CITY OF ST. FRANCIS PUBLIC WORKS



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4058 St. Francis Blvd. NW St. Francis, Minnesota 55070 763-233-5200 FAX 763-233-5205

Mayor and Council,

I would like to present to you the Public Works 2024 year-end report. The report is segmented into two parts, similar to the way the department is set up. Each group has their specific duties that they are required to perform, working independently from each other. Public Works has several moving pieces such as water responsibilities, waste water responsibilities, stormwater, recycling, streets, and parks. The staff use their specific talents every day to maintain and improve the city infrastructure for our residents.

Projects are also shared between both groups, examples are snow plowing, building cleaning and maintenance, equipment maintenance, "call ins", and everyday problem solving. Interior collaboration between department staff happens every day on multiple challenges, ideas, and potential projects. The diversity of staff talent is how the department efficiency continues to improve. I have the pleasure to lead these talented individuals and at times they lead me.

In 2024, there was one personnel change. Colin McDonough, with 8 years of service, went on to pursue his professional career. Public Works hired Jason Stanius in April. Jason is acclimating well and we are all learning from his experience and talent he brings to the group. The other members are introduced in the report and I want to personally thank Parish, Jeremy, Tom, Mike, John, Wyatt, Nate, and Jen for their dedication, commitment, and hard work. They are truly a pleasure to work with.

The projects in 2024 relied heavily on the Department staff and time management was crucial to their success. The St. Francis Bark Park, the Ambassador Watermain Improvement, Royal Oaks lift station improvements, Pederson Drive water service, ReLeaf Grant work, Highland Park improvements, St. Francis Rain Garden, and the Rum River Woods River Stabilization Project. We have also added the Public Works Open House event that has turned into a success with the residents which we will continue to hold each year.

Thank you to Council for your continued support and congratulations to our new Mayor and Council Member. Please enjoy reading through the 2024 Report and feel free to reach out with any questions to your Public Works Team.



Respectfully Submitted,

Paul Carpenter

STREETS AND PARKS INTRODUCTION

Mayor and Council,

With another year in the books, it is my pleasure to present the 2024 Streets and Parks Annual Report. This report showcases the achievements, stats, projects, and the journey through 2024.

Interesting enough, this past winter (2023-2024) was much different than the previous year (2022-2023) of 90.3 inches of snow. We had every season from snow and ice to thunderstorms and multiple inches of rain. This allowed staff to do deep cleaning/organizing of our facilities. This is usually not possible during a normal winter. This spring we started with removal of our infested ash trees throughout our parks. After the removal was completed, multiple new trees were planted throughout. These trees were watered multiple times a week until freeze up, by staff. Another project started this spring and was completed by fall was the St. Francis Bark Park. This has been a big hit with the residents, and we have received multiple compliments on it. Not only does it get people out enjoying the outdoors with their fury friends, but it allows interaction amongst the residents.

I would like to thank my team for making these types of projects

possible. The team's out of the box thinking and innovative spirt continues to make it a great place to work. Everyone brings something unique to the team. I'm looking forward to see what 2025 has instore.

Sincerely,

Jeremy Shook Streets and Parks Supervisor



Jeremy Shook Streets/Parks Supervisor

- 19 Years of Experience
- Class A CDL
- Certified Pesticide Applicator

"Teamwork is the secret that makes common people achieve uncommon results"

– Ifeanyi Enoch Onuoha

STREETS AND PARKS TEAM





Jen Gulbrandson Public Works Admin

- 25 Years of Experience
- 2.5 Years as Stormwater Inspector



Tom Koep Streets/Parks Operator Recycling Coordinator

- Recycling Coordinator
- 21 years of Experience
- Certified Tree Inspector
- Class B CDL
- Certified Pesticide Applicator
- Class D Water License



Nate Hanson Streets/Parks Operator

- 5 Years of Experience
- Class A CDL
- Certified Tree Inspector
- Class D Water License
- Class D Wastewater License



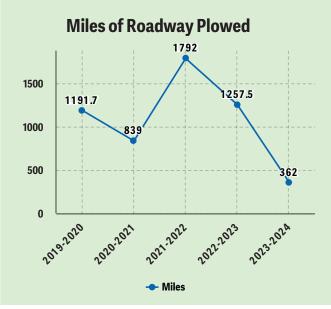
Jason Stanius Streets/Parks Operator

- 3 Years of Experience
- Class A CDL

SNOWPLOWING

2023-2024 Season ended up being quite different than the previous season of 90.3 inches of snow. This past season we ended up with 29.5 inches of snow almost half our normal average.

