

**Fiscal Years: 2025-2034** 

"Providing reliable, quality water & services at a reasonable cost"

### **Contact Us:**

651-266-6350

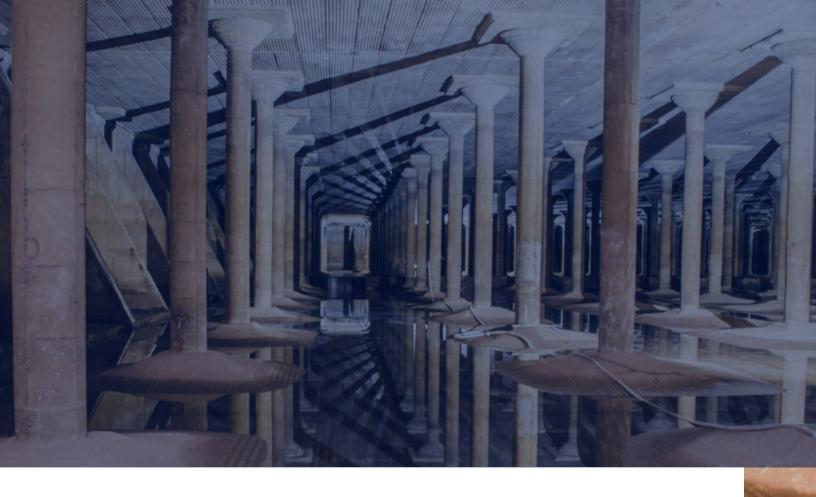
WVVVVI.

www.StPaul.gov/water



1900 Rice Street, Saint Paul, MN





# **TABLE OF CONTENTS**

03	Capital Plan Overview
04	SPRWS Summary
05	Terms and Definitions
07	Prioritization & Categories
09	Investment Summary
12	Appendix A - CIP Summary Table
23	Appendix B - Project Detail Sheets

# WHAT IS A CAPITAL IMPROVEMENT PLAN?

Saint Paul Regional Water Services (SPRWS) updates the Capital Improvement Plan (CIP) each year to provide a long-term financial planning document and 10-year roadmap for maintaining, upgrading, and replacing capital infrastructure. The CIP guides the continuation of major capital asset investments in projects that will upgrade water supply, treatment, distribution, and technology systems. The plan also supports compliance with federal and state regulatory requirements and improves the efficiency of operations. This CIP is integrated into the utility's financial planning process and is the primary driver of projected rate adjustments over the tenyear planning period.



# **CIP GOALS**

The goals of this CIP are to ensure the utility adheres to an informed, fair, open and objective process, maintains a standard of delivering affordable service to customers, continues to optimize lowest total life-cycle costs, enhances the link between capital and operations budgets, emphasizes long-term planning needs, and secures financial stability and predictable rate adjustments.

## **OUR VISION**

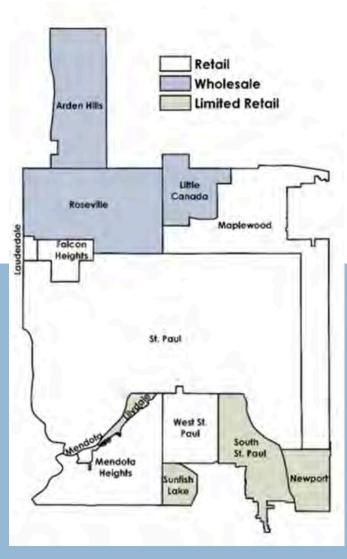
To be a regional and national water industry leader emphasizing quality product, services, & cost containment

## **OUR MISSION**

Our mission at Saint Paul Regional Water Services is to relentlessly provide reliable, quality water & services at a reasonable cost.



# INTRODUCTION



#### **ABOUT US**

Saint Paul Regional Water Services (SPRWS) was created in 1882, with origins tracing back to a private company formed in 1869. Today, the utility serves approximately 450,000 customers with an average of over 40 million gallons of water each day.

SPRWS provides full retail water distribution services within the cities of Saint Paul, Maplewood, Mendota Heights, Mendota, West Saint Paul, Falcon Heights, & Lauderdale. Retail services are provided to a limited number of customers in Lilydale, Sunfish Lake, South Saint Paul, & Newport.

SPRWS sells wholesale drinking water to the cities of Little Canada and Roseville, who subsequently provides water to Arden Hills.

### **OPERATIONS**

SPRWS operates & maintains a 112 million gallon per day (MGD) water treatment plant located in Maplewood. Major assets include 1,185 miles of water mains, 25,200 valves, 10,000 hydrants, one raw water pump station, ten finished water pump stations, six finished water reservoirs, and 12 finished water storages tanks.

SPRWS is governed by a seven-member Board of Water Commissioners, consisting of three members of the Saint Paul City Council, two Saint Paul citizens, and two members of the suburban communities served by SPRWS.

SPRWS does not receive funding from city taxes to support the utility. Instead, SPRWS is a self-supporting enterprise with revenue obtained through the sale of water & payment for services by customers.



**440,000+** POPULATION

96,961 ACTIVE ACCOUNTS \$74,831 MEDIAN HOUSEHOLD INCOME

# CIP TERMS AND DEFINITIONS



Defining terms in the Capital Investment Plan is crucial for ensuring clarity and consistency across all stakeholders. It helps eliminate misunderstandings, aligns everyone on SPRWS project's objectives and processes, and facilitates informed decision-making. Clear definitions also ensure that all parties interpret the plan's content uniformly, leading to more effective communication and smoother project execution.

# CAPITAL ASSET POLICY

Our Capital Asset Policy
defines how expenditures will
be recognized and accounted
for between capital, operating
expenses, & the standards for
capitalization of fixed assets
for the utility. The policy
therefore determines the
projects that are included in
the Capital Investment Plan.

#### **CAPITAL ASSETS**

Capital Assets include land, buildings, building improvements, water supply and treatment equipment, distribution mains, pumps, storage tanks, service connections, equipment, vehicles, technology systems, and other assets. Direct purchases or construction of assets in the amount of \$5,000 or more, while having a useful life in excess of one year, must be capitalized.

#### **CAPITAL COST**

The **Capital Cost** of projects may include labor, equipment, materials, supplies, and overhead expenses.

The cost of capital equipment purchases that are part of a clearly identified capital program can be aggregated, such as replacement of water meters and registers.



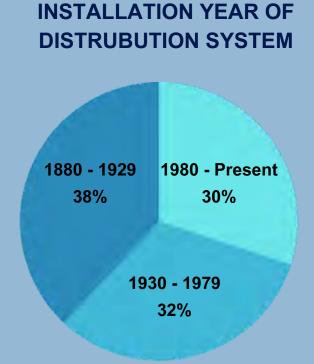




# **LIFE CYCLE OF FIXED ASSETS**



A central objective of this CIP is to minimize the overall life cycle costs for utility assets, considering all expenses associated with acquisition, operations, and maintenance. The service age of assets is one factor that can significantly impacts long term repair costs and service reliability for customers. The figure to the right illustrates the age of the water distribution system, the largest asset category for SPRWS.



Asset	Estimated Life Cycle
Supply Mains	100 years
Reservoirs	60 years
Clarifiers	50 years
Hydrants	50 years
Water Meters	25 years
Meter Registers	15 years

# EXAMPLES OF ESTIMATED ASSET REPLACEMENT CYCLE

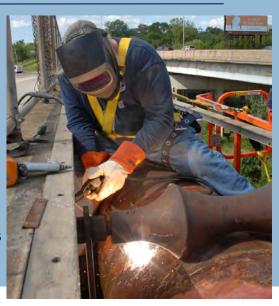
The figure on the left provides insights into the lifespan of key water infrastructure components. This information helps SPRWS understand how long these assets typically last and when they should be scheduled for replacement. It ensures proactive planning and maintenance, helping to avoid unexpected failures and maintain reliable service.

# PROJECT PRIORITIATZATION



#### **ABOUT OUR PROCESS**

Capital planning involves a comprehensive and systematic effort to develop and prioritize immediate and long-terms needs. The prioritization process is intended to guide funding and resource allocations across all SPRWS divisions. This objective evaluation and prioritization of projects is needed when numerous projects compete for limited resources.



#### **PRIORITIZATION CRITERA**

PRWS uses the following prioritization criteria to evaluate projects due to overall funding limitations and the need to renew/replace a significant amount of aging infrastructure.





#### **Regulatory Compliance**

 Ranks a project's relative importance for maintaining current compliance levels or mitigating future compliance impacts.

#### Water Quality and Level of Service

 Ranks a project's role in maintaining or improving current quality of services, water quality, and service reliability.

#### Safety & Security

 Ranks a project's relative importance in maintaining or improving employee or public health and safety.

#### Risk of Failure

 Ranks the project's probability of failing if not replaced or improved

#### **Return on Investment and Efficiency**

 Evaluates a project's potential to deliver financial benefits and operational efficiencies, maximizing value for customers

#### Social & Environmental Benefits

 Considers the positive impacts a project may have on the community and the environment, promoting sustainable practices and social wellbeing

#### **Funding Opportunities**

 Takes into account the availability of external funding sources, such as grants or partnerships, to support the project

# **PROJECT CATEGORIES**





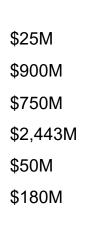
SPRWS capital projects are organized into 11 categories outlined below based on service delivery function. This process assists the utility in monitoring investment rates in individual categories to provide a balance in life cycle asset replacement across the organization.

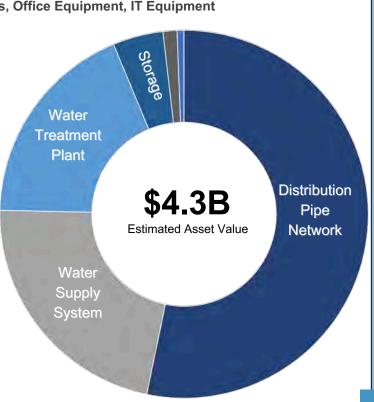
- 1. Water Supply
- 2. Water Treatment
- 3. Electrical and SCADA 7. Technology
- 4. Pump Stations
- 5. Water Storage
- 6. Distributions System
- 8. Meters and Registers
- 9. Building and Grounds
- 10. Safety and Security
- 11. Vehicles & Equipment



Excludes Land, Easements, Office Equipment, IT Equipment

- Vehicles & Equipment
- Water Supply
- Water Treatment
- Distributuion System
- **Pump Stations**
- Water Facilities



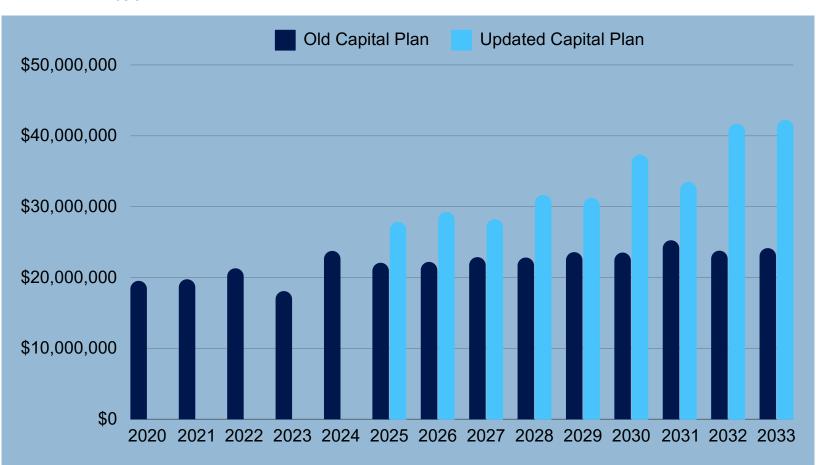


# TEN YEAR CAPITAL INVESTMENT PLAN

SPRWS has historically budgeted a relatively consistent amount of capital expenditures each year within general capital asset categories, with annual funding amounts adjusted for inflationary cost increases. The overall volume of projects undertaken each year were then scaled to the amount of funding allocated within the annual budget.

While this approach to capital planning allowed the annual budget to easily reconcile with available revenue, it did not fully consider long-term capital needs or the aging of utility assets, risking a backlog of deferred replacements and financial liabilities. For the 2025 budget, SPRWS has updated its capital planning to itemize specific project needs and begin to align annual capital investments with asset replacement cycles. Specific asset replacement goals were considered while identifying individual projects for each year of the plan.

The 10-year capital plan was adjusted to maintain a stable cash position, prioritizing projects to avoid depleting cash reserves below targeted levels, based on future rate adjustments. This planning effort resulted in a revenue funding capital improvement spending plan as illustrated below.



# CAPITAL INVESTMENT SUMMARY

The 2025 Budget includes \$27.8 million in revenue funded capital projects as summarized below. Additional grant funded work will continue for the lead water service line replacement program and debt funded improvements for the final stages of the water treatment plant project.

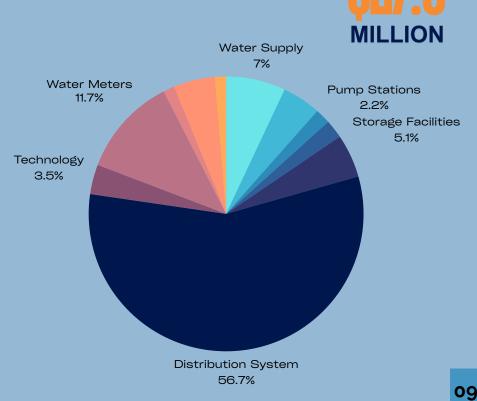
Key projects for 2025 include expansion of the water meter register replacement program, rehabilitation of Highland Park Storage Tank #2, improvements to the treatment plant filter gallery, and the first phase of transitioning to a 1% replacement rate for water distribution mains.

A full list of projects within the 10-year CIP, including projects within the 2025 budget, is provided in Appendix A. A one-page summary for each project is provided in Appendix B.

The projected volume of water to be sold in 2025 remains unchanged at: 1.65 billion cubic feet (BCF). Actual consumption in 2018-2023 has remained very consistent.

# **2025 CAPITAL INVESTMENTS**

Asset Type	Capital Expenditure
Water Supply	\$1,950,000
Water Treatment	\$1,264,000
Electrical & SCADA	\$497,000
Pump Stations	\$605,540
Storage Facilities	\$1,421,580
Distribution System	\$15,788,000
Technology	\$970,000
Water Meters	\$3,258,000
Buildings, Grounds, Safety	\$365,000
Vehicles & Equipment	\$1,350,000
Water Service Connections	\$375,000





# FUTURE ANNUAL UPDATES

SPRWS updates the CIP annually during the early phases of the budget process. CIP projects can add long-term operating expenses due to new equipment or processes. Future CIP updates will include analysis to identify financial impacts on the operating budget and align projects with key performance indicators. It is vital to note that the 10-Year Capital Plan is a fluid document, with proposed amendments presented annually to the Board of Water Commissioners. Annual changes should be expected to the plan and may result from funding reductions, grant opportunities, emergency needs, or regulatory changes.



## **CASH RESERVE FUND**

SPRWS estimates a use of \$7.8 million from cash reserves in the 2025 budget. The Board maintains a fund balance that includes the cash amounts we are legally required to maintain due to bond covenants, a reserve to cover tort and claim liabilities, funds for capital projects budgeted and approved in previous years. This account fluctuates with added savings and expenses and can be used to provide stabilization during times of extreme variation. In planning for the plant project, SPRWS built up the cash balance and will utilize this account for stabilization.



# SPRWS CAPITAL INVESTMENT PLAN

**Racquel Vaske** 

General Manager

**Todd Blomstrom** 

Assistant General Manager

**Graeme Chaple** 

Distribution Division Manager

Che Fei Chen

**Production Division Manager** 

**Richard Hibbard** 

**Enginering Division Manager** 

**Richard Rowland** 

**Business Division Manager** 



**Call Us** 651-266-6350



SPRWS Address 1900 Rice Steet, Saint Paul, MN



Web Address www.stpaul.gov/water



E-Mail Address waterinquiries@ci.stpaul.mn.us

					August 29, 2024	Project Year					
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total 10 Year
Total Revenue Funded (from Below)	\$ 27,794,120.38 \$	29,204,209.91	\$ 28,181,718.20 \$	31,655,302.26 \$	31,234,071.31 \$	37,332,910.37	\$ 33,484,659.73 \$	41,697,904.83 \$	42,238,686.50 \$	43,059,939.86 \$	345,883,523.35
Total Debt, Grant, & Revenue Funded (from Below)	\$ 39,844,120.38 \$	29,254,209.91	\$ 28,231,718.20 \$	31,655,302.26 \$	38,734,071.31 \$	44,832,910.37	\$ 33,484,659.73 \$	41,697,904.83 \$	42,238,686.50 \$	61,059,939.86	\$391,033,523
				<u> </u>							
					Admin. Division						
Admin Total	\$ 320,000.00 \$	360,000.00	\$ 435,000.00 \$	315,000.00 \$	235,000.00 \$	150,000.00	\$ 150,000.00 \$	150,000.00 \$	150,000.00 \$	150,000.00 \$	2,415,000.00
Anticipated Debt/Grant Funding	\$ - \$	- :	\$ - \$	- \$	- \$	-	\$ - \$	- \$	- \$	- \$	-
Total Revenue Funded	\$ 320,000.00 \$	360,000.00	\$ 435,000.00 \$	315,000.00 \$	235,000.00 \$	150,000.00	\$ 150,000.00 \$	150,000.00 \$	150,000.00 \$	150,000.00 \$	2,415,000.00
Security Projects	\$ 70,000.00 \$	110,000.00	\$ 185,000.00 \$	10,000.00 \$	10,000.00 \$	-	\$ - \$	- \$	- \$	- \$	385,000.00
Building Updates	\$ 150,000.00 \$	150,000.00	\$ 150,000.00 \$	150,000.00 \$	50,000.00 \$	50,000.00	\$ 50,000.00 \$	50,000.00 \$	50,000.00 \$	50,000.00 \$	900,000.00
Small Caps < \$100,000	\$ 100,000.00 \$	100,000.00	\$ 100,000.00 \$	100,000.00 \$	100,000.00 \$	100,000.00	\$ 100,000.00 \$	100,000.00 \$	100,000.00 \$	100,000.00 \$	1,000,000.00
Vehicles < \$100,000	\$ - \$	- ;	\$ - \$	55,000.00 \$	75,000.00					\$	130,000.00
					<b>Business Division</b>						
Business Total	\$ 4,223,000.00 \$	4,071,900.00	\$ 3,864,249.50 \$	5,198,429.49 \$	4,926,926.62 \$	8,365,012.38	\$ 1,858,709.11 \$	1,977,040.06 \$	2,146,029.43 \$	1,873,939.86 \$	38,505,236.45
Anticipated Debt/Grant Funding	\$ 50,000.00 \$	50,000.00	\$ 50,000.00							\$	150,000.00
Total Revenue Funded	\$ 4,173,000.00 \$	4,021,900.00	\$ 3,814,249.50 \$	5,198,429.49 \$	4,926,926.62 \$	8,365,012.38	\$ 1,858,709.11 \$	1,977,040.06 \$	2,146,029.43 \$	1,873,939.86 \$	38,355,236.45
Register Replacement	\$ 2,800,000.00 \$	2,940,000.00	\$ 3,087,000.00 \$	3,241,000.00 \$	3,403,000.00 \$	3,574,000.00	\$ 150,000.00 \$	150,000.00 \$	150,000.00 \$	150,000.00 \$	19,645,000.00
Meter Replacements	\$ 308,000.00 \$	316,000.00		333,617.00 \$	343,625.51 \$	353,934.28		375,488.87 \$	386,753.54 \$	398,356.15 \$	3,504,227.65
Advanced Metering Infrastructure	\$ 150,000.00 \$	150,000.00	\$ 150,000.00							\$	450,000.00
Technology	\$ 910,000.00 \$	609,250.00	\$ 245,000.00 \$	1,563,712.50 \$	1,118,398.13 \$	4,373,318.03	\$ 1,278,483.93 \$	1,383,908.13 \$	1,539,603.54 \$	1,325,583.71 \$	14,347,257.97
Server Replacement	\$ 30,000.00 \$	31,500.00	\$	33,075.00 \$	34,728.75 \$	36,465.19	\$ 38,288.45 \$	40,202.87 \$	42,213.01 \$	44,323.66 \$	330,796.93
VDI Host Replacement	\$ 55,000.00 \$	57,750.00	\$ 25,000.00 \$	60,637.50 \$	63,669.38 \$	66,852.84	\$ 70,195.49 \$	73,705.26 \$	77,390.52 \$	81,260.05 \$	631,461.04
Cyber Security - SIEM	\$ 200,000.00									\$	200,000.00
EAMS Extensions	\$ 500,000.00									\$	500,000.00
Cyber Security - Virus Protection Upgrade	\$ 60,000.00									\$	60,000.00
Server Switches Replacement	\$ 20,000.00									\$	20,000.00
Hardware Replacement	\$ 20,000.00 \$	20,000.00	\$ 20,000.00 \$	20,000.00 \$	20,000.00 \$	20,000.00	\$ 20,000.00 \$	20,000.00 \$	20,000.00 \$	200,000.00 \$	380,000.00
CIS Upgrade					\$	3,000,000.00				\$	3,000,000.00
EDMS - Document/Management System Upgrade	\$	300,000.00								\$	300,000.00
GIS Utility Network			\$	250,000.00						\$	250,000.00
Customer Relations Management			\$	200,000.00						\$	200,000.00
Monthly Billing - CIS			\$	1,000,000.00						\$	1,000,000.00
AI Solutions			\$ 200,000.00							\$	200,000.00
Agnostic Mobile Workforce System	\$	200,000.00								\$	200,000.00
GIS Enhancements					\$	250,000.00	\$ 150,000.00			\$	400,000.00
Hydraulic Model Enhancements	\$ 25,000.00									\$	25,000.00
Asset Crtiticality Software								\$	150,000.00	\$	150,000.00
Building Information Modeling							\$	250,000.00		\$	250,000.00
Digitial Twin								\$	250,000.00	\$	250,000.00
Future IT Projects				\$	1,000,000.00 \$	1,000,000.00	\$ 1,000,000.00 \$	1,000,000.00 \$	1,000,000.00 \$	1,000,000.00 \$	6,000,000.00
										\$	-
Vehicles	\$ 55,000.00 \$	56,650.00	\$ 58,349.50 \$	60,099.99 \$	61,902.98 \$	63,760.07	\$ 65,672.88 \$	67,643.06 \$	69,672.35	\$	558,750.84

Saint Paul Regional Water Services

August 29, 2024

							Project Year					
	2025		2026	2027	2028	2029	2030	2031	2032	2033	2034	Total 10 Year
						<b>Engineering Divis</b>	ion					
Engineering Total	\$ 230,	000.00 \$	241,000.00	\$ 253,000.00	\$ 265,000.00	\$ 278,000.00	\$ 292,000.00	\$ 306,000.00	\$ 322,000.00	\$ 339,000.00	\$ 347,000.00 \$	2,873,000.00
Anticipated Debt/Grant Funding	\$	- \$	-	\$ -	\$ -	\$ -	\$ - :	-	\$ -	\$ -	\$ - \$	-
Total Revenue Funded	\$ 230,	000.00 \$	241,000.00	\$ 253,000.00	\$ 265,000.00	\$ 278,000.00	\$ 292,000.00	\$ 306,000.00	\$ 322,000.00	\$ 339,000.00	\$ 347,000.00 \$	2,873,000.00
Leak Detection, Locating, & GPS Equipment	\$ 60,	000.00	66,000.00	\$ 73,000.00	\$ 80,000.00	\$ 88,000.00	\$ 97,000.00	106,000.00	\$ 117,000.00	\$ 129,000.00	\$ 132,000.00 \$	948,000.00
Small Caps < \$100,000	\$ 20,	00.00 \$	20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00 \$	200,000.00
Vehicles < \$100,000	\$ 150,	000.00 \$	155,000.00	\$ 160,000.00	\$ 165,000.00	\$ 170,000.00	\$ 175,000.00	\$ 180,000.00	\$ 185,000.00	\$ 190,000.00	\$ 195,000.00 \$	1,725,000.00

							Project Year					
		2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total 10 Year
						Distribution Divis	sion					
Distribution Total	\$	19,035,120.38	\$ 19,626,309.91 \$	20,909,468.70	\$ 20,765,872.77	\$ 22,528,144.69	\$ 25,241,897.99	\$ 27,161,950.62	\$ 34,096,864.76	\$ 35,415,657.07	\$ 35,974,000.00 \$	260,755,286.90
Anticipated Debt/Grant Funding	\$	-		-			\$ -					
	Ψ		*		<u> </u>	<u>*</u>	<u> </u>	<u> </u>	Ψ	<u> </u>	,	*
Total Revenue Funded	\$	19,035,120.38	\$ 19,626,309.91 \$	20,909,468.70	\$ 20,765,872.77	\$ 22,528,144.69	\$ 25,241,897.99	\$ 27,161,950.62	\$ 34,096,864.76	\$ 35,415,657.07	\$ 35,974,000.00	
Valve Replacement	\$	775,000.00	\$ 800,000.00 \$	825,000.00	\$ 850,000.00	\$ 875,000.00	\$ 900,000.00	\$ 925,000.00	\$ 950,000.00	\$ 980,000.00	\$ 1,009,000.00	\$ 8,889,000.00
New Water Service Connections (Rev/Exp It	em) \$	175,000.00	\$ 175,000.00 \$	175,000.00	\$ 175,000.00	\$ 175,000.00	\$ 175,000.00	\$ 175,000.00	\$ 175,000.00	\$ 175,000.00	\$ 175,000.00	1,750,000.00
Hydrant Replacement	\$	999,000.00	\$ 1,024,000.00 \$	1,050,000.00	\$ 1,050,000.00	\$ 1,050,000.00	\$ 1,076,000.00	\$ 1,100,000.00	\$ 1,100,000.00	\$ 1,100,000.00	\$ 1,167,000.00	\$ 10,716,000.00
Pump Stations - Tier 1 Priority	\$	512,275.84	\$ 1,089,936.77 \$	1,061,290.89	\$ 647,130.36	\$ 730,435.25	\$ 736,913.68	\$ 224,062.00	\$ 665,000.00	\$ 75,000.00	\$ 845,000.00 \$	6,587,044.80
Hazel Park	\$	308,256.00		11,698.59		\$ 604,822.49		\$ -	\$ -	\$ -	9	
Recoat Piping and Valves	\$	54,080.00			·	* 50,000		*	,	•	\$	54,080.00
New Standby Generator	\$	237,952.00									\$	237,952.00
Replace Pressure and Flow Instrumentation	\$	16,224.00									\$	16,224.00
Caulk Brick Cracks			\$	5,849.29							\$	5,849.29
Concrete Foundation Repair			\$	5,849.29							\$	5,849.29
Replace Roof Facia						\$ 25,306.38	3				\$	25,306.38
Patch Glazed Tile						\$ 6,326.60					\$	6,326.60
Caulk Seam Sidewalk and Foundation						\$ 3,795.96					\$	-,
Replace Pumps and Valves						\$ 569,393.56	3				\$	569,393.56
Roselawn	\$	10,816.00	\$ 16,872.96 \$	107,986.94	\$ -	\$ -	\$ 661,913.68	\$ -	\$ -	\$ -		
Replace Electrical Box Covers	\$	3,244.80									\$	0,2 1 1100
Add Dehumidifiers			\$ 16,872.96								\$	,-:
Replace Pressure and Flow Instrumentation	\$	7,571.20									\$	.,,
Caulk Corner Cracks in Brick			\$	5,624.32							\$	-,
Caulk Gap at Retaining Wall			\$	5,624.32							\$	0,0202
Patch Wood Trim			\$	5,624.32							\$	.,
Repaint Wood Trim			\$	3,374.59							\$	3,21.1133
Repaint Railings and Floor Plates  Replace MCC			\$	3,374.59 50,618.88							\$	
Replace MTS and STS			φ •	6,749.18							\$	
Replace Lighting transformer and panelboard			\$   <b>\$</b>	26,996.74							\$	
Repaint Interior CMU wall				20,000.74			\$ 13,159.32				\$	
Replace Floor Paint	+						\$ 13,159.32				\$	
Replace Double Leaf Doords							\$ 9,211.52				\$	
Replace Window Lintel							\$ 26,318.64				\$	
Caulk Crack at Concrete Stairs							\$ 3,947.80				\$	
Caulk Concrete Apron at Retaining Wall							\$ 3,947.80				\$	3,947.80
Pump and Valve Replacement							\$ 592,169.30				\$	592,169.30
West St. Paul	\$	16,224.00	\$ - \$	26,321.82	\$ -	\$ -		\$ 6,842.85	\$ -	\$ -		
Asbestos Testing	\$	10,816.00		-,							\$	
Replace Pressure Instrumentation	\$	5,408.00									\$	5,408.00
Caulk Mortar Joints around Windows			\$	8,773.94							\$	8,773.94
Repair Rusty Lintel at Windows			\$	17,547.88							\$	17,547.88
Repair Cracked Quarry Tile on Floor								\$ 6,842.85			\$	6,842.85
Replace Pumps, Valves and Motors											\$ 770,000.00 \$	770,000.00
Beebe	\$	16,224.00			\$ -	\$ 50,612.76	6 \$ -	\$ -	\$ -	\$ -	\$	, , , , , , , , , , , , , , , , , , , ,
Replace Damaged Stucco			\$ 56,243.20								\$	00,2 10.20
Replace Pressure and Flow Instrumentation	\$	16,224.00									\$	16,224.00
Repair Interior CMU Cracks			\$ 5,624.32								\$	.,
Caulk Concrete Foundation Wall Cracks			\$ 5,624.32								\$	5,624.32
Extend Roof Drain Outlets from Bldg			\$ 5,624.32								\$	-,
Repair Stair, Platform, Railings			\$ 8,436.48								\$	-,
Discharge Valve Actuators			\$ 168,729.60								\$	
Replace TiaStar VFD			\$ 56,243.20								\$	,
Replace Pumps and Valves			\$ 506,188.80								\$	506,188.80

					August 29, 2024	Project Year					
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total 10 Year
Replace Arrow Hart Switchboard										\$	
Install Automatic Transfer Switch										\$	8,998.91
Install Permanent Generator		\$ 112,486.40								\$	112,486.40
Replace Lighting Transformer and Panelboard		\$ 28,121.60								\$	28,121.60
Repaint CMU Interior Walls				\$	18,979.79					\$	18,979.79
Replace Floor Paint				\$	18,979.79					\$	18,979.79
Xcel to Replace Transformer				\$	8,857.23					\$	8,857.23
Caulk CMU Apron				\$	3,795.96					\$	3,795.96
St. Anthony	\$ 32,880.64	\$ - \$	865,283.54 \$	- \$		\$	- \$ 5,474.28	\$	- \$ -	\$	903,638.46
Culk Windows	\$ 3,028.48								,	\$	3,028.48
Replace Steel Lintel	\$ 12,113.92									\$	12,113.92
Add Exit Sign	\$ 1,514.24									\$	1,514.24
Replace Pressure and Flow Instrumentation	\$ 16,224.00									\$	16,224.00
Caulk Cracks in bricks		\$	3,406.63							\$	3,406.63
Repair Exterior Metal Trim		\$	3,406.63							\$	3,406.63
Replace Exterior Doors		\$	6,813.26							\$	6,813.26
Replace MCC, Lighting Transformer		\$	121,665.29							\$	121,665.29
Repair Cracked Interior Tile							\$ 5,474.28			\$	5,474.28
Replace Pumps and Valves		\$	729,991.74							\$	729,991.74
Highland #1	\$ 21,632.00	\$ - \$	- \$	27,983.02 \$	-	\$	- \$ 40,945.05	\$	- \$ -	\$	90,560.07
Replace Plywood Covers on Windows	\$ 5,408.00		Ť			+	10,2 30.00		-	\$	5,408.00
Replace Pressure and Flow Instrumentation	\$ 16,224.00									\$	16,224.00
Install New Panelboard			\$	21,899.75						\$	21,899.75
Caulk Corner Cracks			\$	6,083.26						\$	6,083.26
Repaint Concrete Walls				•			\$ 29,246.46			\$	29,246.46
Replace Floor Paint							\$ 11,698.59			\$	11,698.59
Highland #2	\$ 37,856.00	\$ 11,248.64 \$	- \$	459,589.97 \$		\$	-   \$	\$	- s -	\$	
Intumescent Paint on Foam Insulation	\$ 21,632.00	Ψ 11,2-10.0-1 Ψ	<b>.</b>	400,000.07 φ		Ψ	Ψ			\$	21,632.00
Moisture Leak - Entry Tunnel	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	\$ 11,248.64								\$	11,248.64
Pressure and Flow Instrumentation	\$ 16,224.00	,								\$	16,224.00
Roof Repair at Entry			\$	18,979.79						\$	18,979.79
Paving Upper Level			\$	50,612.76						\$	50,612.76
Replace Pump 5			\$	189,797.85						\$	189,797.85
Replace Double Leaf Doors			\$	18,979.79						\$	18,979.79
Replace Floor Paint			\$	18,979.79						\$	18,979.79
Replace Pump 4			\$	162,240.00						\$	162,240.00
West Side	\$ 18,387.20	\$ - \$	- \$	18,249.79 \$		\$	- \$ 95,799.83	\$	- \$ -	\$	
Replace Bituminous Driveway and Walk	Ţ	<u> </u>	<b>.</b>	10,240.70 ψ		Ψ	Ψ 00,700.00			\$	102,400.00
Add Exit Signs	\$ 2,163.20									\$	2,163.20
Replace Pressure and Flow Instrumentation	\$ 16,224.00									\$	16,224.00
Chain Link Fence Repair			\$	6,083.26						\$	6,083.26
Replace Wood Retaining Wall			\$	12,166.53						\$	12,166.53
Repaint Metal Doors and Frames			<u> </u>	,			\$ 13,685.69			\$	13,685.69
Replace Floor Paint							\$ 20,528.54			\$	20,528.54
Replace Steel Lintel							\$ 20,528.54			\$	20,528.54
Repair Glazed Wall Tile			<u> </u>				\$ 6,842.85			\$	6,842.85
Ratch and Repair Damaged CMU			<u> </u>				\$ 6,842.85			\$	6,842.85
Replace Asbestos Pipe Insulation	+						\$ 27,371.38			\$	27,371.38
Mailand	\$ - :	\$	- \$	66,307.58 \$		\$	\$	\$	- \$	\$	
Repair Interior CMU Cracks	Ψ - ;	· 5	-   <del>0</del>	6,083.26	-	Ψ	-	Ψ	Ψ -	\$	6,083.26
Repair Exterior Wood Planks	+		\$\psi\$	9,124.90						\$	9,124.90
Level Transformer Pad	+		\$\psi\$	2,433.31						\$	2,433.31
Repair Loading Dock Concrete	+		φ	6,083.26						\$	6,083.26
Repairt Exterior Railings	+		φ φ	6,083.26						\$	6,083.26
Repaint CMU Walls	+		φ	18,249.79						\$	18,249.79
Replace Floor Paint	+		¢	18,249.79						\$	18,249.79
ποριασο Γίσσι Γαιπί			1 2	10,243.73						1	10,249.79

