



2019
ANNUAL REPORT
Saint Paul Regional Water Services

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Photo: McCarrons Water Treatment Plant

Dear Customers:



Safe, reliable drinking water is essential to every community. Saint Paul Regional Water Services provides that water to more than 420,000 customers in Saint Paul and our surrounding suburban communities. Our staff of 256 employees ensures we are true to SPRWS' mission of providing quality water and services to our customers at a reasonable cost.

In 2019, SPRWS continues to address current needs while at the same time planning for the future. Even though water consumption continues a downward trend due to higher than average rainfall and changing customer demands, we continue to have sufficient revenue based on accurate estimates of future consumption. This revenue allows us to continue our investments evidenced by replacement of a high service pump and 8.7 miles of aging water main while providing all the necessary preventive maintenance to our distribution system. All of these revenue-funded initiatives will allow us to continue our rich tradition of providing excellent service.

We continue to assess other parts of the utility to ensure we have a plan moving forward to continually improve. In 2019 we developed and approved an updated strategic plan that promotes equity, innovation, resilience, continuous improvement, and employee development. We have begun to plan and design for a 15-year initiative to rehabilitate and protect our supply conduits that will result in an increase in their useful life. Current water treatment continues to be excellent and to have minimal taste and odor complaints from our customers. We also received the Presidents Award from the Partnership for Safe Water. Only 31 other water utilities in the nation have been honored with this award.

We have retained an owner's agent for the McCarrons treatment plant project to assist us with this endeavor. They will bring their expertise in the management of the design-build contract and assist us in the development of contract documents along with managing and directing of the overall project. This \$160 million dollar contract will allow us to upgrade our treatment capability to address future regulatory changes. We are scheduled to hire a design-build firm and begin design and required pilot testing in the first quarter of 2021. Construction will take place in the years 2021-2025.

All of this work could not be completed if we did not have a great group of support personnel who do excellent work maintaining the financial condition of the utility, providing great customer service, and maintaining our technology that we have come to heavily rely upon. In 2019, we worked diligently to rollout a virtual desktop initiative that allows more than 50 percent of our employees access to their desktop computer remotely to facilitate remote work and working from home when necessary.

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,

A handwritten signature in blue ink that reads "Steve Schneider". The signature is fluid and cursive.

Steve Schneider, General Manager

Board of Water Commissioners



Matt Anfang
PRESIDENT



Amy Brendmoen
VICE PRESIDENT



Mara Humphrey
COMMISSIONER



Marylee Abrams
COMMISSIONER



Jeffrey Dains
COMMISSIONER



Chris Tolbert
COMMISSIONER



Rebecca Noecker
COMMISSIONER

SPRWS Division Managers



Steve Gleason
ASSISTANT
GENERAL
MANAGER
to October 2019



Patrick Shea
ASSISTANT
GENERAL
MANAGER
From October 2019



Dolly Ludden
BUSINESS

Brad Eilts
DISTRIBUTION



Dave Wagner
ENGINEERING



Jim Bode
PRODUCTION



Administration

The administration division offers support services to all areas within the utility as well as direct contact with individual customers and communities at large. The division includes the Business Improvement Unit, public relations and information, safety and security, training and human resources, and the general manager and assistant general manager.

NEW LEADERSHIP

The assistant general manager, Steve Gleason, retired in 2019 after 36 years of service to SPRWS. Patrick Shea was selected to fill the position. Shea has more than 22 years of experience in the water industry and began his tenure at SPRWS in October.

WORK FORCE TURNOVER

In the next five years, all division managers and the general manager will be eligible to retire.

Accordingly, promoting knowledge management and transfer across the utility remains a focus of the utility. In the five years between 2012-2017, the average retirement age was 60 years.

At the end of 2019, nearly 28 percent of SPRWS' employees were 55 years of age or older. Based on current department trends, more than 10 percent of the current workforce have the potential to retire at any time.

The utility's work force history is one of longevity and successfully retaining trained staff. Often pension, insurance, and regular hours have helped promote working at SPRWS as a career.

However, this is no longer assured. Employees may be looking for such things as regular new and stimulating assignments, non-traditional work rules, and flexibility in working off-site and working hours, etc. Human resources staff continues to track the voluntary turnover rate to evaluate current trends.

EMERGENCY PLANNING/SECURITY

Our emergency planning and security supervisor worked on our preparedness efforts. New mandates from the U.S. Environmental Protection Agency require updates to several security plans in 2019 and 2020.