- 362 miles of roadway plowed
- 236 cul-de-sacs
- •97.2 miles of trail
- 276.3 tons of salt applied to our roadways







SNOWPLOW RIDE TO SCHOOL

Despite the lack of snow, we were still able to give the kids a ride to school in the snowplows. This was a drawing that was held at the Public Works Open House. The kids really enjoyed this judging by their smiling faces.

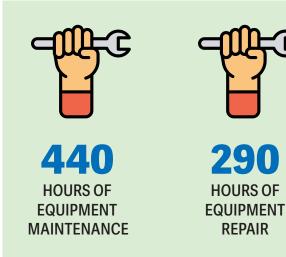






EQUIPMENT MAINTENANCE

Equipment Maintenance is a crucial aspect of ensuring the reliability, safety, and longevity of the equipment. Proper maintenance helps prevent breakdowns, extends the lifespan of the equipment and reduces the overall cost of ownership.





BUILDING MAINTENANCE

440 HOURS OF BUILDING MAINTENANCE



Staff attended a 5-day course that the Minnesota Recreation and Parks Association hosted at 5 different locations throughout the Metro. There were 31 members that attended the courses that were from different governing agencies.



• Arlington Hills Recreation Center: St. Paul

Topics: Recreation Facilities as a Business, Planning, and Design Process, Decision-Making Process. Development and Renovation Decisions and a Facility's Useful Life, and Partnerships for Facilities.

• Chaska Community Center

Topics: Enterprise, General, and Special Revenue Funds, Budgets and Capital Improvement Plans, Funding Facilities, Maximizing Revenue Generations, and Generating Revenue vs. Building Spaces.

- Mississippi Crossing: Champlin
 Topics: Risk Management and Emergency Preparedness, Lessons, Learned from Construction Process, Programming and Events.
- Buckham West: Faribault Topics: Asset Tracking, Faribault Facilities, Smaller Projects and Re-Purposing Spaces, Revitalizing Aging Assets and Rochester's Projects.
- Westwood Hills Nature Center: St. Louis Park

Topics: Guest speaker Annie Frisoli presenting People, communication, customer relations, and working with difficult behaviors.

SUMMER ROAD MAINTENANCE

- This summer we were able to once again partner with Stanford Township to complete a shared road project on 245th Avenue. This road had a mill and overlay.
- Quicksilver Street was a mill and overlay.
- 11,250 linear feet of painting on our city streets.
- 56,920 linear feet of crack sealing on our city streets.



of patch to the roads.



