

**2015**  
**ANNUAL REPORT**  
Saint Paul Regional Water Services



# Mission

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

# Vision

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

# Table of Contents

A Message from the General Manager.....	2
Board of Water Commissioners and Management Staff.....	3
Administration Division.....	4
Distribution Division.....	5
Engineering Division.....	6
Production Division.....	8
Business Division.....	10
Finance.....	12

# Dear Customers,

Safe, reliable drinking water is essential to every community. Saint Paul Regional Water Services provides that water to 425,000 people in Saint Paul and the neighboring cities. Our staff of 252 employees ensures we are true to SPRWS' mission of providing quality water and services to our customers at a reasonable cost.

In 2015, SPRWS is proud to welcome the fifth community to join us as a permanent member of our utility. The Board of Water Commissioners and the city of Mendota Heights approved an acquisition agreement in December of this year. We look forward to serving all of the residents of Mendota Heights as we have served Saint Paul for over 130 years.

This year brought an emphasis on infrastructure replacement as we use our resources to invest in the future of our system. As the traditional residential street replacements begin to wind down in our service area, our staff is experimenting with alternative water main replacement techniques to determine what method will serve us well as we move forward. We replaced nearly 8 miles of water main along with 170 hydrants and 280 lead water services.

We continue to tackle the projects identified in our long term capital investment plan and are in process of designing a major overhaul of the electrical system in the water treatment plant. We continue to update our technology as well, including an upcoming upgrade to our customer information and billing system.

It takes contributions from each of our employees on a daily basis to continue to provide excellent service to our customers. We will continue to look towards the future and work towards ensuring SPRWS remains a successful utility for many generations to come.

As always, I am proud of our accomplishments and the daily efforts put forth by all of 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



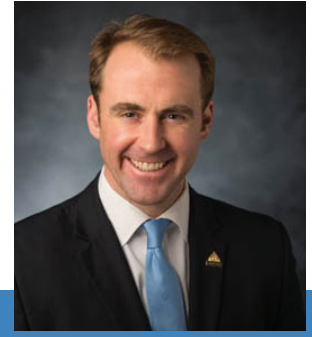
**Matt Anfang**  
*President*



**Amy Brendmoen**  
*Vice President*



**Mara Humphrey**  
*Commissioner*



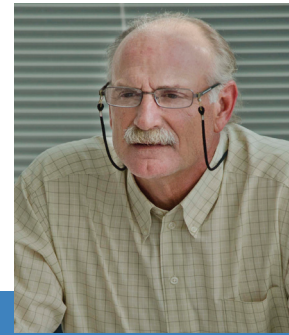
**Chris Tolbert**  
*Commissioner*



**Dave Meisinger**  
*Commissioner*



**Russ Stark**  
*Commissioner*



**Will Rossbach**  
*Commissioner*

# SPRWS Division Managers



**Brad Eilts**  
*Distribution*



**Dave Wagner**  
*Engineering*



**Jim Bode**  
*Production*



**Steve Gleason**  
*Business*



**Jim Graupmann**  
*Asst. GM*

# Administration

The administration division includes business improvement unit, safety and security, training and human resources, and the general manager and assistant general manager.

This was a pivotal year as administration worked with the Board of Water Commissioners to approve a long-term financing plan that will allow SPRWS to complete projects proposed in the master plan developed by CH2M for needed upgrades and stewardship of the water system. The goal of the plan is to develop a schedule for projects that will enable the utility to continue its high level of performance for the next 40 years.

Administration was then involved in directing the awards for contracts for several of the projects in the plan, including a major electrical upgrade for the treatment plant and condition assessments for the Fridley pump station foundation, supply conduits, and McCarrons treatment plant foundation.

A long-term view was also in mind as the utility looked at the possibility of solar energy as a potential way of becoming more energy-independent. No agreements had been reached by the end of the year to begin this effort.

## Lead Communication

With proposed changes to EPA's lead and copper rule, the utility began planning in earnest for increased communication with its customers, particularly those who undergo a partial lead service replacement. This became even more urgent as the Flint, Michigan, news came out. By year-end, plans were underway to provide lead filtering pitchers to those residents who had a partial lead service replacement starting in 2016.

