SAINT PAUL REGIONAL WATER SERVICES

Modernizing McCarrons Treatment Plant and Tour

SAINT PAUL REGIONAL WATER SERVICES

Administration Organizational Chart

Executive Team
E+ Team

Racquel Vaske
General Manager

Justina Ross
Executive Assistant

Thomas Miller
Public Service Manager

Adam Worm
Project Manager

Richard Rowland
Business Division Manager

Michael Twu
Finance Manager

Martha Burckhardt
IS Manager

Steve Nystrom
Project Manager

CheFei Chen
Production Division Manager

Justine Roe
Water Quality Manager

William Menkhaus
Assistant Division Manager

Graeme Chaple
Distribution Division Manager

Kirill Maloylo
Assistant Division Manager

Richard Hibbard
Engineering Division Manager

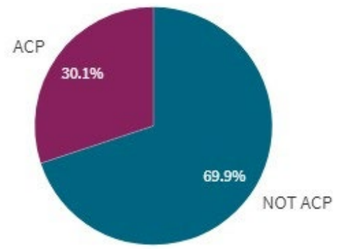
Luke Sandstrom
Assistant Division Manager

Brent Marsolek
Project Manager- Lead Free

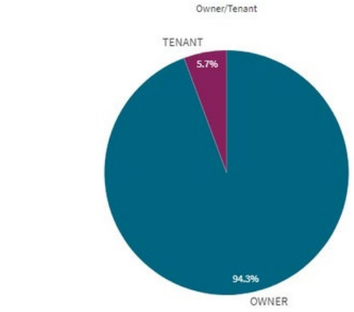
CUSTOMER OVERVIEW

Active Accounts	Population	MHI
96,961	441,350	$74,831

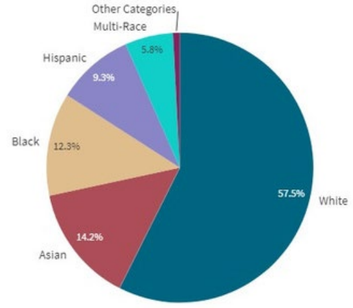
ACP vs Non-ACP Accounts

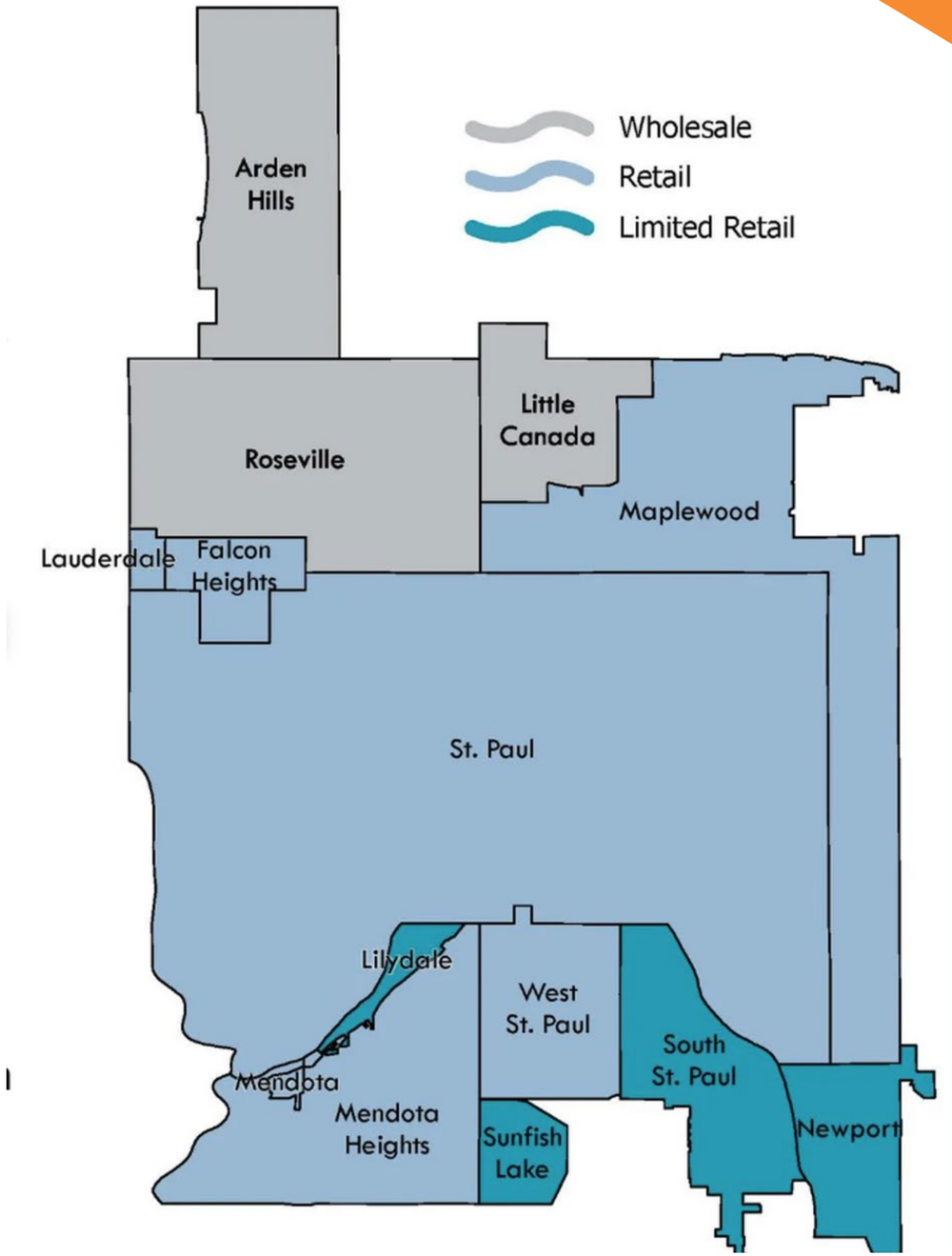


Owner or Tenant on Account



Service Area Racial Demographics



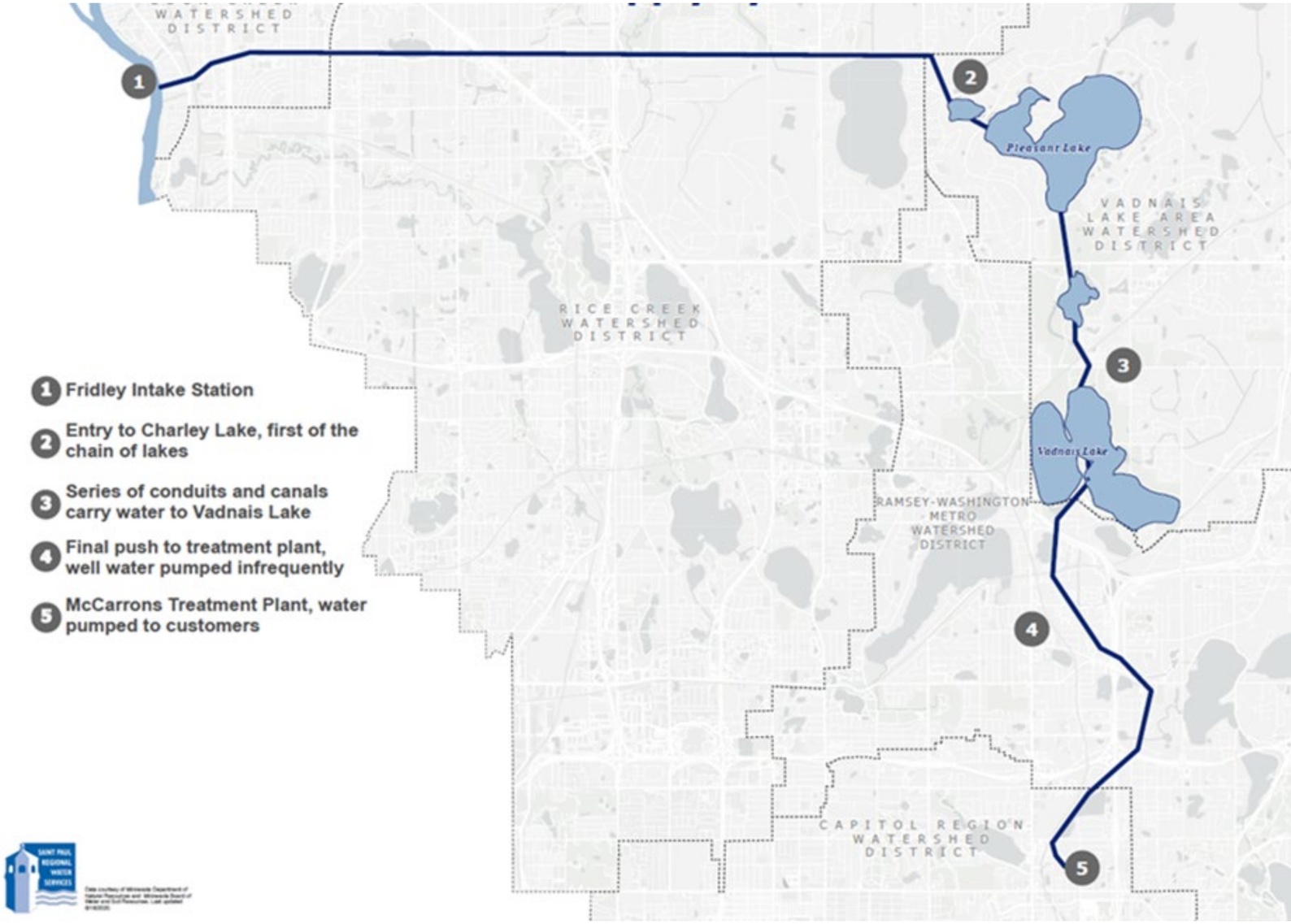


Supply System

Mississippi River Appropriations Permit:
Up to 109 MGD

SPRWS Current Demand
Winter: ~ 40 MGD
Summer: Max ~ 70 MGD

Treatment Capacity