We anticipate devoting more time to drills and tabletop scenarios to better prepare the utility for any emergency. The position also serves as the process safety management program coordinator.



Jim Bode, production division manager, reviews a list of employees onsite at Vadnais station on Vadnais Lake with the site manager as part of an all-staff evacuation drill.

COMMUNITY RELATIONS

Public information efforts included publishing the water quality report, annual report, the quarterly customer newsletters, a newsletter specifically for our neighbors around Sandy Lake, and various informational brochures.

Communications efforts around our construction projects continued with frequent website project updates.

The utility participated in several community events, such as the Rice and Larpenteur summer block party, the Rice Street Fall Gardens Festival, the Water Bar at the Minnesota State Fair, and Water Fest at Phalen Lake.

We represented the utility as a main speaker at the state-wide teacher's drinking water institute, and hosted a follow-up session at our facilities, which included a treatment plant tour.

We hosted four elementary schools during Drinking Water Week, which capped off with an open house and tour of our treatment plant for the general public.

Other efforts include hosting two Highland Park water tower open houses and promoting them on social and traditional media platforms.



A water quality specialist provides information on drinking water to visitors to the water utility booth at Water Fest on Phalen Lake.

BUSINESS IMPROVEMENT UNIT

The Business Improvement Unit team worked diligently on its initiatives including enterprise level performance measures, document management improvements, evaluating the utility against industry-wide effective utility management practices, and identifying areas of focus to consider for inclusion in the strategic plan.

STRATEGIC PLAN

The 2019-2021 strategic plan was implemented in 2019. The plan was developed using feedback from employees. All employees were given the opportunity to share their experiences, concerns and recommendations. The plan will help promote equity, innovation, resilience, continuous improvement, and employee development. The purpose of the plan is to help move the organization forward and position SPRWS for continued success.

WORKPLACE SAFETY

Our safety officer continued the facilitated process of maintaining compliance with new silica and walking surfaces regulations put in place by the Occupational Safety and Health Administration.

We continue to operate a management safety committee focusing on training, preventing workplace injury, inspection activities, and OSHA compliance.

LEAD COMMUNICATIONS

Our efforts in connection with lead in drinking water continued, though we did not change the policies and procedures developed in 2016.

We continued to hand out filtered water pitchers to all residents who had their lead water service disturbed during the year and we continued replacing lead water services as part of our capital improvement projects.

3M LAWSUIT

In February 2018, the State of Minnesota settled a lawsuit against the 3M Company related to perfluoro chemicals.

The outcome provides about \$720 million to be invested in drinking water and natural resource projects in the Twin Cities east metropolitan region. Projects will be primarily focused on cities using wells and drawing ground water for drinking.

The areas in the lawsuit include the cities of Afton, Cottage Grove, Lake Elmo, Newport, Oakdale, St. Paul Park, and Woodbury and the townships of Grey Cloud Island and West Lakeland.

SPRWS is actively recommending that stakeholders include consideration of surface water as a long-term, sustainable supply of drinking water. We have shared with them that the utility's supply system and treatment plant have capacity to meet the long-term water demands of these communities. On-going meetings of stakeholders continued through the year.



Photos: Above, all senior managers, including the general manager, are eligible to retire in the next five years. The assistant general manager, Steve Gleason, far right, retired in October of 2019.

Below, digging up the area where new electrical components will go after replacing the old electrical work.



FUTURE OPERATIONS

The utility is preparing for an estimated \$160 million water treatment plant upgrade. After having obtained legislative approval for design-build procurement, SPRWS retained the services of an owner's agent, an engineering firm with experience developing contract documents, managing and directing design-build projects. The project may take three to four years to complete.

Process safety and emergency plans are being updated with the intent of ensuring ready access for all information employees may need and the security badging and access system is being analyzed and enhancements to badge definitions, operating procedures and access controls are being considered.

Administration will continue directing efforts at these listed initiatives.

The utility submitted comments related to the upcoming update of the Environmental Protections Agency's Lead & Copper Rule to the EPA.

Staff will continue to implement strategic plan initiatives regarding the changes possible with our water use as a result of the White Bear Lake lawsuit.

SPRWS will promote our water supply as part of a solution toward meeting the east metro water needs.

As always, our goal is to be able to budget and finance the projects necessary to meet the mission and vision for SPRWS.