17,900 GALLONS OF CALCIUM CHLORIDE SPRAYED ON GRAVEL ROADS





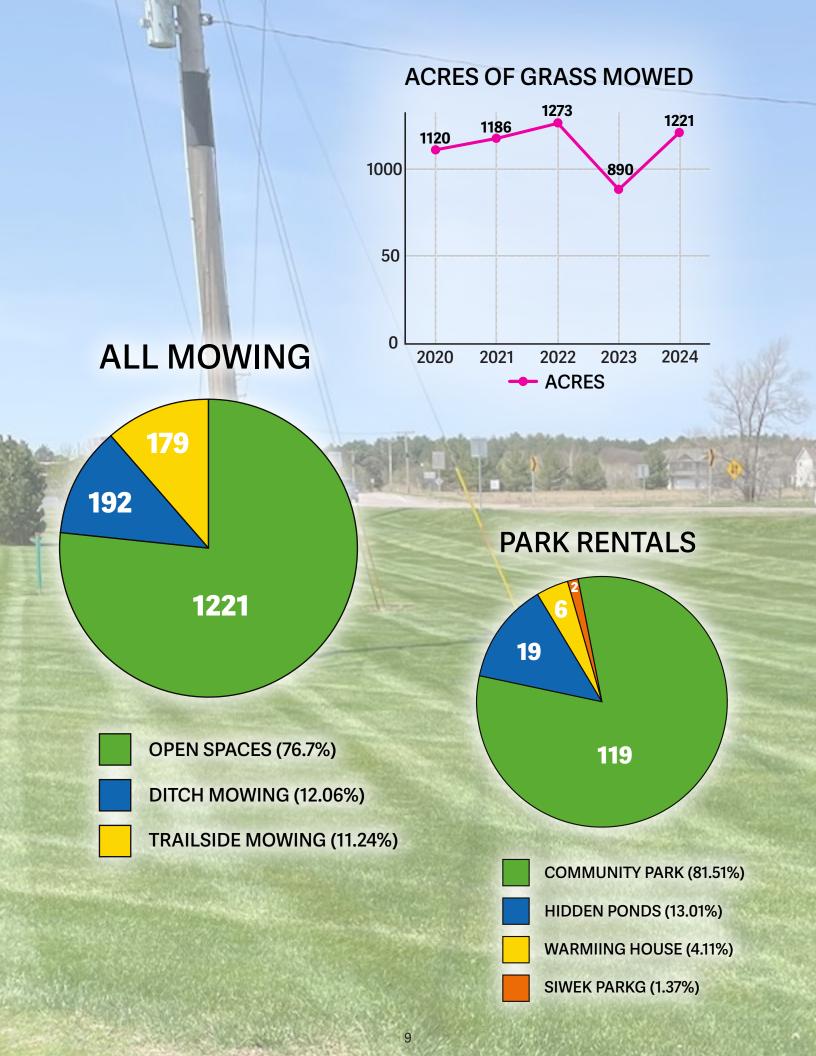
183 MILES OF ROADWAY GRADED



In August, there were two rounds of severe storms that swept through the city causing multiple power outages and downed trees. This ended up being an excellent training for emergency management between all City Staff.

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DOG PARK (ST FRANCIS BARK PARK)



Staff held a "Leash Cutting" Ceremony for the new St. Francis Bark Park. There was a great turn out of 40 dogs. Since the opening, we continue to see the park used daily and even on the coldest days. On average, staff collects about 30lbs of dog waste a week.





Before any excavation or tree clearing was completed.









Underfencing installation to prevent grass from growing up between the fence.



Drinking fountain for humans and dogs. Thank you for Water/Wastewater team for helping with this.



EMERALD ASH BORER (EAB) GRANT



CALL INS

2024 CALL INS





"Call ins" are emergencies that happen when staff is not at work, i.e., on the weekends and typically during the middle of the night. These emergencies are taken care of by the individuals that are currently on-call during that week. Public Works always has 2 individuals on call, 1 staff member from Water/ Sewer and 1 staff member from Streets/Parks.

MISCELLANEOUS PROJECTS



This is our leaf and grass vac aka Wall E. This was picked up from St. Thomas Collage with only 83 hours on it and with minimal dollars staff was able to get this machine back up and running.





Paving completions for the Dellwood Trail River Restoration Project. This portion of the project had to be completed this spring due to the cold temps in the fall of 2023.



Pressure Washing/Cleaning the benches at Woodbury Park.



New concrete pad, dumpster surround, garbage cans, and bike rack at Highland Woods Park.

Staff held our 2nd Annual Public Works Open House on October 29th. There was over 250 people at this event. Staff had set up 3 games the kids could play for candy including truck plinko, bowling, and a golf ball game.



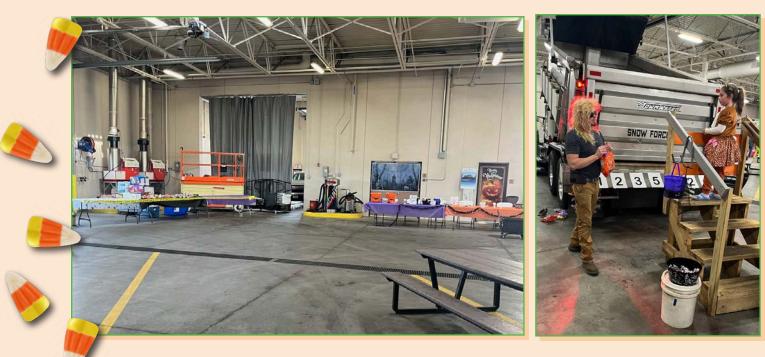


RECYCLING

We held four regular recycling events in 2024 at the Public Works Facility. Having events at a central location has been a great opportunity to utilize the space we have and make it convenient for our residents. Something new this year is accepting yard waste and tree trimmings at all events. We also now have a waste oil bin available for residents. Recycling scrap metal brought in over \$1400 which goes back to the general fund.