New Treatment Plant: Max ~112 MGD
Full Redundancy: ~ 84 MGD
Ability to build 5th clarifier for an additional 28 MGD



2025 Budget Overview

CUSTOMERS: ~450k

EMPLOYEES: 300

TOTAL BUDGET $136.9 Million

12.343 Billion Gallons

CONSUMPTION PROJECTION

Consumption Based Rate

The proposed consumption rate increase is $0.38/ccf for winter and $0.39/ccf for summer. The rates per CCF will be as follows:

2025 DRINKING WATER BILL

The following details the SPRWS bill structure and rates utilizing these assumptions:

Single-family residential account
Average residential consumption which is 6 units/month
Averages winter + summer rates

	2025
Consumption Charge	$4.45 * 6 units = $26.70
Water Service Base Fee	$7.94
Water Main Surcharge	$0.26 * 6 units = $1.56
Right-of-Way Recovery Fee	$1.50
MONTHLY TOTAL	$37.70 per month
ANNUAL TOTAL	$452.40 per year

Average Bill

$37.7

PER MONTH

for 4,488 gallons of drinking water

Did You K
1 Gallon = $






McCarrons Plant Project SPRWS

ESTIMATED PROJECT COST

$250 MILLION

Background & Vision

Originally built in 1920, the McCarrons plant has served the region well for over a century. However, its aging infrastructure, while functional, poses increasing risks to reliability. Recognizing this, SPRWS began a multi-phase modernization effort in 2018. The project includes complete replacement of key treatment components, integration of ozonation, and demolition of obsolete systems, all with a focus on long-term public health, cost-efficiency, and sustainability.