		Project Year										
		2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total 10 Year
General Contingency	\$	50,000.00	\$ 50,000.00 \$	50,000.00	\$ 75,000.00 \$	75,000.00	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00 \$	75,000.00 \$	675,000.00
Water Main Replacement - Tier 1 (~180 year	,			.,,								
Replace Cycle, 6.59 mi/yr) Capital and	\$	12,200,000.00	\$ 12,690,000.00 \$	13,200,000.00	\$ 13,700,000.00 \$	14,200,000.00	\$ 14,800,000.00	\$ 15,400,000.00	\$ 16,000,000.00	\$ 16,600,000.00 \$	17,300,000.00 \$	146,090,000.00
Surcharge		12,200,000.00	Ψ 12,000,000.00 Ψ	10,200,000.00	Ψ 10,700,000.00 Ψ	14,200,000.00	14,000,000.00	Ψ 10,400,000.00	10,000,000.00	Ψ 10,000,000.00 Ψ	17,000,000.00	140,000,000.00
Prestressed Concrete Pipe - Tier 1	\$	135,000.00	\$ 140,000.00 \$	145,000.00	\$ - \$	-	\$ -	\$ -	\$ -	\$ - \$	- \$	420,000.00
West Side & Hillcrest Overflow Reg.												
Compliance	\$	-	\$ 75,000.00   \$	250,000.00	\$ 250,000.00   \$	-	-	\$ -	-	\$ -  \$	-  \$	575,000.00
Storage Improvements	\$	1,421,580.54	\$ 1,317,373.14 \$	1,285,319.02	\$ 60,490.21 \$	1,117,385.88	\$ 1,241,026.78	\$ 1,303,827.25	\$ 48,864.76	\$ 84,657.07 \$	- \$	7,880,524.66
Cope Ave. Tank	\$		\$ - \$		\$ 9,489.89 \$		\$ -	\$ -	\$ -	\$ 15,394.54	\$	24,884.43
Interior Tank Inspection (Alt 5-year cycle)	\$		\$ - \$	-	\$ 9,489.89 \$	-	\$ -	\$ -	\$ -		\$	9,489.89
Full Tank Inspection (10-year Cycle)	\$	-	\$ - \$	-	\$ - \$	-	\$ -	\$ -	\$ -	\$ 15,394.54	\$	15,394.54
Cottage Tank	\$	11,248.64	\$ 1,236,540.50 \$	-	\$ 8,857.23 \$		\$ -	\$ 10,674.84	\$ -	\$ -	\$	1,267,321.21
Interior Tank Inspection (Alt 5-year cycle)	\$	-	\$ - \$	-	\$ - \$	-	\$ -	\$ 10,674.84	\$ -	\$ -	\$	10,674.84
Full Tank Inspection (10-year Cycle)	\$	11,248.64	\$ - \$	-	\$ - \$	-	\$ -	\$ -	\$ -	\$ -	\$	11,248.64
2-year Warranty Inspection - 2021 Paint (Warranty)	\$		\$ - \$	-	\$ 8,857.23 \$	-	'	\$ -	*	\$ -	\$	8,857.23
Inter/Exterior Paint Coating (20 years)	\$		\$ 1,169,858.56 \$		\$ - \$	-	*	T .	-		\$	1,169,858.56
Instrumentation, Comms Upgrades (10-year Cycle)	\$		\$ 8,189.01 \$		\$ - \$	-	•	\$ -	*	\$ -	\$	8,189.01
Repair Concrete Footing (2020 Report)	\$		\$ - \$		\$ - \$	-		·	•	\$ -	\$	-
Interior Structural Grinding and Caulking (2020 Report)	\$		\$ 8,189.01 \$		\$ - \$	-	*	\$ -	•	\$ -	\$	8,189.01
Replace Handrail System OSHA Compl (2020 Report)	\$		\$ 29,246.46 \$		\$ - \$	-	*	\$ -	*	\$ -	\$	29,246.46
Replace Roof Vent Frost Free AWWA (2020 Report)	\$		\$ 14,038.30 \$		\$ - \$	-	1	•		\$ -	\$	14,038.30
Replace Manway Bolts (2020 Report)	\$	-	\$ 1,169.86 \$	-	\$ - \$	-	'		•	\$ -	\$	1,169.86
Modify Cover overlap on Top MHs (2020 Report)	\$	-	\$ 5,849.29 \$	-	\$ - \$	-	-	\$ -	5 -	\$ -	\$	5,849.29
Dale Street Reservoir					<u> </u>		<b>A</b>	<b>A</b>	<u> </u>	<b>15.004.54</b>	\$	- 04.004.40
Ferndale Tank Interior Tank Inspection (Alt 5-year cycle)	\$		\$ - \$ \$ - \$	-	\$ 9,489.89 \$ \$ 9,489.89	-	\$ -	\$ -	\$ -	\$ 15,394.54	\$ \$	24,884.43 9,489.89
Full Tank Inspection (10-year Cycle)	\$		\$ - \$	-	\$ - \$				\$ -		\$	15,394.54
Highland #2 Tank	\$		\$ 8,189.01 \$		\$ - \$			\$ 10,674.84		\$ -	\$	18,863.85
Interior Tank Inspection (Alt 5/10-year cycle)	\$		\$ - \$	-	\$ - \$			\$ 10,674.84		\$ -	\$	10,674.84
2-year Warranty Inspection - 2021 Paint (Warranty)	\$		\$ 8,189.01 \$	-	\$ - \$			\$ -		\$ -	\$	8,189.01
Highland #3 Tank	¢	1,317,215.74		9,124.90	Ť Ť		\$ -	¢ .	\$ 11,101.83	¢ _	\$	1,337,442.47
Interior Tank Inspection (Alt 5/10-year cycle)	\$		\$ - \$	,	\$ - \$	-	¥	\$ -	\$ 11,101.83	\$ -	\$	11,101.83
2-year Warranty Inspection - 2021 Paint (Warranty)	\$	-	\$ - \$	9,124.90	\$ - \$	-	\$ -	\$ -	\$ -	\$ -	\$	9,124.90
Instrumentation, Comms Upgrades (10-year Cycle)	\$	7,874.05	\$ - \$	-	\$ - \$	-	\$ -	\$ -		\$ -	\$	7,874.05
Interior Grinding and Caulking (2020 Report)	\$	16,872.96	\$ - \$	-	\$ - \$	-	\$ -	\$ -	\$ -	\$ -	\$	16,872.96
Alum Jacket Fill Pipe (2020 Report)	\$	5,624.32	\$ - \$	-	\$ - \$	-	\$ -	\$ -	\$ -	\$ -	\$	5,624.32
Repair/Mod Interior Lighting (2020 Report)	\$	2,249.73		-	\$ - \$	-	\$ -	\$ -	\$ -	\$ -	\$	2,249.73
Replace Handrail System (2020 Report)	\$	33,745.92		-	\$ - \$	-	\$ -	\$ -	\$ -	\$ -	\$	33,745.92
Replace Manway Bolts (2020 Report)	\$	1,124.86			\$ - \$	_				\$ -	\$	1,124.86
Replace Overflow Screen (2020 Report)	\$	1,124.86		_	\$ - \$	_		\$ -		\$ -	\$	1,124.86
Interior and Ext Full Paint (2020 Report)	\$	1,237,350.40		_	\$ - \$	_	\$ -	\$ -		\$ -	\$	1,237,350.40
Misc Repair Items (2020 Report)	\$	11,248.64		_	\$ - \$	_	\$ -	\$ -	\$ -	\$ -	\$	11,248.64
McKnight Tank	\$	8,436.48		_	\$ - \$	1,088,174.36	\$ 9,579.98	\$ -	\$ 17,762.93	\$ 11,545.91	\$	1,135,499.66
Interior Tank Inspection (Alt 5/10-year cycle)	\$	8,436.48		-	\$ - \$	1,000,174.00	\$ -	\$ -	\$ -	\$ 11,545.91	\$	19,982.39
Full Tank Inspection (10-year Cycle)	\$	-	\$ - \$	-	\$ - \$	12,653.19	\$ -	\$ -	\$ -	\$ -	\$	12,653.19
2-year Warranty Inspection - 2021 Paint (Warranty)	\$	-	\$ - \$	_	\$ - \$		\$ 9,579.98	\$ -	\$ -	\$ -	\$	9,579.98
Inter/Exterior Paint Coating (20 years)	\$		\$ - \$		\$ - \$	1,043,888.19			· ·	\$ -	\$	1,043,888.19
Instrumentation, Comms Upgrades (10-year Cycle)	\$	_	\$ - \$	_	\$ - \$	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	\$ -	\$ -	\$ 17,762.93	·	\$	17,762.93
Interior Structural Grinding and Caulking (2020 Report)	\$		\$ - \$	_	\$ - \$	6,326.60	\$ -	\$ -		\$ -	\$	6,326.60
Repair Damaged Roof Panel & Fasteners (2020 Report)	\$		\$ - \$		\$ - \$	10,122.55		¥		\$ -	\$	10,122.55
Replace Roof Vent Frost Free AWWA (2020 Report)	\$		\$ - \$		\$ - \$	12,653.19		\$ -		\$ -	\$	12,653.19
Replace Manway Bolts (2020 Report)	\$	-	\$ - \$	-	\$ - \$	1,265.32		\$ -	*	\$ -	φ.	1,265.32
Replace Overflow Screen (2020 Report)	\$	-	\$ - \$	-	\$ - \$	1,265.32		\$ -		\$ -	\$	1,265.32
	Φ			-		1,200.32		Ψ		•	<u> </u>	
Mendota Heights Tank	\$	19,685.12	\$ 8,189.01 \$	-	\$ - \$	-	\$ 13,685.69	\$ 1,241,839.56	5 -	\$ 10,776.18	\$	1,294,175.56

						Project Year					
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total 10 Year
Pressure Wash	\$ 11,248.64	\$ - \$	-	\$ - \$	-	\$ -	\$ -	\$ - :	\$ -		\$ 11,248.64
Interior Tank Inspection (Alt 5-year cycle)	\$ 8,436.48	\$ \$ - \$	-	\$ - \$	-	\$ -	\$ -	\$ - :	-		\$ 8,436.48
Maint Full Tank Inspection (10-year Cycle)	\$ -	\$ - \$	-	\$ - \$	-	\$ 13,685.69	\$ -	\$ - :	-		\$ 13,685.69
Warranty Inspection (2-Year)	\$ -	\$ - \$	-	\$ - \$	-		\$ -	\$ - 5	10,776.18		\$ 10,776.18
Inter/Exterior Paint Coating (20 years)	\$ -	\$ - \$	-	\$ - \$	-	\$ -	\$ 1,138,649.45	\$ - :	-		\$ 1,138,649.45
Instrumentation, Comms Upgrades (10-year Cycle)	\$ -	\$ 8,189.01 \$	-	\$ - \$	-	\$ -	. , ,	\$ - :	-		\$ 8,189.01
Interior Structural Grinding and Caulking (2020 Report)	\$ -	\$ - \$	-	\$ - \$	-	\$ -	\$ 14,233.12	\$ -:	-		\$ 14,233.12
Wet Riser Grate and Manway (2020 Report)	\$ -	\$ - \$	-	\$ - \$	-	\$ -	\$ 21,349.68	\$ - :	-		\$ 21,349.68
Install Mud Valve (2020 Report)	\$ -	\$ - \$	-	\$ - \$	-	\$ -	\$ 3,558.28	\$ - :	-		\$ 3,558.28
Modify Lighting (2020 Report)	\$ -	\$ - \$	-	\$ - \$	-	\$ -	\$ 7,116.56	\$ - :	-		\$ 7,116.56
Install Handrail System (2020 Report)	\$ -	\$ - \$	-	\$ - \$	-	\$ -	\$ 42,699.35	\$ -:	-		\$ 42,699.35
Replace Roof Vent - AWWA (2020 Report)	\$ -	\$ - \$	-	\$ - \$	-	\$ -			-		\$ 11,386.49
Replace Manway Bolts (2020 Report)	\$ -	\$ - \$	_	\$ - \$	-	\$ -	\$ 1,423.31		-		\$ 1,423.31
Replace Overflow Screen (2020 Report)	\$ -	\$ - \$	-	\$ - \$	-	\$ -	\$ 1,423.31		-		\$ 1,423.31
St. Anthony Tank	\$ 8,436.48	7		\$ - \$		\$ 13,685.69		¢			\$ 30,311.18
Interior Tank Inspection (Alt 5-year cycle)	\$ 8,436.48		-	\$ - \$	-	\$ -	\$ -	\$ - :	-		\$ 8,436.48
Full Tank Inspection (10-year Cycle)	\$ -	\$ - \$	-	\$ - \$	-	\$ 13,685.69	\$ -	\$ - :	-		\$ 13,685.69
Instrumentation, Comms Upgrades (10-year Cycle)	\$ -	\$ 8,189.01 \$	-	\$ - \$	-	\$ -	\$ -	\$ - :	-		\$ 8,189.01
State Fair Tank	\$ 19,685.12		-	\$ 12,653.19 \$	-	\$ 1,156,704.03	\$ 9,963.18	\$ - 9	11,545.91		\$ 1,218,740.44
Pressure Wash (Maint)	\$ 11,248.64		-	\$ - \$	-	\$ -	\$ -	\$ - :			\$ 11,248.64
Interior Tank Inspection (Alt 5/10-year cycle)	\$ 8,436.48		_	\$ - \$	-	\$ -	\$ -	\$ - 5	11,545.91		\$ 19,982.39
Full Tank Inspection (10-year Cycle)	\$ -	\$ - \$	-	\$ 12,653.19 \$	-	\$ -	\$ -	\$ - :			\$ 12,653.19
Warranty Inspection (2-Year)	\$ -	\$ - \$	_	\$ - \$		\$ -	\$ 9,963.18	Ψ	P		\$ 9,963.18
Inter/Exterior Paint Coating (20 years)	\$ -	\$ - \$		\$ - \$	_	\$ 1,085,643.72		\$ - :	•		\$ 1,085,643.72
Instrumentation, Comms Upgrades (10-year Cycle)	\$ -	\$ 8,189.01 \$		\$ - \$			\$ -	\$ - :			\$ 8,189.01
Interior Structural Grinding and Caulking (2020 Report)	\$ -	\$ 0,109.01 \$	-	\$ - \$	-	\$ 13,159.32	Ψ	\$ - :	-		\$ 13,159.32
	\$ -	\$ - \$	-	\$ - \$	-	· · ·		\$ - :	Ψ		· ·
Grout Replacement (2020 Report)		7	-	Ť , , ,	-	\$ 5,263.73		•	•		0,200.70
Modify Lighting (2020 Report)	\$ -	\$ - \$	-	\$ - \$	-	\$ 6,579.66			-		\$ 6,579.66
Install Handrail System (2020 Report)	\$ -	\$ - \$	-	\$ - \$	-	\$ 32,898.29		\$ - !			\$ 32,898.29
Replace Roof Vent - AWWA (2020 Report)	-	\$ - \$	-	\$ - \$	-	\$ 10,527.45		\$ - :	7		\$ 10,527.45
Replace Manway Bolts (2020 Report)		\$ - \$		\$ - \$	-	\$ 1,315.93		\$ - :	*		\$ 1,315.93
Replace Overflow Screen (2020 Report)	\$ -	\$ - \$	-	\$ - \$	-	\$ 1,315.93		\$ - :	-		\$ 1,315.93
Sterling Tank	\$ 8,436.48		-	\$ - \$	-	\$ 13,685.69		\$ - :	-		\$ 30,311.18
Interior Tank Inspection (Alt 5 year cycle)	\$ 8,436.48		-	\$ - \$		\$ -	T	\$ - !			\$ 8,436.48
Full Tank Inspection (10-year Cycle)	\$ - \$ -	\$ - \$	-	\$ - \$ \$ - \$	-	\$ 13,685.69	\$ -	\$ - ! \$ - !	*		\$ 13,685.69
Instrumentation, Comms Upgrades (10-year Cycle)	*	\$ 8,189.01 \$	-	, ,	-	\$ -	<b>5</b>	*	-		\$ 8,189.01
Stillwater Tank	-	\$ 11,698.59 \$ \$ - \$	1,256,194.12	\$ - \$ \$ - \$	9,211.52		\$ 10,674.84 \$	\$ - 3	5		\$ 1,287,779.07
Exterior Cleaning	-	<b>*</b>	-	Ψ Ψ		Ψ	Ψ	Ψ	P .		5 -
Interior Tank Inspection (Alt 5-year cycle)	-	\$ - \$		\$ - \$		·	\$ 10,674.84				\$ 10,674.84
Full Tank Inspection (10-year Cycle)	\$ -	\$ 11,698.59 \$	-	\$ - \$		•	\$ -	\$ - :			\$ 11,698.59
Warranty Inspection (2-Year warranty)	\$ -	\$ - \$		\$ - \$	9,211.52		\$ -		-		\$ 9,211.52
Inter/Exterior Paint Coating (Painting)	\$ -	\$ - \$	1,186,236.58			7	\$ -	\$ - :			\$ 1,186,236.58
Instrumentation, Comms Upgrades (10-year Cycle)	\$ -	\$ - \$		\$ - \$			\$ -		-		\$ -
Grinding)	\$ -	\$ - \$	12,166.53			· ·	·	\$ - !			\$ 12,166.53
Install Mud Valve (Interior Mud Valve)	\$ -	\$ - \$	3,041.63		-		<u>:</u>	\$ - !			\$ 3,041.63
Grout Replacement (Exterior Grout Repl.)	\$ -	\$ - \$	6,083.26		-	Ψ	\$ -	\$ - :	*		\$ 6,083.26
Install Handrail System (Ext Hand Rail System)	\$ -	\$ - \$	36,499.59		-	7	\$ -	\$ - :			\$ 36,499.59
Replace Roof Vent - AWWA (Roof Vent Repl.)	\$ -	\$ - \$	9,733.22			•	\$ -		-		\$ 9,733.22
Replace Manway Bolts (Repl Manway Bolts)	\$ -	\$ - \$	1,216.65		-	\$ -	\$ -	\$ - :	-		\$ 1,216.65
Replace Overflow Screen (Repl Overflow Screen)	\$ -	\$ - \$	1,216.65	\$ - \$	-	\$ -	\$ -	\$ - :	-		\$ 1,216.65
West Side Reservoir											\$ -
West St. Paul Tank	\$ 8,436.48		-	\$ - \$	-	\$ 13,685.69	\$ -	\$ - :			\$ 30,311.18
Interior Tank Inspection (Alt 5/10-year cycle)	\$ 8,436.48	- \$	-	\$ - \$	-	\$ -	\$ -	\$ - :	-		\$ 8,436.48
Full Tank Inspection (10-year Cycle)	\$ -	\$ - \$	-	\$ - \$	-	\$ 13,685.69	\$ -	\$ -	-		\$ 13,685.69

						August 29, 2024	Project Year					
		2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total 10 Year
Inter/Exterior Paint Coating (20 years)	\$	-	\$ -	\$ - \$	- \$	-	\$	- \$ - 5	- \$	-		\$ -
Instrumentation, Comms Upgrades (10-year Cycle)	\$	_	\$ 8,189.01	\$ - \$	- \$	-	\$	- !	- \$	-		\$ 8,189.01
General Contingency	\$	20,000		\$ 20,000 \$	20,000 \$	20,000	\$ 20,00	0 \$ 20,000 \$	20,000 \$	20,000		\$ 180,000.00
Base ROW Lead Funding	\$	200,000.00		\$ 200,000.00 \$	200,000.00 \$	200,000.00			200,000.00 \$	200,000.00 \$	200,000.00	
Large Valve Replacement	φ	190,000.00			205,000.00 \$	210,000.00				230,000.00 \$	237,000.00	
	Ψ	190,000.00	φ 195,000.00	\$ 200,000.00 \$	203,000.00 φ	210,000.00	φ 215,000.0	σ φ ΖΖΟ,000.00 ξ	Σ25,000.00 φ	230,000.00 \$	237,000.00	φ 2,127,000.00
Water Main Replacement - Tier 2 (~150 year												
Replace Cycle, 7.91 mi/yr) Capital and	\$	1,000,000.00	\$ 1,000,000.00	\$ 1,500,000.00  \$	2,000,000.00   \$	2,000,000.00	\$ 2,970,000.0	3,080,000.00	3,210,000.00  \$	3,340,000.00  \$	3,474,000.00	\$ 23,574,000.00
Surcharge												
Vehicle & Small Cap Replacement	\$	845,000.00	\$ 870,000.00	\$ 895,000.00 \$	920,000.00 \$	945,000.00	\$ 975,000.0	0 \$ 1,005,000.00 \$	1,025,000.00 \$	1,055,000.00 \$	1,087,000.00	\$ 9,622,000.00
Tunnel Rehabilitation - Tier 1	\$	489,000.00	\$ -	-  \$	- \$	-	\$	-   \$	-  \$	- \$	-	\$ 489,000.00
Prestressed Concrete Pipe - Tier 2	\$	-	\$ -	\$ - \$	150,000.00 \$	155,000.00	\$ 160,000.0	0 \$ 165,000.00 \$	3 170,000.00 \$	175,000.00 \$	180,000.00	\$ 1,155,000.00
Pump Stations - Tier 2 Priority	\$	93,264.00	\$ 50,000.00	\$ 122,858.79 \$	175,252.20 \$	184,323.56			75,000.00 \$	725,000.00 \$	_	\$ 2,366,717.44
Hazel Park	\$	-	\$ -	\$ 64,342.22 \$	- \$	72,123.18		- \$ - 5		-		\$ 136,465.40
Replace Asphalt Driveway	Ť		·	\$ 58,492.93		,	*	1				\$ 58,492.93
Replace Sunken Sidewalk				\$ 5,849.29								\$ 5,849.29
Install Floor Treatment					\$	18,979.79						\$ 18,979.79
Security & Electrical Misc					\$	53,143.40						\$ 53,143.40
Roselawn	\$	-	\$ -	\$ - \$	- \$	-	\$ 38,688.		- \$	-		\$ 38,688.39
Security & Electrical Misc							\$ 38,688.					\$ 38,688.39
West St. Paul	\$	-	-	\$ - \$	- \$	-	\$	- \$ 40,235.93	- \$	-		\$ 40,235.93
Security & Electrical Misc								\$ 40,235.93				\$ 40,235.93
Beebe	\$	-	-	\$ - \$	- \$	37,200.38	\$	- \$ - \$	-   \$	-		\$ 37,200.38
Security & Electrical Misc			<b>*</b>	0.510.57	\$	37,200.38	<b>*</b>	4 07.050.00				\$ 37,200.38
St. Anthony  Replace Bituminous Driveway	\$	-	-	\$ 8,516.57 \$ \$ 8,516.57	- \$	-	\$	- \$ 67,059.88	-   \$	-		\$ 75,576.45 \$ 8,516.57
Replace Floor Paint				0,310.37				\$ 9,579.98				\$ 9,579.98
Security & Electrical Misc								\$ 57,479.90				\$ 57,479.90
Highland #1	\$	-	\$ -	\$ - \$	-   \$		\$ 27,634.		\$ - \$			\$ 559,920.21
Replace Restroom Fixtures	Ψ		Ψ	Ψ	Ψ		Ψ 27,004.	\$ 5,849.29	Ψ			\$ 5,849.29
Security & Electrical Misc							\$ 27,634.	57 \$ -				\$ 27,634.57
Replace Pumps and Valves								\$ 526,436.35				\$ 526,436.35
Highland #2	\$	-	\$ -	\$ - \$	- \$	-	\$ 27,634.	57 \$ - 5	- \$	-		\$ 27,634.57
Security & Electrical Misc							\$ 27,634.	57				\$ 27,634.57
West Side	\$	43,264.00	\$ -	\$ - \$	30,416.32 \$	-	\$	- \$ 57,479.90	- \$			\$ 131,160.22
Replace Bituminous Driveway and Walk	\$	43,264.00										\$ 43,264.00
Drainage Improvements				\$	30,416.32							\$ 30,416.32
Security & Electrical Misc								\$ 57,479.90				\$ 57,479.90
Mailand	\$	-	-	- \$	69,835.88 \$	-	\$	- \$ - 5	-   \$	-		\$ 69,835.88
Replace Concrete Driveway				\$	34,066.28							\$ 34,066.28
Security & Electrical Misc				\$	35,769.60							\$ 35,769.60
Altitude Valve Replacement	\$	-	\$ -	\$ - \$	- \$	-	\$	- \$ - \$	- \$	650,000.00		\$ 650,000.00
General Contingency	\$	50,000.00	\$ 50,000.00	\$ 50,000.00 \$	75,000.00 \$	75,000.00	\$ 75,000.	00 \$ 75,000.00 \$	75,000.00 \$	75,000.00		\$ 600,000.00
Water Main Replacement - Tier 3 (~125 year												
Replace Cycle, 9.50 mi/yr) Capital and	\$	_	\$ -	\$ - \$	-  \$	_	\$ 1,000,000.0	2,000,000.00	3,850,000.00 \$	4,000,000.00 \$	4,120,000.00	\$ 14,970,000.00
Surcharge										,		, ,,,,,,,,
Water Main Replacement - Tier 4 (~100 year			Φ.				Φ.	4	5 770 000 00	0.000.000.00	0.460.000.60	A 47 050 000 00
Replace Cycle, 11.87 mi/yr) Capital and	\$	-	\$ -	\$ -  \$	-  \$		\$	-  \$	5,770,000.00 \$	6,000,000.00   \$	6,180,000.00	\$ 17,950,000.00
Surcharge												
Tunnel Rehabilitation - Tier 2	\$	-	\$ -	\$	383,000.00 \$	686,000.00		592,000.00	633,000.00 \$	676,000.00 \$	-	\$ 3,594,000.00
Campus Cap TBD	\$	-	\$ -	\$ - \$	- \$	-	\$	- \$	- \$	- \$	-	\$ -

								Project Year					
		2025	2026	2027	2028	2029		2030	2031	2032	2033	2034	Total 10 Year
						Production	Division	n					
Production Total	\$	16,036,000.00	\$ 4,955,000.00 \$	2,770,000.00	\$ 5,111,000		000.00 \$		4,008,000.00	\$ 5,152,000.00	\$ 4.188.000.00	\$ 22,715,000.00	\$ 86,485,000.00
Anticipated Debt/Grant Funding	Φ	12,000,000.00		2,770,000.00	Ψ 5,111,000		000.00 \$			φ 5,152,000.00 ¢	¢ 4,100,000.00	\$ 18,000,000.00	
	φ .									φ <del>-</del>	<del>-</del>		
Total Revenue Funded	\$	4,036,000.00	\$ 4,955,000.00 \$	2,770,000.00	\$ 5,111,000	.00 \$ 3,266	000.00 \$	3,284,000.00 \$	4,008,000.00	\$ 5,152,000.00	\$ 4,188,000.00	\$ 4,715,000.00	\$ 41,485,000.00
Buildings, Structures, and Properties	\$	45,000.00	\$ 150,000.00 \$	1,150,000.00	\$	- \$ 7,500	,000.00 \$	8,850,000.00 \$	680,000.00	-	\$ -	\$ 400,000.00	\$ 18,775,000.00
Sump Pump Improvements (Pump Room Sub-Floor)		\$15,000.00											\$ 15,000.00
Sump Pump System Replacement - Dewatering Building		\$15,000.00											\$ 15,000.00
Thickener Building Sump Pump Replacement		\$15,000.00						#200 000 00					\$ 15,000.00
Groundskeeping Storage Facilities (McCarron's Campus)  Surge Tank Construction (in Prep. For LS Reservoir Demo.)			\$150,000.00	\$1,150,000.00				\$330,000.00					\$ 330,000.00 \$ 1,300,000.00
Low Service Reservoir Replacement			\$130,000.00	φ1,130,000.00		\$ 7	500,000.00 \$	7,500,000.00					\$ 15,000,000.00
Fire Alarm System Upgrades						ν,	σοσ,σοσ.σο φ	7,000,000.00	\$180,000.00				\$ 180,000.00
Campus Repaying								\$220,000.00	<b>4</b> .00,000				\$ 220,000.00
Roof Replacement								\$800,000.00	\$500,000.00				\$ 1,300,000.00
Building Upgrades 2034												\$ 400,000.00	\$ 400,000.00
Electrical, SCADA, and Operational Technolog	gy \$	497,000.00	\$ 195,000.00 \$	240,000.00	\$ 220,000	00 \$ 695,	000.00 \$	845,000.00 \$	1,515,000.00	\$ 685,000.00	\$ 130,000.00	\$ 885,000.00	\$ 5,907,000.00
Replace 2 SLC PLCs in WTP		\$78,000.00											\$ 78,000.00
Electrical - Purchase Fiber Splicing Tools & Testing Tools		\$20,000.00											\$ 20,000.00
Electrical - Infrared Camera to Spot Electrical Issues		\$12,000.00											\$ 12,000.00
Replace or Add SCADA Instruments to Improve Critical Data Accuracy		\$35,000.00											\$ 35,000.00
Turbidimeter Improvements		\$62,000.00											\$ 62,000.00
Replace 13 Remaining SLC PLCs at Remote Sites		\$150,000.00	\$ 150,000.00 \$	150,000.00	\$ 175,00	0.00							\$ 625,000.00
Standardize SCADA Interfaces for McCarron's WTP		\$140,000.00		·									\$ 140,000.00
Replacement of SCADA Infrastructure			\$45,000.00	\$45,000.00	\$45,000.00	\$45,000.0	)	\$45,000.00	\$45,000.00	\$85,000.00	\$85,000.00	\$85,000.00	\$ 525,000.00
Replace All Remaining SLC PLCs at Vadnais Station				\$45,000.00									\$ 45,000.00
W64 and W72 Power Feed - Remote Monitoring									\$70,000.00				\$ 70,000.00
Electrical Improvements on McCarron's Campus								\$800,000.00 \$	1,400,000.00			\$ 350,000.00	\$ 2,550,000.00
Chemical Delivery Panel for Central Chemical Areas											\$45,000.00		\$ 45,000.00
SCADA Redundancy in Communications to Dewatering										\$200,000.00			\$ 200,000.00
Switchgear H Replacement						\$650,000.0	0						\$ 650,000.00
Add Thickener Building to 480 V Electrical Loop										\$400,000.00			\$ 400,000.00
SCADA System Refresh 2035												\$ 450,000.00	·
Lab Operations	\$	80,000.00	\$ 68,000.00 \$	18,000.00	\$ 18,000	00 \$ 18	000.00 \$	18,000.00   \$	18,000.00	\$ 430,000.00	\$ 30,000.00	\$ 30,000.00	\$ 728,000.00
Replacement of Autotitrator Lab Equipment		\$80,000.00											\$ 80,000.00
Microwave Digester Replacement			\$50,000.00										\$ 50,000.00
Purchase of Water Quality Monitoring Devices for Distribution System			\$18,000.00	\$18,000.00	\$18,000.00	\$18,000.0	)	\$18,000.00	\$18,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$ 198,000.00
ICPMS Machine with Autosampler										\$400,000.00			\$ 400,000.00
Raw Water Supply System	\$	450,000.00	\$ 1,680,000.00 \$	250,000.00	\$ 1,098,000	00 \$ 1,970	000.00 \$	500,000.00 \$	565,000.00	\$ 1,200,000.00	\$ 500,000.00	\$ 700,000.00	\$ 8,913,000.00
Copper Sulfate Chemical Feed (Pleasant Lake)		,		,	\$280,000.00			,	,	, ,	,	,	\$ 280,000.00
Raw Water Conduit Rehabilitation (Concrete)		\$250,000.00	\$250,000.00	\$250,000.00	\$500,000.00	\$500,000.0	0	\$500,000.00	\$500,000.00	\$500,000.00	\$500,000.00	\$700,000.00	\$ 4,450,000.00
Vadnais Campus Air Conditioning						\$25,000.0	)						\$ 25,000.00
Vadnais Gatehouse Improvements		\$200,000.00	\$1,200,000.00										\$ 1,400,000.00
Obtain Water Supply to Vadnais Campus						\$200,000.0	0						\$ 200,000.00
Pleasant Lake Gatehouse Improvements					\$200,000.00	\$1,200,000	00						\$ 1,400,000.00
Replace Two Chemical Feed Pumps at Vadnais				<u></u>	\$43,000.00								\$ 43,000.00
Vadnais Ferric Chloride Tank Replacement					\$75,000.00								\$ 75,000.00
Replace Two Chemical Feed Pumps at Fridley						\$45,000.0	)						\$ 45,000.00
Vadnais Copper Sulfate Tank Replacement									\$65,000.00				\$ 65,000.00
Lake Oxygenation Systems			\$ 230,000.00										\$ 230,000.00
Capital Investments in Raw Water Supply Wells										\$700,000.00			\$ 700,000.00
Treatment Processes and Equipment	\$	1,154,000.00	\$ 1,944,000.00 \$	369,000.00		00 \$ 215,	000.00 \$	40,000.00   \$	941,000.00	\$ 1,242,000.00	\$ 1,993,000.00		
Filter Gallery Valving and Piping Improvements		\$400,000.00			\$465,000.00								\$ 865,000.00
Air Scour Blower Purchase and Installation		\$405,000.00											\$ 405,000.00