We partnered with Anoka County again and had a Household Hazardous Waste Event. This event brought in the most vehicles yet at over 437 vehicles. Last HHW event in 2022 brought over 423 vehicles. The Anoka County Household Hazardous Waste Facility is located in Blaine. Having this event here in St. Francis, brings northern Anoka County residents another convenient opportunity to recycle their hazardous waste. Typical items accepted at these events are paints, solvents, lightbulbs and prescription drugs. We hope to host more HHW events in the future.





STORMWATER



New stormwater treatment is in place to benefit the Rum River, thanks to a collaborative effort by the City of St. Francis, Anoka Conservation District (ACD), and Upper Rum River Watershed Management Organization. The new rain garden located along 225th LN has a curbside inlet, allowing water into a one-foot basin with filters and infiltrates stormwater. It will hold water for no more than 48 hours. It will remove 44% of solids (111lbs/yr) and 46% (0.6 lbs/year) of phosphorus from a two-acre drainage area. The rain garden is filled with native shrubs, grasses and wildflowers. We are hopeful this project results in other landowners wishing to have a rain garden on their property.





Rum River Woods Riverbank Stabilization Project

Cedar tree revetments are a cost-effective bioengineering practice that can be used to stabilize actively eroding riverbanks. Excessive erosion along riverbanks threatens property values, contributes sediment and nutrients to the receiving water body, and eliminates wildlife habitat. Installation of the 345-foot revetment and bare root plantings will slow or stop erosion and reduce the likelihood of a much larger and more expensive project in the future. Cedar brush was also installed to provide additional soft armoring. Another successful collaborative project with ACD, CCMI and the City of St. Francis.

ROW Permit Approvals

Staff reviewed and approved 38 ROW permits 8 City-Wide Projects that were large and involved various properties

Stormwater Reviews and Inspections

Erosion Control Plan Review Approvals - 42 Demo Permit Reviews/Excavation - 3 Inspections: Residential - 41 Inspections: Commercial - 46 Post Construction Inspections - 42





MS4 Training - Annual

llicit Discharge Training - Public Works, October 2024 Smart Salt Training - Salt & Snow Storage Refresher, October 2024



ANNUAL WATER & WASTEWATER REPORT 2024





Mayor and Council,

I am pleased to present to you, the final water and wastewater report for 2024. During the past year, staff worked on and completed many projects. A few of the projects include, Ambassador watermain improvements, curb stop locating, and Rivers Edge lift station meter replacement, just to name a few.

Our water and wastewater team is dedicated to serving the residents of St. Francis residents every day with what ever issue that should arise.

I would like to Congratulate Mark Vogel and Amy Faanes on being elected Mayor and to City Council Member, respectively.

Best Regards,

Parish Barten

Water and Wastewater Supervisor



St. Francis water and sewer operators are responsible for maintaining our water treatment facility, wastewater treatment facility, water distribution, and wastewater collection systems. They make sure all mechanical equipment works properly and that we meet all requirements set by the Minnesota Department of Health (MDH) and Minnesota Pollution Control Agency (MPCA).

The Water Treatment Facility is a Class C facility that removes iron and manganese, and continues to operate as designed. Our licensed Water Treatment Operators adjust treatment chemicals, record compliance data, perform maintenance, and collect samples as required by MDH.