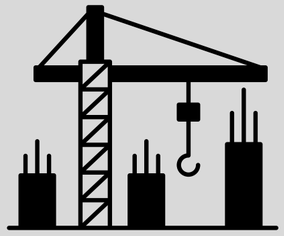
Key Project Features

- Ozonation integration to improve taste, odor control, and removal of emerging contaminants
- Advanced treatment technology to improve efficiency and allow flexible future upgrades
- Infrastructure consolidation to reduce maintenance costs and prepare for future system needs
- Historic preservation efforts to honor the facility's history

Upcoming Priorities

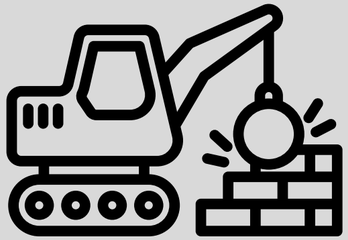
- Bringing the new facility online mid-2025 following rigorous testing and validation
- Training and certifying staff to operate new systems with advanced technologies and safety protocols
- Maintaining or improving water quality standards, ensuring a seamless transition for customers
- Monitoring emerging contaminants of concern, including PFAS, and planning for future plant updates if needed

Planning (2018–2021)
Extensive design, testing, and budgeting

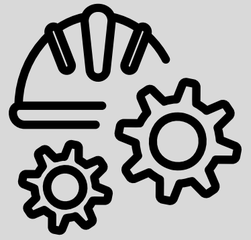


Construction (2022–2025)
Construction of new treatment facility

Testing & Transition (Summer 2025)
Commissioning and regulatory validation of all new systems



