of these wells will increase the current well supply from 35 million gallons a day to 45 million gallons a day.

This is a level designed to provide base consumption and fire protection for the SPRWS service area.

### Geographic Information System (GIS) Implementation

The GIS map has been integrated with the computerized maintenance management system (CMMS) in 2007, and will become the central platform for all mapping, asset management and maintenance activities.

#### **Mobile Computing**

Twenty-two rugged laptop computers have been placed into service within the engineering and distribution division truck fleets. These computers are equipped with a GIS map of the entire SPRWS service area and connection to the Computerized Maintenance Management System (CMMS).

The entire system is web-based and all transmissions to the field use wireless technology through web applications.

#### **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.

### Nonpoint Discharge (NPDES) and Solids Disposal (SDS) permits

Saint Paul Regional Water Services engineering division has adopted and implemented treatment systems to comply with the current NPDES permit.

These measures are designed to comply with the discharge conditions of the permit 100 percent of the time. The SDS permit is nearly in compliance with the capping and retirement of the large sludge field, Sandy Lake. More than 230,000 cubic yards of fill have been added to the site along with a storm

# Source Water Protection

Saint Paul Regional Water Services has worked locally with the Vadnais Lake Area Water Management Organization (VLAWMO) and the Minnesota Pollution Control Agency (MPCA) to promote the stewardship and protection of the impoundment reservoirs and watershed.

The engineering division has successfully obtained a Total Maximum Daily Load (TMDL) grant to study and remedy a microbial impairment status of a major tributary to Vadnais Lake, County Ditch 14. This project will begin in 2009.

water treatment system and natural planting cover.

### Engineering Work in the Distribution System

Teaming up with distribution, projects included planning and construction coordination for its water main construction, valve replacement and lead service replacement programs.

#### **Divesting of Rice Creek**

Engineering administration staff was involved with the remaining land sale issues related to divesting of the Rice Creek watershed properties and focusing on protecting the local watershed and developing the well supply for backup. SPRWS has worked regionally with the Upper Mississippi River Source Water Protection members and the MPCA to obtain a TMDL for microbial impairment for the upper Mississippi River watershed. The project study phase began in 2008.



The Rice Creek watershed has been used for the past 80 years as an emergency back-up supply. This watershed has shown to be an inadequate supply during drought conditions, and the water quality has deteriorated significantly in the past few decades.

#### **Records Management**

Engineering administration staff was involved with enhancing the records management system ensuring accuracy and completeness of SPRWS drawings and documents.

Staff has worked to improve the effectiveness of diagnostic and engineering systems to maintain and improve SPRWS system of assets.

The effort to migrate the entire SPRWS records and asset management system from paper to electronic format is nearly complete.

# Engineering Division – Future Operations

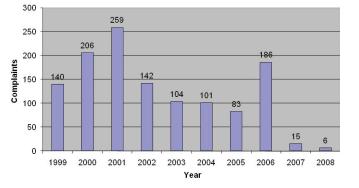
The division will continue to focus primarily on three initiatives:

- develop the GIS system, link it to the CMMS and push it out to the field applications
- work with the local watershed district and the Upper Mississippi River Source Water Management to provide water quality protection and enhancement
- develop applications and tools to meet future regulatory requirements and customer needs

# Production

### **Curbing Taste and Odor**

# Taste and Odor Complaints 1999 - 2008



We started using granular activated carbon (GAC) filters in 2007.

Compared with a running fouryear average, our taste and odor complaints were reduced by 91 percent in 2007.

In 2008, we had only six taste and odor complaints. In contrast, our four-year average before we installed the GAC filters was 167 complaints per year. This is obviously a significant reduction, and we continue to receive compliments on the taste of our water.

We continue to monitor taste and odor with our flavor panel, and will be alert to beginnings of taste and odor in our effluent signaling that the filters may be approaching the end of their useful life. We hope not to see this for a few years yet, but we will be vigilant.



#### **Conservation Decreases Water Use**

Conservation and lifestyle changes continue to decrease water use. Though the drought brought river levels to their lowest readings since the drought of 1988-89, pumping was nowhere near the amounts pumped back then. Compare the average of 58 million gallons a day (MGD) pumped in 1988 with the 48.4 MGD average pumped in 2007, and the effects of conservation and lifestyle change becomes very evident.

This is despite the drought that started in 2006 and continued in

# Zebra Mussels Found in Vadnais Intake Area

After finding zebra mussels in our Vadnais intake late in 2007, we commissioned a study on how to best deal with the problem.

We are planning on curtailing discharges from our conduits to water bodies in order to prevent the spread of the mussels to other lakes or streams.