In 2024, our operators completed these tasks:

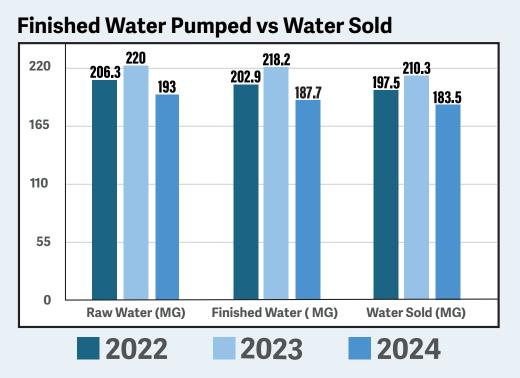
- Collected 60 required bacteria samples and 28 other samples required by MDH from throughout St. Francis
- Spent 450 hours operating the facility
- Conducted over 400 tests for Chlorine, Iron, Fluoride, and Manganese
- Changed oil in four high service pumps
- Completed 1,095 well drawdowns (checking water depth in wells)
- Cleaned and washed out the detention tank
- Cleaned and washed out three reclaim tanks
- Flushed 400 fire hydrants
- Repaired 25 hydrants
- Painted 20 hydrants
- Inspected the Water Tower for problems (none found)
- Started work on certifying our lead and copper inventory, due in October

As required, staff collects daily water samples for in-house testing. Here are the average lab results for 2024:

RAW WATER RESULTS	FINISHED WATER RESULTS		
lron: .99 mg/l	Chlorine: .78 mg/l	Iron: .002 mg/l	
Manganese: .072 mg/l	Fluoride: .71 mg/l	Manganese: .041mg/l	

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Below is pumping data for the last three years.



A key measure of our system's efficiency is accounted-for water, which compares finished water production to water sold. In 2024, we achieved 98% accountability, exceeding the 90% recommendation from AWWA, MDH, and DNR.

2024 Highlights

We had two significant achievements in water management this year:

- For the first time in two years, we avoided entering any drought warning phases. These phases, which are issued by the DNR, would have required the city to implement stricter water use protocols.
- For the first time in three years, our raw water pumping remained below our 200 million gallon appropriations limit.

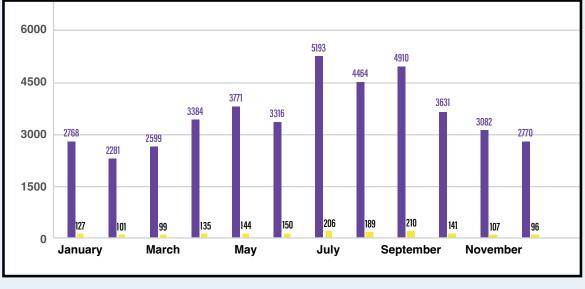
Treatment Aids

Treatment aids are essential for producing safe, clean drinking water. Each aid serves a specific purpose:

- Sodium Permanganate (NaMnO4) removes manganese and radium
- Chlorine acts as a disinfectant
- Orthophosphate prevents copper pipe corrosion
- Fluoride supports dental health for 2024:

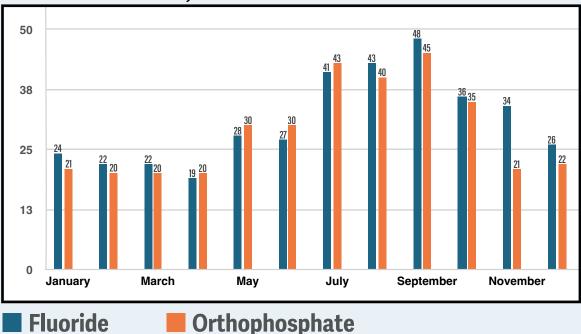
Below are the monthly quantities used for each treatment aid, along with yearly totals:

Treatment Aids, Lbs. Used



Sodium Permanganate, Lbs used Chlorine, Lbs used

The total amount of NaMno4 for the year was 42,169 Lbs., and the total amount of Chlorine used was 1705 Lbs.



Treatment Aids, Gallons Used

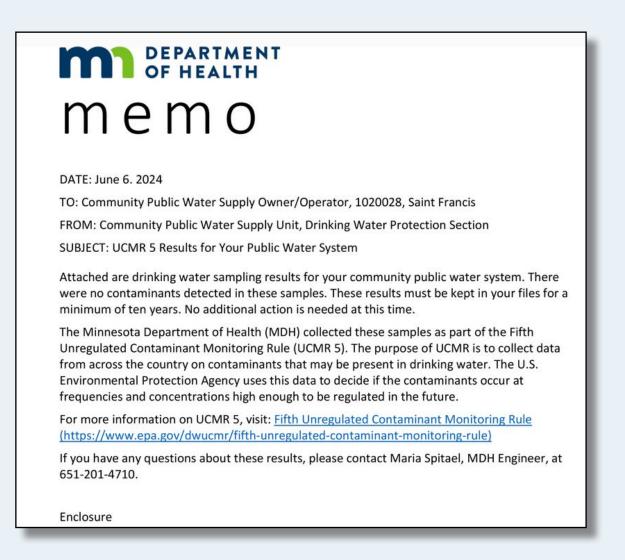
In 2024, we used 360 gallons of Fluoride and 347 gallons of orthophosphate.