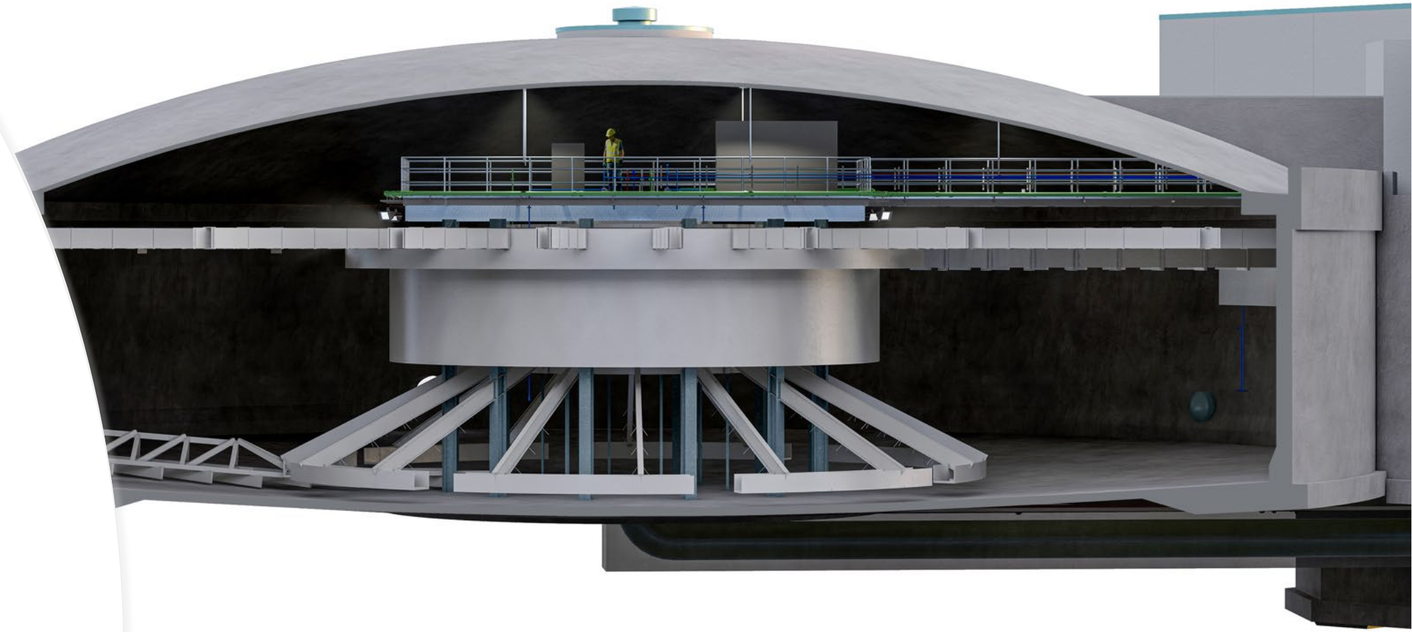
Final Demolition (Sept 2025–June 2026)
Removal of obsolete structures