						Project Year					
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total 10 Year
Monochloramine Analyzer Purchase (FWR)	\$29,000.00										29,000.00
Shelf Spare/Redundant Pump for Filter Press Supply	\$50,000.00										50,000.00
Reclaim Basin Float Replacement	\$40,000.00										\$ 40,000.00
Pump Floor Vacuum Pump Replacement/Addition	\$60,000.00										\$ 60,000.00
Replace Two Chemical Feed Pumps for Fluoride (McCarron's)	\$35,000.00										\$ 35,000.00
Transfer Pump for Phosphoric Acid	\$15,000.00										15,000.00
WTP Water Quality Instruments Replacement/Upgrades	\$35,000.00	\$36,000.00	\$37,000.00	\$38,000.00	\$39,000.00	\$40,000.00	\$41,000.00	\$42,000.00	\$43,000.00		\$ 351,000.00
Piping Evaluation and Improvements (Sub-floor, Pump Room)	\$85,000.00	\$290,000.00					\$300,000.00				\$ 675,000.00
Sludge Press Replacement		\$1,350,000.00									1,350,000.00
Dewatering - Core Blow Pump Replacement		\$40,000.00									\$ 40,000.00
Replace Four Chemical Feed Pumps Used for Dosing Sodium Hydroxide (McCarron's)		\$78,000.00									\$ 78,000.00
Chlorine and Ammonia Evaporator Replacements		\$90,000.00									\$ 90,000.00
Wastewater Handling Improvements (Consider Plate Settlers for Sludge Lagoon Loading Reduction)		\$ 60,000.00	\$250,000.00	\$1,450,000.00							1,760,000.00
Replace Four Chemical Feed Pumps Used for Dosing Ferric Chloride (McCarron's)			\$82,000.00								\$ 82,000.00
Air Compressor Replacement - Dewatering Building				\$80,000.00							\$ 80,000.00
Air Compressor Replacement - Chlorine and Ammonia Building				\$16,000.00							16,000.00
Sludge Press Replacement #2				\$1,350,000.00							1,350,000.00
Fluoride Tank Replacement				\$170,000.00							\$ 170,000.00
Ferric Chloride Tank Replacement (if needed)					\$176,000.00						\$ 176,000.00
GAC Filter Media Replacement							\$600,000.00	\$1,200,000.00	\$600,000.00	\$2,400,000.00	4,800,000.00
Sludge Press Replacement #3									\$1,350,000.00		1,350,000.00
On Site Chlorine Generation	ф 200,000,00	ф 202,000,00	ф 21F 000 00 ф	120,000,00	ф 200 000 00 ф	404,000,00	ф 210,000,00 ф	225.000.00	ф 20E 000 00	\$18,000,000.00	\$ 18,000,000.00
Vehicles and Major Equipment	\$ 200,000.00	\$ 363,000.00	\$ 215,000.00 \$	136,000.00	\$ 298,000.00 \$	461,000.00	\$ 219,000.00 \$	225,000.00	\$ 265,000.00	\$ 300,000.00	2,682,000.00
2025 Production Vehicle Replacements & Repairs 2026 Production Vehicle Replacements & Repairs	\$200,000.00	\$290,000.00									200,000.00
Purchase Skid Steer		\$38,000.00									\$ 290,000.00 \$ 38,000.00
Purchase of a Wood Chipper for Vadnais Grounds Maintenance		\$35,000.00									35,000.00
2027 Production Vehicle Replacements & Repairs		773,37333	\$215,000.00								\$ 215,000.00
2028 Production Vehicle Replacements & Repairs			, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	\$136,000.00							136,000.00
Replace Boat Used for Lake Samples					\$ 18,000.00					:	\$ 18,000.00
2029 Production Vehicle Replacements & Repairs					\$280,000.00						\$ 280,000.00
2030 Production Vehicle Replacements & Repairs						\$396,000.00					396,000.00
Purchase New Tractor for Vadnais Team						\$65,000.00					\$ 65,000.00
2031 Production Vehicle Replacements & Repairs							\$219,000.00				\$ 219,000.00
2032 Production Vehicle Replacements & Repairs								\$225,000.00			\$ 225,000.00
2033 Production Vehicle Replacements & Repairs									\$265,000.00		\$ 265,000.00
2034 Production Vehicle Replacements & Repairs										\$300,000.00	\$ 300,000.00
Comprehensive Projects	\$ 13,500,000.00	\$ 300,000.00	\$ 450,000.00 \$	-	\$ - \$	-	\$ - \$	1,300,000.00	\$ 1,200,000.00	:	16,750,000.00
Fridley Intake and Pump Station Improvements	\$1,500,000.00										_,,
McCarron's Water Treatment Plant Improvements	\$12,000,000.00										\$ 12,000,000.00
McCarron's Pumping - Replace 125 V DC Valve Controllers for Pumps		\$300,000.00	2452 222 22								\$ 300,000.00
Low Service Pump Replacement			\$450,000.00					¢4 200 000 00			\$ 450,000.00
High Service Pump Replacement  Yard Piping Improvements				+				\$1,300,000.00	\$1,200,000.00		\$ 1,300,000.00 \$ 1,200,000.00
	¢ 110,000,00	¢ 255,000,00	¢ 78,000,00 ¢	70,000,00	¢ 70,000,00 ¢	70,000,00	¢ 70,000,00 ¢	70,000,00			
Misc. Small Capital Expenditures	\$ 110,000.00	\$ 255,000.00	\$ 78,000.00 \$	70,000.00	\$ 70,000.00 \$	70,000.00	\$ 70,000.00 \$	70,000.00	\$ 70,000.00		863,000.00
Replace Sewage Ejector Pump or Reroute Sewer Lines WTP Equipment Replacements (Annual Allocation)	\$10,000.00 \$100,000.00	\$100,000.00	\$70,000.00	\$70,000.00	\$70,000.00	\$70,000.00	\$70,000.00	\$70,000.00	\$70,000.00		\$ 10,000.00 \$ 690,000.00
Budget Reserve - Software Purchases/Upgrades for Production	φ 100,000.00		φ/υ,υυυ.υυ	φιυ,υυυ.υυ	φ/υ,υυυ.υυ	φτυ,υυυ.υυ	\$70,000.00	φ10,000.00	φ10,000.00		
	1	\$95,000.00	i l				l l				95,000.00
Softwares Conversion of Existing Lab Space into Storage/Warehouse		·									
Softwares		\$60,000.00	\$8,000.00								\$ 60,000.00 \$ 8,000.00



# **Water Supply Projects**

2025 – 2034 Capital Improvement Plan

**Saint Paul Regional Water Services** 

**Project** 

Vadnais Gatehouse Improvements

Name

vadriais Gateriouse improvement

**Division** Production

Infrastructure Category

Supply system

Work type

Rehabilitation

#### **Project Description**

Extensively rehabilitate or reconstruct both the east and the west Vadnais gatehouse as part of a coordinated, multiyear effort.

#### **Background**

Two gatehouses located at Vadnais lake play a vital role in supplying water to the SPRWS system. These gatehouses contain screening infrastructure, and, more essentially, gates and other water stopping devices that allow us to drain raw water conduits for maintenance activities.

These gatehouses are very old and are in need of improvements. Water stopping infrastructure no longer complies with OSHA standards for entry into the gatehouse facility since there is only a single gate/valve holding back the water. Ultimately, the gate houses do not present our team with safe and straightforward ways to maintain essential infrastructure.

This project will improve both gatehouses on site via reconstruction or extensive rehabilitation of the gatehouses.



#### Strategic Plan Goal

Infrastructure strategy and performance

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Planning	Q4 2024
Design	Q1-Q2 2025
Construction	Q4 2025 - Q3 2026
Completion	Q3 2026

#### **Operational Implications**

Upon completion, we expect to be able to return to maintaining the gate structures as usual, which we're prevented from doing presently.

#### **Project References**

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	200k	1200k									1400k
Bond											0k
Grant											0k
Total	200k	1200k	0k	1400k							
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	200k	1200k									1400k
Total	200k	1200k	Ωk	1400k							

**Project** 

Division

Raw Water Conduit Rehabilitation (Concrete)

Name

Production

Infrastructure Category

Supply system

Work type

Rehabilitation

#### **Project Description**

SPRWS will hire a contractor to make repairs to 60" concrete conduits. Repairs include patching cracked/spalled concrete and improving seals at pipe joints.

SPRWS crews support this work by dewatering the conduits and maintaining a safe work environment for hired crews.

#### **Background**

SPRWS owns and maintains a pair of redundant raw water supply lines that carry water from the Mississippi River (at the Fridley Pump Station) to the lake system and then to the McCarron's Plant. These lines are vital to our operations. Maintaining them is particularly important given that the lines are large-diameter (60" to 90") and are routed through developed areas. If these lines are not adequately maintained and replacement becomes necessary, the cost of the replacement would be tremendous.

In 2017, AECOM's identified appropriate rehabilitation work and laid out a 20 year program for protecting these lines. The rehabilitation program was launched in the winter of 2021/22. Each year, we aim to rehabilitate about 2,000 feet of conduit, putting us on track to complete the 8 miles of conduit work in around 20 years.



Strategic Plan Goal	Schedule	Schedule			
Infrastructure strategy and performance	Planning	2017-2021			
	Design	2017-2021			
	Construction	2021-2042			
	Completion	2042			

#### **Operational Implications**

This project involves considerable investment from staff, particularly crews from the Vadnais team who are responsible for dewatering conduits. Dewatering conduits requires maintaining dewatering pumps, sandbagging some areas, etc. and is labor and material intensive. Roughly 1/4 of the total cost of the work is attributable to staff time and SPRWS-purchased materials.

#### **Project References**

Documentum -> Reports -> Raw Water Conduit Assessment by AECOM in 2017 (N File N-7278)

Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	250k	250k	250k	500k	500k	500k	500k	500k	500k	700k	4,450k
Bond											0k
Grant											0k
Total	250k	250k	250k	500k	500k	500k	500k	500k	500k	700k	4450k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	250k	250k	250k	500k	4250k						
Total	250k	250k	250k	500k	4250k						

**Project** Lake Oxygenation System Rehabilitation Name

Infrastructure Category

Supply system

Division Production Work type Rehabilitation

#### **Project Description**

Rehabilitate oxygenation systems in Pleasant Lake and in Vadnais Lake

#### Background

SPRWS utilizes oxygenation systems in both Pleasant and Vadnais Lakes. Per discussion with SPRWS staff (primarily Che Fei Chen), we understand that these systems may be degrading and operating inefficiently. This could cause inefficient chemical usage or, eventually, problems with the lakes becoming anaerobic which could lead to taste and odor problems.



Strategic Plan Goal	Schedule				
	Planning	Q3-Q4 2025			
	Design	Q1-Q2 2026			
	Construction	Q3-Q4 2026			
	Completion	Q4 2026			

#### **Operational Implications**

This project should help to reduce the volume of oxygen that we need to purchase to effectively oxygenate the lakes.

#### **Project References**

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital		230k									230k
Bond											0k
Grant											0k
Total	0k	230k	0k	230k							
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution		230k									230k
Total	0k	230k	0k	230k							

Project
Name
Copper Sulfate Chemical Feed (Pleasant Lake)

Infrastructure Category

Supply system

**Division** Production

Work type Expansion

#### **Project Description**

SPRWS will add a copper sulfate feed system at Pleasant Lake. This system will protect the conduits and the canal that flow from Pleasant Lake into Sucker Lake, an area of the raw water supply system that is currently unprotected from zebra mussels. This system would allow for continuous low doses of copper sulfate.

#### **Background**

In recent years, zebra mussels have been challenging for SPRWS staff to deal with and damanging to SPRWS's infrastructure. When uncontrolled, the mussels grow throughout the raw water system, plugging conduits, screens, and other infrastructure.

Fortunately, SPRWS has invested in controlling zebra mussels throughout the raw water supply system and has been able to control zebra mussels in many areas because of those investments.

SPRWS feeds copper sulfate (EarthTec QZ) at the entrance of the conduits leaving Vadnais Lake already. This system has been very effective. Further, SPRWS piloted copper sulfate feed at Pleasant Lake in 2023 by dosing 55 gallons of the chemical every 2 weeks through the summer months.



Strategic Plan Goal	Schedule	Schedule			
High performing workforce	Test Period	Summer 2023 to Summer 2027			
Infrastructure strategy and performance	Design	Q1 and Q2 2028			
	Construction	Q2 and Q3 2028			
	Completion	Q3 2028			

#### **Operational Implications**

Operating this system will require the purchase of Copper Sulfate, which comes at considerable expense. Maintenance expenses will be reduced since cleanouts will become less frequent

#### **Project References**

1											
	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital				280k							280k
Bond											0k
Grant											0k
Total	0k	0k	0k	280k	0k	0k	0k	0k	0k	0k	280k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution				280k							280k
Total	0k	0k	0k	280k	0k	0k	0k	0k	0k	0k	280k

		ī					
Project Name	Vadnais Ferric Chloride Tank Replacement	Infrastructure Category	Supply system				
Division	Production	Work type	Replacement				
Project Des	cription storage tank for Ferric Chloride at the Vadnais						
Campus	5						
Daakana							
	chloride tank for the Vadnais Campus appears to be						
	end of its useful life and has had issues with leaks						
	Ferric chloride addition in Vadnais Lake effectively form of pre-treatment for water before it reaches the						
	WTP. As such, it's important for is to maintain this						
	ed system, which requires the use of a reliable						
storage tank							
Ctuata :: : D	lan Cool	Cohodulo					
Strategic Pl	Infrastructure strategy and performance	Schedule Planning	2027				
	Quality water	Design	2021				
	<b>,</b>	Construction	2028				
ı		Completion	2028				
Operationa	Implications	Project References					
	ful changes expected						
<u>NOTES</u>							

1											
	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital				75k							75k
Bond											0k
Grant											0k
Total	0k	0k	0k	75k	0k	0k	0k	0k	0k	0k	75k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution				75k							75k
Total	0k	0k	0k	75k	Ωk	0k	0k	Ωk	0k	Ωk	75k

Project Name	Replace Two Chemical Feed Pumps at Vadnais	Infrastructure Category	Building and grounds
Division	Production	Work type	Rehabilitation

#### **Project Description**

Replace two pumps used for dosing ferric chloride at Vadnais

#### Background

SPRWS operates 14 liquid chemical feed pumps. They are utilized for dosing precise amounts of water treatment chemicals, and they play a vital role in our operations.

The existing pumps are old, are becoming more maintenance intensive, and are experiencing more down time due to failures. In short, reliability is growing to be more of an issue. Further, older pumps have less ability to precisely meter and monitor chemical feed rates, and state reporting is requiring more detailed chemical feed rate reporting.

Replacing chemical feed pumps over the course of the coming years will improve redundancy and reliability and will improve our ability to monitor chemical use.



Strategic Plan Goal	Schedule					
Infrastructure strategy and performance	Planning	2027				
Quality water	Design					
	Construction	2028				
	Completion	2028				
	•					
Operational Implications	Project References					

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital				43k							43k
Bond											0k
Grant											0k
Total	0k	0k	0k	43k	0k	0k	0k	0k	0k	0k	43k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution				43k							43k
Total	0k	0k	0k	43k	0k	0k	0k	0k	0k	0k	43k

 Project Name
 Pleasant Lake Gatehouse Improvements
 Infrastructure Category
 Supply system

 Division
 Production
 Work type
 Rehabilitation

#### **Project Description**

Extensively rehabilitate or reconstruct both of the Pleasant Lake gatehouse as part of a coordinated, multiyear effort.

#### **Background**

Two gatehouses located at Pleasant lake play a vital role in supplying water to the SPRWS system. These gatehouses contain screening infrastructure, and, more essentially, gates and other water stopping devices that allow us to drain raw water conduits for maintenance activities.

These gatehouses are very old and are in need of improvements. Water stopping infrastructure no longer complies with OSHA standards for entry into the gatehouse facility since there is only a single gate/valve holding back the water. Ultimately, the gate houses do not present our team with safe and straightforward ways to maintain essential infrastructure.

This project will aim to improve both gatehouses on site via reconstruction or extensive rehabilitation of the gatehouses.



Strategic Plan Goal	Schedule			
Infrastructure strategy and performance	Planning	2027		
High performing workforce	Design	2028		
	Construction	2028-2029		
	Completion	2029		

#### **Operational Implications**

Reduction in maintenance needs and reliability concerns with the pump station network.

#### Project References

Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital				200k	1,200k						1,400k
Bond											0k
Grant											0k
Total	0k	0k	0k	200k	1200k	0k	0k	0k	0k	0k	1400k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution				200k	1200k						1400k
Total	0k	0k	0k	200k	1200k	0k	0k	0k	0k	0k	1400k

Project<br/>NameVadnais Campus Air ConditioningInfrastructure CategoryBuilding and groundsDivisionProductionWork typeExpansion

#### **Project Description**

Add an air conditioning unit (or a ductless minisplit unit) to the Vadnais office/cafeteria area.

#### **Background**

The Vadnais station is home to a significant portion of the Production division workforce. The workers who are based in this area are typically out in the summer heat throughout the day but spend a meaningful amount of time working, eating, meeting, etc. on the Vadnais campus. Additionally, some of the managers at the Vadnais campus spend a substantial amount of their time working indoors on the campus. Currently the main building doesn't have any air conditioning. As a result, the Vadnais team ends up using window air conditioning units throughout the summer months, but finds that it's fairly ineffective and inefficient.

This project would target portions of the Vadnais facility that are utilized during the summer months so that we can keep those spaces comfortable for staff.



Strategic Plan Goal	Schedule				
High performing workforce	Planning	2028			
	Design				
	Construction	2029			
	Completion	2029			
Operational Implications	Project References				

Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital					25k						25k
Bond											0k
Grant											0k
Total	0k	0k	0k	0k	25k	0k	0k	0k	0k	0k	25k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution					25k						25k
Total	0k	0k	0k	0k	25k	0k	0k	0k	0k	0k	25k

Project Name Obtain Water Supply to Vadnais Campus

Infrastructure Category Watermain

**Division** Production

Work type Expansion

#### **Project Description**

Install a service line to supply the Vadnais campus with water. Coordinate with Vadnais Heights to make this happen.

#### Background

The Vadnais campus does not have a city water supply. As a result, they are forced to utilize untreated well water for most purposes and to purchase bottled water for consumption. Several discussions with Vadnais Heights have been unfruitful in the past.

Money budgeted as a placeholder under the assumption that we may need to cover some of the costs of supplying water to campus.



Strategic Plan Goal	Schedule	Schedule				
Infrastructure strategy and performance	Planning	2028				
	Design					
	Construction	2029				
	Completion	2029				
	•					

**Operational Implications** 

Project References

1											
Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital					200k						200k
Bond											0k
Grant											0k
Total	0k	0k	0k	0k	200k	0k	0k	0k	0k	0k	200k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution					200k						200k
Total	0k	0k	0k	Ωk	200k	0k	Ωk	0k	0k	0k	200k

Project Name	Replace Two Chemical Feed Pumps at Fridley	Infrastructure Category	Supply system
Division	Production	Work type	Replacement

#### **Project Description**

Replace two pumps used for dosing ferric chloride at Fridley

#### **Background**

SPRWS operates 14 liquid chemical feed pumps. They are utilized for dosing precise amounts of water treatment chemicals, and they play a vital role in our operations.

The existing pumps are old, are becoming more maintenance intensive, and are experiencing more down time due to failures. In short, reliability is growing to be more of an issue. Further, older pumps have less ability to precisely meter and monitor chemical feed rates, and state reporting is requiring more detailed chemical feed rate reporting.

Replacing chemical feed pumps over the course of the coming years will improve redundancy and reliability and will improve our ability to monitor chemical use.



Strategic Plan Goal	Schedule	Schedule				
Infrastructure strategy and performance	Planning	2028				
	Design					
	Construction	2029				
	Completion					
Operational Implications	Project References	Project References				

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital					45k						45k
Bond											0k
Grant											0k
Total	0k	0k	0k	0k	45k	0k	0k	0k	0k	0k	45k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution					45k						45k
Total	0k	0k	0k	0k	45k	0k	0k	0k	0k	0k	45k

		1					
Project Name	Vadnais Copper Sulfate Tank Replacement	Infrastructure Category Supply system					
Division	Production	Work type	Replacement				
Project Desc							
Replace the	copper sulfate tank at the Vadnais Campus						
Background							
mussel contr maintenance capacities in	Is copper sulfate at the Vadnais campus for zebra ol. This chemical cuts down on the need for regular on raw water infrastructure and maintains full flow the raw water system. The storage tank for this						
exposure. A	ocated outdoors and is subject to sunshine and UV s such, we anticipate that we may need to replace his timeframe.						
inis tank in ti	iis umerrame.						
Strategic Pla	an Goal_	Schedule					
	Quality water	Planning	2030				
	Infrastructure strategy and performance	Design					
		Construction	2031				
		Completion	2031				
<u>Operational</u>	<u>Implications</u>	Project References					
NOTES							
<u>NOTES</u>							
	Note: Devenue and Evnen	sos Bolow aro in Thousand					

Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital							65k				65k
Bond											0k
Grant											0k
Total	0k	0k	0k	0k	0k	0k	65k	0k	0k	0k	65k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution							65k				65k
Total	0k	0k	0k	0k	0k	0k	65k	0k	0k	0k	65k

Project Name	Capital Investments in Raw Water Supply Wells	Infrastructure Category	Supply system
Division	Production	Work type	Rehabilitation

#### Project Description

Rehabilitate raw water supply wells to ensure that they are in good condition for continued use as an emergency backup system.

#### Background

Our raw water supply roles play a vital role in providing redundancy to our supply system. While they are used infrequently, they remain a highly valuable asset and need to be maintained wisely.



Strategic Plan Goal	Schedule						
Infrastructure strategy and performance	Planning	2031					
	Design						
	Construction	2032					
	Completion	2032					
	•						
Operational Implications	Project References						

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital								700k			700k
Bond											0k
Grant											0k
Total	0k	0k	0k	0k	0k	0k	0k	700k	0k	0k	700k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution								700k			700k
Total	0k	0k	0k	0k	0k	0k	0k	700k	0k	0k	700k

Project Fridley Inf

Fridley Intake and Pump Station Improvements

Name

**Division** Production

Infrastructure Category

Supply system

Work type

Rehabilitation

#### **Project Description**

The Fridley Intake and Pump Station is a critical component of the raw water supply system for SPRWS. Various aspects of the station are in need of improvement. Improvement needs include: replacement of electrical gear, flood protection, correcting erosion around the foundation, fixing leaks in walls and roof, and more.

#### **Background**

Needs related to the Fridley Pump Station have been identified in reports by HR Green (2023) and GEI Consultants (2016). Needs have also been identified by SPRWS staff members. Production and Engineering Division management and field staff began meeting on site to quantify all needs in Q4 of 2023 and will be working to prioritize needs and develop a robust project scope in Q4 of 2024.



Strategic Plan Goal	Schedule	Schedule					
Infrastructure strategy and performance	Planning	Q4 2023 to Q2 2024					
	Design	Q4 2024 to Q3 2025					
	Construction	Q3 2025 to Q3 2026					
	Completion	Q3 2026					
		·					

#### NOTES

\$1.9 Million has been budgeted for 2024. It's unlikely that 2024 expenditures will be nearly that high as 2024 is expected to be primarily a year devoted to internal project scoping, procurement, and design work. Expenses are expected to be considerably higher in 2025 and 2026.

TOTAL PROJECT BUDGET (INCLUDING 2024 FUNDS) IS \$3.4 MILLION

#### Project References

V:\Engineering\Engineering Projects\N7388 - Fridley Intake and Pump Station Improvements\Reports\Pre-Existing Reports
"2016 GEI Structural Assessment of Fridley Pump Station.pdf"
"2023 Pump Station Master Plan from HR Green.pdf"
V:\Engineering\Engineering Projects\N7388 - Fridley Intake and Pump Station Improvements\Project Management

"Fridley Pump Station Issues Log.docx" Condition assessment report Feasibility report Cost estimates

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	1500k										1500k
Bond											0k
Grant											0k
Total	1500k	0k	1500k								
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	1500k										1500k
Total	1500k	0k	1500k								



# **Water Treatment Projects**

2025 – 2034 Capital Improvement Plan

**Saint Paul Regional Water Services** 

Project

Division

Filter Gallery Valving and Piping Improvements

Name

Production

Infrastructure Category

Plant & treatment

Work type

Rehabilitation

#### **Project Description**

Assess pipes and valves in the filter gallery. Prioritize replacements based on risk assessments while also weighing the operational impacts associated with the necessary filter shutdowns.

Perform the recommended replacements over the following years.

## **Background**

SPRWS operates 24 filters, which are essential to the drinking water treatment process. Water flowing into and out of these filters passes through large-diameter pipes and valves. There's also substantial piping and valving that supports filter backwash and air scouring in this area.

The piping and valving in this area shows significant signs of corrosion both on the pipe interior and the pipe exterior. As an example of interior corrosion, when a filter is started after a long period offline, the water entering the filter is often turbid with iron particles. This internal corrosion may be causing turbidity issues and is indicative of the fact that the pipes may be approaching the end of their useful lives. Exterior corrosion is visible in some places and has been observed when punctures and leaks in the pipe appear.



Strategic Plan Goal	Schedule	Schedule					
Infrastructure strategy and performance	Planning	Q3 and Q4 2024					
Quality water	Design	Q1 to Q3 of 2025					
	Construction	2025-2028					
	Completion	2028					

## **Operational Implications**

#### **Project References**

SPRWS will begin engineering work on this project in the fall/winter of 2024 using the Utility Services Master Contract

Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	400k			465k							865k
Bond											0k
Grant											0k
Total	400k	0k	0k	465k	0k	0k	0k	0k	0k	0k	865k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	400k			465k							865k
Total	400k	0k	0k	465k	0k	0k	0k	0k	0k	0k	865k

Project
Name

Air Scour Blower Purchase and Installation

Infrastructure Category

Plant & treatment

**Division** Production

Work type Expansion

#### **Project Description**

Purchase, install, and program a second Air Blower unit. This will provide redundancy in the backwashing process and will decrease our reliance on an old piece of essential equipment.

## Background

SPRWS operates 24 filters, which play a vital role in drinking water production. The filters require frequent backwashing to make sure that they continue to operate effectively and do not become plugged by sediments/deposits.

In addition to water, pressurized air is bubbled up through the media to reach fluidization. Without pressurized air, backwashing of the filter media would be insufficient to keep the media operable.

A single blower unit provides pressurized air for the backwashing process. Blowers of this type cannot be readily purchased and delivered within a short timeframe. Redundancy in equipment is appropriate here.



Strategic Plan Goal	Schedule	Schedule				
Infrastructure strategy and performance	Planning	Q4 2024				
Quality water	Design	Q1 2025				
	Construction	Q2 2025				
	Completion	Q3 2025				

#### **Operational Implications**

Possible energy savings from a more efficient new blower unit

#### **Project References**

SPRWS will begin engineering work on this project in the fall/winter of 2024 using the Utility Services Master Contract

Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	405k										405k
Bond											0k
Grant											0k
Total	405k	0k	405k								
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	405k										405k
Total	405k	0k	405k								

Project
Name
Hach 5500sc Silica Analyzer Purchase (FWR)

Infrastructure Category

Plant & treatment

**Division** Production

Work type

Expansion

#### **Project Description**

Purchase a shelf-spare Hach 5500 unit to ensure that chlorine and free ammonia readings in the finished water reservoir can continue, unimpeded in the event of a breakdown in the primary equipment.

## **Background**

We currently have two Hach 5500 meters installed to monitor chlorine and free ammonia in the Finished Water Reservoir. During normal operations, each unit is dedicated to one side of the FWR. When one unit is non-operational, the other unit is able to take readings of both sides but will only provide SCADA trends for a single side. (Dual trending is an expected improvement to be delivered in 2024.)

These measurements are necessary for regulatory compliance, so it is vital that at least one unit is functioning correctly at all times. The units have been unreliable in recent history (as of Jan. 2024).



Schedule	Schedule						
Planning	2024						
Design							
Construction	2025						
Completion	2025						
	Planning Design Construction						

**Operational Implications** 

**Project References** 

#### **NOTES**

Often, when the units breakdown, the issue is with a circuit board, which is not something that the SPRWS team is able to repair inhouse and which takes time to get fixed. This is evidenced by the fact that, currently, one of the two units has been broken for over a month. With the unreliability of the units and the repair timetable, it is a matter of time before both units are simultaneously non-functional and meeting regulatory monitoring requirements is a challenge.

	Note: Revenue and Expenses Below are in Thousands												
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Capital	29k										29k		
Bond											0k		
Grant											0k		
Total	29k	0k	29k										
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Distribution	29k										29k		
Total	29k	0k	29k										

Project Name Shelf Spare Pump for Filter Press Supply

Infrastructure Category Plan

Plant & treatment

**Division** Production

Work type Expansion

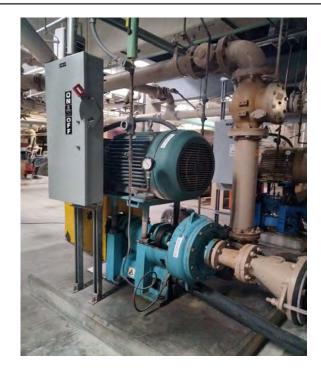
#### **Project Description**

Purchase a spare pump to improve our ability to handle a failure in the existing four filter press pumps.

## **Background**

Each of the four filter presses in the dewatering building is supplied with sludge by a single pump. Getting spare parts for pumps is increasingly challenging. As sludge pumps, we do not expect that their lifespan will be particularly long. A failure in one of these pumps will result in a shutdown of the filter press that it serves until the pump is replaced.

During summer months, shutting down a single filter press requires operators to work overtime to handle sludge volumes. Having two filter presses out of service will result in us not being able to keep up with sludge production rates in summer. With the filter presses already being old and vulnerable to failure themselves, operating without a shelf spare of these pumps is an unnecessary compounding of risk.



Strategic Plan Goal	Schedule	Schedule					
Infrastructure strategy and performance	Planning	Q4 2024					
	Design	Q1 and Q2 2025					
	Construction	Q3 2025					
	Completion	Q3 2025					
	-						

## **Operational Implications**

Reduced potential for extended overtime for SPRWS staff when a pump fails in the future

## Project References

	Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Capital	50k										50k	
Bond											0k	
Grant											0k	
Total	50k	0k	50k									
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Distribution	50k										50k	
Total	50k	0k	50k									

Project Name	Reclaim Basin Float Replacement	Infrastructure Category	Plant & treatment
Name Division	Production	Work type	Poplacoment
DIVISION	Floduction	Work type	Replacement
SCADA-conr	mechanical float switches in reclaim basins with nected sonar measuring tools.		
equipment a equipment its	ost of this project is assumed to be wiring of and SCADA programming. The measurement self is inexpensive.		
pumps when operational h up/tangled/e basin is emp	Description of the control of the state of the state of the start or shutoff. These floats have been an eadache for us. They occasionally get caught to causing pumps to continue running when the ty, or, on the flip side, creating a flooding risk for the dewatering if pumps fail to kick on when they		
	t with a sonar system, similar to what is utilized for rage tanks, is desirable.		
Strategic Pl	an Goal	Schedule	
	Infrastructure strategy and performance	Planning	Q3 2025
	221 23ta o chatogy and ponormano	Design	Q4 2025
			2026 (Install during reclaim cleanout)
		Completion	Q1 2026
Reduction in pump station	Implications maintenance needs and reliability concerns with the network.	Project References	
<u>NOTES</u>		1	

# Note: Revenue and Expenses Below are in Thousands

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	40k										40k
Bond											0k
Grant											0k
Total	40k	0k	40k								
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	40k										40k
Total	40k	0k	40k								

Project Name
Pump Floor Vacuum Pump Replacement/Addition Infrastructure Category Pumps

Division Production Work type Expansion

#### **Project Description**

Replace one of the existing vacuum pumps (described below) with a new, modern model OR install a third vacuum pump to limit risks associated with depending on such old infrastructure

## **Background**

High and low service pumps at the McCarron's Plant depend on smaller vacuum pumps. These pumps are used to prime the high and low service pumps. Without the successful operation of these vacuum pumps, it would not be possible to start high and low service pumps.

The existing vacuum pumps are believed to be from the 1950s. There are two of them, and only one is needed, so we have an acceptable level of redundancy for this critical equipment. Nonetheless, with both pumps being so old and serving such a vital purpose, we are concerned about the possibility of a simultaneous failure. We believe that either 1. One of the pumps should be replaced with a modern model or 2. A third, new pump should be added to the system to improve redundancy/reliability.



Strategic Plan Goal	Schedule	Schedule					
Infrastructure strategy and performance	Planning	2025					
	Design	2025					
	Construction	2025					
	Completion	2025					
	Completion	2025					

Operational Implications Project References

	Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Capital	60k										60k	
Bond											0k	
Grant											0k	
Total	60k	0k	60k									
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Distribution	60k										60k	
Total	60k	0k	60k									

 Project Name
 Replace Two Chemical Feed Pumps for Fluoride (McCarron's)
 Infrastructure Category
 Plant & treatment

 Division
 Production
 Work type
 Replacement

## **Project Description**

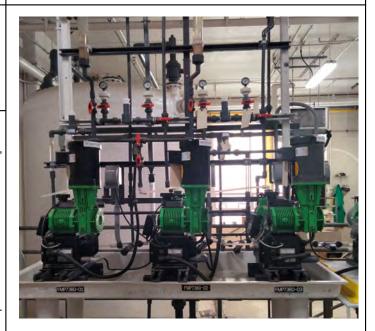
Replace two pumps used for dosing fluoride at McCarron's WTP

## Background

SPRWS operates 14 liquid chemical feed pumps. They are utilized for dosing precise amounts of water treatment chemicals, and they play a vital role in our operations.

The existing pumps are old, are becoming more maintenance intensive, and are experiencing more down time due to failures. In short, reliability is growing to be more of an issue. Further, older pumps have less ability to precisely meter and monitor chemical feed rates, and state reporting is requiring more detailed chemical feed rate reporting.

Replacing chemical feed pumps over the course of the coming years will improve redundancy and reliability and will improve our ability to monitor chemical use.



Strategic Plan Goal	Schedule	Schedule					
Quality water	Planning	2024					
	Design	2024					
	Construction	2025					
	Completion	2025					

<u>Operational Implications</u> <u>Project References</u>

	Note: Revenue and Expenses Below are in Thousands												
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Capital	35k										35k		
Bond											0k		
Grant											0k		
Total	35k	0k	35k										
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Distribution	35k										35k		
Total	35k	0k	35k										

**Project** Transfer Pump for Phosphoric Acid Name

Division Production Infrastructure Category

Plant & treatment

Expansion

Work type

#### **Project Description**

Replace the transfer pump for the phosphoric acid system & utilize the salvaged pump as a redundant pump for the new plant chemical feed systems.

## Background

Since installation of the phosphoric acid system, our team has noticed that the transfer pump for the system may be oversized. When it starts up, it causes the piping to shake violently, and it may increase the risk of leaks in the system.

This project will allow us to pull the existing transfer pump (which will be used as a shelf-spare for chemical feeds in the new treatment plant facility) and to purchase a smaller, appropriately sized transfer pump. This will enable the phosphoric acid system to run more smoothly while also improving redundancy in new chemical feed systems.