Annual Sanitary Inspection

Each year, our drinking water facilities undergo a comprehensive inspection by a Minnesota Department of Health district engineer. I am proud to report that in 2024, we maintained our perfect compliance record with zero violations.

Minnesota Department of Health & Environmental Protection Agency Testing

In June 2024, the MDH conducted comprehensive water testing at our wells, sampling for more than 20 unregulated contaminants. This testing included a wide range of substances, from lithium to PHOS in the water.



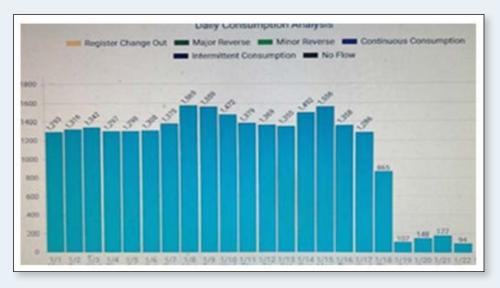
Neptune 360 Water Monitoring System

Our Public Works department uses Neptune 360 software to collect water meter readings throughout the city. This valuable tool generates various reports, including: no-flow alerts, high-flow warnings, top ten water users, and other usage patterns.

This winter, as in winter 2023, John, Mike, and Wyatt focused on the continuous consumption feature. This tool identifies properties where water flows continuously without stopping—an indicator of potential problems. Winter is the ideal time to spot these issues since outdoor water use is minimal.

Our team proactively contacts customers when continuous flow is detected, sending letters to explain that this might indicate problems like leaking toilets or running faucets. We also offer our assistance in investigating these issues. The response has been overwhelmingly positive, with many grateful residents appreciating this proactive approach to water conservation and problem prevention.

The image to the right demonstrates the impact of our notification system. After receiving our letter, this customer contacted Public Works about their high water usage. We identified a faulty toilet flapper, and after repairs, their daily usage dropped dramatically from 1,453 to 149 gallons.

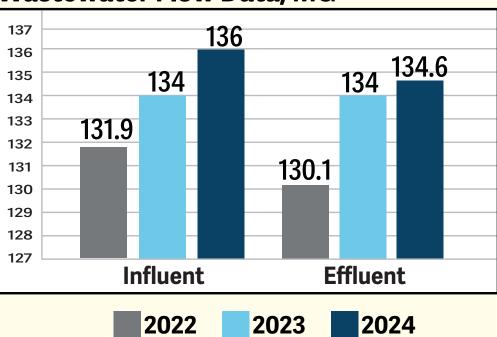


Other success stories from our 70 notification letters include:

- A bill reduction from \$703.92, down to \$88.42
- A reduction from 951gpd, down to 86gpd, or \$461.35 down to \$51.80
- The average reduction was 55%, with 96% being the largest.
- Of the 70 letters sent, we have had 42 addresses contacting us to help!

Our Class A Wastewater Treatment Facility uses activated sludge with extended aeration. Operators handle daily operations including meter readings, lab testing, sample collection, equipment maintenance, and required MPCA reporting.

To comply with our NPDES permit, we conduct weekly sampling. A certified laboratory analyzes all reportable samples, and we submit these results to the MPCA through monthly Discharge Monitoring Reports (DMRs).