At this point, we are physically removing the mussels from our screens on a weekly basis, and will be doing an annual program of removing conduits from service to dry them out, thereby killing mussels attached to the conduits.

In this way, we hope to keep them from building up to quantities that could clog our screens or cause taste and odor issues.

2007 and 2008, causing an increase in pumping of water. Our daily average finished water pumping in 2007 was 48.4 MGD and 46.6 MGD in 2008.

Out of the past ten years, these were the fourth and sixth highest pumping levels on record.

# Production Costs Continue to Increase in 2007 - 2008

#### **Increases Expected in 2009**

Chemical Costs 2004 — 2009 (in millions of dollars) 4 3.5 3 2.5 2 Actual costs 1.5 1 0.5 Projected costs ٥ 2004 2005 2006 2007 2008 2009

Chemical costs in 2007 increased by 11 percent over 2006 and ended up at an average cost of \$148.82 per million gallons.

Prices for chemicals rose even faster in 2008 and showed no sign of slowing down. The price

for aluminum sulfate rose by 82 percent, and the price for sodium hydroxide went up 152 percent.

Total chemical costs for the year were up 16 percent on a unit basis. With end-of-year

bids showing 50 percent to 100 percent increases in pricing for pebble-size quick lime, fluoride, ferric chloride and ammonia, we are expecting 2009 to show a big increase of approximately \$1 million over 2008 costs.

Electricity was up about 9.6 percent on a per unit basis, and we ended up spending \$140,000 more than expected. Overall, electrical costs were 5.5 percent higher than in 2007, despite our average day decline of about 3.7 percent in water usage.

We hope that lower fuel prices that showed up late in 2008 will continue into 2009 and will stabalize electrical and chemical costs.

# **Production Division – Future Operations**

#### **Chemical Budget Increases for 2009**

Chemical price increases are definitely going to hit our budget in 2009. We budgeted \$1.3 million more in 2009 than in 2008, and we are hoping that this is going to be enough. Lower prices for diesel fuel, as we've seen recently, will help, as delivery costs are a big part of the cost of chemicals like lime.

#### Zebra Mussel Control to Continue

Zebra mussels will continue to be a nuisance, forcing us into increased costs for cleaning screens, conduits and chambers. Routine maintenance of the conduits will also be a challenge, as draining them will likely require pumping, either to the opposite conduit or to a place where the mussels will be no threat for infestation.

#### **GAC Filter Performance Anticipated**

We have had two excellent years in a row in terms of complaints for taste and odor. We are hoping our GAC filters will again perform well removing these taste and odor compounds.



# **Business** Serving Our Customers Keeping Financial Stability

The business division includes the customer service, information services, 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.

#### **Customer Information System**

To better serve our customers, we are implementing a new Customer Information and Billing System (CIS).

This is a major project for the utility, which will provide new technology for tracking customer accounts, improved payment methods for our customers and increased functionality for improved work processes.

### Interactive Voice Response System

We implemented a new Interactive Voice Response unit (IVR). The IVR offers customers self-service options, including paying via credit card, reviewing the status of their account and moving through the menu either with voice commands or with keypads on touch-tone phones. We also use the IVR to place courtesy calls to customers whose accounts have become past due.

Our customers can hear the IVR menu and responses in either English or Spanish.

#### **Customer Service Call Center**

The customer service call center received 103,674 calls in 2007, and 138,509 calls in 2008. Our IVR handled 28 percent of all calls in 2007 and 45 percent in 2008.

In each year, our abandoned call percentage was substantially lower than our goal of less than 2 percent: in 2007 it was 1.3 percent, in 2008, it was 1.5 percent.

#### WaterWorks Program

The *WaterWorks* program received \$15,284 in customer contributions (an increase of 6 percent over 2006) and \$17,246 in 2008, an increase of 17 percent over 2007.

Each year saw additional contribution of \$5,000 from the Suspense Account, as authorized by the Board of Water Commissioners. In 2007, *WaterWorks* provided grants for water/sewer bills to 99 low-income families, with an average grant of \$207 per family. In 2008, the program provided grants to 117 disadvantaged families, with an average grant of \$194 per family.





#### **Mobile Computing**

Other mobile computing was expanded to allow for wireless access to the field personnel. We made major improvements to the retrieval and display of information related to assets owned by the utility including mains, hydrants, valves and water services. Using our Geospatial Information System (GIS) and wireless technology, we are able provide accurate locations on a map and current data to our crews in the field.

#### Plumbing Permits and Inspections

A new software solution to manage plumbing permit and inspection activity, called Amanwas implemented. IS staff successfulda, equipment lv implemented specialty and which provides wireless mobile design, access to plumbing inspectors.