Strategic Plan Goal	Schedule	Schedule						
Quality water	Planning	2024						
	Design	2025						
	Construction	2025						
	Completion	2025						
	· · · · · · · · · · · · · · · · · · ·							

**Operational Implications** 

Project References

	Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Capital	15k										15k	
Bond											0k	
Grant											0k	
Total	15k	0k	15k									
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Distribution	15k										15k	
Total	15k	0k	15k									

**Project** WTP Water Quality Instruments

Name Replacement/Upgrades

**Division** Production Work type Replacement

Infrastructure Category

## **Project Description**

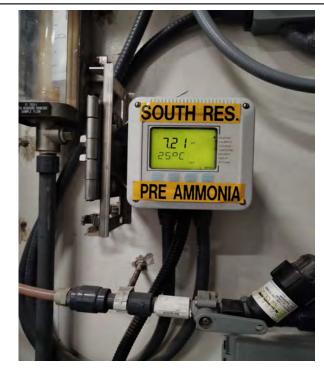
Purchase and install new water quality probes/meters/instruments as needed to keep all WTP water quality monitoring infrastructure in excellent shape.

## Background

Throughout the treatment process, SPRWS utilizes dozens and dozens of water quality probes to measure water quality/chemistry. Examples include turbidimeters and pH probes.

Ensuring that these probes are reliable and accurate is important for helping to keep us in compliance with regulations and for optimizing treatment processes.

This annual allowance is reserved for the purpose of purchasing new water quality probes/meters/instruments to replace older, outdated models.



Plant & treatment

Strategic Plan Goal	Schedule	Schedule					
Quality water	Planning	2024					
	Design						
	Construction	2025-2033					
	Completion	2033					

Operational Implications Project References

	Note: Revenue and Expenses Below are in Thousands												
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Capital	35k	36k	37k	38k	39k	40k	41k	42k	43k		351k		
Bond											0k		
Grant											0k		
Total	35k	36k	37k	38k	39k	40k	41k	42k	43k	0k	351k		
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Distribution	35k	36k	37k	38k	39k	40k	41k	42k	43k		351k		
Total	35k	36k	37k	38k	39k	40k	41k	42k	43k	0k	351k		

**Project** Piping Evaluation and Improvements (Sub-floor,

Name Pump Room)

Division Production

Infrastructure Category

Plant & treatment

Work type

Rehabilitation

## **Project Description**

Conduct an engineering study of the pipes and valves beneath the floor of the pump room. Determine likelihood and consequence of failure and develop plans for any necessary improvements, replacements, rehabilitations, etc.

## Background

There is a substantial amount of sub-floor piping beneath the pump room. The pipes in these areas have a high consequence of failure since they are influent/effluent lines for pumps that serve all 450,000 SPRWS customers. A visual inspection of the pipes shows that some corrosion is present. The condition of the pipes has not been studied in detail in recent history.

Due to the strategic importance of the pipes, the age of the pipes, and the unknown condition, an engineering study of the pipes is merited.



Strategic Plan Goal	Schedule	Schedule					
Infrastructure strategy and performance	Planning	Q1 2025					
	Design	2026					
	Construction	2026-2031					
	Completion	2031					

## **Operational Implications**

## Project References

#### NOTES

Known issues include:

Pump 9 discharge valve that must be manually operated and functions poorly. (Ideally we would copy the discharge valve setup for Pump 8 here)

Discharge valve for pump #6 is beneath the floor slab in a confined space. It's difficult to access and may need to be raised.

	Note: Revenue and Expenses Below are in Thousands												
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Capital	85k	290k					300k				675k		
Bond											0k		
Grant											0k		
Total	85k	290k	0k	0k	0k	0k	300k	0k	0k	0k	675k		
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Distribution	85k	290k					300k				675k		
Total	85k	290k	0k	0k	0k	0k	300k	0k	0k	0k	675k		

Project Sluc

Sludge Press Replacement

**Division** Production

Infrastructure Category

Plant & treatment

Work type

Replacement

#### **Project Description**

This project would aim to replace one of the existing sludge presses in the dewatering building for the purpose of improving redundancy and reliability in the system. Specifically, we expect that filter press #3 would be the best candidate for replacement.

#### **Background**

SPRWS owns and operates four sludge presses for handling lime solids removed during treatment. In summer, we use all four presses. We can operate with three presses functional, but we'd need operators to regularly work overtime due to the longer amount of time that it would take to press sludge. We cannot manage to operate in the summer time with only two presses active.

Three of the four filter presses that we own are believed to have exceed their useful life. The fourth is the newest but also the slowest and the least utilized. This project is aimed at attempting to address reliability concerns. With 3/4 of our presses vulnerable to failure and a system that already has fairly minimal redundancy, the current operating situation is uncomfortable.



Strategic Plan Goal	Schedule	Schedule					
Infrastructure strategy and performance	Planning	Q3 & Q4 2025					
	Design	Q1 to Q3 2026					
	Construction	Q3 2026 to Q2 2027					
	Completion						
	<u> </u>						

#### **Operational Implications**

#### Project References

#### **NOTES**

This project should also consider the possible purchase/installation of a redundant cloth wash pump. This pump supplies the wash water that is used to wash off the filter fabric. Currently, only one pump is in place to serve this purpose. In Feb. of 2024 this pump broke, causing us to rush order a replacement and to pay a premium. Redundancy in this infrastructure may be desirable.

	Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Capital		1,350k									1,350k	
Bond											0k	
Grant											0k	
Total	0k	1350k	0k	1350k								
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Distribution		1,350k									1350k	
Total	0k	1350k	0k	1350k								

 Project Name
 Dewatering - Core Blow Pump Replacement
 Infrastructure Category
 Plant & treatment

 Division
 Production
 Work type
 Replacement

## **Project Description**

Replace the remaining 1970s vintage Core Blow pump in the Dewatering building

## Background

Per discussions with the Dewatering O&M Team, we have 2 Core Blow pumps that are essential to the operation of our filter presses. Until recently, both were 1970s vintage. In 2024, one of the two pumps broke and has been removed for replacement. We anticipate that replacement will occur by summer of 2024.

The pumps are redundant with one another. The aim of this project is to replace the remaining 1970s vintage Core Blow pump so that we can have two operationally sound units in place.



Strategic Plan Goal	Schedule						
Infrastructure strategy and performance	Planning	2025					
	Design	2026					
	Construction	2026					
	Completion	2026					
Operational Implications	Project References						

	Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Capital		40k									40k	
Bond											0k	
Grant											0k	
Total	0k	40k	0k	40k								
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Distribution		40k									40k	
Total	0k	40k	0k	40k								

**Project** Replace Four Chemical Feed Pumps Used for Name

Dosing Sodium Hydroxide (McCarron's)

Division Production Infrastructure Category

Plant & treatment

Work type

Replacement

#### **Project Description**

Replace four pumps used for dosing sodium hydroxide at McCarron's WTP

## Background

SPRWS operates 14 liquid chemical feed pumps. They are utilized for dosing precise amounts of water treatment chemicals, and they play a vital role in our operations.

The existing pumps are old, are becoming more maintenance intensive, and are experiencing more down time due to failures. In short, reliability is growing to be more of an issue. Further, older pumps have less ability to precisely meter and monitor chemical feed rates, and state reporting is requiring more detailed chemical feed rate reporting.

Replacing chemical feed pumps over the course of the coming years will improve redundancy and reliability and will improve our ability to monitor chemical use.



Strategic Plan Goal	Schedule	Schedule					
Quality water	Planning	2025					
	Design	2026					
	Construction	2026					
	Completion	2026					

## **Operational Implications**

#### **Project References**

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital		78k									78k
Bond											0k
Grant											0k
Total	0k	78k	0k	78k							
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution		78k									78k
Total	0k	78k	0k	78k							

	_		
Project Name	Chlorine and Ammonia Evaporator Replacements	Infrastructure Category	Plant & treatment
Division	Production	Work type	Replacement
Project Desc	ription		
Replace 2 cni	orine evaporators and 1 ammonia evaporator		
Background			
ammonia) to k These evapor any given time and one of the This project w evaporator. T	es five evaporators (3 for chlorine and 2 for keep the chemical feed systems operational. ators are getting old and showing signs of wear. At e, 1 or 2 of the chlorine evaporators are needed e ammonia evaporators is needed.  ill replace 2 chlorine evaporators and 1 ammonia the remaining older evaporators will be left as ts for each system.		
Strategic Pla		Schedule	
	Quality water	Planning	2025
		Design	2026
		Construction	2026
		Completion	2026
Operational I	mplications	Project References	
NOTES		<u> </u>	
	Note: Revenue and Expens	ses Below are in Thousands	

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital		90k									90k
Bond											0k
Grant											0k
Total	0k	90k	0k	90k							
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution		90k									90k
Total	0k	90k	0k	90k							

Project	Wastewater Handling Improvements	Infrastructure Category	Plant & treatment
Name	Wastewater Handling Improvements	minastructure Category	riant & treatment
Division	Production	Work type	Rehabilitation
needed to de Nonetheless	cription ition is vague at this point. Further investigation is etermine the most appropriate course of action. the problem clearly exists already and constrains ins. Expenditures will be needed.		
aspect of the functional was backwashed presses are The existing with the volu occurs, oper take filters of wastewater s As of Jan. 20 limiting its at Improvemen upsizing pun	handling is an important but underappreciated water treatment process. It's important to have a astewater handling system in place when filters are basins are drained and cleaned out, sludge running, etc.  wastewater handling system struggles to keep up me of wastewater that we produce. When this ators sometimes have to delay filter backwashes (or ffline) to avoid overwhelming and flooding the		
Strategic Pl	an Goal	Schedule	
	Infrastructure strategy and performance	Planning	Q1 2025
	Quality water	Design	Q2 2025 to Q1 2026
		Construction	Q4 2027 and Q1 2028
		Completion	2028
Operational	<u>Implications</u>	Project References	
NOTES		<u> </u>	

1											
	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital		60k	250k	1,450k							1,760k
Bond											0k
Grant											0k
Total	0k	60k	250k	1450k	0k	0k	0k	0k	0k	0k	1760k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution		60k	250k	1,450k							1760k
Total	0k	60k	250k	1450k	Ωk	Ωk	Ωk	Ωk	0k	Ωk	1760k

Project Replace Four Chemical Feed Pumps Used for

Name Dosing Ferric Chloride (McCarron's)

**Division** Production

Infrastructure Category Plant & treatment

Work type Expansion

#### **Project Description**

Replace four pumps used for dosing ferric chloride at McCarron's WTP (provided that ferric chloride system remains in operation)

## Background

SPRWS operates 14 liquid chemical feed pumps. They are utilized for dosing precise amounts of water treatment chemicals, and they play a vital role in our operations.

The existing pumps are old, are becoming more maintenance intensive, and are experiencing more down time due to failures. In short, reliability is growing to be more of an issue. Further, older pumps have less ability to precisely meter and monitor chemical feed rates, and state reporting is requiring more detailed chemical feed rate reporting.

Replacing chemical feed pumps over the course of the coming years will improve redundancy and reliability and will improve our ability to monitor chemical use.



Strategic Plan Goal	Schedule	Schedule					
Quality water	Planning	2026					
	Design						
	Construction	2027					
	Completion	2027					
	·						

Operational Implications Project References

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital			82k								82k
Bond											0k
Grant											0k
Total	0k	0k	82k	0k	82k						
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution			82k								82k
Total	0k	0k	82k	0k	82k						

Project Name	Fluoride 7	Tank Repla	acement			Infrastruc	cture Cate	gory	Plant & tr	eatment			
Division	Productio	n				Work typ	е		Replacement				
Project Desc Replace Fluor													
Background Fluoride tanks useful life.	are aging	and are a	pproaching	g the end o	of their								
Strategic Pla	n Cool					Schedule							
Strategic Fla	ii Goai	Quality w	/ater			Planning 2026 and 2027							
						Design 2027							
						Construct	ion			2028			
						Completion	n			2028			
Operational I	- Indiana	<u></u>				rojectiv	eferences	-					
			Note: P	Pavanua co	nd Evnor	ses Below	are in Th	oueando					
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Capital	2020	2020	LULI	170k	2023	2000	2001	2002	2000	2004	170k		
Bond											0k		
Grant											0k		
Total	0k	0k	0k	170k	0k	0k	0k	0k	0k	0k	170k		
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Distribution	Ole	0k	0k	170k	Ole	0k	0k	0k	0k	Ole	170k <b>170k</b>		
Total	0k	UK	UK	170k	0k	UK	UK	UK	UK	0k	17 UK		

Project

Sludge Press Replacement #2

Name Division

Production

Infrastructure Category

Building and grounds

Work type

Rehabilitation

#### **Project Description**

This project would aim to replace one of the existing sludge presses in the dewatering building for the purpose of improving redundancy and reliability in the system.

#### Background

SPRWS owns and operates four sludge presses for handling lime solids removed during treatment. In summer, we use all four presses. We can operate with three presses functional, but we'd need operators to regularly work overtime due to the longer amount of time that it would take to press sludge. We cannot manage to operate in the summer time with only two presses active.

Three of the four filter presses that we own are believed to have exceed their useful life. The fourth is the newest but also the slowest and the least utilized. This project is aimed at attempting to address reliability concerns. With 3/4 of our presses vulnerable to failure and a system that already has fairly minimal redundancy, the current operating situation is uncomfortable.



## Strategic Plan Goal

Schedule	
Planning	Q3 & Q4 2026
Design	Q1 to Q3 2027
Construction	Q3 2028 to Q2 2029
Completion	2029

#### **Operational Implications**

Reduction in maintenance needs and reliability concerns with the pump station network.

#### **Project References**

## **NOTES**

Sludge Press #3 is slated for replacement in 2026 according to this plan. This project would replace sludge press #1 or #2. Following this project, we would only have one old sludge press remaining.

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital				1,350k							1,350k
Bond											0k
Grant											0k
Total	0k	0k	0k	1350k	0k	0k	0k	0k	0k	0k	1350k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution				1350k							1350k
Total	0k	0k	0k	1350k	0k	0k	0k	0k	0k	0k	1350k

Project Air Compressor Replacement - Chlorine and

Name Ammonia Building

Division Production Work type Rehabilitation

#### **Project Description**

Replace one air compressor in the chlorine/ammonia building with a new compressor, or (preferably) install a second air compressor that is redundant with the first.

## **Background**

An air compressor in the chlorine and ammonia building serves as the primary means of shutting off the chlorine system in the event of a leak during a power outage. This air compressor is getting old, per discussions with our staff, and we should consider replacing it.



Building and grounds

Strategic Plan Goal	Schedule	Schedule					
Infrastructure strategy and performance	Planning	2027					
	Design						
	Construction	2028					
	Completion	2028					

## **Operational Implications**

Compressors with VFDs should save a considerable amount of energy and are likely to come with a rebate. When we have an electrical engineering consultant on board, we should collaborate to consider this project and determine if we might realize operational savings quickly. If so, this may move the project up in the schedule.

## **Project References**

Infrastructure Category

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital				16k							16k
Bond											0k
Grant											0k
Total	0k	0k	0k	16k	0k	0k	0k	0k	0k	0k	16k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution				16k							16k
Total	0k	0k	0k	16k	0k	0k	0k	0k	0k	0k	16k

**Project** Air Compressor Replacement - Dewatering

Name Building

Division Production

Infrastructure Category Building and grounds

Work type Rehabilitation

#### **Project Description**

Replace 2 air compressors in the dewatering building with new compressors.

Add additional compressed air storage. Currently we only have a 200 gallon tank.

#### Background

Dewatering press operations depend upon two air compressors installed in the dewatering building. By 2028, these compressors will be more than 25 years old. There are two compressors, and they are redundant with one another, which provides some operational flexibility. That said, while we're addressing improvements to dewatering operations, these compressors should be considered. Currently assuming that both compressors would be replaced.

Note: two compressors in the WTP building may be rendered irrelevant by the McCarron's WTP project. If this is the case, then we may be able to keep these two as spares and not need to worry about proactively replacing these compressors.

Compressed air storage is insufficient with only 200 gallons of storage present. Per discussions with our team, I understand that we could probably benefit from 4x that amount. This project



#### Strategic Plan Goal Schedule Infrastructure strategy and performance Planning 2027 Design Construction 2028 Completion 2028

#### **Operational Implications**

Compressors with VFDs should save a considerable amount of energy and are likely to come with a rebate. When we have an electrical engineering consultant on board, we should collaborate to consider this project and determine if we might realize operational savings quickly. If so, this may move the project up in the schedule.

#### Project References

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital				80k							80k
Bond											0k
Grant											0k
Total	0k	0k	0k	80k	0k	0k	0k	0k	0k	0k	80k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution				80k							80k
Total	0k	0k	0k	80k	0k	0k	0k	0k	0k	0k	80k

Project Name
Ferric Chloride Tank Replacement (if needed)
Division
Production

Infrastructure Category
Work type
Replacement

## **Project Description**

Replace Ferric Chloride Tanks

## Background

Ferric Chloride has typically been used as a secondary coagulant at the McCarron's Water Treatment Plant. The tanks for this chemical are approaching the end of their useful life and are in need of replacement.

That said, when the new softening processes are fully constructed and operational (expected in 2025), SPRWS may opt to switch coagulant regimes. If coagulant regimes are switched, then no capital expenditures in this area should be necessary.

For capital planning purposes, it is assumed that Ferric Chloride will continue to play a role in the treatment process and that these tanks will require replacement.



Strategic Plan Goal	lan Goal Schedule						
	Planning	2026 and 2027					
	Design	2028					
	Construction	2029					
	Completion	2029					
	-						

Operational Implications Project References

1											
	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital					176k						176k
Bond											0k
Grant											0k
Total	0k	0k	0k	0k	176k	0k	0k	0k	0k	0k	176k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution					176k						176k
Total	0k	0k	0k	0k	176k	0k	0k	0k	0k	0k	176k

Project GAC F

GAC Filter Media Replacement

**Division** Production

Infrastructure Category

Plant & treatment

Work type

Replacement

#### **Project Description**

Multi-Year effort to replace media in filters. Preliminary expectations would be to replace media in approximately 4 filters per year for a six-year period, resulting in the eventual replacement of media for all 24 filters.

## **Background**

Granular Activated Carbon plays an essential role in the treatment process for SPRWS. It removes a host of contaminants from water and ensures that effluent turbidities from the plant remain low. GAC filter media was originally installed in the mid-2000s, and, at the time, SPRWS expected that regular replacement of the media would be necessary.

Media has continued to perform well, though pilot studies have shown that the media leeches some chemicals into water as the water flows through the media. The amount of chemical leeching is insignificant but it does indicate that the replacement of media may be merited in the medium-term future.



Strategic Plan Goal	Schedule	Schedule					
Quality water	Planning	2029					
	Design	2030					
	Construction	2031-2036					
	Completion	2036					

#### **Operational Implications**

Reduction in maintenance needs and reliability concerns with the pump station network.

#### **Project References**

#### **NOTES**

The underdrain system should be evaluated at this time as well to ensure that it is in good condition. Media replacement would allow for an optimal timeframe for making repairs to the underdrain system as needed.

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital							600k	1,200k	600k	2,400k	4,800k
Bond											0k
Grant											0k
Total	0k	0k	0k	0k	0k	0k	600k	1200k	600k	2400k	4800k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution							600k	1,200k	600k	2,400k	4800k
Total	0k	0k	0k	0k	0k	0k	600k	1200k	600k	2400k	4800k

Project Name

Sludge Press Replacement #3

Division

Production

Infrastructure Category

Plant & treatment

Work type

Replacement

#### **Project Description**

This project would aim to replace the last of the older existing sludge presses in the dewatering building for the purpose of improving redundancy and reliability in the system.

#### Background

SPRWS owns and operates four sludge presses for handling lime solids removed during treatment. In summer, we use all four presses. We can operate with three presses functional, but we'd need operators to regularly work overtime due to the longer amount of time that it would take to press sludge. We cannot manage to operate in the summer time with only two presses active.

Three of the four filter presses that we own are believed to have exceed their useful life. The fourth is the newest but also the slowest and the least utilized. This project is aimed at attempting to address reliability concerns. With 3/4 of our presses vulnerable to failure and a system that already has fairly minimal redundancy, the current operating situation is uncomfortable.



# Strategic Plan Goal

Infrastructure strategy and performance

Schedule	
Planning	Q3 & Q4 2032
Design	Q1 to Q3 2033
Construction	Q3 2033 to Q2 2034

## **Operational Implications**

Reduction in maintenance needs and reliability concerns with the pump station network.

#### **Project References**

Completion

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital									1,350k		1,350k
Bond											0k
Grant											0k
Total	0k	0k	0k	0k	0k	0k	0k	0k	1350k	0k	1350k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution									1350k		1350k
Total	0k	0k	0k	0k	0k	0k	0k	0k	1350k	0k	1350k

Project Name	On Site C	hlorine Ge	neration			Infrastruc	cture Cate	gory	Plant & tr	eatment	
Division	Productio	n				Work typ	е		Expansio	n	
Project Desc Add on-site c rail car delive	hlorine gen		pability and	I move aw	ay from						
Background SPRWS currently supplies chlorine for treatment purposes via rail cars. This means that there is a very large volume of chlorine gas stored on site at any time. While SPRWS staff is very familiar with the maintenance processes required to ensure that the chlorine can be safely handled, it represents a meaningful safety risk. Additionally, gaseous chlorine supply chains are vulnerable to railroad employee strikes and other disruptions. Moving to on-site generation should ensure that we have a more reliable source of chlorine for treatment purposes.											
Strategic Pla	n Goal					Schedule					
<u>Guatogio i lo</u>	<u> </u>	Quality w	ater			Planning Design Construct Completic	ion				
<u>Operational</u>	mplication	<u>ıs</u>				Project R	eferences	<u>.</u>			
<u>NOTES</u>											
						ses Below					
REVENUE Capital	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	<b>Total</b> 0k
Bond										18,000k	18,000k
Grant											0k
Total	0k	0k	0k	0k	0k	0k	0k	0k	0k	18000k	18000k
<b>EXPENSE</b> Distribution	2025	2026	2027	2028	2029	2030	2031	2032	2033	<b>2034</b> 18,000k	Total 18000k
Total	0k	0k	0k	0k	0k	0k	0k	0k	0k	18000k	18000k

Total

**Project** Name

Replacement of Metrohm Lab Equipment

Division Production Infrastructure Category

Plant & treatment

Work type

Replacement

#### **Project Description**

Purchase a new Metrohm unit for use by SPRWS lab staff. An auto-sampler should be included along with this purchase as well.

#### Background

The Lab relies on the Metrohm auto titrator as the primary instrument for fluoride, hardness, alkalinity, and chloride analysis. It provides quick reliable results for parameters that are regulatory, indicative of proper treatment, or used to determine if water samples are our water. SPRWS is required by the MDH to analyze fluoride concentrations daily. We also use the Metrohm to check our online alkalinity meter which is used to set proper lime dosing.

This project has been included in the 2025 capital plan because the new Metrohm will be useful in analyzing samples associated with the startup of the new McCarron's Water Treatment Plant.



Strategic Plan Goal	Schedule	Schedule					
Quality water	Planning	2025					
	Design	2025					
	Construction	2025					
	Completion	2025					

#### **Operational Implications**

If this lab equipment breaks down, SPRWS will be forced to rely upon outside labs to process samples and to provide information. This would lead to higher operational expenses due to the need to pay an outside lab for extensive testing.

#### **Project References**

#### **NOTES**

The Metrohm was purchased in 2013. SPRWS IS has struggled with updating the lab computer connected to the Metrohm because of software upgrade limitations. In addition to the instrument software being outdated, the Metrohm has a significant number of mechanical components that provide proper titrant dosing during titrations. Over time, these components wear from regular use and will need to be replaced.

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	80k										80k
Bond											0k
Grant											0k
Total	80k	0k	80k								
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	80k										80k
Total	80k	0k	80k								

Project
Name

Microwave Digester Replacement

Infrastructure Category

Plant & treatment

Division Production Work type Replacement

#### **Project Description**

Purchase a new microwave digester unit for use by SPRWS lab staff.

#### Background

The microwave digester is an integral piece of equipment utilized in the analysis of metals and nutrients. The microwave breaks down or "digests" all forms of an element in a sample to a form that can be accurately measured by lab equipment such as the discrete analyzer or the ICP-MS.

The lab is accredited in lead analysis, which requires water samples to be digested prior to lead analysis if the turbidity is over 1 NTU. With the current changes to the lead and copper rule, the lead service line removal program, the updated corrosion control program, and the continued consumer interest in lead testing, it is imperative that we can accurately analyze all lead samples that are received by the lab.



Strategic Plan Goal	Schedule	
Quality water	Planning	2025
	Design	2025
	Construction	2026
	Completion	2026

#### **Operational Implications**

No meaningful impacts to operating expenses are expected to result from this project.

The project does reduce our risk profile.

## Project References

#### **NOTES**

With the addition of ortho-phosphate to our corrosion control program, there will be continued interest in both ortho-phosphate and total phosphorous levels in our source water and drinking water. Also, with the transition from the Teledyne Torch to the Teledyne Fusion TOC analyzer the total nitrogen analyzer was discontinued. In order to analyze total nitrogen in the future we will have to revert to digesting samples before analysis.

The microwave digester is over 15 years old (in 2024). The supporting hardware and software are considered obsolete.

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital		50k									50k
Bond											0k
Grant											0k
Total	0k	50k	0k	50k							
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution		50k									50k
Total	0k	50k	0k	50k							

Project Purchase of Water Quality Monitoring Devices for

Name Distribution System

Division Production Work type

Infrastructure Category Supply system

Expansion

#### **Project Description**

Identify water quality parameters that we'd like to monitor in real time, locations where we'd like to gather information, and appropriate instruments to monitor those parameters. Purchase and install instruments. Program SCADA to make realtime data visible and to log historical trends.

## **Background**

Obtaining real-time water quality data from the distribution system is increasingly possible with modern technology. This project is a placeholder, with further definition needed. In general, however, these funds are being reserved for purchasing, installing, and programming field sensors so that we can actively monitor water quality in real time and can show water quality trends throughout our distribution system.



Strategic Plan Goal	Schedule	Schedule				
	Planning	2025				
	Design					
	Construction	2026-2034				
	Completion	2034				

## **Operational Implications**

Reduction in maintenance needs and reliability concerns with the pump station network.

#### **Project References**

## **NOTES**

Unclear whether this should be included in Production or Distribution Division budget. To discuss further.

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital		18k	18k	18k	18k	18k	18k	30k	30k	30k	198k
Bond											0k
Grant											0k
Total	0k	18k	18k	18k	18k	18k	18k	30k	30k	30k	198k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution		18k	18k	18k	18k	18k	18k	30k	30k	30k	198k
Total	0k	18k	18k	18k	18k	18k	18k	30k	30k	30k	198k

Division Production  Project Description Purchase a new ICPMS Machine with an Autosampler  Background More information to come. This need was reported by lab staff during standard quarterly discussions of the capital plan.  Strategic Plan Goal  Planning Design Construction Completion  Deparational Implications  Project References	Plant & treatment						
Background More information to come. This need was reported by lab staff during standard quarterly discussions of the capital plan.  Strategic Plan Goal  Planning Design Construction Completion  Operational Implications  Project References							
More information to come. This need was reported by lab staff during standard quarterly discussions of the capital plan.  Strategic Plan Goal  Schedule Planning Design Construction Completion  Operational Implications  Project References							
More information to come. This need was reported by lab staff during standard quarterly discussions of the capital plan.  Strategic Plan Goal  Schedule Planning Design Construction Completion  Operational Implications  Project References							
Planning Design Construction Completion  Project References							
Planning Design Construction Completion  Project References							
Planning Design Construction Completion  Project References							
Planning Design Construction Completion  Project References							
Design Construction Completion  Operational Implications  Project References							
Construction Completion  Operational Implications  Project References							
Operational Implications  Project References							
Operational Implications  Project References							
NOTES							
Note: Revenue and Expenses Below are in Thousands							
REVENUE 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034							
Capital 400k Sond	Total						
Grant South	400k						
Total         0k         0k         0k         0k         0k         0k         400k         0k         0k							
EXPENSE 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034	400k 0k						
Distribution         400k           Total         0k	400k 0k 0k						

**Project** Name

McCarron's Water Treatment Plant Improvements Infrastructure Category

Plant & treatment

Division

Production

Work type

Replacement

#### **Project Description**

Wholesale replacement of lime handling, softening, recarbonation, and raw water piping on McCarron's campus. Addition of ozone chemical feed. Construction of necessary utilities, structures, and systems necessary to support the new treatent infrastructure.

#### **Background**

In early 2022, SPRWS began construction on major improvements to the McCarron's Water Treatment Plant. The project is approximately 40% complete as of December 2023. The project is progressing on budget and on schedule. The project was identified as a need through various studies, most notably a utility master plan conducted by CH2M Hill in 2014.

Design work for the project was completed in 2022. SPRWS has already contracted with CH2M Hill for \$224,890,000 of construction work. A contract for various end-of-project tasks (final demolition, grading, laboratory improvements, etc.) is still needed. The funds identified below are being held for that final contract.



Strategic Plan Goal	Schedule	Schedule			
Quality water	Planning	2019-2021			
Infrastructure strategy and performance	Design	2021-2022			
	Construction	2022-2026			
	Completion	2026			

#### **Operational Implications**

There will be a learning curve for operations and maintenance staff as we begin to operate with the new facility. The addition of ozone as a treatment process may necessitate the addition of O&M staff. This will be counterbalanced by the fact that we'll be replacing older equipment prone to breakdowns with newer equipment that should not require much reactive maintenance.

#### **Project References**

## **NOTES**

Note: The facility is expected to begin producing water in the latter half of 2025.

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital											0k
Bond											0k
Grant											0k
Total	0k	0k	0k	0k	0k	0k	0k	0k	0k	0k	0k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution											0k
Total	0k	0k	0k	0k	0k	0k	0k	0k	0k	0k	0k

Project Name	WTP Equipment Replacements (Annual Allocation)	Infrastructure Category	Plant & treatment
Division	Production	Work type	Replacement
	cription  cholder for equipment replacement projects for hat fails unexpectedly.		
water treatm replacement year plan, it' requirement The amount anticipation equipment re by improving	is amount of equipment is required to operate the ent plant. While we're aiming to proactively plan is for specific valves and to include them in this 10 is likely that we will have valve replacement is that have not been anticipated in this plan.  of funding held actually decreases over time in of our team being better able to proactively plan for eplacements in future years. This will be achieved it collaboration with field staff and through use of the gement system.		
Strategic Pl	an Goal	Schedule	
- in a to grid I I	Quality water	Planning	
	Infrastructure strategy and performance	Design	
	minasa dotare strategy and performance	Construction	2025-2033
		Constituction	2025-2033
		Completion	2000
Operational	<u>Implications</u>	Project References	
NOTES			

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	100k	100k	70k		690k						
Bond											0k
Grant											0k
Total	100k	100k	70k	0k	690k						
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution											0k
Total	0k	0k	0k	0k	0k	0k	0k	0k	0k	0k	0k



# **Electrical and SCADA Projects**

2025 – 2034 Capital Improvement Plan

**Saint Paul Regional Water Services** 

Project
Name
Replace 2 SLC PLCs in WTP
Division
Production
Replace 2 SLC PLCs in WTP
Work type
Replacement

#### **Project Description**

Replace all remaining SLC PLCs in the McCarron's WTP (except those that well be replaced as part of the ongoing McCarron's WTP project). These PLCs should be replaced with Compact Logixs PLCs. Retire the DH+ network and DH+ bridge PLC.

## **Background**

SPRWS still has some legacy SLC PLCs in operation in the McCarron's WTP. PLCs are vital to our operations as they control the operation of major equipment and allow for remote operations to be successful.

The existing SLC PLCs are obsolete, and replacement parts/materials can no longer be obtained for them. Continuing to rely upon this obsolete infrastructure to perform such a vital function amounts to running an open risk that is not acceptable to the utility.

All but 2 of these PLCs will be replaced as part of the McCarron's WTP project. This project is aimed at replacing the 2 SLC PLCs that will remain so that we are not left with any obsolete infrastructure.

## **SLC500**



Strategic Plan Goal	Schedule			
Infrastructure strategy and performance	Planning Q4 2024			
	Design Q1 2025			
	Construction 2025			
	Completion 2025			

## **Operational Implications**

No meaningful impacts to operating expenses are expected to result from this project.

The project does reduce our risk profile.

#### **Project References**

#### **NOTES**

Project scope:

1) Provide PLC hardware, power, supply, ethernet switch 2) provide updated electrical schematics 3) program conversion - assumes no new functionality implemented 4) replace PLC hardware in existing cabinate, upgrade power supply, add network router (electrical labor by SPRWS) 5) PLC Startup and acceptance testing 6) update SCADA tags and modify screens as needed

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	78k										78k
Bond											0k
Grant											0k
Total	78k	0k	78k								
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	78k										78k
Total	78k	0k	78k								

D 4 D			
Division	Production	Work type	Expansion
D	Due de etien	18/ a mla 40 ma a	F
Project Name	Electrical - Purchase Fiber Splicing Tools	Infrastructure Category	Electrical & SCADA

## Project Description

Purchase the tools necessary to repair fiberoptic cables

## Background

SPRWS depends on a substantial amount of fiberoptic cable for communication lines. Fiberoptic cable is the backbone of the SCADA system, and a failure in fiberoptic cables can result in a loss of SCADA communications. In this instance, we would need emergency repairs.

Currently, SPRWS does not have the tools and equipment necessary to repair broken fiberoptic lines. Purchasing this equipment would help to ensure that we are prepared to make emergency repairs to our fiberoptic cabling as necessary. This is especially desirable since we're in a 24/7/365 business and do not want to have to depend on outside entities to maintain our critical operations.



Strategic Plan Goal	Schedule					
Infrastructure strategy and performance	Planning					
High performing workforce	Design	2025				
	Construction					
	Completion	2025				
Operational Implications	Project References					
Reduces the likelihood that we'll need to call in outside						

## **NOTES**

contractors.

Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	20k										20k
Bond											0k
Grant											0k
Total	20k	0k	20k								
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	20k										20k
Total	20k	0k	20k								

Project Name	Electrical - Infrared Camera to Spot Electrical Issues	Infrastructure Category	Electrical & SCADA
Division	Production	Work type	Expansion

## **Project Description**

Purchase 1 or 2 Infrared Cameras

## **Background**

Infrared cameras are extremely handy for spotting issues with electrical equipment. They detect "hotspots" in electrical gear, which are essentially spots where there may be electrical arcs or where resistance is higher than expected. Equipped with an infrared gun, an electrician can efficiently diagnose electrical issues and remedy them. Not only that, good preventative maintenance practices would require the use of this type of equipment to periodically check on the health of electrical gear.

We already hire electrical contractors to utilize this type of equipment on our site, and we pay a premium for it. In the long run, we anticipate that we would save money by equipping ourselves with this tool. Further, by helping electricians quickly identify some electrical issues, the tool will help to pay for itself by freeing up staff time.