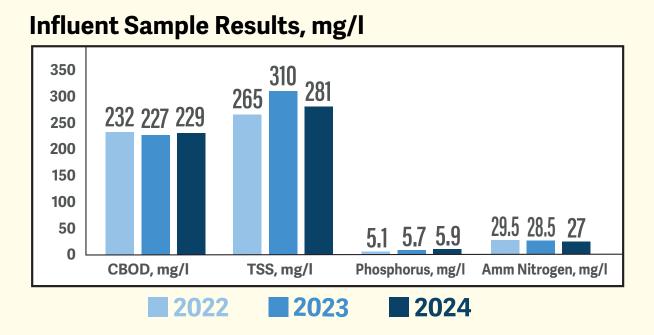


Wastewater Flow Data, MG

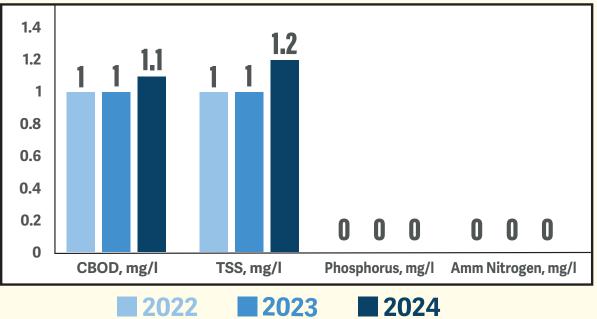
Flow Data: In Million Gallons

Our daily influence average for 2024 was 372,600 gallons. The Average Dry Weather (ADW) design for the facility is 647,000 gallons.

Each week, the operator collects samples for testing at a certified lab. Those samples include CBOD, TSS, Phosphorus and Ammonia Nitrogen.



Effluent Sample Results, mg/l



Note: Our permit limit for CBOD And TSS is 15 mg/l, Phosphorus is 1 mg/l and Ammonia Nitrogen is 1.5 mg/l. Our results were well below the limits for 2024.

Regulatory Reporting & Facility Maintenance

MPCA Required Reports

- Monthly: Discharge Monitoring Reports (DMRs)
- Yearly: Reuse Report
- Yearly: Biosolids Report

2024 Operations and Maintenance Activities

- Laboratory Work:
 - Collected 690 samples for analysis
 - Performed over 250 solids tests

• Equipment Maintenance:

- Serviced eight blowers (oil changes, greasing, filter changes)
- Maintained two clarifiers (cleanouts, oil changes, greasing)
- Serviced two fine screens (oil changes)
- Maintained two waste manhole pumps (oil changes)
- Changed HVAC filters
- Cleaned and maintained UV system
- Cleaned backwash tank and serviced two pumps
- Replaced one transducer

• Biosolids Management:

- Processed over 850,000 gallons for land application

Met Council Visit

In October 2024, Wyatt (in green jacket) led a tour for 30 Met Council staff members at our Wastewater Treatment Facility. The visit focused primarily on our water reuse systems and their operation.



Advanced Treatment and Water Reuse

Our facility features tertiary treatment—the highest level of wastewater processing. Through filtration and advanced disinfection, we achieve superior water quality that enables beneficial reuse. One example of this sustainable practice is our use of treated wastewater for irrigation at the Public Works & Police Building.



The largest met council wastewater facility treats an average 180,000,000 million gallons a day... we treat on average 370,000 gallons a day!

Collection System Maintenance

- 25,000 linear feet of sewer main jetted and cleaned.
- 8 lift station washout and cleanings.
- Pulled turtle run LS 6 times for plugging.
- Pulled River edge LS 1 time for plugging.
- 6 lift station cleanings with vac truck.
- Performed oil changes on eighteen lift station pumps.

River Edge Lift Station Flow Meter

The flowing meter failed and had to be replaced. This style of meter uses anodes to detect flow. After time, the anodes and the electric components fail.



Left: Staff in the meter vault, removing the bolts so the old meter can be removed, and new meter installed.



Old Meter



New Meter

Ambassador Boulevard Water Main Improvements

To minimize service interruptions, we completed water main improvements on Ambassador Boulevard in three phases. The project included two new fire hydrants, four gate valves, and water service installation for the dog park.

Phase 1: The replacement of a ten-inch gate valve. This valve was replaced in the overnight hours because water was shut off to the middle school.



The picture below shows the new ten-inch gate valve installed, looking down from the top of the excavation site.



Phase 2: Included the replacement of a 1979 fire hydrant and six-inch gate valve.







Phase 3: Included the replacement of a 1979 hydrant, gate valve and a 1973 gate valve. During this phase, the water service for the dog park was added.