Business Division

The business division offers support services to other divisions within the utility as well as direct contact with individual customers and communities at large. The business division includes the four business units of customer service and billing, financial services, information services, and meter operations.

CUSTOMER SERVICE

The customer service unit issued approximately 34,600 bills per month or 1,670 bills per business day. Throughout the year, meter reading and water billing continued to meet schedules.

Customers' use of electronic payments has continued to increase. In 2019, approximately 56 percent of transactions were processed electronically with nearly 31 percent of payments made via credit card and 19 percent via auto withdraw from a bank account.

The customer service call center received 165,538 calls. About 71,855 calls, or 43 percent, were handled by call center staff and 93,683 by the self-serve Interactive Voice Response unit (IVR). This equates to approximately 650 calls per business day. Call center staff answered 281 of those calls. The abandoned call percentage was 2.29 percent, which is more than our goal of less than 2 percent, however, a new phone system was implemented during this time.

INFORMATION SERVICES

The information services section scaled a production Virtual Desktop Infrastructure project to 130 users.

This new infrastructure offers many efficiencies and savings, including hardware programming, systems and data backup, and troubleshooting. End users are experiencing the benefits of VDI by exploring work from home and bring your own device opportunities. The target completion of full production scale up is third quarter of 2020.

FUTURE OPERATIONS

Technology continues to be a current and future focus. Discussion started on developing a new

METER OPERATIONS

The radio meters are functioning very reliably. Accordingly, we have had continued success basing water bills on actual usage and minimizing estimated bills. Meter operations will continue to track, trend, and report the register mis-reads and failures in an effort to keep the capture rate at 100 percent.

We configured a water meter testing database in the Customer Information System and populated the records with historic test results dating back to 2013. With this data available, we are continuing to create a comprehensive meter testing schedule to identify the optimal interval or accumulated consumption for initiating meter testing and replacing meters by account. In 2019, we tested all meters 3-inch and larger.

FINANCIAL SERVICES

Financial services staff completed and published the 2018 Annual Financial Report; the report was well received by the State Auditor and reflected well on the water utility. The team also published the annual budget, which ensures long-term financial stability and integrity. In addition, a cost-of-service study and new wholesale agreement was completed for the University of Minnesota.

Staff provided information necessary for SPRWS to manage its financial position by developing a budget; tracking revenues and expenses; processing accounts payable invoices and accounts receivable invoices; collecting and processing payments; providing monthly reports to managers and to the Board of Water Commissioners; and ensuring appropriate internal controls.

technology roadmap to assist with determining the future path of certain software and technologies.

Production Division

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 to provide an adequate supply of high quality water to all customers in the service area. This includes the operation and maintenance of the supply system, wells,

water treatment plant, pumping stations, water towers and reservoirs, and the water quality laboratory. The division is also responsible for regulatory reporting related to water quality, responding to water quality complaints, and public education, which involves giving tours and making presentations to the public.

WATER PRODUCTION STEADY

Annual production of water for 2019 was comparable to the previous three years, with a daily average of 38.69 million gallons per day.

Precipitation was 11.77 inches above normal for the year in the Twin Cities metro area.

River levels were also above normal for much of 2019 and drought was not a concern for the metro area.

Our total annual pumpage from the McCarrons plant was 14,315 million gallons; of those 8,256 million gallons originated from the Mississippi River source.

Groundwater (well water) was not used in 2019. The difference was made up from precipitation and runoff from the local watershed.

WATER PRODUCTION COSTS

Chemical costs were up slightly, with a total chemical expenditure of \$3.33 million. This corresponds to an increase of \$7.29 per million gallons of water treated.

Total electrical costs for all finished water pumping stations was \$849,796. Costs per million gallons pumped were \$59.36 for finished water. Total electrical costs for raw water pumping was \$317,893, resulting in \$39.58 per million gallons pumped.

WATER QUALITY

The McCarrons treatment plant continued the Partnership for Safe Water's Presidents Award in 2019. 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.



Staff examine the interior of the concrete raw water conduit that runs from Vadnais Lake to the treatment plant.

PLANT IMPROVEMENTS NOTED

Several improvements were made in 2019. The plant electrical improvements project was completed, resulting in new, incoming power transformers and switchgear as well as two new electrical substations for the campus.

Installation of new high service pump No. 10 was completed. A new 325,000-gallon spent lime holding tank was built for holding softening residuals prior to dewatering.