Schedule	Schedule				
Planning					
Design	2025				
Construction					
Completion	2025				
	Planning Design Construction				

## **Operational Implications**

Reduces the likelihood that we'll need to call in outside contractors.

## Project References

Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	12k										12k
Bond											0k
Grant											0k
Total	12k	0k	12k								
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	12k										12k
Total	12k	0k	12k								

Project Replace or Add SCADA Instruments to Improve Critical Data Accuracy

Infrastructure Category Electrical & SCADA

Work type Expansion

#### **Project Description**

Add flow meters for phosphoric acid system and for fluoride system to allow for independent, 3-point verification of chemical feed rates.

Identify any other areas in which outdated SCADA instrumentation is contributing to vital measurements/data and replace this infrastructure.

#### **Background**

The current SCADA system depends on some old metering/measuring equipment in certain locations. Some of this equipment is responsible for measuring values that are essential to effective operations (for example tank levels, pressure levels, flow measurements that impact chemical dosing, etc.) This project is aimed at identifying old equipment that supports these operations and updating/replacing it.

There will be a corresponding O&M effort aimed at calibrating old equipment that plays a vital role in these functions as well. Funds for calibration will be budgeted in the O&M Budget

Included in this effort is adding flow meters for phosphoric acid and fluoride.



Schedule	Schedule					
Planning	2024					
Design						
Construction	2025					
Completion	2025					
	Planning Design Construction					

## **Operational Implications**

No meaningful impacts

Project References

Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	35k										35k
Bond											0k
Grant											0k
Total	35k	0k	35k								
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	35k										35k
Total	35k	0k	0k	0k	0k	0k	0k	Ωk	0k	Ωk	35k

Project T...

**Turbidimeter Improvements** 

Infrastructure Category Electrical & SCADA

Name Division

Production

Work type Replacement

## **Project Description**

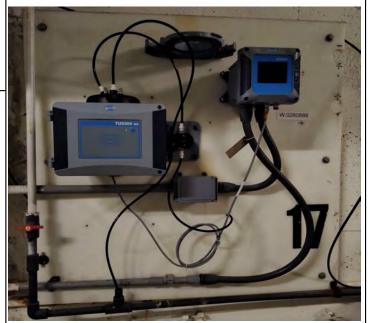
Add Ethernet/IP communication cards to existing turbidity meters

Configure PLCs to communicated and pull extra data from meters.

## **Background**

Most Turbidity meters are currently running on analog networks leading to increased PLC hardware requirements, decreased noise immunity and accuracy and a single data point per analog pair.

Upgrade communications to the meters to obtain additional data points (Turbidity and Flow), increase accuracy of data collected, and reduce PLC hardware required



## Strategic Plan Goal

Quality water

Schedule	
Planning	2024
Design	
Construction	2025
Completion	2025

## Operational Implications

No meaningful impacts

**Project References** 

## **NOTES**

Scope: 1) Communication card hardware

- 24 filters
- Terminal Chambers (cannot be completed until PLC R1, R2 are updated as part of WTP)
- 2) PLC software modifications add comms config and additional data points
- 3) SCADA software modification add additional data points and historize data

Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	62k										62k
Bond											0k
Grant											0k
Total	62k	0k	62k								
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	62k										62k
Total	62k	0k	62k								

Project Replace 13 Remaining SLC PLCs at Remote

Name Sites

Division

Production | Work

Infrastructure Category Electrical & SCADA

Work type Replacement

# **Project Description**

Replace all remaining SLC PLCs (except those at 3 wells). These PLCs should be replaced with Compact Logixs PLCs. Continue transition to ethernet network and retire the radio network.

# **Background**

SPRWS still has16 SLC PLCs in operation at remote stations. 6 water towers, 3 wells, 5 pumping stations, Lake Vadnais and LC Flume

PLCs are vital to our operations as they control the operation of major equipment and allow for remote operations to be successful.

The existing SLC PLCs are obsolete, and replacement parts/materials can no longer be obtained for them. Continuing to rely upon this obsolete infrastructure to perform such a vital function amounts to running an open risk that is not acceptable to the utility.

A separate project has been budgeted for a later year to address the SLC PLCs at Vadnais wells since the obsolete PLCs controll infrastructure that is used only infrequently.

# **SLC500**



#### Strategic Plan Goal

Infrastructure strategy and performance

Schedule	
Planning	QX 202 QX-202_
Design	QX 202 QX-202_
Construction	QX 202 QX-202_
Completion	QX-202

# **Operational Implications**

No meaningful impacts to operating expenses are expected to result from this project.

The project does reduce our risk profile.

# **Project References**

Tanks assumed to cost \$7,900 per tank in labor Pump Stations Assumed to cost \$60,000 per station in labor Power supply and parts assumed to be an additional \$12k and \$230k respectively

#### **NOTES**

Pending confirmation, below is the list of sites that are beliweved to have SLC PLCs in place still: Water Tower Sites: Cottage, McKnight, Mendota, Sterling, Cleveland, Fairgrounds Pumping Station Sites: Fridley PS & Fridley Ferric Chloride Pumping, Roselawn, St. Anthony, Beebe, Hayden Heights

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	150k	150k	150k	175k							625k
Bond											0k
Grant											0k
Total	150k	150k	150k	175k	0k	0k	0k	0k	0k	0k	625k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	150k	150k	150k	175k							625k
Total	150k	150k	150k	175k	0k	0k	0k	0k	0k	0k	625k

Project Standardize SCADA Interfaces for McCarron's

Name WTP

**Division** Production Work type Rehabilitation

# **Project Description**

Revamp the SCADA screens for portions of the McCarron's WTP that will not be impacted by the McCarron's WTP Project (for example: filtration) Develop high-performance operator interfaces that are consistent with the operator interfaces for new WTP processes. Collaboration with a consultant is anticipated.

# **Background**

When the McCarron's WTP project is complete, the plant will be a combination of old and new infrastructure. Likewise, we'll have many brand new SCADA screens and many pre-existing screens. New screens are being set up to be visually different than existing screens and will use modern SCADA standards and best practices.

The goal of this project will be to update the SCADA screens for the portions of the treatment plant/process that will not be replaced during the McCarron's WTP project. The intent is to mimic the design standards used on the McCarron's WTP project since we believe that these will be an operational improvement on the existing system.



Building and grounds

Strategic Plan Goal	Schedule	Schedule					
High performing workforce	Planning	QX 202 QX-202_					
Infrastructure strategy and performance	Design	QX 202 QX-202_					
Quality water	Construction	QX 202 QX-202_					
	Completion	QX-202_					

# **Operational Implications**

Should reduce the learning curve for operators and make us somewhat more efficient opperationally

# **Project References**

Infrastructure Category

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	140k										140k
Bond											0k
Grant											0k
Total	140k	0k	140k								
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	140k										140k
Total	140k	0k	140k								

Project

Replacement of SCADA Infrastructure

Name Division

Production

Infrastructure Category

Electrical & SCADA

Work type

Replacement

# **Project Description**

Purchase and install new SCADA hardware to proactively replace aging infrastructure that is reaching the end of its useful life

# **Background**

SCADA infrastructure is truly the backbone of our operation. Without functional SCADA systems, operators are left mostly blind to what is happening throughout the plant and the distribution system and operations become extremely difficult.

This SCADA system depends on hardware installed around the McCarron's Campus and at Remote Stations. Most of this hardware has a lifespan on the order of 10-15 years before it becomes obsolete and represents a security/reliability risk.

With these funds, we will place all SCADA infrastructure on a replacement cycle to ensure that we proactively replace equipment that is reaching the end of its useful life.

# CompactLogix



# ControlLogix



Strategic Plan Goal	Schedule	
Infrastructure strategy and performance	Planning	2025
	Design	
	Construction	2026-2033
	Completion	2033

# **Operational Implications**

No meaningful impacts to operating expenses are expected to result from this project.

The project does reduce our risk profile.

# **Project References**

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital		45k	45k	45k	45k	45k	45k	85k	85k	85k	525k
Bond											0k
Grant											0k
Total	0k	45k	45k	45k	45k	45k	45k	85k	85k	85k	525k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution		45k	45k	45k	45k	45k	45k	85k	85k	85k	525k
Total	0k	45k	45k	45k	45k	45k	45k	85k	85k	85k	525k

**Project** Replace All Remaining SLC PLCs at Vadnais Infrastructure Category Name Station

Electrical & SCADA

Production Work type Replacement

# **Project Description**

Replace 3 remaining SLC PLCs at raw water supply wells. These PLCs should be replaced with Compact Logixs PLCs. Continue transition to ethernet network and retire the radio network.

# **Background**

Division

SPRWS still has SLC PLCs in operation at 3 raw water supply wells. PLCs are vital to our operations as they control the operation of major equipment and allow for remote operations to be successful.

The existing SLC PLCs are obsolete, and replacement parts/materials can no longer be obtained for them. Continuing to rely upon this obsolete infrastructure to perform such a vital function amounts to running an open risk that is not acceptable to the utility.

A separate project has been budgeted for an earlier year to address the SLC PLCs at the water treatment plant and at other remote stations since those PLCs are utilized to control equipment that is operated more frequently than the wells.

# **SLC500**



Strategic Plan Goal	Schedule	
Infrastructure strategy and performance	Planning	2026
	Design	
	Construction	2027
	Completion	2027

# **Operational Implications**

No meaningful impacts to operating expenses are expected to result from this project.

The project does reduce our risk profile.

# **Project References**

#### **NOTES**

Goes hand-in-hand with project to replace Improve Communications Infrastructure from Wells to Water Treatment Plant (in O&M Plan for 2027)

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital			45k								45k
Bond											0k
Grant											0k
Total	0k	0k	45k	0k	45k						
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution			45k								45k
Total	0k	0k	45k	0k	45k						

Project Name	Switchge	ar H Repla	cement			Infrastru	cture Cate	egory	Electrical	& SCADA			
Division	Productio	n				Work typ	е		Replacen	Replacement			
Project Des Replace Swi		ith new co	mnarahle	infrastruct	ture								
Tropiace owi	torigear 11 W	itii iicw, cc	лпрагавіс	iiiiasiiuo	uic								
Background													
Switchgear F warehouse,													
team, I unde													
replacement													
Strategic Pl	an Goal					Schedule	<u> </u>						
<u>Otrategie i i</u>	un ooui_					Planning	<u> </u>			2028			
						Design							
						Construct	ion	2029					
						Completion	on		2029				
Operational			nd raliabili	tu oonoorn	a with the	Project R	eferences	<u>8</u>					
Reduction in pump station		e needs a	na reliabili	ty concerr	is with the								
NOTES						1							
			Note: R	evenue a	nd Expens	ses Below	are in Th	ousands					
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Capital					650k						650k		
Bond Grant											0k 0k		
Total	0k	0k	0k	0k	650k	0k	0k	0k	0k	0k	650k		
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Distribution					650k						650k		
Total	0k	0k	0k	0k	650k	0k	0k	0k	0k	0k	650k		

Project

Division

Electrical Improvements on McCarron's Campus

Name

Production

Infrastructure Category

Electrical & SCADA

Work type

Rehabilitation

# **Project Description**

Make improvements to electrical infrastructure on campus

# Background

SPRWS recently secured Master Contracts with several electrical engineering firms. These contracts will play a vital role in helping to identify long-term electrical capital needs, which are currently not well understood. These funds are reserved in anticipation of finding that capital spending to improve electrical infrastructure on campus is necessary.



Strategic Plan Goal	Schedule	Schedule					
Infrastructure strategy and performance	Planning	2029					
Energy and water resource sustainability	Design						
	Construction	2030					
	Completion	2030					

# **Operational Implications**

Reduction in maintenance needs and reliability concerns with the pump station network.

# Project References

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital						800k	1,400k			350k	2,550k
Bond											0k
Grant											0k
Total	0k	0k	0k	0k	0k	800k	1400k	0k	0k	350k	2550k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution						800k	1,400k			350k	2550k
Total	0k	0k	0k	0k	0k	800k	1400k	0k	0k	350k	2550k

Project	W64 and W72 Power Feed - Remote Monitoring	Infrastructure Category	Electrical & SCADA
Name	•		
Division	Production	Work type	Expansion
Project Des			
Add remote	monitoring to the W64 and W72 stations		
Background			
The W64 an	d W72 stations are two of the most vital pieces of		
	at SPRWS owns since they are the power supplies		
	y of the McCarron's Campus. These stations were with gauges that monitor temperature, pressure, and		
other relevar	it variables that indicate the health of the equipment		
but the gaug	es are not connected to SCADA.		
It would be fa	ar better to be able to monitor this data via SCADA.		
	g so would allow us to write code to actively monitor		
	the equipment for us (for example: provide a provide a provide staff when/if temperature exceeds		
	econdly, logging historical data would help with		
troubleshoot	ng as it could help us spot the emergence of		
troubling trer	nds.		
Strategic Pl	an Goal_	Schedule	
	Energy and water resource sustainability	Planning	2030
ı	Infrastructure strategy and performance	Design	
ı		Construction	2031
ı		Completion	2031
Operational	Implications	Project References	
No meaningf	ul change in operational costs anticipated		
ı			
l			
NOTES			
<u>.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>			

	Note: Revenue and Expenses Below are in Thousands											
REVENUE	REVENUE 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 Total											
Capital							70k				70k	
Bond											0k	
Grant											0k	
Total	0k	0k	0k	0k	0k	0k	70k	0k	0k	0k	70k	
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Distribution							70k				70k	
Total	0k	Ωk	0k	Ωk	Ωk	0k	70k	0k	0k	0k	70k	

Project Name	Add Thickener Building to 480 V Electrical Loop	Infrastructure Category	Electrical & SCADA
Division	Production	Work type	Expansion
Project Des Add Thicker	c <u>cription</u> ner Building to 480 V Electrical Loop		
suggested t 480 volt sys	with Production Division Management have nat adding the sludge thickener building to a looped tem of power distribution is advisable. These funds to that purpose, though the project is vaguely		
Strategic P	lan Goal	Schedule	
	Infrastructure strategy and performance	Planning	2031
		Design	
		Construction	2032
		Completion	2032
	I Implications rove redundancy to the thickener building	Project References	

	Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Capital								400k			400k	
Bond											0k	
Grant											0k	
Total	0k	0k	0k	0k	0k	0k	0k	400k	0k	0k	400k	
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Distribution								400k			400k	
Total	0k	0k	0k	0k	0k	0k	0k	400k	0k	0k	400k	

Project SCADA Redundancy in Communications to

Name Dewatering

Production

Infrastructure Category

Electrical & SCADA

Work type

Expansion

# **Project Description**

Division

1. Add a second, redundant fiberoptic line so that the risk of failure is reduced or 2. move essential SCADA infrastructure from the dewatering building into the water treatment plant so that there is no longer a single point of failure for the entire system.

# **Background**

The dewatering building holds some SCADA infrastructure that is vital to the operations of our entire SCADA system. A single fiberoptic cable carries SCADA communications between the water treatment plant and the dewatering building. In the event that this single line failed, the SCADA system would go down.

This project is expected to achieve one of the following goals: 1. add a second, redundant fiberoptic line so that the risk of failure is reduced or 2. move essential SCADA infrastructure from the dewatering building into the water treatment plant so that there is no longer a single point of failure for the entire system.



Strategic Plan Goal	Schedule	
Infrastructure strategy and performance	Planning	2031
	Design	
	Construction	2032
	Completion	2032

# **Operational Implications**

# Project References

1												
	Note: Revenue and Expenses Below are in Thousands											
REVENUE 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 Total												
Capital								200k			200k	
Bond											0k	
Grant											0k	
Total	0k	0k	0k	0k	0k	0k	0k	200k	0k	0k	200k	
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Distribution								200k			200k	
Total	0k	Ωk	0k	0k	Ωk	0k	0k	200k	0k	Ωk	200k	

Project Name	Chemical Delivery Panel for Central Chemical Areas	Infrastructure Category	Plant & treatment
Division	Production	Work type	Rehabilitation
	cription nstall a panel that can be utilized to monitor ferric chloride, sodium hydroxide, phosphoric acid,		
chemical are chemical del	ne delivery panels for deliveries to the central are are non-functional and are disregarded during iveries. As a workaround, our team visually emical deliveries into the tanks.		
drivers to mo	emical tank level monitoring station for delivery onitor tank levels during delivery to prevent chemical need to enter chemical storage rooms.		
Strategic PI	an Goal	Schedule	
	Infrastructure strategy and performance	Planning	2032
		Design	
		Construction	2033
		Completion	2033
Operational	<u>Implications</u>	Project References	
NOTES			
	able to do this via mobile application/tablet in the futu	re reducing the need for this	canital eynense

We may be able to do this via mobile application/tablet in the future, reducing the need for this capital expense.

	Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Capital									45k		45k	
Bond											0k	
Grant											0k	
Total	0k	0k	0k	0k	0k	0k	0k	0k	45k	0k	45k	
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Distribution									45k		45k	
Total	0k	0k	0k	0k	0k	0k	0k	0k	45k	0k	45k	

Project Name	SCADA S	System Ref	resh			Infrastru	cture Cate	egory	Electrical	& SCADA	
Division	Productio	n				Work typ	е		Rehabilita	ation	
Project Des Placeholder		ed SCADA	work								
lacciolaci	ioi articipat	ca oondh	WOIK								
Background					_						
SPRWS recelectrical en											
in helping to											
currently not	well unders	tood. The	se funds a	re reserve	d in						
anticipation				improve S	SCADA						
infrastructure	e on campus	s is necess	ary.								
Strategic Pl						Schedule	)				
	Infrastructur			rmance		Planning					
		Quality w				Design					
	High	performing	workforce	9		Construct					
						Completion	on				
Operational	Implication	19				Project R	eferences	<u> </u>			
Operational	mphoduoi	13				1 TOJECT IV	CICICIO	<u> </u>			
NOTES						•					
			Note: R	evenue a	nd Expens	ses Below	are in Th	ousands			
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital										450k	450k
Bond											0k
Grant Total	0k	0k	0k	0k	0k	0k	0k	0k	0k	450k	0k <b>450k</b>
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution										450k	450k
Total	0k	0k	0k	0k	0k	0k	0k	0k	0k	450k	450k

Project Name	McCarron's Pumping - Replace 125 V DC Valve Controllers for Pumps	Infrastructure Category	Pumps
Division	Production	Work type	Replacement
discharge va	cription ability in electrical system that powers pump alves by adding redundancy or replacing older vith more modern equipment		
discharge va	ting a pump, the timing of the opening/closing of the alve is particularly critical. The pump startup will fail		
All pumps a volt direct cu system is a In order to a several appropriate that it is not a several appropriate that is the 125 V Moving only	rge valve fails to open.  the McCarron's station depend upon the same 125 arrent system to open/close discharge valves. This single point of failure and a liability.  ddress this single point of failure in a critical system, to aches should be considered: 1. Moving all alves to a 480 V AC system, 2. Creating redundancy DC system to eliminate the single point of failure, 3. some discharge valves to a 480 V AC system so in the 125 V DC system does not result in a full loss		
Strategic P	an Goal Infrastructure strategy and performance	Schedule Planning	00.0005
	illiastructure strategy and performance		Q2 2025
		Design	Q4 2025 to Q2 2026
		Construction Completion	2026 2027
Operationa	<u>Implications</u>	Project References	
NOTES		1	

SPRWS will work with a hired electrical engineering firm to consider approaches to address this issue and effectively manage both risk and cost.

	Note: Revenue and Expenses Below are in Thousands												
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Capital		300k									300k		
Bond											0k		
Grant											0k		
Total	0k	300k	0k	300k									
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Distribution		300k									300k		
Total	0k	300k	0k	300k									



# **Pump Station Projects**

2025 – 2034 Capital Improvement Plan

**Saint Paul Regional Water Services** 

Project Name Beebe Infrastructure Category
Division Distribution Work type

# **Project Description**

Addition of a permanent generator.

Instrumentation and communication upgrades.

Building Rehabilitation and Generator Installation.

Replacement of pumps and valves.

# **Background**

In November 2023 the Pump Station Master Plan was finalized. The intent of this report was to assist with identifying and evaluating pump stations assets. The asset improvements identified in the report are based on visual inspections completed as part of the field investigations by a consultant and discussions with SPRWS staff. The report summarizes the assets at each pump station, identifies improvements, and provides budgetary costs for improvements. Staff used the recommendations outline in this report to inform the proposed infrastructure investments outline for this asset.



Pumps

Rehabilitation

Strategic Plan Goal	Schedule	
Financial stability	Instrument and comms upgrade	2025
Infrastructure strategy and performance	Generator	2026
	Building and Site Rehabilitation	2026 & 2029
	Replace pumps and valves	2026

# Operational Implications

Reduction in maintenance needs and reliability concerns with the pump station network.

# Project References

Pump station master plan

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	16,200	1,011,800	0	0	87,800	0	0	0	0	0	1,115,800
Bond											
Grant											
Total	16,200	1,011,800	0	0	87,800	0	0	0	0	0	1,115,800
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	16,200	1,011,800	0	0	87,800	0	0	0	0	0	1,115,800
Total	16,200	1,011,800	0	0	87,800	0	0	0	0	0	1,115,800

 Project Name
 Hazel Park
 Infrastructure Category
 Pumps

 Division
 Distribution
 Work type
 Rehabilitation

# **Project Description**

Addition of a permanent generator.

Instrumentation and communication upgrades.

Building Rehabilitation and Generator Installation.

Replacement of pumps and valves.

# **Background**

In November 2023 the Pump Station Master Plan was finalized. The intent of this report was to assist with identifying and evaluating pump stations assets. The asset improvements identified in the report are based on visual inspections completed as part of the field investigations by a consultant and discussions with SPRWS staff. The report summarizes the assets at each pump station, identifies improvements, and provides budgetary costs for improvements. Staff used the recommendations outline in this report to inform the proposed infrastructure investments outline for this asset.



Strategic Plan Goal	Schedule	Schedule				
Financial stability	Generator	2025				
Infrastructure strategy and performance	Instrument and comms upgrade	2025				
	Exterior Site Rehabilitation	2027				
	Building Rehabilitation	2029				
	Replace pumps and valves	2029				

# Operational Implications

Reduction in maintenance needs and reliability concerns with the pump station network

# Project References

Pump station master plan

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	308,300	0	76,000	0	676,900	0	0	0	0	0	1,061,200
Bond											
Grant											
Total	308,300	0	76,000	0	676,900	0	0	0	0	0	1,061,200
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	308,300	0	76,000	0	676,900	0	0	0	0	0	1,061,200
Total	308,300	0	76,000	0	676,900	0	0	0	0	0	1,061,200

Project Name Highland #1 Infrastructure Category Pumps
Division Distribution Work type Rehabilitation

#### **Project Description**

Instrumentation and communication upgrades.
Building Rehabilitation and Security improvements.
Replacement of pumps and valves.

# **Background**

In November 2023 the Pump Station Master Plan was finalized. The intent of this report was to assist with identifying and evaluating pump stations assets. The asset improvements identified in the report are based on visual inspections completed as part of the field investigations by a consultant and discussions with SPRWS staff. The report summarizes the assets at each pump station, identifies improvements, and provides budgetary costs for improvements. Staff used the recommendations outline in this report to inform the proposed infrastructure investments outline for this asset.



Strategic Plan GoalScheduleFinancial stabilityBuilding Rehabilitation2025/2030/2031Infrastructure strategy and performanceInstrument and comms upgrade2025Security improvements2030Replace pumps and valves2031

Operational Implications

Reduction in maintenance needs and reliability concerns with the pump station network

Project References

Pump station master plan

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	21,600	0	0	28,000	0	27,600	573,200	0	0	0	650,400
Bond											
Grant											
Total	21,600	0	0	28,000	0	27,600	573,200	0	0	0	650,400
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	21,600	0	0	28,000	0	27,600	573,200	0	0	0	650,400
Total	21,600	0	0	28,000	0	27,600	573,200	0	0	0	650,400

Project Name Highland #2
Division Distribution Highland #2
Work type Rehabilitation

Project Description

Structure Rehabilitation and communication upgrades.

Safety and security improvements.

Replacement of pumps and valves

# **Background**

In November 2023 the Pump Station Master Plan was finalized. The intent of this report was to assist with identifying and evaluating pump stations assets. The asset improvements identified in the report are based on visual inspections completed as part of the field investigations by a consultant and discussions with SPRWS staff. The report summarizes the assets at each pump station, identifies improvements, and provides budgetary costs for improvements. Staff used the recommendations outline in this report to inform the proposed infrastructure investments outline for this asset.



Strategic Plan Goal

Financial stability

Infrastructure strategy and performance

Schedule

Scriedule							
Structure Rehabilitation	2025/2026/2028						
Instrument and comms upgrade	2025						
Replace pump	2028						
Security improvements	2030						

# Operational Implications

Reduction in maintenance needs and reliability concerns with the pump station network

# Project References

Pump station master plan

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	37,900	11,200	0	459,600	0	27,600	0	0	0	0	536,300
Bond											
Grant											
Total	37,900	11,200	0	459,600	0	27,600	0	0	0	0	536,300
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	37,900	11,200	0	459,600	0	27,600	0	0	0	0	536,300
Total	37,900	11,200	0	459,600	0	27,600	0	0	0	0	536,300

Project Name Mailand
Division Distribution

Infrastructure Category Work type

Pumps Rehabilitation

#### **Project Description**

Instrumentation and communication upgrades.

Security improvements.

Building Rehabilitation

Install Permanent Generator

Replacement of pumps, valves, MCC, and Electrical

# Background

In November 2023 the Pump Station Master Plan was finalized. The intent of this report was to assist with identifying and evaluating pump stations assets. The asset improvements identified in the report are based on visual inspections completed as part of the field investigations by a consultant and discussions with SPRWS staff. The report summarizes the assets at each pump station, identifies improvements, and provides budgetary costs for improvements. Staff used the recommendations outline in this report to inform the proposed infrastructure investments outline for this asset.



# Strategic Plan Goal

Financial stability

Infrastructure strategy and performance

Schedule	
Replace Electrical, Install Gen	2024
Instrument and comms upgrade	2024
Building Rehabilitation	2028
Security improvements	2028

# Operational Implications

Reduction in maintenance needs and reliability concerns with the pump station network.

# Project References

Pump station master plan

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	0	0	136,100	0	0	0	0	0	0	136,100
Bond											
Grant											
Total	0	0	0	136,100	0	0	0	0	0	0	136,100
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	0	0	136,100	0	0	0	0	0	0	136,100
Total	0	0	0	136,100	0	0	0	0	0	0	136,100

Project Name Division Roselawn Distribution Infrastructure Category Work type

Pumps Rehabilitation

#### **Project Description**

Instrumentation and communication upgrades.

Security improvements.

Pump and Valve Replacement.

Add Dehumidification

Building and Site Rehabilitation.

# Background

In November 2023 the Pump Station Master Plan was finalized. The intent of this report was to assist with identifying and evaluating pump stations assets. The asset improvements identified in the report are based on visual inspections completed as part of the field investigations by a consultant and discussions with SPRWS staff. The report summarizes the assets at each pump station, identifies improvements, and provides budgetary costs for improvements. Staff used the recommendations outline in this report to inform the proposed infrastructure investments outline for this asset.



# Strategic Plan Goal

Financial stability

Infrastructure strategy and performance

Schedule	
Instrument and comms upgrade	2025
Building and Site Rehabilitation	2026/2027/2030
Replace pumps and valves	2030
Security improvements	2030

# Operational Implications

Reduction in maintenance needs and reliability concerns with the pump station network

# Project References

Pump station master plan

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	10,800	16,900	108,000	0	0	700,600	0	0	0	0	836,300
Bond											
Grant											
Total	10,800	16,900	108,000	0	0	700,600	0	0	0	0	836,300
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	10,800	16,900	108,000	0	0	700,600	0	0	0	0	836,300
Total	10,800	16,900	108,000	0	0	700,600	0	0	0	0	836,300

 Project Name
 St Anthony
 Infrastructure Category
 Pumps

 Division
 Distribution
 Work type
 Rehabilitation

#### **Project Description**

Instrumentation and communication upgrades.

Security improvements.

Replace Motor Control Center and Lighting Transformer.

Replacement of pumps and valves.

Building and Exterior Rehabilitation

# Background

In November 2023 the Pump Station Master Plan was finalized. The intent of this report was to assist with identifying and evaluating pump stations assets. The asset improvements identified in the report are based on visual inspections completed as part of the field investigations by a consultant and discussions with SPRWS staff. The report summarizes the assets at each pump station, identifies improvements, and provides budgetary costs for improvements. Staff used the recommendations outline in this report to inform the proposed infrastructure investments outline for this asset.



# Strategic Plan Goal

Financial stability

Infrastructure strategy and performance

Schedule

Instrument and comms upgrade	2025
Building and Site Rehabilitation	2025, 2027, 2031
Replace pumps and valves	2027
Security improvements	2031

# Operational Implications

Reduction in maintenance needs and reliability concerns with the pump station network

# Project References

Pump station master plan

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	32,900	0	873,800	0	0	0	72,500	0	0	0	979,200
Bond											
Grant											
Total	32,900	0	873,800	0	0	0	72,500	0	0	0	979,200
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	32,900	0	873,800	0	0	0	72,500	0	0	0	979,200
Total	32,900	0	873,800	0	0	0	72,500	0	0	0	979,200

**Project Name** West Side Division

Distribution

Infrastructure Category Work type

Pumps Rehabilitation

Project Description

Instrumentation and communication upgrades.

Security improvements.

Building and Site Rehabilitation.

Replacement of pumps and valves.

# **Background**

In November 2023 the Pump Station Master Plan was finalized. The intent of this report was to assist with identifying and evaluating pump stations assets. The asset improvements identified in the report are based on visual inspections completed as part of the field investigations by a consultant and discussions with SPRWS staff. The report summarizes the assets at each pump station, identifies improvements, and provides budgetary costs for improvements. Staff used the recommendations outline in this report to inform the proposed infrastructure investments outline for this asset.



Strategic Plan Goal

Financial stability

Infrastructure strategy and performance

Schedule

Instrument and comms upgrade	2025
Safety improvements	2025, 2028, 2031
Security improvements	2031

# Operational Implications

Reduction in maintenance needs and reliability concerns with the pump station network.

# Project References

Pump station master plan

				•	•	•	•				
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	61,700	0	0	48,700	0	0	153,300	0	0	0	263,700
Bond											
Grant											
Total	61,700	0	0	48,700	0	0	153,300	0	0	0	263,700
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	61,700	0	0	48,700	0	0	153,300	0	0	0	263,700
Total	61,700	0	0	48,700	0	0	153,300	0	0	0	263,700

Project Name West St Paul
Division Distribution

Infrastructure Category Work type

Pumps Rehabilitation

# **Project Description**

Instrumentation and communication upgrades. Security improvements.

Building Rehabilitation.

# **Background**

In November 2023 the Pump Station Master Plan was finalized. The intent of this report was to assist with identifying and evaluating pump stations assets. The asset improvements identified in the report are based on visual inspections completed as part of the field investigations by a consultant and discussions with SPRWS staff. The report summarizes the assets at each pump station, identifies improvements, and provides budgetary costs for improvements. Staff used the recommendations outline in this report to inform the proposed infrastructure investments outline for this asset.



# Strategic Plan Goal

Financial stability

Infrastructure strategy and performance

Schedule	
Instrument and comms upgrade	2025
Building Rehabilitation	2027 & 2031
Security improvements	2031

# Operational Implications

Reduction in maintenance needs and reliability concerns with the pump station network.

# Project References

Pump station master plan

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	16,200	0	26,300	0	0	0	47,100	0	0	0	89,600
Bond											
Grant											
Total	16,200	0	26,300	0	0	0	47,100	0	0	0	89,600
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	16,200	0	26,300	0	0	0	47,100	0	0	0	89,600
Total	16,200	0	26,300	0	0	0	47,100	0	0	0	89,600

Project Name Low Service Pump Replacement

Infrastructure Category Pumps

**Division** Production

Work type Replacement

# **Project Description**

Replace one low service pump and install a variable frequency drive.

# **Background**

Four pumps serve the low service system, and they have each been in service for an extended period of time. This project anticipates replacing one of these pumps and potentially including a VFD as well.

This project has been scheduled with the assumption that it will be optimal to replace a low service pump prior to the low service reservoir demolition/replacement project.

The O&M spending plan calls for a holistic review of low service pumping in 2025. That review will ultimately inform our decisions about whether this project should be pursued in 2027 as planned and should provide us with better cost estimates.



Planning	2026
Design	2026
Construction	2027
Completion	2027
	Design Construction

# **Operational Implications**

Likely to result in some electrical savings

# **Project References**

# **NOTES**

Note: The O&M Budget for 2025 includes a project to investigate Low Service Pumping. This project may need to move up in the budget

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital			450k								450k
Bond											0k
Grant											0k
Total	0k	0k	450k	0k	450k						
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution			450k								450k
Total	0k	0k	450k	0k	450k						

Project Name	High Service Pump Replacement	Infrastructure Category	Pumps
Division	Production	Work type	Replacement
<b>Backgroun</b> Several pur each been i anticipates	igh service pump		

Strategic Plan Goal	Schedule						
Infrastructure strategy and performance	Planning	2031					
	Design						
	Construction	2032					
	Completion	2032					
	'						
Operational Implications	Project References						

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital								1,300k			1,300k
Bond											0k
Grant											0k
Total	0k	0k	0k	0k	0k	0k	0k	1300k	0k	0k	1300k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution								1300k			1300k
Total	0k	0k	0k	0k	0k	0k	0k	1300k	0k	0k	1300k



# **Water Storage Projects**

2025 – 2034 Capital Improvement Plan

**Saint Paul Regional Water Services** 

**Project** Surge Tank Construction (in Prep. For LS Reservoir

Name Demo.)

Demo )

Production

Infrastructure Category Storage

Work type Expansion

# **Project Description**

SPRWS anticipates constructing a surge tank in advance of the planned reconstruction of the Low Service Reservoir (see separate CIP sheet).

# **Background**

Division

As referenced elsewhere in the CIP, SPRWS anticipates that replacement of the Low Service reservoir will be necessary in the next ten years. Historically, we have struggled to operate when the Low Service Reservoir is taken offline. For example, we have had large-diameter main breaks in this scenario.

We believe that these operational struggles are due to pumps without VFDs pumping directly into the distribution pipeline with no pressure break.



