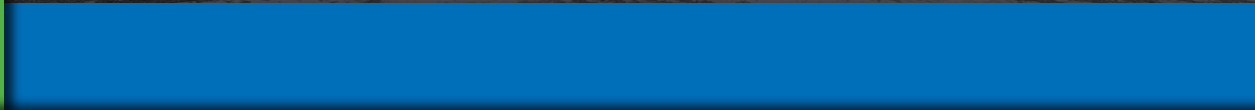


2023 ANNUAL REPORT

ST. FRANCIS PUBLIC WORKS



4058 ST. FRANCIS BLVD NW
ST. FRANCIS, MN 55070



Mayor and Council,

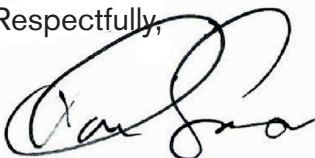
The beginning of 2023 was exactly the same way 2022 ended. The Public Works routine was snow-plow-repeat, little did we know that mother nature would have a much different plan for the rest of the year. The Spring/Summer was one of the wettest on record and the Fall/Winter was one of the driest, ending in a moderate drought for the year. Consequently, the Rum River was at its highest and lowest levels ever recorded in the time span of less than six months.

The Public Works staff capitalized on their certifications and licenses attained in 2022 and utilized their talents to help the team provide better service and cost savings to the residents of St. Francis. I would like to point out some of these achievements by our Water/Wastewater Operators and our Streets/Parks teams specifically. The Water/Wastewater Operators installed the membranes in the Aeration Basins to the savings of approximately \$36,400. They also were able to complete the City's Utility Asset Management Plan using Diamond Maps; this information will be used for years to come. Another achievement is how the Operators are now using the Neptune 360 Program, the City's water usage software, to monitor continuous water usage. Staff can then inform and educate residents on what might be using too much water and how they could stop it, in turn saving themselves money on their water bill. One of the achievements of the Streets/Parks staff was the road wash out on 245th street last spring and how the team was able to restore travel in less than 12 hours, a true test of character. The Streets/Parks Staff was also tested and challenged by multiple break downs caused by the severe winter. The equipment was always repaired and ready for the next event.

Staff was asked to try writing grants this year in response to the increasing costs and prices of doing business. Staff rose to the challenge and was able to procure three Grants in particular, the DNR ReLeaf Grant, the Municipal Solid Waste Grant, and a Grant from OSHA. Staff was also asked to design and host a Public Works event for the residents for the first time and it was very successful.

The Public Works greatest asset is our staff and we would like to thank the Mayor and Council for allowing us to evolve with the City as it changes and moves forward into the future to 2024.

Respectfully,

A handwritten signature in black ink, appearing to read "Paul Carpenter", written over a light gray rectangular background.

Paul Carpenter



STREETS AND PARKS 2023



JEREMY SHOOK
STREETS/PARKS
SUPERVISOR

- 18 YEARS OF EXPERIENCE
- CLASS A CDL
- CERTIFIED PESTICIDE APPLICATOR

***“Talent wins games,
but teamwork and
intelligence win
championships.”***

-Michael Jordan

WORDS FROM THE SUPERVISOR

Mayor and Council,

Another year has come and gone and its with great pleasure to present the 2023 streets and parks report, showcasing the remarkable journey, achievements, and milestones of the streets and parks team.

There are a couple of things I would like to highlight. First is the extremes in weather, last season we set a record for the the 3rd snowiest winter on record with 90.3 inches of snow. This season is quite the opposite with only 7.3 inches of snow so far this season we are on par to set the record for least amount of snow in a season. The quiet winter season has allowed us to do some deep cleaning of our facilities that is not normally possible during the busy winter months. It also has allowed to tackle some new tasks such as grant writing. The team is very proud of the grants that we have received over this past year. One of the last grants that was applied for was the DNR EAB ReLeaf Grant. Over this past year, we have noticed a significant amount of trees affected by EAB and once you start to see the signs of infections, the survival rate is very minimal.