## Online Training

On-line training, in particular safety training, was implemented during 2015. Previously, SPRWS had used live trainers from Minnesota Safety Council, to mixed reviews. Our three-year strategic plan was also completed in 2015.

## Business Improvement Unit

The business improvement unit worked diligently at trying to make our timekeeping process easier. They also worked on a number of initiatives, including: material checkout process; document retention and SOPs; restoration work process; and recycling.

## Future Opportunities

Administration will continue directing efforts at a number of initiatives, including all of those listed above.

We also anticipate that there may be some resolution to the White Bear Lake augmentation issue in the near future, and are prepared to address whatever is required of us.

As always, our goal is to be able to budget and finance the projects necessary to keep SPRWS operating as a top-notch utility.



Jim Graupmann, assistant general manager, at a Board of Water Commissioners' meeting.

# 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. Fleet management is included, too.

## Distribution Capital Program

We continue to replace and upgrade an aging infrastructure of unlined cast iron water mains, hydrants, and lead water services. Much of the water main replacement was accomplished in coordination with street reconstruction projects. This year a total of 7.65 miles of our 1,200 miles of water main were replaced.

In areas of water main replacement, temporary water mains are installed in order to serve customers while the existing water main is being replaced. For every mile of water main replaced, three to four times the amount of temporary service piping needs to be set up and then taken down when construction is completed. This requires significant coordination of efforts and it also provides a customer service opportunity that is generally well received by our customers.

In addition to water main construction, 276 lead water services were replaced this year. These replacements were done in coordination with street reconstruction projects and also where property owners have previously replaced their portion of the lead service in private property and where old services were leaking and required replacement.

Work also included the replacing 170 of the 9,600 system hydrants during the year.

## Future Opportunities

In 2016, continued emphasis will be placed on water main replacement in street reconstruction project areas and our hydrant inspection program. We plan to increase the emphasis on our valve maintenance program and UDF. Our infrastructure funding for 2016

## System Maintenance

We perform both preventative and emergency maintenance on the water distribution system. Preventive maintenance of the system is needed to ensure adequate reliability and improve distribution system water quality. Preventive maintenance work includes hydrant inspection, uni-directional flushing, and valve exercising. All 9,632 public fire hydrants in the system were inspected during the year. This involves the operation of hydrants and performing minor repair work as necessary.

We perform emergency repairs on water mains and services. We also provide water main break repair services to other municipalities outside our service area, responding to main breaks in the city of Oakdale, White Bear Township and the city of Newport. We repaired 122 main breaks within our service area and 11 repairs in communities outside our service area.



Workers fixing a small main break.

will allow for additional main improvements outside street reconstruction areas. These improvements will include using the pipe bursting method for main replacement and installation of a structural liner in other cast iron main.

# Engineering

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



Pipebursting used to lay new main in residential areas.

SPRWS is committed to improving asset management in the utility. A master plan was completed in 2014 which provided a roadmap of major capital improvements for the next 40 years, focusing on water supply, treatment and pumping infrastructure. Many of our large engineering projects in 2015 and beyond will be predicated on this roadmap.

In addition, much work has been done in recent years regarding water main planning and prioritization. This was the first year that a water main surcharge was introduced to allow for an additional \$2.8 million in funding in the water main capital improvement program. Also, much of our past water main construction was done in conjunction with public works street reconstruction. We will continue to work closely with various public works agencies to replace and upgrade aging infrastructure, focusing on small diameter cast iron water main replacement.

Significant progress on a number of large projects was made in 2015 that will serve our customers well into the future. Some of these projects include:

## McCarrons Electrical Project

One of the highest rated projects that resulted from the master plan was the replacement of the main switch-gear at the McCarrons water treatment plant. An alternatives study/preliminary design project was completed in 2015 that defined the direction for this work. Final design on the project was also begun.



## Condition Assessments

The SPRWS master plan recommended conducting condition assessments on the following facilities: Fridley pump station foundation, McCarrons foundation, the figure 8 portions of the treatment plant and the raw water conduits. These studies were initiated in 2015.