Strategic Plan Goal	Schedule	Schedule				
Excellent customer service	Planning	2025				
Infrastructure strategy and performance	Design	2026				
	Construction	2026-2027				
	Completion	2027				

# **Operational Implications**

This would be a new piece of equipment to maintain, albeit one with fairly minimal maintenance requirements

#### **Project References**

Jacobs engineering has performed a preliminary investigation of this concept. The resulting report can be found here:

V:\Production\Budgeting and Capital Planning\2. Capital Planning\3. Project Information\Surge Tank or Tower for Low Service

#### **NOTES**

Constructing this surge tank should allow the low service area to operate without wide swings in pressure upon pump startup/shut down. Doing this work in advance of the LS Reservoir reconstruction will give us the opportunity to operate in this scenario for an extended period of time prior to taking the LS Reservoir out of service. Also, constructing this in advance will give us the opportunity to fully investigate the condition of the existing Low Service Reservoir to determine if replacement is truly the best course of action.

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital		150k	1150k								1300k
Bond											0k
Grant											0k
Total	0k	150k	1150k	0k	1300k						
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution		150k	1150k								1300k
Total	0k	150k	1150k	0k	1300k						

**Project** 

Low Service Reservoir Replacement

Name Division

Production

Infrastructure Category Storage

Work type Replacement

# **Project Description**

Anticipated work scope includes demolition of the existing low service reservoir and construction of a new reservoir on the McCarron's Campus.

Further inspection of the reservoir is desirable to determine whether replacement is necessary or if rehabilitation may be possible.

# **Background**

The Low Service Reservoir was originally constructed in the 1920s. In past years, we've experienced issues with leaking from this reservoir. At times, the source of the leakage is impossible to identify/locate. One such leak that could not be located and fixed has limited our ability to operate the reservoir.

Ongoing construction at the McCarron's Water Treatment Plant has revealed elevated water tables. These elevated water tables may be due to leakage in the low service reservoir. Various tests have been inconclusive.

We anticipate that this project will follow the construction of a surge/pressure tank. The surge/pressure tank construction has its own CIP sheet in this Capital Improvement Plan.



# Strategic Plan Goal Schedule Excellent customer service Planning 2027 Infrastructure strategy and performance Design 2028 Financial stability Construction 2029-2030 Completion 2030

# **Operational Implications**

Because the existing reservoir appears to be leaking, this project should lead to a reduction in non-revenue water loss.

Maintenance of the new reservoir should be similar

# Project References

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital											0k
Bond					7500k	7500k					15000k
Grant											0k
Total	0k	0k	0k	0k	7500k	7500k	0k	0k	0k	0k	15000k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution					7500k	7500k					15000k
Total	0k	0k	0k	0k	7500k	7500k	0k	0k	0k	0k	15000k



#### **Project Description**

Interior, full tank and warranty inspection.

Full paint and safety improvments.

# **Background**

The Cottage Tank is a standpipe style storage facility and is suseptible to occational decline of chlorine residual during summer months, partly due to its location within the distribution system. The tank is tentatively scheduled for painting and structural improvements in 2026. During the interim period, an analysis of the water distribution system will be conducted to determine how to maximize the water storage value of the tank and provide greater tank turnover or cycling within the system. Repairs to the concrete base slab are being conducted in 2024 by distribution staff.



# Strategic Plan Goal Financial stability

Infrastructure strategy and performance

Schedule	
Full tank inspection	2025
Painting and structural repairs	2026
Safety improvements	2026
Interior inspection	2031
	-

# Operational Implications

Reduction in maintenance needs and reliability concerns with the storage system.

# Project References

Water Tower Assessments Report

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	11,300	1,236,500	0	8,900	0	0	10,700	0	0	0	1,267,400
Bond											
Grant											
Total	11,300	1,236,500	0	8,900	0	0	10,700	0	0	0	1,267,400
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	11,300	1,236,500	0	8,900	0	0	10,700	0	0	0	1,267,400
Total	11,300	1,236,500	0	8,900	0	0	10,700	0	0	0	1,267,400



Distribution

Rehabilitation

**Project Description** 

Interior tank and warranty inspection at Ferndale tank.

# Background

Water storage tanks are inspected on a 5-year rotating cycle to evaluate physical condition and identify deficiencies needing rehabilitation. The Ferndale tank was last reconditioned in 2022, including repair of minor physical deficiencies identified prior to painting. The five year inspection cycle will begin in 2028 following the post construction warranty inspection in 2023. Pressure transmitter equipment is scheduled for replacement in 2024.



Strategic Plan Goal

Financial stability

Infrastructure strategy and performance

Schedule

2024 Pressure Transmitter Tank Inspection 2028

# Operational Implications

Reduction in maintenance needs and reliability concerns with the storage system.

# Project References

Water Tower Assessments Report

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	0	0	9,500	0	0	0	0	15,400	0	24,900
Bond											
Grant											
Total	0	0	0	9,500	0	0	0	0	15,400	0	24,900
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	0	0	9,500	0	0	0	0	15,400	0	24,900
Total	0	0	0	9,500	0	0	0	0	15,400	0	24,900

 Project Name
 Highland #2 Tank
 Infrastructure Category
 Storage

 Division
 Distribution
 Work type
 Rehabilitation

# **Project Description**

Interior tank and warranty inspection. Full paint and safety improvments.

# **Background**

Water storage tanks are inspected on a 5-year rotating cycle to evaluate physical condition and identify deficiencies needing rehabilitation. The Highland No. 2 tank was last reconditioned in 2024, including replacement of paint coating and significant structural repairs of all roof rafters and replacement of handrails, roof vent, lighting, manway and overflow components.



 Strategic Plan Goal
 Schedule

 Financial stability
 Painting
 2024

 Infrastructure strategy and performance
 Structural Rehabilitation
 2024

 Warranty inspection
 2026

 Interior tank inspection
 2031

Operational Implications

Reduction in maintenance needs and reliability concerns with the storage system.

Project References

Water Tower Assessments Report

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	8,200	0	0	0	0	10,700	0	0	0	18,900
Bond											
Grant											
Total	0	8,200	0	0	0	0	10,700	0	0	0	18,900
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	8,200	0	0	0	0	10,700	0	0	0	18,900
Total	0	8,200	0	0	0	0	10,700	0	0	0	18,900

 Project Name
 Highland #3 Tank
 Infrastructure Category
 Storage

 Division
 Distribution
 Work type
 Rehabilitation

# Project Description

Warranty inspection.

Full paint and safety improvments.

#### **Background**

Water storage tanks are inspected on a 5-year rotating cycle to evaluate physical condition and identify deficiencies needing rehabilitation. The Highland No. 3 tank was last reconditioned in 2003. A condition assessment in 2020 identified the eventual need to replace the paint coating and perform minor structural repairs or replacement of handrails, lighting, manway and overflow components. The interior and exterior surfaces are scheduled for painting in 2025.



 Strategic Plan Goal
 Schedule

 Financial stability
 Painting
 2025

 Infrastructure strategy and performance
 Structural Rehabilitation
 2025

 Warranty inspection
 2027

# Operational Implications

Reduction in maintenance needs and reliability concerns with the storage system.

# Project References

Water Tower Assessments Report

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	1,317,200	0	9,100		0	0	0	11,100	0	0	1,337,400
Bond											
Grant											
Total	1,317,200	0	9,100	0	0	0	0	11,100	0	0	1,337,400
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	1,317,200	0	9,100	0	0	0	0	11,100	0	0	1,337,400
Total	1,317,200	0	9,100	0	0	0	0	11,100	0	0	1,337,400



# Project Description

Full tank and warranty inspection.
Full paint and safety improvments.

# Background

Water storage tanks are inspected on a 5-year rotating cycle to evaluate physical condition and identify deficiencies needing rehabilitation. The McKnight tank was last reconditioned in 2008. A condition assessment in 2020 identified the eventual need to perform minor structural repairs and replacement of roof vent, manway and overflow components. The interior and exterior surfaces are scheduled for painting in 2029.



# Strategic Plan Goal Financial stability

Infrastructure strategy and performance

Schedule	
Interior tank inspection	2025
<u> </u>	
Full tank inspection	2028
Painting	2028
Structural Repairs	2028
Warranty inspection	2030

# Operational Implications

Reduction in maintenance needs and reliability concerns with the storage system.

# Project References

Water Tower Assessments Report

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	8,400	0	0	0	1,088,200	9,600	0	17,800	11,500	0	1,135,500
Bond											
Grant											
Total	8,400	0	0	0	1,088,200	9,600	0	17,800	11,500	0	1,135,500
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	8,400	0	0	0	1,088,200	9,600	0	17,800	11,500	0	1,135,500
Total	8,400	0	0	0	1,088,200	9,600	0	17,800	11,500	0	1,135,500



# Project Description

Full tank and warranty inspection. Full paint and safety improvments. Pressure washing and cleaning.

# **Background**

Water storage tanks are inspected on a 5-year rotating cycle to evaluate physical condition and identify deficiencies needing rehabilitation. The Mendota Heights tank was last reconditioned in 2011. A condition assessment in 2020 identified the eventual need to replace the paint coating and perform minor structural repairs or replacement of handrails, lighting, manway and overflow components. This tank is scheduled for interior and exterior paining and structural repairs in 2031



Strategic Plan Goal	Schedule	Schedule					
Financial stability	Cleaning	2025					
Infrastructure strategy and performance	Interior tank inspection	2025					
	Full tank inspection	2030					
	Pressure Transmitter	2026					
	Painting and structural repairs	2031					

# Operational Implications

Reduction in maintenance needs and reliability concerns with the storage system.

# Project References

Water Tower Assessments Report

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	19,700	8,200	0	0	0	13,700	1,241,800	0	10,800	0	1,294,200
Bond											
Grant											
Total	19,700	8,200	0	0	0	13,700	1,241,800	0	10,800	0	1,294,200
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	19,700	8,200	0	0	0	13,700	1,241,800	0	10,800	0	1,294,200
Total	19,700	8,200	0	0	0	13,700	1,241,800	0	10,800	0	1,294,200

Project Name St Athony Tank
Division Distribution St Athony Tank
Work type Storage
Rehabilitation

# **Project Description**

Interior and full tank inspection.

Instrumentation and communication upgrades.

#### **Background**

Water storage tanks are inspected on a 5-year rotating cycle to evaluate physical condition and identify deficiencies needing rehabilitation. The St Anthony tank was last reconditioned in 2019, including repair of minor physical deficiencies identified prior to painting. This tank is currently not scheduled for repainting until 2040. Pressure transmitter equipment is scheduled for replacement in 2026 or before.



Strategic Plan Goal Financial stability

Infrastructure strategy and performance

Schedule	
Interior tank inspection	2025
Full tank inspection	2030
Instrument and comm upgrades	2026

# Operational Implications

Reduction in maintenance needs and reliability concerns with the storage system.

# Project References

Water Tower Assessments Report

#### NOTES

2025 and Future expenses are professional services for condition assessments. While directly contributing to extending the service life of the tank, these expenses may not qualify as capital expenditures.

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	8,400	8,200	0	0	0	13,700	0	0	0	0	30,300
Bond											
Grant											
Total	8,400	8,200	0	0	0	13,700	0	0	0	0	30,300
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	8,400	8,200	0	0	0	13,700	0	0	0	0	30,300
Total	8,400	8,200	0	0	0	13,700	0	0	0	0	30,300

**Project Name** State Fairgrounds Tank Division

Distribution

Infrastructure Category Work type

Storage Rehabilitation

# **Project Description**

Interior, full tank and warranty inspection. Full paint and safety improvments. Pressure washing and cleaning.

#### **Background**

Water storage tanks are inspected on a 5-year rotating cycle to evaluate physical condition and identify deficiencies needing rehabilitation. The State Fairgrounds tank was last reconditioned with a partial spot repair to paint coatings in 2013. A condition assessment in 2020 identified the eventual need to replace the paint coating and perform minor structural repairs or replacement of handrails, lighting, manway and overflow components. The tank is scheduled for reconditioning in 2030. Pressure transmitter equipment is also scheduled for replacement.



# Strategic Plan Goal

Financial stability

Infrastructure strategy and performance

	The second section is
Schedule	
Cleaning	2025
Interior tank inspection	2025
Full tank inspection	2028
Pressure Transmitter	2026
Interior and Exterior Painting and Structural	2030
Repairs	

# **Operational Implications**

Reduction in maintenance needs and reliability concerns with the storage system.

# **Project References**

Water Tower Assessments Report

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	19,700	8,200	0	12,700	0	1,156,700	9,900	0	0	11,500	1,218,700
Bond											
Grant											
Total	19,700	8,200	0	12,700	0	1,156,700	9,900	0	0	11,500	1,218,700
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	19,700	8,200	0	12,700	0	1,156,700	9,900	0	0	0	1,207,200
Total	19,700	8,200	0	12,700	0	1,156,700	9,900	0	0	0	1,207,200

 Project Name
 Sterling Tank
 Infrastructure Category
 Storage

 Division
 Distribution
 Work type
 Rehabilitation

# **Project Description**

Interior and full tank inspection.

Instrumentation and communication upgrades.

#### **Background**

Water storage tanks are inspected on a 5-year rotating cycle to evaluate physical condition and identify deficiencies needing rehabilitation. The Sterling tank was last reconditioned in 2019, including repair of minor physical deficiencies identified prior to painting. The five year inspection cycle will begin in 2025 based on the past warranty inspection. This tank is currently scheduled for painting in 2039 or beyond.



<u>Strategic Plan Goal</u> Financial stability Infrastructure strategy and performance 
 Schedule

 Interior tank inspection
 2025

 Full tank inspection
 2030

 Pres Transmitter Replacement
 2026

# Operational Implications

Reduction in maintenance needs and reliability concerns with the storage system.

# **Project References**

Water Tower Assessments Report

#### **NOTES**

2025 and Future expenses include professional services for condition assessments. While directly contributing to extending the service life of the tank, these expenses may not qualify as capital expenditures.

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	8,400	8,200	0	0	0	13,700	0	0	0	0	30,300
Bond											
Grant											
Total	8,400	8,200	0	0	0	13,700	0	0	0	0	30,300
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	8,400	8,200	0	0	0	13,700	0	0	0	0	30,300
Total	8,400	8,200	0	0	0	13,700	0	0	0	0	30,300

	4		
Project Name	Stillwater Tank	Infrastructure Catego	ory Storage
Division	Distribution	Work type	Rehabilitation

Full tank and warranty inspection. Full paint and safety improvments.

#### **Background**

Water storage tanks are inspected on a 5-year rotating cycle to evaluate physical condition and identify deficiencies needing rehabilitation. The Stillwater tank was constructed in 1958 and last reconditioned in 2011. A condition assessment in 2020 identified the eventual need to replace the paint coating and perform minor structural repairs or replacement of handrails, lighting, manway and overflow components. The interior and exterior surfaces have experienced accellerated weathering and are scheduled for painting in 2027. The proposed facility improvements are outlined in a facility inspection conducted in 2020.



## <u>Strategic Plan Goal</u> Financial stability

Infrastructure strategy and performance

Schedule	
Full tank inspection	2026
Painting	2027
Structural Repairs	2027
Warranty inspection	2029

#### Operational Implications

Reduction in maintenance needs and reliability concerns with the storage system.

#### **Project References**

Water Tower Assessments Report

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	11,700	1,256,200	0	9,200	0	10,700	0	0	0	1,287,800
Bond											
Grant											
Total	0	11,700	1,256,200	0	9,200	0	10,700	0	0	0	1,287,800
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	11,700	1,256,200	0	9,200	0	10,700	0	0	0	1,287,800
Total	0	11,700	1,256,200	0	9,200	0	10,700	0	0	0	1,287,800

Project Name West St Paul Tank
Division Distribution

Infrastructure Category Work type

Storage Rehabilitation

Project Description

Interior and full tank inspection.

Instrumentation and communication upgrades.

#### **Background**

Most storage facilities receive interior and full tank inspections on a reoccurring basis. Any findings from the inspections can also initiate other safety improvements at the facility as well as the need for other maintenance activates, such as pressure washing. Pressure transmitter equipment has reached the end of service life, is no longer supported by the supplier, and is scheduled for replacement.



Strategic Plan Goal

Financial stability

Infrastructure strategy and performance

Schedule	
Interior tank inspection	2025
Full tank inspection	2030
Instrument and comm upgrades	2026

#### Operational Implications

Reduction in maintenance needs and reliability concerns with the storage system.

#### **Project References**

Water Tower Assessments Report

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	8,400	8,200	0	0	0	13,700	0	0	0	0	30,300
Bond											
Grant											
Total	8,400	8,200	0	0	0	13,700	0	0	0	0	30,300
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	8,400	8,200	0	0	0	13,700	0	0	0	0	30,300
Total	8,400	8,200	0	0	0	13,700	0	0	0	0	30,300

Project Name Division

West Side and Hillcrest Overflow Modifications

Distribution

Infrastructure Category Work type

Storage Rehabilitation

#### Project Description

Modify emergency overflows for compliance with MDH standards

#### Background

Recent inspection by representatives from the Minnesota Department of Health determined that the emergency overflow for both the Hillcrest and West Side Reservoirs are not compliant with current design standards. The project would include modification of the overflow structures to discharge above ground level per current code. Design is scheduled to occur in 2026, with construction spanning the late fall through spring of 2027/2028.



Strategic Plan Goal

Financial stability

Infrastructure strategy and performance

Schedule

 Design
 2026

 Construction
 2027

 Construction
 2028

Operational Implications

Regulatory compliance and protection of water quality.

Project References

EPA and MDH Inspections Results

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	75,000	250,000	250,000	0	0	0	0	0	0	575,000
Bond											
Grant											
Total	0	75,000	250,000	250,000	0	0	0	0	0	0	575,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	75,000	250,000	250,000	0	0	0	0	0	0	575,000
Total	0	75,000	250,000	250,000	0	0	0	0	0	0	575,000



# Distribution Water Mains, Hydrants, and Valves

2025 – 2034 Capital Improvement Plan

Saint Paul Regional Water Services

Project Name Wat Division Dist

Water Main Replacement

Distribution

Infrastructure Category Work type

Watermain Replacement

#### **Project Description**

Annual budget for watermain replacement and rehabilitation.

#### **Background**

The watermain system is evaluated every fall to identify replacement needs. Replacement is based on age, break history, criticality, and roadway projects identified by cities, counties, and MnDOT. Individual candidate projects are listed on the Water Main Replacement Planning spreadsheet. The average annual capital expense needed to achieve a one percent replacement rate (100-year service life) is estimated to be approximately \$21 million per year (in 2024 dollars). The proposed expenditures below are recommended to provide a steady increase in capital investment toward the \$21 million target, adjusted for the anticipated construction inflation rate in future years.



#### Strategic Plan Goal

Financial stability
Infrastructure strategy and performance

Schedule	
Planning	Q3-Q4
Design	Q4-Q1
Construction	Q2-Q3
Completion	Q3

#### Operational Implications

Reduction in maintenance needs and reliability concerns with watermain in the system.

#### **Project References**

Hydraulic model

Water Main Prioritization Revised Methodology

Water Main Prioritization Study

PCCP Condition & Risk Assessment

PCCP Prioritization Tech Memo

### **NOTES**

Funding amounts shown below include Capital and Surcharge funding sources.

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	13,200,000	13,690,000	14,700,000	15,700,000	16,200,000	18,770,000	20,480,000	28,830,000	29,940,000	31,074,000	202,584,000
Bond											
Grant											
Total	13,200,000	13,690,000	14,700,000	15,700,000	16,200,000	18,770,000	20,480,000	28,830,000	29,940,000	31,074,000	202,584,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	13,200,000	13,690,000	14,700,000	15,700,000	16,200,000	18,770,000	20,480,000	28,830,000	29,940,000	31,074,000	202,584,000
Total	13,200,000	13,690,000	14,700,000	15,700,000	16,200,000	18,770,000	20,480,000	28,830,000	29,940,000	31,074,000	202,584,000

Project Name Division

Hydrant Replacements

Distribution

Infrastructure Category Work type

Valves and hydrants Replacement

#### Project Description

Annual budget for hydrant replacement.

#### Background

The water distribution system contains 10,300 hydrants to provide fire protection for communities and allow flushing of the distribution system. The oldest inservice hydrants date back to 1883. The proposed capital expenditures below are based on the average annual costs to repair of replace hydrants that are damaged to found to be inoperable during the annual inspection of all hydrants. Hydrants included within project areas are also inspected and replaced with corresponding watermain projects.



Strategic Plan Goal Financial stability

Infrastructure strategy and performance

Schedule	
Planning	Q3-Q4
Design	Q4-Q1
Construction	Q2-Q3
Completion	Q3

#### Operational Implications

Reduction in maintenance needs and reliability concerns with hydrants in the system.

#### Project References

Hydraulic model

Water Main Prioritization Revised Methodology Water Main Prioritization Study

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	999,000	1,024,000	1,050,000	1,050,000	1,050,000	1,076,000	1,100,000	1,100,000	1,100,000	1,167,000	10,716,000
Bond											
Grant											
Total	999,000	1,024,000	1,050,000	1,050,000	1,050,000	1,076,000	1,100,000	1,100,000	1,100,000	1,167,000	10,716,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	999,000	1,024,000	1,050,000	1,050,000	1,050,000	1,076,000	1,100,000	1,100,000	1,100,000	1,167,000	10,716,000
Total	999,000	1,024,000	1,050,000	1,050,000	1,050,000	1,076,000	1,100,000	1,100,000	1,100,000	1,167,000	10,716,000



Annual budget for replacement of large diameter valves.

#### **Background**

In addition to typical annual valve replacement work, SPRWS has a growing backlog of large diameter system valves, with a portion of the inventory exeeding 100 years in service. In 2025, additional caplital investment is proposed to begin a systematic process for strategic replacement large diameter valves (16-inches and larger).



Strategic Plan Goal	Schedule	Schedule				
Financial stability	Planning	Q3-Q4				
Infrastructure strategy and performance	Design	Q4-Q1				
	Construction	Q2-Q3				
	Completion	Q3				

### Operational Implications

Reduction in maintenance needs and reliability concerns with valves in the system.

#### Project References

Hydraulic model Water Main Prioritization Revised Methodology Water Main Prioritization Study

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	190,000	195,000	200,000	205,000	210,000	215,000	220,000	225,000	230,000	237,000	2,127,000
Bond											
Grant											
Total	190,000	195,000	200,000	205,000	210,000	215,000	220,000	225,000	230,000	237,000	2,127,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	190,000	195,000	200,000	205,000	210,000	215,000	220,000	225,000	230,000	237,000	2,127,000
Total	190,000	195,000	200,000	205,000	210,000	215,000	220,000	225,000	230,000	237,000	2,127,000



Annual budget for valve replacement and rehabilitation.

#### Background

The water distribution system includes 25,000 system and control valves with original installation dating back to 1887, or up to 135+ years. Each year, the Distribution division responds to multiple valve failures ranging from leaks to operational failure. In addition, valves included within water main project areas are also inspected and replaced. The funding levels proposed below correspond to the average annual expenditures to replace failing valves within the system, adjusted for the estimated annual rate of inflation.



Strategic Plan Goal	Schedule	
Financial stability	Planning	Q3-Q4
Infrastructure strategy and performance	Design	Q4-Q1
	Construction	Q2-Q3
	Completion	Q3

#### Operational Implications

Reduction in maintenance needs and reliability concerns with valves in the system.

#### Project References

Hydraulic model Water Main Prioritization Revised Methodology Water Main Prioritization Study

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	775,000	800,000	825,000	850,000	875,000	900,000	925,000	950,000	980,000	1,009,000	8,889,000
Bond											
Grant											
Total	775,000	800,000	825,000	850,000	875,000	900,000	925,000	950,000	980,000	1,009,000	8,889,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	775,000	800,000	825,000	850,000	875,000	900,000	925,000	950,000	980,000	1,009,000	8,889,000
Total	775,000	800,000	825,000	850,000	875,000	900,000	925,000	950,000	980,000	1,009,000	8,889,000

**Project Name** Prestressed Concrete Pipe Distribution

Infrastructure Category Work type

Watermain Replacement

#### **Project Description**

Division

Annual budget for presetressed concrete pipe assesment, replacement and rehabilitation.

#### **Background**

The water distribution system includes approximately 48 miles of Prestressed Concrete Cylinder Pipe (PCCP). Water mains construction of PCCP material range is size from 16-inches to 42-inches in diameter and generally have higher probability of catestrophic failure, or large ruptures, when damaged. In 2022, SPRWS completed a high level assessment process for evaluating the condition of these important pipe segments. The expenditures below are recommended to perform a program of systematic condition evaluations of PCCP pipe segments using video, acustical, and electromagnetic technology to identify pipe deficiencies and prioritize future replacements.



Strategic Plan Goal										
Financial stability										
Infractructure etrategy and no										

Infrastructure strategy and performance

Schedule	
Planning	Q3-Q4
Design	Q4-Q1
Construction	Q2-Q3
Completion	Q3

#### **Operational Implications**

Reduction in maintenance needs and reliability concerns with watermain in the system.

#### **Project References**

Hydraulic model

Water Main Prioritization Revised Methodology

Water Main Prioritization Study

PCCP Condition & Risk Assessment

PCCP Prioritization Tech Memo

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	135,000	140,000	145,000	150,000	155,000	160,000	165,000	170,000	175,000	180,000	1,575,000
Bond											
Grant											
Total	135,000	140,000	145,000	150,000	155,000	160,000	165,000	170,000	175,000	180,000	1,575,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	135,000	140,000	145,000	150,000	155,000	160,000	165,000	170,000	175,000	180,000	1,575,000
Total	135,000	140,000	145,000	150,000	155,000	160,000	165,000	170,000	175,000	180,000	1,575,000



Project Description Annual budget for new water service connections

#### Work type Replacement

#### **Background**

This line item provides funding for the expenses associated in installation of new water service connections associated with land development and redevelopment activities within the SPRWS service area. Portions of this expense are offset my fees charged for new service connections.



Strategic Plan Goal	Schedule	
Financial stability	Planning	Q3-Q4
Infrastructure strategy and performance	Design	Q4-Q1
	Construction	Q2-Q3
	Completion	Q3

#### **Operational Implications**

Reduction in maintenance needs and reliability concerns with service connections in the system.

Project References
Water Main Prioritization Revised Methodology Water Main Prioritization Study

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	1,750,000
Bond											
Grant											
Total	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	1,750,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	1,750,000
Total	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	1,750,000

Project Name Lead Service Replacements in right of way

Division Distribution

Infrastructure Category Work type

Services Replacement

#### **Project Description**

Annual budget for lead service replacements within the right of way.

#### **Background**

Lead services included within project areas are replaced with or ahead of corresponding watermain projects. Standalone lead service replacment projects also replace lead services in areas across the system. A vast majority of lead service replacement work is funded from ARPA and federal/state PFA sources. However, a smaller portion of projects may involve expenses that are not eligible federal funding based on eligibility criteria. This capital budget is intended to cover various ineligle expenses for the program.



Strategic Plan Goal	Schedule	
Financial stability	Planning	Q3-Q4
Infrastructure strategy and performance	Design	Q4-Q1
	Construction	Q2-Q3
	Completion	Q3

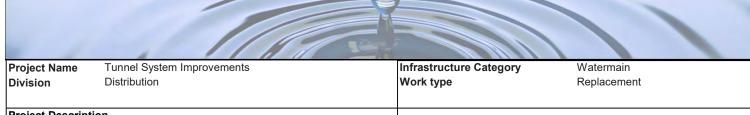
#### **Operational Implications**

Removing lead services from the system to protect public health and reduction in maintenance needs and reliability concerns with service connections in the system.

#### Project References

Water Main Prioritization Revised Methodology Water Main Prioritization Study

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	2,000,000
Bond											
Grant											
Total	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	2,000,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	2,000,000
Total	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	2,000,000



Annual budget for investigation, assessment, and rehabilition of tunnel network.

#### Background

Watermain in certain parts of downtown Saint Paul was installed in tunnels cut out of sandstone bedrock. Over time this sandstone will erode and access can become difficult. In order to ensure access and reliability of the watermain in these tunnels annual inspection, assessment and rehabilitation projects are required. In 2023, SPRWS conducted a condition assessment of the tunnel system and identified a list of specific projects to ensure the stability of the system. The expendutures recommended below provide costs to complete the list of tunnel improvement projects.

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	Saint Paul
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Strategic Plan Goal	Schedule	
Financial stability	Planning	Q3-Q4
Infrastructure strategy and performance	Design	Q4-Q1
	Construction	Q2-Q3
	Completion	Q3

#### **Operational Implications**

Reduction in maintenance needs and reliability concerns with watermain in the system within the tunnels.

#### **Project References**

Tunnel Condition & Risk Assessment

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	489,000	0	0	383,000	686,000	624,000	592,000	633,000	676,000	0	4,083,000
Bond											
Grant											
Total	489,000	0	0	383,000	686,000	624,000	592,000	633,000	676,000	0	4,083,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	489,000	0	0	383,000	686,000	624,000	592,000	633,000	676,000	0	4,083,000
Total	489,000	0	0	383,000	686,000	624,000	592,000	633,000	676,000	0	4,083,000

Project Name	Yard Piping Improvements	Infrastructure Category	Watermain
Division	Production	Work type	Replacement
Project Des	cription		
Reconstruct	portions of piping directly to the west of the oump station		
Background	1		
high and low and the assor at investigat clearwells up.  One sugges gates or valve isolated values and suggested wheader structure.	In the finished water reservoir and piping to/from the reservice pumps is growing old. The pipe network ociated valving is growing old. This project is aimed ing the piping and the valving from the filter to to the point where the water moves off campus.  It is presented in the 2014 master plan was to "add rese so that the 78 inch finished water conduits can without taking down half of the FW reservoir." Also rese, "rebuild yard piping to have influent and effluent tures that provide improved redundancy and reduce to of the old lead gasket joints."		
Strategic Pl	an Goal	Schedule	
<u></u>	Infrastructure strategy and performance	Planning	2032
		Design	
		Construction	2033
		Completion	2033
<u>Operational</u>	<u>Implications</u>	Project References	
NOTES		I	

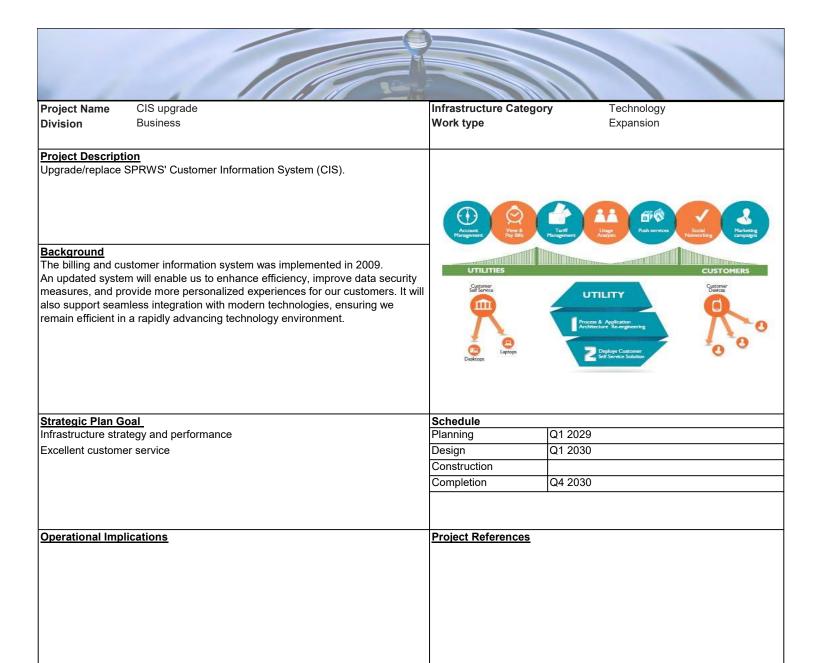
			Note: R	evenue ar	nd Expens	ses Below	are in Th	ousands			
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital									1,200k		1,200k
Bond											0k
Grant											0k
Total	0k	0k	0k	0k	0k	0k	0k	0k	1200k	0k	1200k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution									1200k		1200k
Total	0k	0k	0k	0k	0k	0k	0k	0k	1200k	0k	1200k



## **Technology Projects**

2025 – 2034 Capital Improvement Plan

**Saint Paul Regional Water Services** 



REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	0	0	0	0	3,000,000	0	0	0	0	3,000,000
Bond											
Grant											
Total	0	0	0	0	0	3,000,000	0	0	0	0	3,000,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	0	0	0	0	3,000,000	0	0	0	0	3,000,000
Total	0	0	0	0	0	3,000,000	0	0	0	0	3,000,000



Virus protection will be upgraded to an extended detection and response solution (XDR)

Background
Extended Detection and Response (XDR) is a security solution that extends the capabilities of virus protection by providing a unified view across different security domains, such as endpoints, network, cloud, and email.

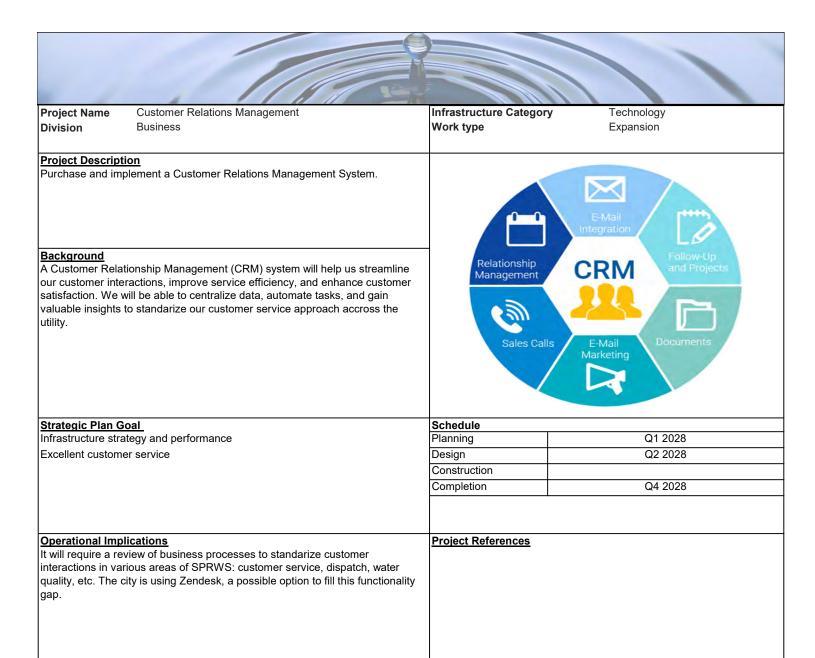


Strategic Plan Goal	Schedule	
Infrastructure strategy and performance	Planning	2025 Q3
	Design	
	Construction	
	Completion	2025 Q3

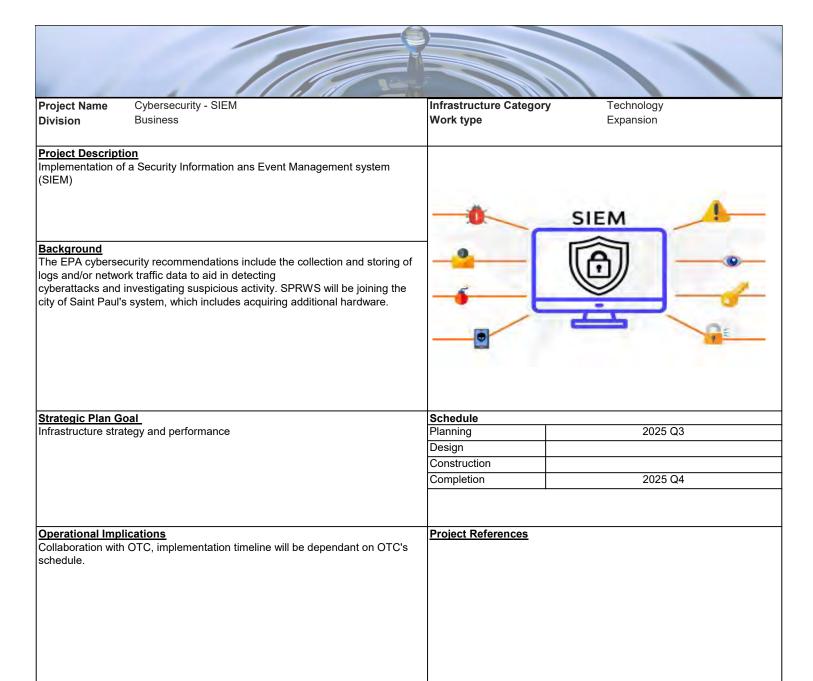
Operational Implications
Plans to get on the state of MN Crowdstrike program are getting evaluated.