Lastly, I would like to thank my wonderful team for their dedication and hard work without these guys and gal a report like this would not be possible. The team’s innovative spirit and out of the box thinking continues to make it a wonderful place to work. I would also like to thank my boss Paul for his leadership, inspiration, and motivation to push you to be the best version of yourself. I’m looking forward to another successful year in 2024.

Sincerely,

Jeremy Shook

Streets and Parks Supervisor



STREETS AND PARKS TEAM



JEN GULBRANDSON
PUBLIC WORKS ADMIN
STORMWATER INSPECTOR

- 75 YEARS OF EXPERIENCE
- 1 YEAR AS STORMWATER INSPECTOR



NATE HANSON
STREETS/PARKS OPERATOR

- 4 YEARS OF EXPERIENCE
- CLASS A CDL
- CERTIFIED TREE INSPECTOR
- CLASS D WATER LICENSE
- CLASS D WASTEWATER LICENSE



COLIN MCDONAGH
STREETS/PARKS OPERATOR

- 16 YEARS OF EXPERIENCE
- CLASS B CDL
- CERTIFIED TREE INSPECTOR
- CERTIFIED PLAYGROUND INSPECTOR



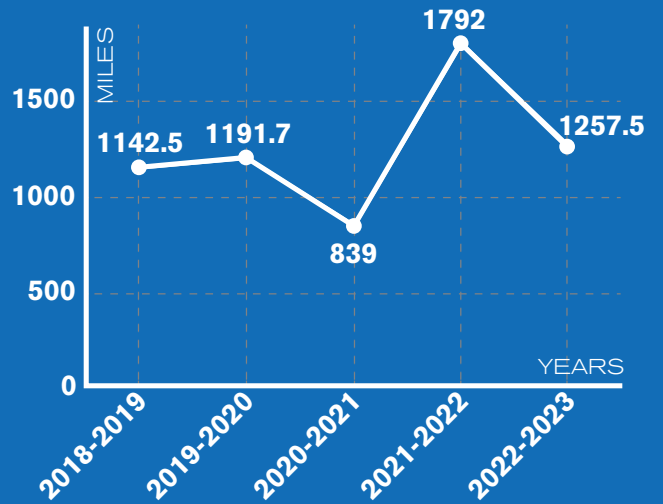
TOM KOEP
STREETS/PARKS OPERATOR
RECYCLING COORDINATOR

- 20 YEARS OF EXPERIENCE
- CERTIFIED TREE INSPECTOR
- CLASS B CDL
- CERTIFIED PESTICIDE APPLICATOR
- CLASS D WATER LICENSE

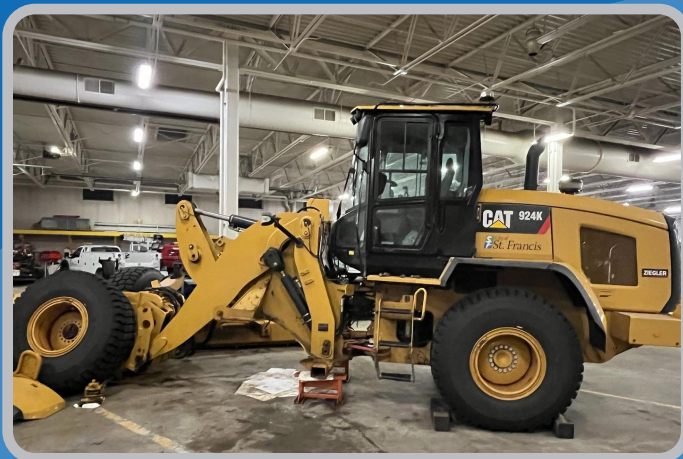


2022-2023 season ended up being our 3rd snowiest winter on record with a total of 90.3 inches of snow. This is almost double our average snowfall for a season and with that comes challenges like extra stress on the equipment resulting in some unexpected maintenance costs.