## Solids Dewatering Filter Press

Work was completed on a new filter press which was added to provide greater capacity to treat our waste sludge generated through the water treatment process. This was a \$2 million project funded through the state revolving loan fund program.

## Mendota Heights

Engineering staff also assisted in developing a new acquisition agreement with Mendota Heights, which went into effect at the end of 2015.

This agreement makes Mendota Heights a full partner city, in which the Board of Water Commissioners owns, operates and maintains the water system.

Previously, Mendota Heights entered into 20-year agreements with the Board to provide water services.

The work of putting all of the new asset information into the water utility system was extensive.

## Future Opportunities

The engineering division provides planning and inspection for the utility and its customers. We continue to expand the use of GPS in order to collect more accurate data on our facilities. The engineering division continues with industry leading advancement by leveraging electronic applications and effectively using enhancement to best serve our asset management program.

Much of the work in engineering involves planning work in order to make improvements throughout the

## Water Main Capital Improvements

There were two large projects done outside of street reconstruction programs in 2015. First, we replaced nearly one mile of pipe using pipe bursting, a trenchless technology which replaces cast iron pipe with new high density polyethylene pipe.

The other project was a coordinated construction project with Xcel Energy where we replaced nearly two miles of old water main on Sherburne Ave. and St. Albans in Saint Paul.

Another challenging project was the replacement of the 30" diameter water main crossing of interstate 35E at Arlington Ave. This project was done in coordination with highway reconstruction.

All together, we replaced 7.65 miles of our 1,200 miles of main in 2015.



A worker uses a control panel on a dewatering press in the dewatering building.

utility. The additional \$2.8 million added to our existing water main capital improvement program in 2015 was a significant increase that will help improve our aging, buried infrastructure. This will also bring challenges of increased workload, planning, and prioritization.

Construction is planned to begin in summer 2016 for the replacement of the main treatment plant electrical switchgear. Condition assessments will be completed or near completion by the end of 2016.

# Production

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



A worker cleans out the filters on a dewatering press.

## Costs Rise Slightly

Chemical costs were up slightly with an increase of 1.7 percent, to \$203.91 per million gallons of water treated. Total finished water pumping electrical costs were down 3.1 percent from 2014, with a normalized value of \$58.27 per million gallons. Raw water electrical costs were up 4.6 percent from 2014, with a value of \$53.15 per million gallons.

## Precipitation Above Normal

Annual production of water for 2015 was our lowest since 1962, with a daily average of 39.8 million gallons per day. Precipitation was 8.2 inches above normal for the year in the metropolitan area. Most of above normal departures of precipitation occurred after July 1. River levels were also above normal for much of 2015, and drought was not a concern for the metro area. Our total annual pumpage from the McCarrons plant was 14,508 million gallons, of which 10,792 million gallons came from the Mississippi River. The remainder came as direct precipitation and watershed runoff in the supply system.

## Good Year for Water Quality

We had another excellent year of water quality. The McCarrons treatment plant continued the Partnership for Safe Water's Presidents Award in 2015. We are one of only 31 surface water plants in the country to achieve this level of award. This program ensures safe drinking water from its member systems by promoting optimized treatment plant operation and continuous improvement in the operation, maintenance, administration and design of the facility. The aesthetic quality of the water also continued to be excellent, with only eight complaints of taste or odor being logged into the customer information system for the year.

## SPRWS in compliance with lead rule

Water quality problems in the city of Flint, Michigan, brought increased scrutiny from the media and customers regarding our own water quality here in Saint Paul. Most of the scrutiny surrounds the lead and copper rule, and lead in drinking water specifically. SPRWS is in compliance with the EPA lead and copper rule, and should be for the foreseeable future.