#### **Project References**

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	60,000	0	0	0	0	0	0	0	0	0	60,000
Bond											
Grant											
Total	60,000	0	0	0	0	0	0	0	0	0	60,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	60,000	0	0	0	0	0	0	0	0	0	60,000
Total	60,000	0	0	0	0	0	0	0	0	0	60,000



REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	0	0	200,000	0	0	0	0	0	0	200,000
Bond											
Grant											
Total	0	0	0	200,000	0	0	0	0	0	0	200,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	0	0	200,000	0	0	0	0	0	0	200,000
Total	0	0	0	200,000	0	0	0	0	0	0	200,000



It will create annual maintenance//subscription expenses.

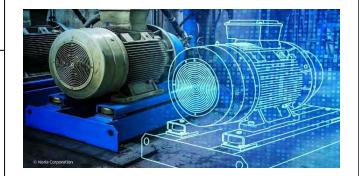
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	200,000	0	0	0	0	0	0	0	0	0	200,000
Bond											
Grant											
Total	200,000	0	0	0	0	0	0	0	0	0	200,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	200,000	0	0	0	0	0	0	0	0	0	200,000
Total	200,000	0	0	0	0	0	0	0	0	0	200,000

Project Name	Digital Twin	Infrastructure Category	Technology
Division	Business	Work type	Expansion

Implementation of a water treatment digital twin - virtual representation of SPRWS' physical water system assets that integrate data, models, and analytics to run simulations utilizing machine learning and artificial intelligence.

#### **Background**

A digital twin in water systems is a virtual model that replicates the physical water infrastructure in real-time. It enables operators to monitor, simulate, and optimize system performance, predict potential issues, and improve decision-making. By providing a dynamic and data-driven representation, digital twins enhance system efficiency, reduce maintenance costs, and support proactive water management.



Strategic Plan Goal	Schedule	
Infrastructure strategy and performance	Planning	Q1 2033
	Design	
	Construction	
	Completion	Q4 2033

#### Operational Implications

The Building Information Modeling system should be implemented first.

#### Project References

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	0	0	0	0	0	0	0	250,000	0	250,000
Bond											
Grant											
Total	0	0	0	0	0	0	0	0	250,000	0	250,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	0	0	0	0	0	0	0	250,000	0	250,000
Total	0	0	0	0	0	0	0	0	250,000	0	250,000

TAMO Francisco		Tobala
Project Name EAMS Expansion Division Business	Infrastructure Category Work type	y Technology Replacement
Project Description Additional integration and customizations required for a successful implementation of EAMS.		
Background Requirements in the EAMS RFP were not sufficiently specified for a more accurate understanfing and cost assessment of customization and integrations necessary for a successful implementation.		DRACLE* Utilities
Strategic Plan Goal Infrastructure strategy and performance	Schedule Planning	Q1 2025
Initiasti dotale strategy and performance	Design	Q1 2020
	Construction	
	Completion	Q2 2025
Operational Implications Area specifically affected is timekeeping. SPRWS doesn't know the functionality of the new timekeeping system the city is also implementing, which makes difficult to understand the integration/customization needs with EAMS.	Project References	

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	500,000	0	0	0	0	0	0	0	0	0	500,000
Bond											
Grant											
Total	500,000	0	0	0	0	0	0	0	0	0	500,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	500,000	0	0	0	0	0	0	0	0	0	500,000
Total	500,000	0	0	0	0	0	0	0	0	0	500,000



Purchase and implement a mobile work force solution to manage all field and customer faced work.

### **Background**

SPRWS performs field and customer faced work that affects assets from various business processes and different data systems, sometimes overlapping. Scheduling and managing the work has been challenging and we are looking for a solution that can handle and distribute information among different systems efficiently.



Strategic Plan Goal	Schedule	
Infrastructure strategy and performance	Planning	2026 Q2
	Design	
	Construction	
	Completion	2026 Q3

Operational Implications

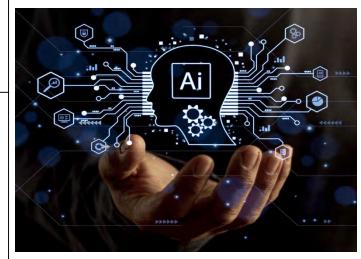
Project References
Information and Technology Roadmap (2022)

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	200,000	0	0	0	0	0	0	0	0	200,000
Bond											
Grant											
Total	0	200,000	0	0	0	0	0	0	0	0	200,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	200,000	0	0	0	0	0	0	0	0	200,000
Total	0	200,000	0	0	0	0	0	0	0	0	200,000

**Project Name** Al Solutions Infrastructure Category Technology Division **Business** Work type Expansion

## Project Description Purchase Al solutions.

Background
Al tools will enhance efficiency, automate repetitive tasks, and unlock datadriven insights. By leveraging AI, we can improve decision-making, streamline processes, and reduce operational costs, allowing our team to focus on higher-

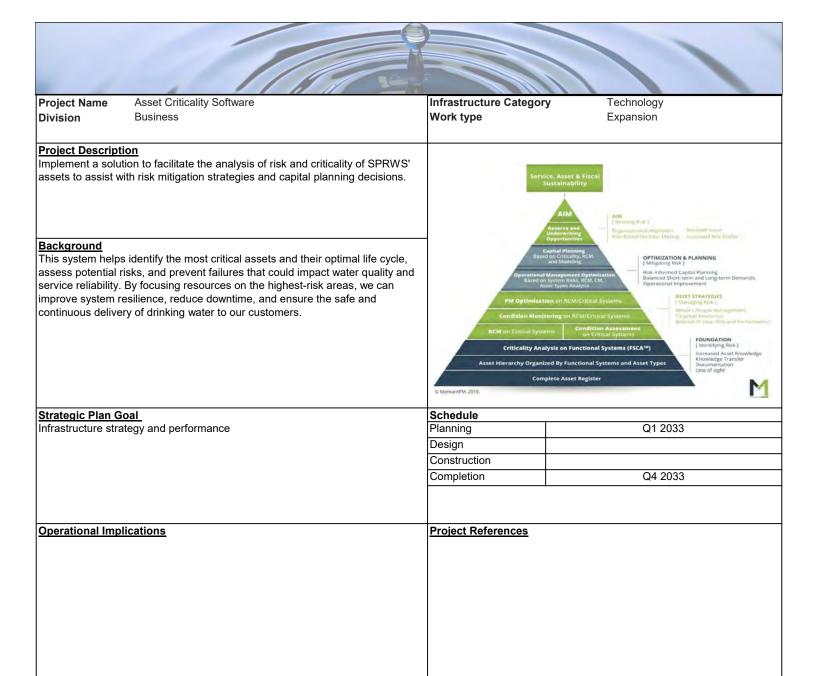


Strategic Plan Goal Schedule Q1 2027 Infrastructure strategy and performance Planning Design Construction Completion Q2 2027

Operational Implications
Work in coordination with the city.

**Project References** 

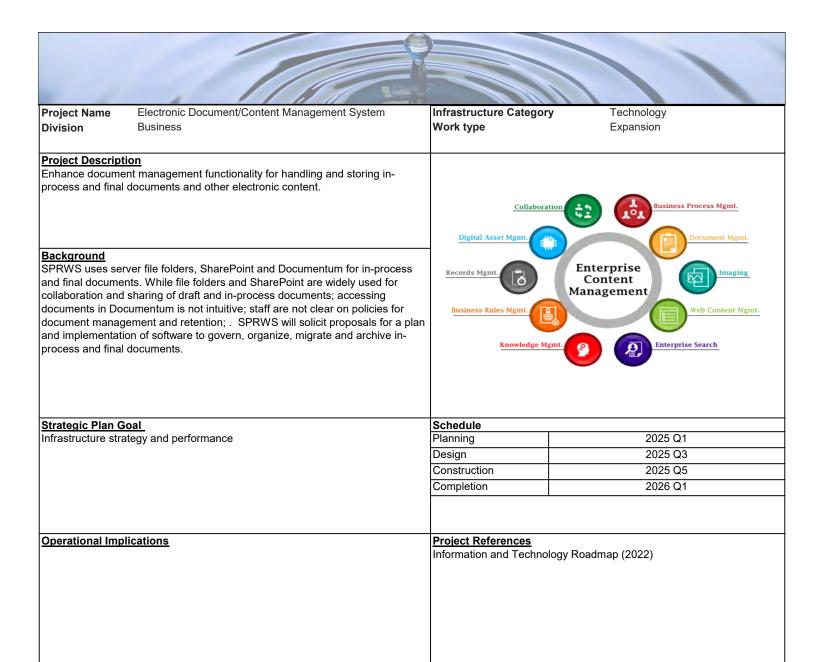
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	0	200,000	0	0	0	0	0	0	0	200,000
Bond											
Grant											
Total	0	0	200,000	0	0	0	0	0	0	0	200,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	0	200,000	0	0	0	0	0	0	0	200,000
Total	0	0	200,000	0	0	0	0	0	0	0	200,000



REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	0	0	0	0	0	0	0	150,000	0	150,000
Bond											
Grant											
Total	0	0	0	0	0	0	0	0	150,000	0	150,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	0	0	0	0	0	0	0	150,000	0	150,000
Total	0	0	0	0	0	0	0	0	150,000	0	150,000

	<del></del>
Work type	Expansion
Detailed Design  Conceptual Design  Programming  Renova	Patrication  Fabrication  Construction 4D/5D  MAINTAIN  Construction Logistics  Operation & Maintenance
Schedule	
Planning	Q1 2032
	04.2022
Completion	Q4 2032
Project References Information and Technology	ogy Roadmap (2022)
	Schedule Planning Design Construction Completion  Project References

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	0	0	0	0	0	0	250,000	0	0	250,000
Bond											
Grant											
Total	0	0	0	0	0	0	0	250,000	0	0	250,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	0	0	0	0	0	0	250,000	0	0	250,000
Total	0	0	0	0	0	0	0	250,000	0	0	250,000



REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	300,000	0	0	0	0	0	0	0	0	300,000
Bond											
Grant											
Total	0	300,000	0	0	0	0	0	0	0	0	300,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	300,000	0	0	0	0	0	0	0	0	300,000
Total	0	300,000	0	0	0	0	0	0	0	0	300,000

		11/1/		
Project Name	Future IT Projects		Infrastructure Category	Technology
Division	Business		Work type	Expansion

Unpredictable IT needs due to the technology evolving environment and cybersecurity threats.

#### Background

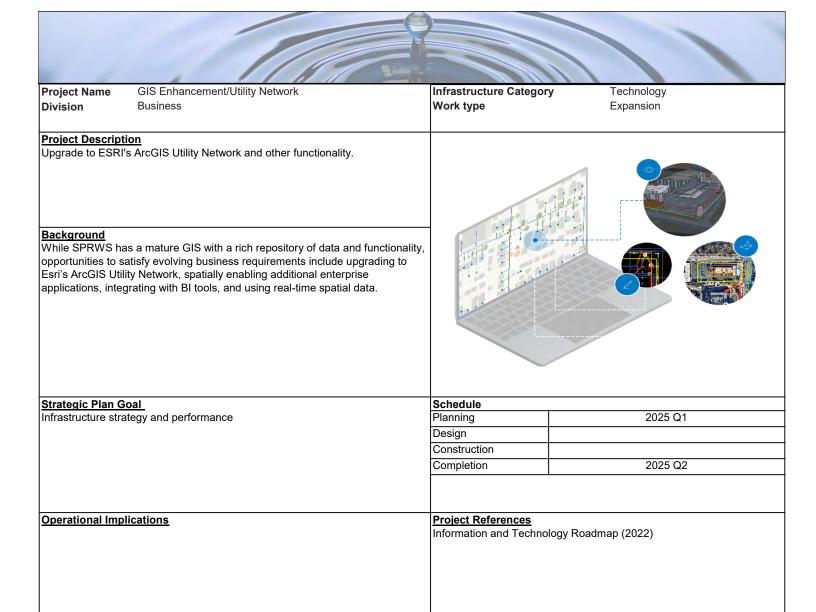
In today's rapidly evolving technology landscape, budgeting extra funds for IT projects is essential to stay ahead of innovation and protect our systems. As cybersecurity threats grow more sophisticated, increased investment is needed to strengthen our defenses, ensure data protection, and maintain system integrity. Allocating additional resources for IT projects will allow us to adapt to emerging technologies, safeguard against cyber risks, and maintain operational resilience in a constantly changing environment.



Strategic Plan Goal	Schedule
Infrastructure strategy and performance	Planning
	Design
	Construction
	Completion

<u>Operational Implications</u> <u>Project References</u>

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	0	0	0	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	6,000,000
Bond											
Grant											
Total	0	0	0	0	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	6,000,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	0	0	0	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	6,000,000
Total	0	0	0	0	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	6,000,000



REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	0	0	250,000	0	0	0	0	0	0	250,000
Bond											
Grant											
Total	0	0	0	250,000	0	0	0	0	0	0	250,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	0	0	250,000	0	0	0	0	0	0	250,000
Total	0	0	0	250,000	0	0	0	0	0	0	250,000

,			
Project Name	Hardware Replacement	Infrastructure Category	Technology
Division	Business	Work type	Replacement
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their replacemen			**************************************

Strategic Plan Goal	Schedule	
Infrastructure strategy and performance	Planning	countinuosly
	Design	
	Construction	
	Completion	
	-	

Operational Implications	Project References

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
			_								
Capital	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	200,000
Bond											
Grant											
Total	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	200,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	200,000
Total	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	200,000

	4 /				
Project Name	Hydraulic Model Enhai	ncements		Infrastructure Category	Technology
Division	Business			Work type	Expansion

SPRWS' hydraulic modeling software is Innovyze InfoWater PRO. Future additional beneficial uses of the model include monitoring actual operating conditions in near-real time.

#### Background

Monitoring system operation in near real time could provide actionable insights into the performance of the utility by tracking system performance and various key performance indicators (KPIs) Integration with SCADA data would support easier updating, calibration, and validation of the modeling output. This real time awareness of actual system performance versus predicted system performance can alert operators to system

anomalies as they occur, calling attention to potential treatment and/or operational issues, and provide improved decision support for designing, planning, maintaining, and operating the water distribution system.



Strategic Plan Goal	Schedule
Infrastructure strategy and performance	Planning
	Design
	Construction
	Completion

#### Operational Implications

Work in conjunction with SCADA integration.

#### **Project References**

Information and Technology Roadmap (2022)

1											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	25,000	0	0	0	0	0	0	0	0	0	25,000
Bond											
Grant											
Total	25,000	0	0	0	0	0	0	0	0	0	25,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	25,000	0	0	0	0	0	0	0	0	0	25,000
Total	25,000	0	0	0	0	0	0	0	0	0	25,000



Converting residential customers to a monthly billing schedule from quarterly billing.

#### **Background**

Switching to monthly water billing instead of quarterly will provide customers with more manageable, predictable payments, reducing the likelihood of bill shock. It will also help improve cash flow for SPRWS, allowing us to address issues more quickly and efficiently. Additionally, monthly billing encourages water conservation by providing more immediate feedback on usage, helping both customers and the environment.



## Strategic Plan Goal Infrastructure strategy and performance

Excellent customer service

Schedule	
Planning	Q1 2028
Design	
Construction	
Completion	Q4 2028

#### Operational Implications

Significant effort to configure our Customer Information System to collect and process meter readings on a monthly basis. The cost of printing bills and the capacity of our printing vendor should also be considered. This effort should be complemented with an ebilling campaing.

#### Project References

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	0	0	1,000,000	0	0	0	0	0	0	1,000,000
Bond											
Grant											
Total	0	0	0	1,000,000	0	0	0	0	0	0	1,000,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	0	0	1,000,000	0	0	0	0	0	0	1,000,000
Total	0	0	0	1,000,000	0	0	0	0	0	0	1,000,000

Project Name	Server Replacement	Infrastructure Category	Technology
Division	Business	Work type	Replacement

SPRWS server replacement annual plan.

#### **Background**

SPRWS servers have a life expectancy of 4 years in the production environment and 4 years in the disaster recovery site.

The replacement plan includes their rotation from the production environment to the disaster recovery site. This process allows us to maximize their life cycle and distribute costs over several years.



Strategic Plan Goal	Schedule	
Infrastructure strategy and performance	Planning	2024 Q3
	Design	
	Construction	
	Completion	2026 Q3

Operational Implications
This project was submitted for the 2024 budget, but it wasn"t included in the final budget.

Disrupting the rotational cycle might result in system failures and will create the need for larger amounts in 2025 and beyond.

The cycle will restart in 2028, three years in a row.

#### **Project References**

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	30,000	31,500		33,075	34,729	36,465	38,288	40,203	42,213	44,324	330,797
Bond											
Grant											
Total	30,000	31,500	0	33,075	34,729	36,465	38,288	40,203	42,213	44,324	330,797
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	30,000	31,500	0	33,075	34,729	36,465	38,288	40,203	42,213	44,324	330,797
Total	30,000	31,500	0	33,075	34,729	36,465	38,288	40,203	42,213	44,324	330,797

					1						
roject Name	Server Swit	ches Replac	ement			Infrastructi	ure Catego	ry	Technology	У	
ivision	Business	•				Work type	3	,	Replaceme		
roject Descript PRWS server s	ion witches replace	ement.									
ackground											K
witches have re	ached their life	expectancy	<i>1</i> .								Ħ
tuatania Dian C						Cabadula					
trategic Plan G frastructure stra	i <u>udi</u> ategy and nerfo	ormance				Schedule Planning			202	25 Q3	
mastraotare stre	atogy and pone	manoc				Design				.0 00	
						Constructio	n				
						Completion			202	25 Q3	
						Compiction			202	.0 00	
Operational Imp	lications					Project Ref	<u>ferences</u>				
NOTES						•					
EVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
apital	20,000	0	0	0	0	0	0	0	0	0	20,000
ond											
rant											
otal	20,000	0	0	0	0	0	0	0	0	0	20,000
XPENSE distribution	2025	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	2030	<b>2031</b>	<b>2032</b>	2033	<b>2034</b>	20,000

20,000

20,000

Distribution

Total

20,000

20,000

Project Name	VDI Host Replacement	Infrastructure Category	Technology
Division	Business	Work type	Replacement
Project Descript	<u>tion</u>		

### **Background**

VDI hosts are replaced for lifecycle management, they will be rotated to the disaster recovery site for 4 more years.

7 VDI hosts replaced 2/year and 1 the first year (starting in 2023).

Replacement of two hosts in our production VDI.



Strategic Plan Goal	Schedule	Schedule				
Infrastructure strategy and performance	Planning	2024 Q3				
	Design					
	Construction					
	Completion	Cycle continues				

Operational Implications
This project was submitted for the 2024 budget, but it wasn"t included in the final budget.

Disrupting the rotational cycle might result in system failures and will create the need for larger amounts in 2025 and beyond.

Cycle will restart in 2027, four years in a row.

#### **Project References**

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	55,000	57,750	25,000	60,638	63,669	66,853	70,195	73,705	77,391	81,260	631,461
Bond											
Grant											
Total	55,000	57,750	25,000	60,638	63,669	66,853	70,195	73,705	77,391	81,260	631,461
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	55,000	57,750	25,000	60,638	63,669	66,853	70,195	73,705	77,391	81,260	631,461
Total	55,000	57,750	25,000	60,638	63,669	66,853	70,195	73,705	77,391	81,260	631,461

		ı		
Project Name	Budget Reserve - Software Purchases/Upgrades for Production	Infrastructure Categ	<b>ory</b> Technology	
Division	Production	Work type	Expansion	
Project Des	<u>cription</u>			
Hold funds for	or system upgrades as needed			
ı				
Background				
	on division utilizes a number of software systems			
	effic to the production division alone. Examples			
	ab's LIMS system, HVAC operations systems, ftware, SPLUNK for cybersecurity, SCADA, etc.			
	•			
	on division team assumes that it is our responsibility			
	upgrades in these softwares (or software s). These funds are reserved under the assumption			
	replacements will be necessary.			
	that software replacements are not necessary in this will be rolled forward until they are needed.			
year, furius v	will be folled forward dritti they are needed.			
Ctuata e a Di	on Cool	Cahadula		
Strategic Pl	High performing workforce	Schedule Planning		
		Design		
		Construction		
		Completion		
Onerational	Implications	Droinet Beforences		
	Implications maintenance needs and reliability concerns with the	Project References		
pump station				
NOTES				
Need to disc	uss with IS to determine if this should be in our budg	et or in theirs.		

Note: Revenue and Expenses Below are in Thousands											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital		95k									95k
Bond											0k
Grant											0k
Total	0k	95k	0k	95k							
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution		95k									95k
Total	0k	95k	0k	95k							



## **Water Meters and Registers**

2025 – 2034 Capital Improvement Plan

**Saint Paul Regional Water Services** 

Project Name Fixed Meter Network AMI Collectors

Infrastructure Category Work type

Meters Expansion

Division

Business

#### **Project Description**

Installation of Advance Meter Infrastructure

Communication upgrades enabling future advance metering infrastructure.

#### Background

Advanced Metering Infrastructure (AMI) collection devices are essential components of modern utility systems, enabling the gathering of real-time data from smart meters. These devices facilitate the efficient monitoring and management of water usage by enhancing customer engagement through detailed usage insights in addition to offerings such as leak detection, water resource management and billing improvements.



Strategic Plan Goal

Excellent customer service

Financial stability

Q2 2023 - Q3-2023
Q2 2023 - Q4-2023
Q4 2023 - Q4-2027
Q4-2027

#### Operational Implications

Minimal Operational Impact. Units are self sufficient and require little maintenance. Installation cost is approximately \$25,000 for each unit. We have successfully secured grant funds to pilot this project in an equity lens for conservation. Will continue to maximize grant funding for this improvement.

#### **Project References**

AMI Prop Study

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	150,000	150,000	150,000	0	0	0	0	0	0	0	450,000
Bond											
Grant											
Total	150,000	150,000	150,000	0	0	0	0	0	0	0	450,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	150,000	150,000	150,000	0	0	0	0	0	0	0	
Total	150,000	150,000	150,000	0	0	0	0	0	0	0	450,000



### Project Description

Annual installation and replacement of water meters.

## Background

Functional and accurate water meters is essential for SPRWS financial stability. SPRWS installs and replaces water meters in the Distribution system to ensure reading accuracy and performance is within the AWWA recommendation to ensure consumption is accruate.



Strategic Plan Goal							
Strategic Plan Goal Financial stability							
le							

Excellent customer service

Schedule	
Planning	Ongoing
Design	Ongoing
Construction	Ongoing
Completion	Ongoing

#### **Operational Implications**

New meter installations are recovered through permit fees related with new construction. Replacements are budgeted based on replacement needs.

Meter Installations and replacements are required in order to document customer consumption and produce accurate water bills.

## Project References

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	308,000	316,000	323,900	333,617	343,626	353,934	364,552	375,489	386,754	398,356	3,504,228
Bond											
Grant											
Total	308,000	316,000	323,900	333,617	343,626	353,934	364,552	375,489	386,754	398,356	3,504,228
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	308,000	316,000	323,900	333,617	343,626	353,934	364,552	375,489	386,754	398,356	3,504,228
Total	308,000	316,000	323,900	333,617	343,626	353,934	364,552	375,489	386,754	398,356	3,504,228



### Project Description

Replacement of all residental registers.

Communication upgrades enabling future advance metering infrastructure.

#### Background

SPRWS water meter registers have reached the end of their lifespans.
Replacing the register allow SPRWS to accurately determine use and bill appropriately. In addition, the upgraded water meter register will improve the ability to collect frequent and accurate water usage data to improve billing, leak detection, and water resource management.



# <u>Strategic Plan Goal</u> Excellent customer service

Financial stability

Schedule	
Planning	Q2 2023 - Q3-2023
Design	Q2 2023 - Q4-2023
Construction	Q4 2023 - Q4-2030
Completion	Q4-2030
	•

#### Operational Implications

The capital cost be offset in reocvery of funds that would be lost in the next 10 years due to meter reading failures.

Project will increase the lifespan of the register for 20 years. Additional FTE's or Contracted Services will be required.

#### **Project References**

AMI Feasibility Study

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	2,800,000	2,940,000	3,087,000	3,241,000	3,403,000	3,574,000	150,000	150,000	150,000	150,000	19,645,000
Bond											
Grant											
Total	2,800,000	2,940,000	3,087,000	3,241,000	3,403,000	3,574,000	150,000	150,000	150,000	150,000	19,645,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	2,800,000	2,940,000	3,087,000	3,241,000	3,403,000	3,574,000	150,000	150,000	150,000	150,000	19,645,000
Total	2,800,000	2,940,000	3,087,000	3,241,000	3,403,000	3,574,000	150,000	150,000	150,000	150,000	19,645,000



# **Building and Facility Projects**

2025 – 2034 Capital Improvement Plan

**Saint Paul Regional Water Services** 

Project Name Building Updates Infrastructure Category
Division Administration Work type

E Category Building and grounds Rehabilitation

#### **Project Description**

Remodel Engineering Division space to accommodate more staff, group work areas together, and secure the Engineering Service Desk. Includes new lighting, new carpet, glass partitions and walls, new offices, and focus rooms.

#### **Background**

- •Second floor is running out of space for Engineering Services
- •Second floor entry and counter are too big, so desire downsizing to capture more office space
- •Security is a concern on both first and second floors when dealing with customers
- •Hoteling/flex area for intern staff is not utilized so needs reconfiguration
- •Archive room could be made smaller by storage off-site
- •Distribution Division is also in need of more space
- •SPRWS Leadership and Management require properly sized and located offices

SPRWS .

	<u>Strateg</u>	ic	Plan	Goal
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High performing workforce

Schedule	
Planning	2023
Design	2024
Construction	Oct-24
Completion	Nov-24

Tentative: Phase 2 (Admin area and north side offices) in 2025. Archive room in 2025.

#### Operational Implications

## Project References

# **NOTES**

Background continued: •Business Division Manager office location is not ideal, move to exterior wall

- ·Lighting upgrades desired as renovations occur for maintenance and energy efficiency
- ·Creatively rearranging spaces, in a phased approach, to find more space
- •Create a space so the Administration Team can be grouped together

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	150,000	150,000	150,000	150,000	50,000	50,000	50,000	50,000	50,000	0	850,000
Bond											
Grant											
Total	150,000	150,000	150,000	150,000	50,000	50,000	50,000	50,000	50,000	0	850,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	0	0	0	0	0	0	0	0	0	850,000
Total	0	0	0	0	0	0	0	0	0	0	850,000

Project

Sump Pump Improvements (Pump Room Sub-Floor)

Name Division

Production

Infrastructure Category

Building and grounds

Work type

Replacement

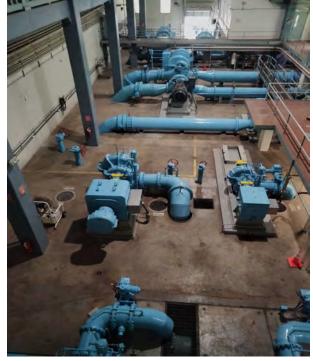
### **Project Description**

Install a redundant sump pump in this area or replace the existing sump pump

### **Background**

The area beneath the pump room floor is subject to leakage from groundwater and from large diameter piping in the area. The sump pump in this area has a history of malfunction, and our night-shift operators have often had to rig up temporary trash pumps to keep the area from flooding.

The status quo involves several risks: 1. operators have to be away from their SCADA monitors to rig up trash pumps, 2. flooding of the area could damage important equipment, and 3. the operators risk a fall into a confined space that is filling with water.



Strategic Plan Goal	Schedule	Schedule			
Infrastructure strategy and performance	Planning	Q4 2024			
	Design	Q1 2025			
	Construction	Q2 and Q3 2025			
	Completion	Q3 2025			

### **Operational Implications**

No meaningful impacts to operating expenses are expected to result from this project.

The project does reduce our risk profile.

#### **Project References**

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	15k										15k
Bond											0k
Grant											0k
Total	15k	0k	15k								
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	15k										15k
Total	15k	0k	15k								

Project Sump Pump System Replacement - Dewatering

Name Building

Duilding

mang

Production Work

Infrastructure Category Building and grounds

Work type Replacement

### **Project Description**

Division

Replace the existing sump system in the basement of the dewatering building.

### **Background**

The lower level of the dewatering building (where sludge pumps sit) is far below grade and deals with groundwater. The sump pump system in the building is old - circa 1970s. This sump system protects major assets, including three sludge pumps and their accompanying motors.

In order to protect our investments in the sludge pumps and motors, replacement of the old sump infrastructure is desirable. This will reduce our risk exposure in the area.



Strategic Plan Goal	Schedule	Schedule			
Infrastructure strategy and performance	Planning	Q4 2024			
	Design	Q1 2025			
	Construction	Q2 and Q3 2025			
	Completion	Q3 2025			

# **Operational Implications**

No meaningful impacts to operating expenses are expected to result from this project.

The project does reduce our risk profile.

### **Project References**

	Note: Revenue and Expenses Below are in Thousands												
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Capital	15k										15k		
Bond											0k		
Grant											0k		
Total	15k	0k	15k										
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Distribution	15k										15k		
Total	15k	0k	15k										

 Project Name
 Thickener Building Sump Pump Replacement
 Infrastructure Category
 Building and grounds

 Division
 Production
 Work type
 Replacement

#### **Project Description**

Replace the existing sump system in the basement of the Thickener building.

### **Background**

The lower level of the thickener building (where sludge pumps sit) is far below grade and deals with groundwater. The groundwater in this area is a persistent problem, and sand and grit has begun to seep through the wall. The sump pump system in the building is old. This sump system protects major assets, including several sludge pumps and their accompanying motors.

In order to protect our investments in the sludge pumps and motors, replacement of the old sump infrastructure is desirable. This will reduce our risk exposure in the area.

Note: there is an accompanying 2025 O&M project aimed at fixing leaks in the thickener building.



Strategic Plan Goal	Schedule	Schedule					
Infrastructure strategy and performance	Planning	Q4 2024					
	Design	Q1 2025					
	Construction	Q2 and Q3 2025					
	Completion	Q3 2025					

### **Operational Implications**

No meaningful impacts to operating expenses are expected to result from this project.

The project does reduce our risk profile.

# **Project References**

	Note: Revenue and Expenses Below are in Thousands												
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Capital	15k										15k		
Bond											0k		
Grant											0k		
Total	15k	0k	15k										
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Distribution	15k										15k		
Total	15k	0k	15k										

Project Ca

Campus Repaving

Division

Production

Infrastructure Category

Building and grounds

Work type

Rehabilitation

# **Project Description**

Repave portions of the McCarron's campus to the east of Sylvan Street to maintain parking surfaces in good condition.

# Background

Paved areas on the McCarron's Campus are subject to heavy traffic and heavy equipment on a daily basis. Additionally, during winter months, these areas are plowed regularly to maintain access. Having space available to park vehicles is important to our operations, and having that space be in good shape is important for getting crews out into the field efficiently.



Strategic Plan Goal	Schedule						
Infrastructure strategy and performance	Planning	2029					
	Design	2030					
	Construction	2030					
	Completion	2030					

# Operational Implications

Minimal impacts expected

Project References

1													
	Note: Revenue and Expenses Below are in Thousands												
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Capital						220k					220k		
Bond											0k		
Grant											0k		
Total	0k	0k	0k	0k	0k	220k	0k	0k	0k	0k	220k		
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Distribution						220k					220k		
Total	0k	Ωk	0k	0k	0k	220k	0k	0k	0k	0k	220k		

Project Roof

Roof Replacement

Infrastructure Category

Building and grounds

Division

Production

Work type Replacement

### **Project Description**

Replace roofing on either the chlorine and ammonia building, the filter gallery/pump floor, or the central chemical building area.

# Background

The McCarron's Campus has a tremendous amount of square footage of roofing. Some of the roofs are presently leaking, and leaks are currently addressed with spot fixes. That said, a more permanent solution will be needed in the long term. This project anticipates the replacement of roofing on either the chlorine and ammonia building, the filter gallery/pump floor, or the central chemical building area.



Strategic Plan Goal	Schedule	Schedule					
Infrastructure strategy and performance	Planning	2029					
	Design	2030					
	Construction	2030-2031					
	Completion	2031					

### **Operational Implications**

Reduction in the need for repair work and for reactive maintenance that results from leaks

#### **Project References**

Roofing assessments are performed periodically. The chlorine/ammonia building had roof repairs performed in the summer of 2024 under the direction of Tom Blanchard.

Note: Revenue and Expenses Below are in Thousands												
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Capital						800k	500k				1,300k	
Bond											0k	
Grant											0k	
Total	0k	0k	0k	0k	0k	800k	500k	0k	0k	0k	1300k	
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Distribution						800k	500k				1300k	
Total	0k	0k	0k	0k	0k	800k	500k	0k	0k	0k	1300k	

Project Groundskeeping Storage Facilities (McCarron's

Name Campus)

ampus)

**Division** Production

Infrastructure Category Building and grounds

Work type Expansion

#### **Project Description**

Construction of storage facilities on campus to allow for storage of lawn mowers, groundskeeping equipment, etc. Currently, this equipment is being trailered to site which is an inefficient use of staff time and of resources.