FUTURE OPERATIONS

Production staff have been heavily involved in the planning and design for the McCarrons water treatment plant project for new softening, ozonation, settling, and re-carbonation processes to replace existing, aging processes, as previously mentioned.

The new 20-million-gallon a day high service pump No. 10 will be used during winter months to help conserve energy. Work on replacing filter controls continues, with new control consoles for filters No. 12 - 24 upcoming.

The supply system conduit assessment project identified areas in need of repairs. We expect to budget approximately \$1 million a year for the next decade or more to complete these repairs.

Design work is underway for new electrical equipment and new pumps and motors at the West Side pump station located on State Street. Also, preliminary design work is underway for new electrical equipment at the Highland Park pump stations.



Photos: Above: Structures for the new electrical equipment go into place below ground.

Below: Pumps being painted in the treatment plant.



Distribution Division

The distribution division is responsible for the delivery of water from the water treatment plant to the customer.

This includes the construction and maintenance of the water distribution system, which consists of water mains, valves, service connections, hydrants and related underground piping infrastructure.

The division also includes dispatch, which provides customer service and emergency response 24 hours a day, seven days a week;

It also includes the garage, which maintains all equipment and vehicles; and a warehouse, which provides materials required to construct and maintain the distribution system.

PREVENTATIVE MAINTENANCE

Goals were met by completing Uni-Directional Flushing (UDF) and large valve exercising programs for 20 percent of the distribution system.

All 9,608 public hydrants were inspected and flushed in 2019. The UDF program included the operation of 3,213 valves and 1,427 hydrants.

A total of 1,343 valves 12-inch and larger were exercised.



Utility workers repair a main break in sub-zero temps.



SPRWS workers repair a water main break..

DISTRIBUTION CAPITAL PROGRAM

Multiple methods to replace and refurbish approximately 8.7 miles of water main were used in 2019. Approximately 5.1 miles of water main in paving projects was replaced using the open-trench excavation method. Another 2.1 miles of water main was replaced using the pipe bursting method. Directional drilling and rod pushing techniques were also used to replace approximately 500 feet of galvanized iron pipe.

A small diameter clean-and-line project refurbished approximately 1.5 miles of 6-inch cast iron main. Water utility crews excavated pits approximately 600 feet apart to allow a contractor to pull scrapers through the existing water main to clean the main. After the main was clean, a lining machine was pulled through the water main to apply a cement mortar lining.

FUTURE OPERATIONS

In 2020, a mobile system will be implemented to process work orders electronically to replace the current paper-based work order system.

Water utility workers break through the frozen ground to get to a main break.

OUTSIDE REPAIRS AND SERVICES

The water utility performs emergency repairs on water mains and services. We also provide water main break repair services to other municipalities outside our service area and respond to main breaks in the cities of Oakdale and Newport and White Bear Township.





Engineering Division

The engineering division has five sections:

Project engineering, which provides support to the utility in the planning, design and construction administration on projects throughout the utility;

Agreements section, which manages agreements, the engineering service desk, and related administrative functions;

Maps and records, which manages the maps and records of the utility;

Plumbing inspections, which performs plumbing inspections;

Damage prevention, which provides utility locating and inspections of projects outside of Saint Paul proper.

We are committed to providing high-quality asset management in the utility.

PARTNERSHIP FOR SAFE WATER

The Partnership for Safe Water program developed through the American Water Works Association is designed with the goal of optimizing utility operations within the distribution system. Engineering completed the self-assessment phase of the program in 2019. As a result, the Partnership for Safe Water has presented SPRWS with their Director's award.

MAPS & RECORDS IMPROVEMENTS

The maps and records group upgraded and modernized our internal mapping applications. We made greater use of online mapping capabilities for field data collection and emergency preparedness. We continued to update our record keeping protocols to improve accuracy and ease of use for end users and increased our work with other city departments to share GIS data.

Photo: Top of the page. McCarrons water treatment plant.

TREATMENT PLANT PROJECT

The planning and procurement process has begun on one of the largest projects the utility has ever performed: a major upgrade to the McCarrons water treatment plant. Facility improvements include replacement of the existing flocculators, clarifiers and re-carbonation chamber. The addition of ozonation to the treatment process is also proposed with the goal of providing flexibility to address emerging contaminants and improve taste and odor. This project will be delivered via the progressive design-build method, a delivery approach that facilitates collaboration between design professionals, contractor, and the owner while reducing the utility's risk profile. The engineering consulting firm Brown and Caldwell was hired as an owner's representative and is providing expertise on project delivery and support with technical matters.