## Improvements Made

A number of improvements were made 2015. A firm was selected to provide inspection and analysis of pipe condition on all of the raw water conduits between the Mississippi River and the plant. New GAC filter media was added to many of the filters that had lost some media by attrition over the last eight years. A new aluminum sulfate feed system was installed at the head of the plant. An improved security system was installed at the Dale Street reservoir to prevent vandalism and urban exploration. Electrical improvements to the Hazel Park pump station are out for construction bids at the time of this writing. Our largest current project, the plant electrical improvements, is about halfway through final design at the time of this writing. This project involves replacing all of the incoming electrical switchgear and the four incoming transformers, plus the main pump room switchgear and motor control cabinets.



Workers clean out floc three in the plant.

---

## Future Opportunities

The repairs to the 90-inch butterfly valve on the east Vadnais intake chamber were not completed and need to be rescheduled. The screens and screen rails in the chamber have been repaired.

Zebra mussel treatment chemicals, which were hoped to be in use for 2015, were not purchased due to regulatory issues between the Minnesota Department of Agriculture and the chemical vendor. It is still in our plans to do a trial run of chemical at the west Vadnais intake chamber.

Three electrical projects are underway: the Hazel Park pump station is receiving all new switchgear and motor control centers (MCCs) and should be completed in 2016; the McCarrons plant is receiving new incoming electric service switchgear and transformers, along with new pump switchgear and MCCs. This project will extend into 2018. The West St. Paul pump station is receiving a stand-by generator for electric power as well as new switchgear and MCCs. This was done in lieu of a new water storage tank.

Work still needs to be done on some of the filter control systems in the plant, namely the old programmable logic controllers and flow controllers need replacement. Also in the controls arena, the new SCADA software has yet to be implemented.

We are in the planning stages of a pilot study for a new water softening technology. Our master plan has laid out new softening reactors at the McCarrons plant starting in 2018. We need to determine if one of the options for softening technology is suitable for our source water and operational framework. We hope to complete this pilot in 2016.

The assessment of the water supply conduits is underway and will continue into 2017. This is an assessment of our two lines from the Mississippi River as well as the two conduits between Vadnais Lake and the treatment plant.

# 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 billing, customer service, meter operations, financial services and information services.

## Meter Operations

In 2015, meter operations completed testing 650 3-inch and larger water meters installed new in 2012. The testing included remove and replace, unitized measuring element (UME) replacement, and on-site in-service meter testing. Remove and replace consists of removing an entire meter, flange to flange and installing a new meter. Unitized measuring element replacement involves removing the packaged UME measuring components of large meters and installing new calibrated packaged UME components into the meter body which is left in place. On-site, in-service meter testing involves setting a calibrated meter in series with the in-service meter and comparing the measured volumes. These test results will help the utility develop a longer term large meter testing strategy and schedule.

The utility continued its success basing water bills on actual usage and minimizing estimated bills. It is SPRWS' goal to repair defective radio meters upon the first estimated reading. This effort requires cooperation from customers in giving SPRWS access to repair/replace defective meter components and it has been very successful.



Jim Bode gives a tour of the treatment plant to Gina McCarthy, head of the Environmental Protection Agency.

## Customer Service Center

The customer service group performed all billing operations in 2015. SPRWS issues some 34,300 bills per month or 1,700 bills per business day.

The customer service call center received 168,026 calls in 2015. About 82,823 calls (or 49 percent) were handled by call center staff and 85,203, by the self-serve Interactive Voice Response unit (IVR). This equates to approximately 600 calls per business day of which some 300 calls were answered by call center staff. The abandoned call percentage remained under 1 percent, substantially lower than our goal of less than 2 percent. Our IVR offers menu options and responses in both English and Spanish; approximately 1,860 callers took advantage of the Spanish language alternative.

## Technology

Fully functioning technology has evolved to be a basic, daily, business requirement for SPRWS. Our information services unit provides technological support and expertise to virtually all areas of the utility. Staff has succeeded in making the systems available 99.9 percent of the time for things within their control. Information services staff helped in operating the dual timekeeping systems of TASS and CMMS and coordinated consulting work to facilitate CMMS/TASS reconciliation.

During 2015, IS implemented a disaster recovery (SAN) and virtual server environment off-site and continued to test CIS V4, planning for go-live first quarter of 2016. In addition, IS implemented a new, self-serve, external map for customers and partners to make boundary survey maps.