While neither component had failed, preventive maintenance drove these replacements. One hydrant had become increasingly difficult to operate. The gate valve, discovered buried just weeks before the project, was previously unknown to staff. These proactive replacements help prevent future service disruptions and emergency repairs.









Connexus Energy assisted holding the power pole in place, until backfill was complete, due to the excavation and proximity to the power pole.

Wastewater Treatment Facility Service Leak

The water service to the influent building started to leak and was repaired. The gasket on the blue saddle and loose bolts were the culprit. This was only a seven-year-old service, but if done incorrectly, or inferior equipment is used, they will leak.



New Saddle



Pederson Drive Water Service

A resident's well was failing to the point of not having water. Staff assisted the homeowner and contractor on installing a new water service from our City Water Main.



This project was completed by directional boring the service to the water main, instead of an open trench. This was a substantial savings for the homeowner. They set up behind the house and bored under the foundation and Pederson Dr. to the water main.

Pederson Drive Water Service Continued

The photo below is the connection to the water main with a new saddle and curb stop.





As you can imagine, the homeowner was super excited to have continuous, running water in the home!

The picture to the left is the old well that was in the basement and was sealed.



Royal Oaks Lift Station Improvements

Our facilities maintenance extends beyond water and wastewater systems. When the retaining wall at Royal Oaks Lift Station began deteriorating, our staff successfully completed its replacement, demonstrating their diverse maintenance capabilities.



Before



After



NEW EQUIPMENT

Mobile Generator Acquisition

Our new generator, purchased in 2023 and delivered in November 2024, enhances our emergency response capabilities. Its versatile external power configurations allow it to support multiple types of events and facilities as needed.



Photo: Generator successfully tested at one of our lift stations, demonstrating full operational capability.



Photo: Staff being trained in how to operate.

ENGINEERING

Comprehensive Sanitary Sewer and Municipal Water Plan

As you know, our engineering team finished with our Comprehensive Sanitary Sewer and Municipal Water Plan. This Comprehensive Plan will give guidance and serve as a road map, not only for current staff, but for future staff to rely on for utility infrastructure sizing and cost, depending on future development.

St. Francis Wastewater Treatment Facility Capacity Review and Update

Another engineering project that was completed at the beginning of this year was our capacity review for our eight-year-old wastewater facility. Our facility capacities were calculated using current and future population, flow and loading projections and was designed to meet the needs of our community for twenty years. Obviously, less or more development, water usage and loading (CBOD) can either shorten or lengthen that time frame.

Staff worked with and provided data to our environmental engineer to determine what we have utilized of our capacity. Please keep in mind that these figures are calculated using current flow and loading data and residential equivalent units (REU).

Criteria	2024 DMR Value	Basis of Design	2024 Capacity Utilized	# REU Remaining
FLOW	.370 MGD.	.647 MGD	0.57	1411
CBOD	716 lbs./d	1380 lbs./d	0.52	1737
TSS	1,007 lbs./d	1966 lbs./d	0.51	1784
PHOS	18.6 mg/l	40.7 mg/l	0.46	2229

Staff will provide Council with annual updates on these capacity figures, as they fluctuate year to year based on usage patterns.

MEET THE TEAM



John Maki 2021



Mike Harris 2017



Parish Barten 2005

Jen Gilbrandson 2016











Henry Ford said it best: "Coming together is a beginning, keeping together is progress, working together is success."

That's exactly what our crew has done here at St. Francis Public Works. Together, we've put in a combined thirty-nine years serving this city, and I couldn't be more proud of how this team works together.

Everyone shows up ready to help each other out and do whatever it takes to serve our residents right. You won't find a better group of people doing this work anywhere.

Parish Barten

Water and Wastewater Supervisor



COMMUNITY EVENT

Truck or Treat Event

The highlight event for public works is hosting the Truck or Treat Event, which is held in the fall. I really believe that this has become a "can't miss" event and our residents will continue to look

forward to this every year!





The calm before the storm!



John having some fun!





John & Mike using a prop to demonstrate.



This year's event was a huge success and attended by more people than last year! And to be honest, I do not know who has more fun...the kids or our staff!



Look at all those cars!