SUPPLY CONDUIT IMPROVEMENTS

A condition assessment for the utility's 26 miles of raw water supply conduits that extend from the Mississippi River to the water treatment plant was completed in 2018. Planning and design are underway for rehabilitation of these conduits. This will include repairs to the concrete conduits installed in the 1920s and implementing a corrosion protection system on the steel conduits installed in the 1950s. Work is expected to extend roughly over a 15-year period on these extensive improvement projects.

FUTURE OPERATIONS

The engineering division continues to improve asset management, infrastructure, and the operations of the utility through its various projects and initiatives to serve our customers well into the future.

We look to complete the procurement process for the McCarrons treatment plant project, selecting a design-build contractor in late 2020 or early 2021. In addition, a historical review of the existing plant will be performed as we will decommission old processes and structures.

WATER MAIN IMPROVEMENTS

The utility has more than 1,200 miles of water main in its system. About 30 percent of the water main is more than 100 years old. Upgrading this aging infrastructure is of utmost importance to provide reliable water to our customers into the future. More than \$10 million in water main construction was performed in 2019, resulting in the replacement and rehabilitation of 8.7 miles of water main. Water main construction is coordinated in collaboration with other public works improvement projects where possible. Replacement of mains outside of public works projects is performed on mains that are at highest risk for failure. New corrosion control practices were also developed with an eye toward extending the life of existing assets.

CENTERVILLE WATER SUPPLY STUDY

The Rice Creek and Centerville Lake system was the primary source of water supply for SPRWS in the late 1800s and early 1900s. In 1925, the Mississippi River source was developed, providing a sustainable source for the utility to the present day. Centerville continued to be used to varying degrees but has been dormant for the last 30 years.

A study was completed to help guide decision making regarding the future of this source. With issues relating to infrastructure condition, water quantity availability, and water quality, the present direction is to de-commission at-risk infrastructure while maintaining the water supply rights.

Work on our distribution infrastructure will continue, making capital improvements necessary to the future. We will continue to improve public outreach on our distribution-related projects as well as continue our work on non-revenue water. Much planning work goes into assessing our buried infrastructure. We will update our water main prioritization model to provide best value decision making on system upgrades.

Select Financial Information 2019

Condensed Statement of Net Position (in thousands)

	Fiscal Year 2019
Assets	
Current and Other Assets	\$ 71,862
Capital Assets - net	\$ 347,059
Total Assets	<u>\$ 418,921</u>
Deferred Outflows of Resources	<u>\$ 3,338</u>
Liabilities	
Current Liabilities	\$ 17,732
Noncurrent Liabilities	\$ 62,935
Total Liabilities	<u>\$ 80,667</u>
Deferred Inflows of Resources	<u>\$ 3,718</u>
Net Position	
Net Investment in Capital Assets	\$ 314,341
Restricted for Debt Service	\$ 11,336
Unrestricted	\$ 12,197
Total Net Position	<u><u>\$ 337,874</u></u>

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

	Fiscal Year 2019
Operating Revenues	\$ 63,377
Non-Operating Revenues (Expenses)	\$ 2,230
Total Revenues	<u>\$ 65,607</u>
Operating Expenses	<u>\$ 53,251</u>
Income (Loss) Before Capital Contributions	<u>\$ 12,356</u>
Capital Contributions	<u>\$ 854</u>
Change in Net Position	\$ 13,210
Net Position - January 1	<u>\$ 324,664</u>
Net Position - December 31	<u><u>\$ 337,874</u></u>

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

The complete financial report for 2019 is available from Saint Paul Regional Water Services. To obtain a copy please visit us at www.stpaul.gov/water or contact the Financial Services Department at 1900 Rice Street, Saint Paul, MN 55113.

Mission, Vision, and Goals

Mission Statement

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

Vision Statement

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



SPRWS Pyramid of Success High Level Overview of Organizational Goals

Each component of the new SPRWS Pyramid of Success is as important as the next in our overall ability to meet our mission.

We believe that the bottom layer of goals is the foundation to our success from which we can build upon. As we become more efficient and grow at each layer of the pyramid, it then enables us to enhance what we are able to do with the next layer of goals.

The top of the pyramid is our ultimate goal of providing quality water to our customers now and into the future.





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REGIONAL
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