MILES OF ROADWAY PLOWED



- ❄️ 1,257.5 Miles of Roadway Plowed
- ❄️ 826 Cul-Da-Sacs Plowed
- ❄️ 67 Parking Lots Plowed
- ❄️ 364.5 Miles of Trail and Sidewalks Plowed



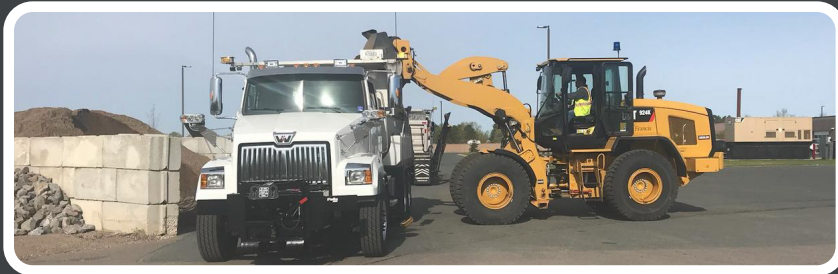
👉 506.8 Tons of Salt Used on City Streets

👉 46.8 Tons of Granite Chips Used on Gravel Roads



- 🔧 Cat Wheel Loader \$28,447.749
- 🔧 Mack Dump Truck \$9,881.79
- 🔧 Miscellaneous \$4,173.89

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



Emergency road repair on 245th due to the road washing out during Spring melt. Over 200 tons of rock was installed to stabilize the road.



Equipment Maintenance
448 HOURS



Equipment Repair
390 HOURS



- 174.5 Miles of Gravel Road Graded
- 18,400 Gallons of calcium chloride was applied to Gravel Roads
- 811 Ton of Class 5 Gravel Spread



Something to highlight for the year, Public Works is proud of the grants that have been obtained throughout 2023.

GRANTS

\$3,000

SHIP GRANT (Statewide Health Improvement Partnership)

This grant allows us to buy things like park benches, bike fix-it stations, and kiosk boards.

\$3,000

OSHA GRANT

This is a safety grant that helps buy tools that allow for better ergonomics.

\$5,300

RECYCLING SUPPLIMENTAL GRANT

This grant has allowed us to buy trash and recycling recepticles for a few of our parks.

\$20,500

MUNICIPLE SOLID WASTE GRANT

With this grant we were able to purchase an enclosed trailer to be used as temporary storage between recycling events.

\$148,000

EAB (EMERALD ASH BORER) GRANT

This grant is to help mitigate the spread of EAB in our parks.