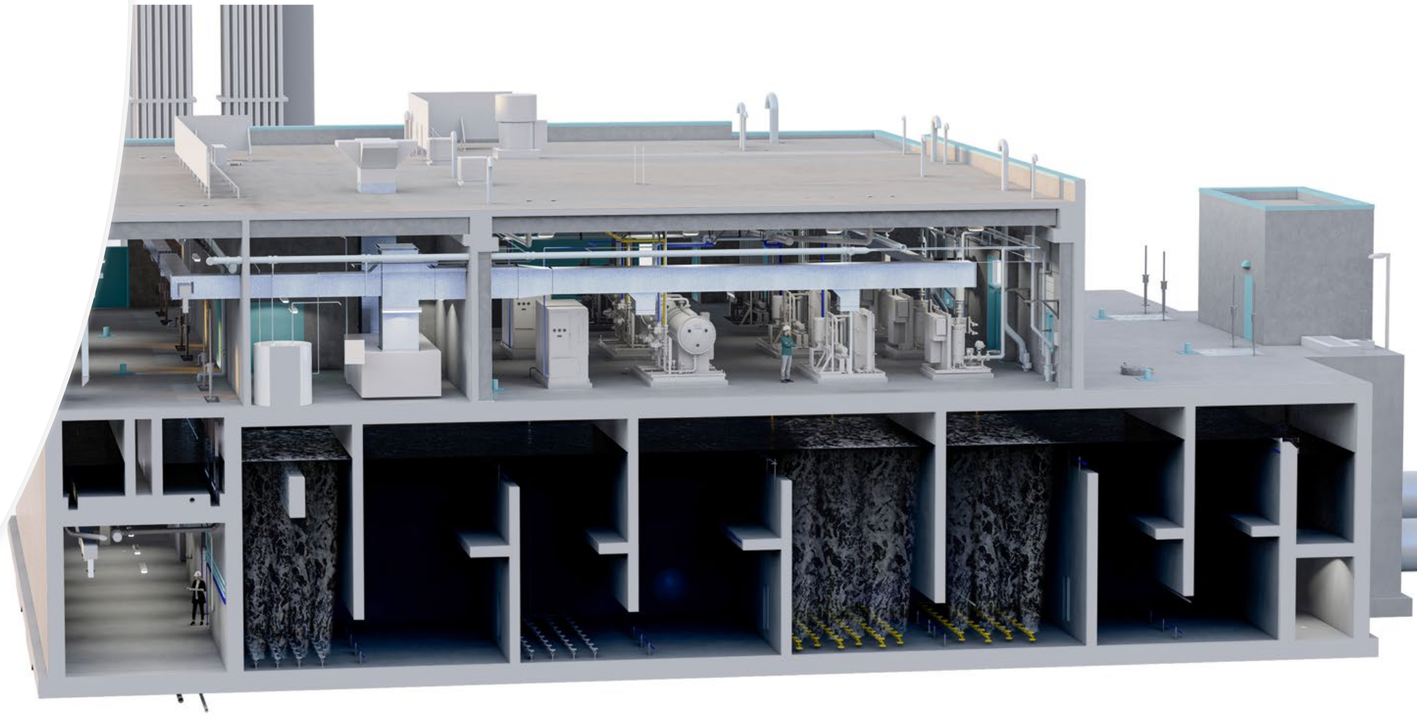


Final Construction (Nov 2025–July 2026)
New water quality lab, site restoration, and landscaping

Project Scope: Treatment Basins

- Softening Clarifiers (4)
  - Physically settle out suspended solids, dissolved calcium and magnesium, etc.
- Recarbonation and Ozonation Basins
  - Adjust pH of water to desired range
  - Remove compounds that can cause taste and odor problems
  - Remove/neutralize Contaminants of Emerging Concern





Ozone Feed System

Project Scope: Chemical Feed Systems

- Lime Slurry – removes dissolved calcium and magnesium
- Alum/Ferric Sulfate – primary chemicals used to help suspended particles settle
- Ferric Chloride/Sodium Silicate – secondary chemicals used to help suspended particles settle
- Carbon Dioxide – reduces pH of water to target range
- Ozone – removes taste and odor compounds; removes contaminants of emerging concern

Lime Feed System

Project Scope: Capacity and Redundancy

- Top-end capacity of new WTP – 112 MGD
- Redundancy in all essential infrastructure
- 84 MGD production possible with any piece essential equipment out of service

Unchanged: Filtration and Disinfection

- Last steps of treatment process
- Functioning well, no plans to modify in next 10 years
- Remove any particles too small to settle
- Eliminate viruses and bacteria

Gist: Treatment processes are tried and true but far more resilient and redundant.

Project Delivery – Progressive Design-Build

- Jacobs Engineering responsible for design and construction
- Partnered with PCL and Magney – construction input early and often
- Primary benefits
  - Performance Guarantees as part of contract – reduce risk for SPRWS and customers
  - Compressed schedule – overlap of design and construction phases

Project Timeline and Budget

- Design - $15.04M
  - Finished 5% under budget
- Construction – Spent $187.3M of $236.7M to date
- Construction Began – Feb. 2022
- Construction will continue till early 2027
- Treatment facilities are fully constructed and operational
- Remaining scope: demolition, grading, stormwater, new lab
- Financing from MN PFA ($150M – interest rates between 1% and 2.4%) and Revenue Bonds ($103M – interest rate 3.9%)

Water Is Flowing

- The new treatment processes began to produce water on July 8, 2025
- Extensive testing underway 24/7
- Small fraction of water from new plant presently
- As testing progresses well, more water will come from the new plant
- SPRWS will not “own” the new plant until Acceptance Testing is passed

How Can You Help?

Continue to
Build Social Media Following and Development of Engaging Content
to Keep Variety of Stakeholders Informed

Renovate the McCarron's Room in the Treatment Plant to Serve as an **Interactive Learning Space**

Expand
Educational Opportunities
Including School Visits and a Variety of Tour Options

Partner with Local Agencies and Cities in the North East Metro to **Evaluate Regional Water Needs** and Potential for an Expanded SPRWS Service Area

Involvement in
Political Advocacy
to Ensure Utility Needs Are Clearly Understood By Decision Makers

Help Encourage Participation in the Lead Free SPRWS and Register Replacement Projects

Support the
Customer Contact Campaign
to Improve the Availability and Accuracy of Customer Contact Information to Assist in Better Communication

Expand Awareness and Use of the New
Customer Portal
including **Auto Pay** & **E-Billing** Services

Continue to Advocate for and Fund Low-Income Assistance Program:
Water Works

Increase Program Awareness, Usability, and Participation

Thank You

Questions?

www.stpaul.gov/water