## Financial Services

Since the city implemented a new finance system, INFOR, and a new Time, Attendance and Scheduling System (TASS), in 2014, the city of Saint Paul and SPRWS financial services staff have worked to become proficient and sought to expand the use of available functionality and reporting. In 2015, this continued to be a challenge for SPRWS. Generating the 2015 annual financial report was again very challenging for SPRWS. However, the state auditor's report, beyond an expectation of more timeliness in the future, revealed no issues for SPRWS.

Overall, financial services staff successfully navigated the applications and provided/compiled information necessary for SPRWS to manage its financial position by developing a budget, tracking spending and revenues, providing a monthly report to the Board of Water Commissioners, and ensuring appropriate internal controls.

Along with the new INFOR finance system, the city of Saint Paul implemented TASS in 2014. The system provides punch-in functionality and a robust, rule-based processing feature. Unfortunately, we identified some shortcomings with the functionality of TASS and determined all SPRWS staff would continue completing both CMMS time sheets and TASS time accounting through 2015 and beyond. SPRWS continued to assign timekeeping staff to reconcile CMMS to TASS and help manage CMMS information.

## Future Opportunities

---

SPRWS plans to go-live with version 4 of CIS Infinity in spring 2016. There may be a slight decline in efficiency near go-live as staff becomes proficient with this new software version. However, overall the new version offers more functionality, flexibility, and increased overall reliability.

A new version of CMMS is scheduled to become available in 2017. At this time, we do not anticipate go-live with this new system before 2018.

## Communication in the Community

We produced several external publications, including *Customer Service Connections*, a quarterly newsletter for customers, and the annual *Water Quality Report*. The *Water Quality Report* was made available on the website in accordance with Minnesota Department of Health requirements.

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

## Online Bill Pay

We continued to increase the number of registered users of our on-line bill presentment and payment site, Infinity Link. This Customer Information and Billing System (CIS) module provides customers a self-service choice of viewing their personal account and paying their bill on-line and also provides interested customers the option of receiving an electronic bill (e-bill) rather than a paper copy bill. By the end of 2015, we had 28,000 registered users.

In 2016, SPRWS looks forward to TASS/CMMS enhancements such that staff enter time into one system while continuing to rely on CMMS delivering complete and accurate financial information.

We anticipate more functionality, better reporting and becoming more proficient with the INFOR financial system.

We will continue to examine workflow processes throughout the utility, looking for improved efficiency and enhanced delivery of services.

# Finance

Select financial information from the 2015 fiscal year.

## Condensed Statement of Net Position (in thousands)

	Fiscal Year 2015
Assets	
Current and Other Assets	\$ 48,131
Capital Assets - net	285,972
Total Assets	<u>\$ 334,103</u>
Deferred Outflows of Resources	<u>\$ 1,728</u>
Liabilities	
Current Liabilities	\$ 14,031
Noncurrent Liabilities	60,657
Total Liabilities	<u>\$ 74,688</u>
Deferred Inflows of Resources	<u>\$ 1,595</u>
Net Position	
Net Investment in Capital Assets	\$ 243,313
Restricted for Debt Service	10,829
Unrestricted	5,406
Total Net Position	<u><u>\$ 259,548</u></u>

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

	Fiscal Year 2015
Operating Revenues	\$ 57,543
Non-Operating Revenues (Expenses)	(473)
Total Revenues	<u>\$ 57,070</u>
Operating Expenses	<u>\$ 44,343</u>
Income (Loss) Before Capital Contributions	<u>\$ 12,727</u>
Capital Contributions	<u>\$ 1,202</u>
Change in Net Position	\$ 13,929
Net Assets - January 1, as restated	<u>\$ 245,619 *</u>
Net Assets - December 31	<u><u>\$ 259,548</u></u>

\*Amount includes a change in accounting principle.

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

The complete financial report for 2014 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.





1900 Rice Street  
Saint Paul, MN 55113  
Tel: 651-266-6350  
Fax: 651-266-6357  
E: [waterinquiries@stpaul.gov](mailto:waterinquiries@stpaul.gov)