#### **Document Management System**

Work continued on expanding the use of our document management system. We have shifted our focus from asset related documents and are moving into customer and financial records.

#### **Financial Services Recognition**

Our financial services unit was recognized for the timeliness in which SPRWS submitted its 2006 and 2007 annual financial reports for audit.

#### **Public Information**

To improve public outreach and provide information, we hosted a day of the Drinking Water Institute for teachers, re-designed our website, and held open houses at the Highland Park water tower.



In addition, we produced several external publications, including: *Customer Service Connections*, a quarterly newsletter for customers; the annual water quality report; our *WaterWorks* brochure; and a new brochure introducing our Interactive Voice System (IVR).

Internally, we introduced a new newsletter, From Here to Infinity, covering the implementation of our new Customer Information System, produced a new employee directory and continued keepingour employees informed through using the Pipeline Express, a bi-weekly publication for utility employees.

# S & P raises SPRWS' bond rating from AA+ to AAA

# SPRWS earns Standard & Poor's highest rating

Saint Paul Regional Water Services' bond rating was upgraded by Standard & Poor's from AA+ to AAA in November of 2008. This is the highest rating given by S & P, reflecting the financial and operational strength of SPRWS.

"We are extremely proud to receive S & P's highest bond rating," said Steve Schneider, general manager.

"It demonstrates that we have the ability to maintain the nation's best rating through both good and challenging economic times."

Other factors taken into account when determining the final rating include our customer base, local economy, utility management and operational efficiency. Specifically cited by S & P is the utility's "modest bonding for water treatment enhancements"—our new granular activated carbon filters. So far, these filters have reduced our taste and odor complaints by 92 percent.

"The AAA bond rating reflects the extraordinary efforts of our employees to provide quality drinking water and services at an excellent value to our customers," Schneider said.

SPRWS is one of only a few water utilities in the nation receiving an upgrade to AAA from S & P as part of their utility revenue bond criteria revisions. The upgrade reflects demonstrated credit criteria, including:

- Strong financial metrics, including debt service coverage and cash.
- Good economic fundamentals, such as the ability to handle such pressures as housing market

vulnerabilities, employment softness or cost of service inflation.

 Solid management, which includes a demonstrated willingness to adjust rates; long-term planning to fund key service components, like water supply or regulatory-driven capital expenditures; and the ability to serve the needs of a growing community.

S & P noted that their rating actions are supported by the utility sector's demonstrated stability in operations and financial performance, as well as successful management of the requirements of the federal Safe Drinking Water Act of 1974 and the Clean Water Act of 1972, and all their respective amendments and state regulations.

### **Business Division - Future Operations**

In 2009, we are moving forward with the implementation of a new Customer Information and Billing System.

This undertaking represents one of our major technology projects and will allow streamlining of services to our customers and internal work processes.

In addition, SPRWS will work toward implementing an asset management system by formally reviewing and implementing best practices in its CMMS workflow processes. We anticipate both of these initiatives will involve all divisions of the utility. The business division will strive to provide excellent support services to all areas of SPRWS as well as to its external customers and business partners.

# Select Financial Information 2007 - 2008

#### **Condensed Statement of Net Assets (in thousands)**

	Fiscal Year 2008	Fiscal Year 2007
Assets		
Cash and Investments	\$ 16,140	\$ 16,259
Other Current Assets	10,450	10,059
Capital Assets - net	226,459	223,757
Other Noncurrent Assets	5,801	6,194
Total Assets	\$ 258,850	\$ 256,269
Liabilities		
Current Liabilities	\$ 11,387	\$ 10,789
Noncurrent Liabilities	38,615	40,197
Total Liabilities	\$ 50,002	\$ 50,986
Net Assets		
Invested in Capital Assets Net of Related Debt	\$ 190,637	\$ 185,052
Restricted for Debt Service	7,622	8,462
Unrestricted	10,589	11,769
Total Net Assets	\$ 208,848	\$ 205,283

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

	Fiscal Year 2008	Fiscal Year 2007
Operating Revenues	\$ 40,765	\$ 38,665
Operating Expenses	36,757	35,347
Operating Income	\$ 4,008	\$ 3,318
Nonoperating Expenses Income (Loss) Before Contributions	\$ 997 \$ 3,011	\$ 279 \$ 3,039
Capital Contributions	\$ 554	\$ 734
Change in Net Assets	\$ 3,565	\$ 3,773
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Net Assets - January 1	\$ 205,283	\$ 201,510
Net Assets - December 31	\$ 208,848	\$ 205,283

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

Complete financial reports for 2007 and 2008 are available from Saint Paul Regional Water Services.

To obtain a copy, please contact the Financial Services Department at: 1900 Rice Street, Saint Paul, MN 55113.