#### **Background**

The Vadnais team maintains the grounds of the 1900 Rice Street Campus. Prior to the start of the McCarron's WTP project, the Vadnais team stored grounds maintenance equipment on site in old, rundown storage buildings and trailers. In order to make space for the construction of the new water treatment plant, these buildings and trailers were demolished. For the duration of the construction project, the Vadnais crews will be storing grounds maintenance equipment at the Vadnais Campus and hauling it to the McCarron's campus. This is an inefficient use of staff time and materials, and new storage on campus should be constructed as soon as space becomes available.



Strategic Plan Goal	Schedule	
High performing workforce	Planning	2029
Infrastructure strategy and performance	Design	2029
	Construction	2030
	Completion	2030

# **Operational Implications**

This improvement will yield a decrease in operations and maintenance costs. Staff members will spend less time hauling equipment between campuses. Further, vehicles and trailers will be freed up for other purposes to be used more efficiently where needed.

#### **Project References**

#### **NOTES**

SPRWS investigated potential construction of a warehouse facility to support the McCarron's WTP project that could later serve as a storage facility for the Vadnais team. The location and timeline could not be manipulated to reach a solution. The total cost of the warehouse at that time was estimated at \$300k for a 60ftx40ft building.

	Note: Revenue and Expenses Below are in Thousands												
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Capital						330k					330k		
Bond											0k		
Grant											0k		
Total	0k	0k	0k	0k	0k	330k	0k	0k	0k	0k	330k		
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Distribution						330k					330k		
Total	0k	0k	0k	0k	0k	330k	0k	0k	0k	0k	330k		

**Project** Name

Fire Alarm System Upgrades

Division Production Infrastructure Category Building and grounds

Work type Rehabilitation

# **Project Description**

Thoroughly investigate fire alarm system performance and potential improvements to the system.

Replace infrastructure as needed to improve the reliability and the performance of the system.

# Background

According to staff, the existing fire alarm system is getting old. Bugs in the system lead to frequent alarms for pumping operators. Further, bugs in the system sometimes alert the local fire department and they deploy to the site. These issues should be investigated, and this item anticipates replacement of fire alarm system components.



Strategic Plan Goal	Schedule	
	Planning	2030
	Design	2030
	Construction	2031
	Completion	2031
	·	

# **Operational Implications**

No significant maintenance impacts expected.

Project References

	Note: Revenue and Expenses Below are in Thousands												
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Capital							180k				180k		
Bond											0k		
Grant											0k		
Total	0k	0k	0k	0k	0k	0k	180k	0k	0k	0k	180k		
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Distribution							180k				180k		
Total	0k	Ωk	0k	0k	Ωk	0k	180k	Ωk	0k	Ωk	180k		

Project Name	Building U	pgrades 20	34			Infrastru	cture Cate	gory	Building a	and ground	s	
Division	Productio	n				Work typ	е		Rehabilitation			
Project Des Project scop the coming y	e is not yet o	defined an	d will be fu	rther deve	eloped in							
Background Project scop the coming y	e is not yet o	defined an	d will be fu	irther deve	eloped in							
Strategic Pl	an Goal_					Schedule	)	ı	2	204 0000		
						Planning			20	031-2032		
						Design				2033		
						Construct				2034		
						Completion	on			2034		
Operational	Implication	ı <u>s</u>				Project R	References	<u> </u>				
<u>NOTES</u>												
			Note: R	evenue a	nd Expens	ses Below	are in Th	ousands				
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Capital										400k	400k	
Bond											0k	
Grant Total	0k	0k	0k	0k	0k	0k	0k	0k	0k	400k	0k <b>400k</b>	
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Distribution	15k	2020	LULI	2020	2020		2001	2002	2000	400k	415k	
Total	15k	0k	0k	0k	0k	0k	0k	0k	0k	400k	415k	

Project Name	Replace Sewage Ejector Pump or Reroute Sewer Lines	Infrastructure Category	Building and grounds				
Division	Production	Work type	Replacement				
Operator bat	sewage ejector system that serves the Pump hroom and the Skylab. Or reroute sewer lines such for system can be abandoned and sewage can flow						
sewage ejec	Department of the Skylab depend on a group that has been in service since the 1960s. In the name of the point and merits replacement.						
a bathroom a there is suffic	a legacy design feature from a time when there was at lower elevation in the pumping area. These days, cient head pressure available to route the sewer to sanitary by gravity without the need for an ejector						
preferable si arrangement	erouting the drain lines to flow by gravity is note it will create a (virtually) maintenance free for the future. The cost/benefit of this option should I with the cost of just replacing the pump when his project.						
Strategic Pla	an Goal	Schedule					
	Infrastructure strategy and performance	Planning	2024				
		Design					
		Construction	2025				
ı		Completion	2025				
Operational	Implications	Project References					
NOTES							

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	10k										10k
Bond											0k
Grant											0k
Total	10k	0k	10k								
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	10k										10k
Total	10k	0k	10k								

Project Name	Conversion of Existing Lab Space into Storage/Warehouse Space	Infrastructure Category	Building and grounds
Division	Production	Work type	Rehabilitation
Project Des Convert the	cription Existing Lab Space into Storage/Warehouse Space		
construction will be obso SPRWS ma areas of the location wou in anticipatic spare parts, could be ide spaces for lesecure in ste	on's WTP Improvements project will involve the of a new lab facility. As such, the existing lab area lete. The area is very dated but is structurally sound. Intenance teams manage storage in a variety of Water Treatment Plant, and a centralized storage ald be helpful for spare parts. These funds are held on of converting the old lab into a storage space for excess equipment, and other items. The lab space all since it already includes badged access and ocking doors. This would allow us to keep parts orage and to limit access to areas, which is not is currently lacking in the existing scattered		
Strategic P	lan Goal	Schedule	
on alegic F	<u> </u>	Planning	2025
		Design	2025
		Construction	2026
		Completion	2026
Operationa	I Implications	Project References	
NOTES			

#### **NOTES**

The lime building is also slated to be a vast, open facility at the end of the McCarron's WTP project and can be considered for storage needs. Both production and distribution have expressed an interest in the space. For purposes of this capital plan, it is assumed that distribution will budget for making that space usable for storage purposes since they appear to have a more pressing need. That said, final determination of how storage on the campus will be handled should be reached via a holistic discussion of all the utility's needs.

	Note: Revenue and Expenses Below are in Thousands										
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital		60k									60k
Bond											0k
Grant											0k
Total	0k	60k	0k	60k							
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution		60k									60k
Total	0k	60k	0k	60k							

Project Name	Railroad	Spur Impro	ovements			Infrastruc	cture Cate	gory	Building a	and ground	ls
Division	Productio	n				Work typ	е		Rehabilita	ation	
Project Desc Some of the trailcars are breplacement  Background Some of the trailcars are breplacement	cription ies on the recoming roof these ties	ailroad tra tten. This s. ailroad tra tten. This	project and	ticipates th	lorine				TOTAL	ALOTI	
Strategic Pla	ın Goal					Schedule Planning Design Construct	ion			2026	
						Completion 2027					
<u>Operational</u>	implication	<u>15</u>				Project R	<u>References</u>	<u>5</u>			
<u>NOTES</u>											
REVENUE	1 0005	0000		evenue ar					0000	0004	T-4-1
Capital	2025	2026	<b>2027</b> 8k	2028	2029	2030	2031	2032	2033	2034	<b>Total</b> 8k
Bond			- OK								0k
Grant											0k

Grant

Total

Total

EXPENSE

Distribution

0k

2025

0k

0k

2026

0k

8k

2027

8k

8k

0k

2028

0k

0k

2029

0k

0k

2030

0k

0k

2031

0k

0k

2032

0k

0k

2033

0k

0k

2034

0k

0k

8k

Total

8k



# **Safety and Security Projects**

2025 – 2034 Capital Improvement Plan

**Saint Paul Regional Water Services** 

Project Name	Cameras	7			- 1	Infrastructi	ure Categor	y	Building an	d grounds		
Division	Administrati	on				Work type			Expansion			
Project Descript Installation of car  Background Project backgrou	neras at Hillcre											
visits or after an inear term capabi What is being pro What work has all of activity each re occurred. Camera What is being pro What work has all	ncident has oc lity. oposed? At lea lready been do eservoir occurs as will allow us oposed? At lea	st one came ne to date? during perion to see activest one came	neras will allo era at each lo NoneProject odic visits or vity with near era at each lo	ow us to see ocation. t background after an inci- term capabi	activity with d: Visibility dent has							
Strategic Plan G	ioal					Schedule						
Quality water						Planning				- Q4-2024		
How is this work needs? Goal 7 continuous impro of services and C	Quality Water. vement proces	Objective 7.	.2 Employ be ide efficient,	est practices uninterrupte	and	Design		Q4 2024 - Q4-2024				
What is the sco	ne and henefit	t of this wo	rk to our cu	stomars? Ir	nnroved	Construction Q1 2025 - Q1						
Improved security						Completion				2025		
NOTES	, , , , , , , , , , , , , , , , , , , ,				Project References							
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Capital	50,000	0	0	0	0	0	0	0	0	0	50,000	
Bond												
Grant	FC 222				2		0				F0.000	
Total	50,000	0	0	0	0	0	0	0	0	0	50,000	

Total

50,000

50,000

EXPENSE

Distribution

Total

Project Name	Audible alarm system upgrade
Division	Administration

Infrastructure Category Work type

Building and grounds Expansion

**Project Description** 

Audible alarm/siren system to warn residential neighborhood of hazardous chemical release at 1900 Rice Street

#### **Background**

SPRWS does not have an audible alarm/siren system to warn the residential community of hazardous chemical release. Exterior Alarms that SPRWS has can be heard on campus but not off-campus.

# Strategic Plan Goal

Stakeholder understanding and support

What work has already been done to date? None How does this asset support the system and our customers? This increases our stakeholder standing and support. How is this work consistent with organizational

Operational Implications

Will this capital cost be offset (in part or in whole) by operational savings that



Schedule	
Planning	4th Qtr 2026
Design	4th Qtr 2026
Construction	1st Qtr-2027
Completion	2nd Qtr 2027

NOTES Project References

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	100,000	0	0	0	0	0	0	0	0	100,000
Bond											
Grant											
Total	0	100,000	0	0	0	0	0	0	0	0	100,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	0	0	0	0	0	0	0	0	0	100,000
Total	0	0	0	0	0	0	0	0	0	0	100,000

Project Name Gate #2 Rehabilitation

Division Administration

Infrastructure Category Work type

Building and grounds Rehabilitation

#### **Project Description**

Removal of Guard Shack, decrease of distance between the bottom of gate and roadway, improve barbed wire stranding on turnstile, installation of bollards or protective measures for lighting and cameras



#### **Background**

An assessment of Gate 2 was made in September 2022 and an update to this entrance is needed to improve security, protect SCADA and camera infrastructure, and remove delapidated guard shack. The entrance is easily accessible by crawling underneath the gate or climbing over the turnstile with very loose barb wire.

#### Strategic Plan Goal

Infrastructure strategy and performance

Schedule	
Planning	Q4 2026 - Q4-2026
Design	Q4 2026 - Q4-2026
Construction	Q1 2027 Q1-2027
Completion	Q1 2027 - Q1-2027

#### Operational Implications

Will this capital cost be offset (in part or in whole) by operational savings that result from the investment? No

Will there be significant increases/decreases in maintenance requirements as a result of the investment? Neglibile

Additional staff/supplies/resources required? No

## **Project References**

1											
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	0	25,000	0	0	0	0	0	0	0	25,000
Bond											
Grant											
Total	0	0	25,000	0	0	0	0	0	0	0	25,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	0	0	0	0	0	0	0	0	0	25,000
Total	0	0	0	0	0	0	0	0	0	0	25,000

Project Name Plant perimeter security enhancements Infrastructure Category Building and grounds

Division Administration Work type Expansion

Project Description
Install outriggers on perimter fence, establish a "clear zone along the perimeter, adding of one-way security film to windows on front of the Administration Building ground floor.

#### **Background**

In summary the perimeter fence is not topped with outriggers, which makes it more scalable. The fence lacks a clear zone. A perimeter without a clear zone may aid intruders in gaining undetected access to a facility by providing areas for cover and concealment. There are portions of the perimeter fence not topped with outriggers, which makes it more scalable. Customer service individuals and various equipment can easily be seen through the outside windows.

# Strategic Plan Goal

Infrastructure strategy and performance

What work has already been done to date? None How does this asset support the system and our customers? This increases the resiliency of the utility from threats and hazards. How is this work consistent with organizational goals and community needs? Goal 2 High Performing Workforce. Objective 2.4 Assure safety and security of employees. What is the scope and benefit of this work to our customers? Protection of the infrastructure that allows for safe drinking water.

#### Operational Implications

Will this capital cost be offset (in part or in whole) by operational savings that result from the investment? No

Will there be significant increases/decreases in maintenance requirements as a result of the investment? Yes- maintaining the clear cut Additional staff/supplies/resources required? No



Construction	1st Qtr-2027
Completion	2nd Qtr 2027

4th Qtr 2026

4th Qtr 2026

Notes

### **Project References**

**Schedule** 

Planning

Design

CISA INFRASTRUCTURE SURVEY
SECURITY & RESILIENCE REPORT dated 1 April 2024

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	0	50,000	0	0	0	0	0	0	0	50,000
Bond											
Grant											
Total	0	0	50,000	0	0	0	0	0	0	0	50,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	0	0	0	0	0	0	0	0	0	50,000
Total	0	0	0	0	0	0	0	0	0	0	50,000

<b>Project Name</b>	Deep Trekker Revolution with Caviblaster attachment	Infrastructure Category	Building and grounds
Division	Administration	Work type	Expansion

#### Project Description

Purchase of Deep Trekker to clean sediment and sludge from Terminal Chambers and the bottoms of reservoirs and tanks. The VAC MAX (shown in picture) is an easy, safe and more cost effective alternative to draining assets or utilizing divers for cleaning covering more ground and moving twice as fast to tackle the biggest of jobs.

#### Background

OSHA Consultation found on 10/4/23 that under the permit-required confined space program required by 29 CFR 1910.146(c)(4), SPRWS did not develop and implement the means, procedures, and practices necessary for safe permit space entry operations, including isolating the permit space or the terminal chambers at Vadnais Gate House.

Employees have entered a pit in the large gate house to perform cleaning and maintenance activities. The employer has not ensured the space is adequately isolated prior to employee entry



Strategic Plan Goal	Schedule
Quality water	Planning
What work has already been done to date? None	Design
<b>How does this asset support the system and our customers?</b> This protects employees from potentially hazardous work conditions.	Construction
How is this work consistent with organizational goals and community needs? Goal 2 High Performing Workforce. Objective 2.4 Assure safety and	Completion

What is the scope and benefit of this work to our customers? Potential time Project References savings in efforts to secure and cut pipe while maintaining employee safety.

Operational Implications

security of employees.

https://www.deeptrekker.com/shop/products/dt640-max

Will this capital cost be offset (in part or in whole) by operational savings that result from the investment? Possible Will there be significant increases/decreases in maintenance requirements as a result of the investment? Neglibile Additional staff/supplies/resources required? No

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	0	0	100,000	0	0	0	0	0	0	0	100,000
Bond											
Grant											
Total	0	0	100,000	0	0	0	0	0	0	0	100,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	0	0	0	0	0	0	0	0	0	100,000
Total	0	0	0	0	0	0	0	0	0	0	100,000

Project Name Division

Lighting in Sludgefield

Administration

Infrastructure Category Work type

Building and grounds
Expansion

#### **Project Description**

Installation of timer lighting in Pipeyard to allow employees to safely make cuts to pipe to size during periods of darkness.

#### **Background**

**Project background**: Distribution personnel currently use vehicle headlights as their only source of lights after hours. This is extremely unsafe when operating power tools.

What is being proposed? Pole-mounted lighting that is on a timer that provides enough light to operate equipment in darkness. Lighting will need to shoot downward and may involve multiple poles/lights to cover pipeyard. Lights will operate independently of each other to minimize disruption to neighbors.

What work has already been done to date? None

**How does this asset support the system and our customers?** This protects employees from potentially hazardous work conditions.

#### Strategic Plan Goal

Quality water

How is this work consistent with organizational goals and community needs? Goal 2 High Performing Workforce. Objective 2.4 Assure safety and security of employees.

What is the scope and benefit of this work to our customers? Potential timesavings in efforts to secure and cut pipe while maintaining employee safety.

#### **Operational Implications**

Will this capital cost be offset (in part or in whole) by operational savings that result from the investment? No

Will there be significant increases/decreases in maintenance requirements as a result of the investment? Neglibile

Additional staff/supplies/resources required? No



Schedule
----------

Planning	Q4 2024 - Q4-2024
Design	Q4 2024 - Q4-2024_
Construction	Q1 2025 Q1-2025
Completion	Q2-2025

#### **Project References**

Condition assessment report: N/A

Feasibility report: N/A Cost estimates: \$20,000.

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	20,000	0	0	0	0	0	0	0	0	0	20,000
Bond											
Grant											
Total	20,000	0	0	0	0	0	0	0	0	0	20,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	0	0	0	0	0	0	0	0	0	0	20,000
Total	0	0	0	0	0	0	0	0	0	0	20,000



# **Vehicles and Equipment**

2025 – 2034 Capital Improvement Plan

**Saint Paul Regional Water Services** 

Project Name Distribition Vehicles and Equipment

Distribution

Infrastructure Category Work type

Vehicles and small capital Replacement

#### **Project Description**

Division

Annual budget for vehicles and small equipment replacement assigned to the Distribution Division.

#### **Background**

The equipment fleet for the Distribution Division includes approximately 185 vehicles and construction equipment items required to support operations, construction, and preventative maintenance tasks performed by division staff. Equipment is systematically replaced at approriate times to minimize the overall cost of ownership and maintain equipment reliability. The projected capital costs represent the expenses associated with vehicle and equipment replacement, adjusted for the projected rate of inflation.



 Strategic Plan Goal
 Schedule

 Financial stability
 Planning
 Q3-Q4

 Infrastructure strategy and performance
 Design
 Q4-Q1

 Construction
 Q2-Q3

 Completion
 Q3

## Operational Implications

Reduction in maintenance needs and reliability concerns with critical equipment assigned to the Distribution Division.

#### **Project References**

Vehicle and Equipment Replacement Policy

REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital	845,000	870,000	895,000	920,000	945,000	975,000	1,005,000	1,025,000	1,055,000	1,087,000	9,622,000
Bond											
Grant											
Total	845,000	870,000	895,000	920,000	945,000	975,000	1,005,000	1,025,000	1,055,000	1,087,000	9,622,000
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	845,000	870,000	895,000	920,000	945,000	975,000	1,005,000	1,025,000	1,055,000	1,009,000	9,544,000
Total	845,000	870,000	895,000	920,000	945,000	975,000	1,005,000	1,025,000	1,055,000	1,009,000	9,544,000

Project Name	2025 Prod	uction Vehic	cle Replace	ments & R	epairs	Infrastru	cture Cate	gory	Vehicles a	and small c s	apital
Division	Productio	n				Work typ	е		Replacen	nent	
Project Desc											
Replace the											
- 557: 2008 F - 597: 2010 F			,								
- 599: 2011 F			1								
Perform Body			rrect Rust	Issues wit	:h:						
- 598 Merced											
Background											
Strategic Pla						Schedule	)	1			
	Infrastructur	e strategy	and perfo	rmance		Planning					
						Design					
						Construct	ion				
						Completio	on			2025	
Operational	Implication	IS .				Project R	eferences	<u> </u>			
		<u> </u>									
NOTES											
<u>NOTES</u>											
			N-4 -		n d <b>-</b>	D-1					
REVENUE	2025	2026	Note: R 2027	<u>2028</u>	nd Expens	2030	2031	ousands 2032	2033	2034	Total
Capital	2025 200k	2026	2021	2028	2029	2030	2037	2032	2033	2034	200k
Bond	200K										0k
Grant											0k
Total	200k	0k	0k	0k	0k	0k	0k	0k	0k	0k	200k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	200k										200k
Total	200k	0k	0k	0k	0k	0k	0k	0k	0k	0k	200k

Project Name	2025 Prod	uction Vehi	cle Replace	ments & Re	epairs	Infrastruc	cture Cate	gory	Vehicles a	and small	capital	
Division	Productio	n				Work typ	е		Replacen	nent		
Project Desc Replace the - 648: 2012 F - 659: 2013 F - 650: 2013 F - 665: 2013 E	following ve Ford F350 Ford F350 (S Ford E350 C	Salt Truck) argo Van										
Background Per discussion in need of repand is subject												
Strategic Pla						Schedule	)	ı				
	Infrastructur	e strategy	and perfo	rmance		Planning						
						Design						
						Construct						
						Completion 2026						
<u>Operational</u>	Implication	<u>is</u>				Project R	eferences	5				
<u>NOTES</u>						I						
						ses Below						
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Capital Bond		290k									290k 0k	
Grant											0k	
Total	0k	290k	0k	0k	0k	0k	0k	Ωk	0k	Ωk	290k	

Total

EXPENSE

Distribution

0k

2025

0k

290k

2026

290k

290k

0k

2027

0k

0k

2028

0k

0k

2029

0k

0k

2030

0k

0k

2031

0k

0k

2032

0k

0k

2033

0k

0k

2034

0k

290k

Total

290k

Project Name	Purchase Skid Steer & Wood Chipper	Infrastructure Category	Vehicles and small capital purchases
Division	Production	Work type	Replacement
	ew skid steer for the Vadnais team. Determine xisting skid steer should be auctioned off or kept in		
pelieved to be The Vadnais t wooded/fores	eam makes frequent use of a skid steer that is approaching the end of its useful life.  eam maintains a significant amount of the land adjacent to our infrastructure. The land		
particularly who currently has o wood chipper will help our to existing wood Purchasing a	ased trees and requires regular maintenance, nen our property abuts private property. Vadnais one wood chipper but often has to rent a second to keep up. Purchasing a second wood chipper earn to keep up without requiring rentals. Also, the chipper is approaching the end of its useful life. second wood chipper will allow us to run the first to failure and prepare us for when that failure		
Strategic Pla	n Goal_	Schedule	
lı	nfrastructure strategy and performance	Planning	
		Design	
		Construction	
		Completion	2026
Operational I	<u>mplications</u>	Project References	
NOTES			

1													
	Note: Revenue and Expenses Below are in Thousands												
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Capital		73k									73k		
Bond											0k		
Grant											0k		
Total	0k	73k	0k	73k									
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Distribution		73k									73k		
Total	0k	73k	0k	73k									

Project Name	2027 Prod	uction Vehic	cle Replace	ments & Re	epairs	Infrastruc	capital				
Division	Productio	n				Work typ	е		Replacen	nent	
D : 1 D											
Project Desc Replace the fo - 651: 2013 Fo - 609: 2015 Fo - 679: 2015 Fo	ollowing vel ord Crew V ord F350 T	an F-59									
Background											
Strategic Pla						Schedule	)	ı			
"	nfrastructur	e strategy	and perior	rmance		Planning					
						Design					
						Construct					
						Completio	on			2027	
Operational I	mplication	<u>IS</u>				Project R	eferences	<u>5</u>			
NOTES						L					
						ses Below					
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital Bond			215k								215k 0k
Grant											0k
Total	0k	0k	215k	0k	0k	0k	0k	0k	0k	0k	215k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution	200k		215k								415k

200k

0k

Total

0k

215k

0k

0k

0k

0k

0k

415k

Project 2028 Production Vehicle Replacements & Repa						Infrastru	cture Cate	gory	Vehicles and small capital purchases				
Division	Productio	n				Work typ	е		Replacen	nent			
Project Des	cription	hialaa.											
Replace the - 681: 2015 F	tollowing vel Ford F350 4	nicies: x4 Superc:	ah										
- 512: 2016 F													
		3											
Dookarouna													
Background	<u>1</u>												
Strategic Pl	an Goal					Schedule	<u> </u>						
	Infrastructur	e strategy	and perfo	rmance		Planning	<del>-</del>						
		0,				Design							
						Construct	ion						
						Completion				2028			
						Completic	211			2020			
Operational	Implication	ns				Project F	References	 }					
								_					
NOTES													
DE\(				evenue ai									
REVENUE Capital	2025	2026	2027	<b>2028</b> 136k	2029	2030	2031	2032	2033	2034	Total 136k		
Bond				130K							0k		
Grant											0k		
Total	0k	0k	0k	136k	0k	0k	0k	0k	0k	0k	136k		
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total		
Distribution	01	01	01	136k	01		01	21	21	21	136k		
Total	0k	0k	0k	136k	0k	0k	0k	0k	0k	0k	136k		

Project Name	2029 Prod	uction Vehic	cle Replace	ments & Re	epairs	Infrastru	cture Cate	egory	Vehicles a	and small o	capital
Division	Production	n				Work typ	е		Replacen	nent	
Project Desc Replace the 2016 FORD 2016 FORD 2016 FORD 2015 JOHN I	following ve F-350 PICK F350 4X2 R F350 4X4 S	UP #688 EG CAB # UPERCAB	#601 6.5	BOX #60							
Background											
Strategic Pla	n Cool					Schedule					
	Infrastructui	re strategy	and perfor	mance		Planning	<del>,</del>				
		3)				Design					
						Construct	ion				
						Completio				2020	
						Completic	ווכ			2029	
Operational	Implication	<u>18</u>				Project R	References	<u>S</u>			
NOTES											
			Noto: B	ovonuo o	nd Evnan	ses Below	aro in Th	oueanda			
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital				_,	280k						280k
Bond											0k
Grant											0k

Total

EXPENSE

Distribution

0k

2025

0k

0k

2026

0k

0k

2027

0k

0k

2028

0k

280k

2029

280k

280k

0k

2030

0k

0k

2031

0k

0k

2032

0k

0k

2033

0k

0k

2034

0k

280k

Total

280k

Project Name	Replace B	oat Used fo	r Lake Sam	nple		Infrastru	cture Cate	gory	Vehicles purchase	and small o	capital
Division	Productio	n				Work typ	е		Replacer	nent	
Project Desc			C	. I :							
Purchase a N	New Boat to	r Lake/Lag	oon Samp	oling.							
Background	1					1					
SPRWS own the raw wate sludge depth of Roselawn) sampling, thi this timefram	r supply sys is in the prod ). Per discu s boat is old	tem. The cess waste ssions with	boat is als water stor the lab st	o used to rage lagoo taff, who p	measure ns (north erforms						
uns umenam	e.										
Strategic Pla		44				Schedule	9	1			
	Infrastructui	e strategy	and perio	rmance		Planning					
						Design	4:				
						Completi				2025	
						Completion	On			2025	
Operational	Implication	16				Project F	References	<u> </u>			
Operational	Implication	<u>13</u>				i rojecti	<u> </u>	2			
<u>NOTES</u>						•					
			Note: R	evenue ai	nd Expens	ses Belov	v are in Th	ousands			
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital					18k						18k
Bond											0k
Grant Total	0k	0k	0k	0k	18k	0k	0k	0k	0k	0k	0k <b>18k</b>
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution					18k						18k

0k

0k

0k

0k

18k

0k

0k

0k

0k

0k

Project Name	2030 Produ	uction Vehic	cle Replace	ments & Re	epairs	Infrastructure Category  Vehicles and small capital purchases						
Division	Productio	n				Work typ	е		Replacen	nent		
Project Desc												
Replace the fo			<i>(</i> =1 . · · ·	,								
- 598: 2011 M												
- 2016 RAM 3 - 2017 PICKU				)								
- 2017 PICKU												
- 2018 FORD			O									
Background												
Strategic Pla	n Goal					Schedule	1					
	nfrastructur	e strategy	and perfor	rmance		Planning						
		0,	•			Design						
						Construct	ion					
						Completic				2020		
						Completic	)   			2030		
Operational I	mplication					Droject B	oforonoo					
Operational I	mplication	<u> </u>				Project R	eferences	<u> </u>				
NOTES						•						
			Note: R	evenue ai	nd Expens	ses Below	are in Th	ousands				
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Capital						396k					396k	
Bond											0k	
Grant											0k	
Total	0k	0k	0k	0k	0k	396k	0k	0k	0k	0k	396k	
Distribution	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Distribution	Ole	0k	0k	0k	Ole	396k	Ole	0k	0k	Ole	396k	
Total	0k	UK	UK	UK	0k	396k	0k	UK	UK	0k	396k	

Project Name	Purchase l	New Tracto	r for Vadnai	is Team		Infrastru	cture Cate	egory	Vehicles a	and small o	capital
Division	Productio	n				Work typ	е		Replacen	nent	
Project Dose	rintion										
Project Desc Purchase Nev		or Vadnais	Team								
Background						†					
Per discussio should be rep											
Isriould be rep	iaced in the	e next 5- ic	years (as	01 2024).							
Strategic Pla	n Goal					Schedule	`				
	nfrastructur	e strategy	and perfo	rmance		Planning	<del>-</del>				
						Design					
						Construct					
						Completion	on			2030	
Operational I	mplication	18				Project R	eferences	<u> </u>			
Operational	mpmounor.	<u></u>				1 10,000 1		<u> </u>			
NOTES						<u> </u>					
DEVENUE	0005	2000				ses Below			2022	2024	Total
REVENUE Capital	2025	2026	2027	2028	2029	<b>2030</b> 65k	2031	2032	2033	2034	<b>Total</b> 65k
Bond											0k
Grant Total	0k	0k	0k	0k	0k	65k	0k	0k	0k	0k	0k <b>65k</b>
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution						65k					65k
Total	0k	0k	0k	0k	0k	65k	0k	0k	0k	0k	65k

Project Name	2031 Prod	uction Vehic	cle Replace	ments & Re	epairs	Infrastructure Category  Vehicles and small capital purchases						
Division	Productio	n				Work typ	е		Replacen	nent		
Ducinet Desc	-l4l											
Project Desci Replace the fo 2018 PICKUP 2019 PICKUP 2019 PICKUP	ollowing vel FORD F35 FORD F35	50 4X4 #53 50 4X4 #54	46									
Background												
Strategic Plan						Schedule	)	I				
l "	nfrastructur	e strategy	and perror	rmance		Planning						
						Design						
						Construct				2224		
						Completion	ori			2031		
Operational I	mplication	<u>is</u>				Project R	deferences	5				
NOTES												
DEVENUE						ses Below						
Capital	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Capital Bond							219k				219k 0k	
Grant											0k	
Total	0k	0k	0k	0k	0k	0k	219k	0k	0k	0k	219k	
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Distribution							219k				219k	

0k

0k

Total

0k

0k

0k

219k

0k

0k

0k

0k

Project Name	2032 Prod	uction Vehic	cle Replace	ments & Re	epairs	Infrastructure Category  Vehicles and small capital purchases						
Division	Productio	n				Work typ	е		Replacem	nent		
Project Desci Replace the for 2020 FORD F 2020 FORD F 2021 FORD R	ollowing ve 350 #516 \$ 450 4X4 P	SUPERCA U #517 W/	/DUALS									
Background												
Strategic Plan			<b></b>			Schedule	)					
l Ir	nfrastructur	e strategy	and perroi	rmance		Planning						
						Design Construct	ion					
						Completic				2032		
						Completic	711			2032		
Operational I	mplication	ıs				Project R	eferences	<u> </u>				
	•	_						_				
NOTES												
<u>NOTES</u>												
REVENUE	2025	2026	Note: R 2027	evenue ar 2028	nd Expens 2029	ses Below 2030	are in Th	ousands 2032	2033	2034	Total	
Capital	2025	2026	2021	2020	2029	2030	2031	2032 225k	2033	2034	225k	
Bond								LLUK			0k	
Grant											0k	
Total	0k	0k	0k	0k	0k	0k	0k	225k	0k	0k	225k	
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
Distribution								225k			225k	

0k

0k

Total

0k

0k

0k

0k

0k

225k

0k

0k

Division	apital	and small c s	ehicles a urchases		egory	cture Cate	nfrastruc	airs	nents & Re	cle Replace	uction Vehic	2033 Produ	roject ame
Replace the following vehicles: 2020 FORD T250 TRANSIT CARGO VAN #611 (painters) (2021 per title)   2021 FORD F350 4x4 TRUCK #623 Vadnais   2021 MACK SINGLE AXLE DUMP TRK #626 (Vadnais)		nent	eplacem	F		9	ork typ				n	Productio	ivision
Infrastructure strategy and performance								rs)		3 Vadnais	SIT CARG	llowing vel 250 TRAN 350 4x4 TF	eplace the fo 020 FORD T2 021 per title) 021 FORD F3 021 MACK S
Completion   2033							lanning		mance	and perfor	e strategy		
Note: Revenue and Expenses Below are in Thousands   REVENUE   2025   2026   2027   2028   2029   2030   2031   2032   2033   2034   Capital   265k		2033											
NOTES           Note: Revenue and Expenses Below are in Thousands           REVENUE         2025         2026         2027         2028         2029         2030         2031         2032         2033         2034           Capital         265k					<u> </u>						<u> </u>	nnlication	nerational Ir
Note: Revenue and Expenses Below are in Thousands           REVENUE         2025         2026         2027         2028         2029         2030         2031         2032         2033         2034           Capital         265k							-				_		
REVENUE         2025         2026         2027         2028         2029         2030         2031         2032         2033         2034           Capital         265k				ds.	nousands	are in Th	s Relow	Fynens	avenue ar	Note: P			OTES
Capital 265k	Total	2034	2033								2026	2025	EVENUE
	265k												
Bond Control C	0k												
Grant Control	0k												
Total 0k 265k 0k	265k Total												

2030

0k

2031

0k

2029

0k

EXPENSE

Distribution

Total

2025

0k

2026

0k

2027

0k

2028

0k

2032

0k

2033

265k

265k

2034

0k

Total

265k

Project Name	2033 Prod	uction Vehi	cle Replace	ements & Re	epairs	Infrastru	cture Cate	gory	Vehicles a	and small c s	apital
Division	Productio	n				Work typ	е		Replacen	nent	
Project Des Placeholder. yet.		ave not be	en identifi	ed for repla	acement						
Background	<u>i</u>										
Ctuata via Di	an Caal					Cabadula					
Strategic PI	<u>an Goar</u> Infrastructur	e strategy	and perfo	rmance		Schedule Planning	<del>)</del>				
	iiii aoti aotai	outuogy	ana pono	manoo		Design					
						Construct	ion				
										2224	
						Completion	on			2034	
Operational	Implication	16				Project R	eferences	•			
NOTES											
				evenue ai							
REVENUE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Capital										300k	300k
Bond Grant											0k 0k
Total	0k	0k	0k	0k	0k	0k	0k	0k	0k	300k	300k
EXPENSE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Distribution										300k	300k
Total	0k	0k	0k	0k	0k	0k	0k	0k	0k	300k	300k