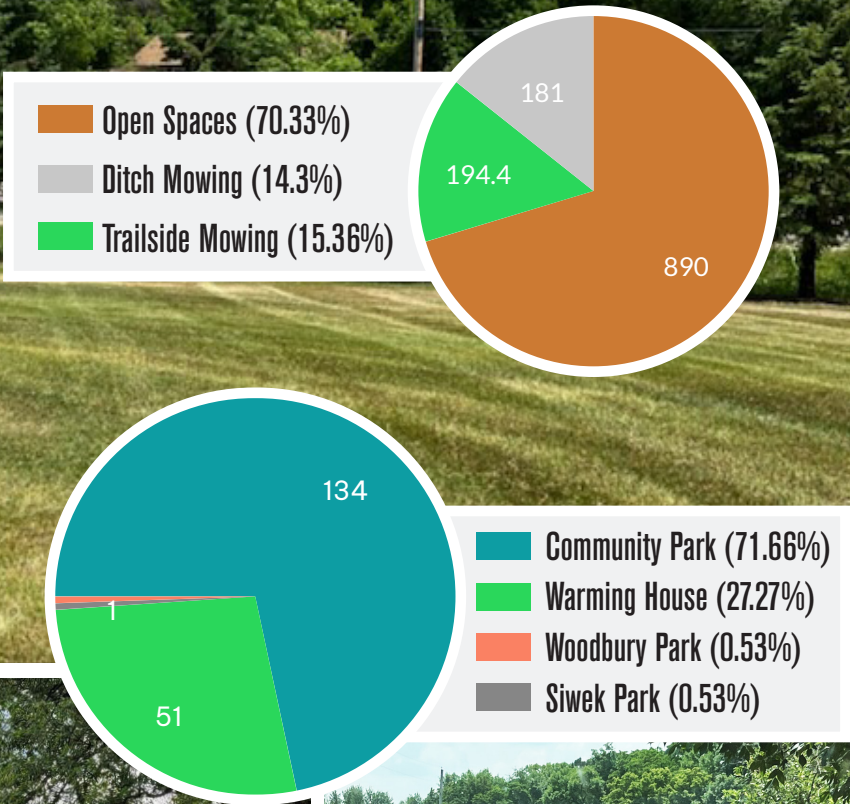
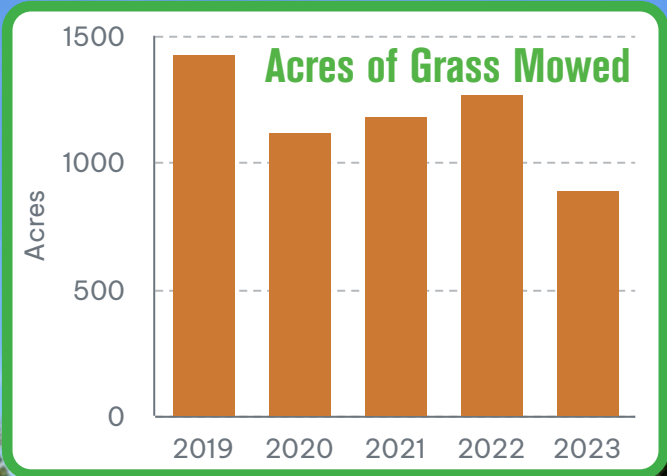
\$225,000

RIVERBANK STABILIZATON AND RESTORATION GRANT

This allowed us to partner with Anoka Conservation District to correct the erosion on Dellwood Trail.

TOTAL \$404,800.00

Mowing is one of the biggest tasks in the summer. There is a variety of mowing that happens: open spaces in parks, trailside mowing, and ditch mowing.



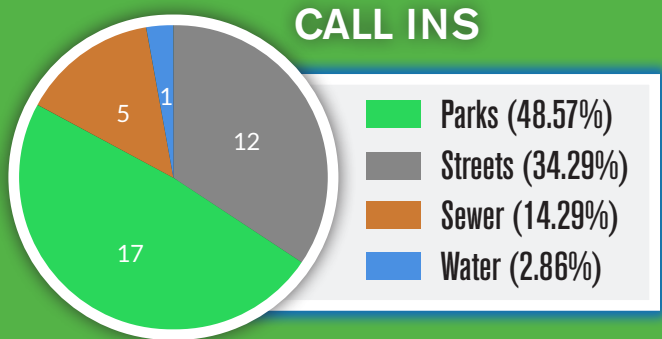
187 Events were held in our parks this past year.



Removing netting and over seeding Siwek Park



34 Call Ins
 These are hours that
 are not scheduled
 working hours



With one of the driest winters on record, staff was able to tackle some new projects. This is the lot on the corner of 227th next to Community Park. This lot consisted of overgrown trees and underbrush.

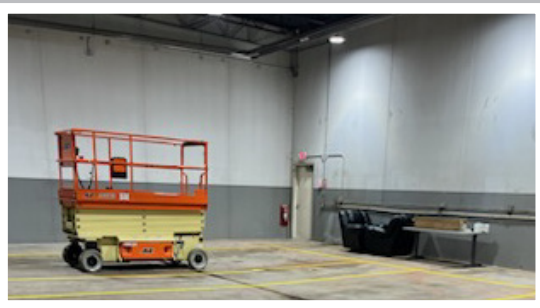


Staff has also done some in-depth cleaning of our facilities during the down time this winter.

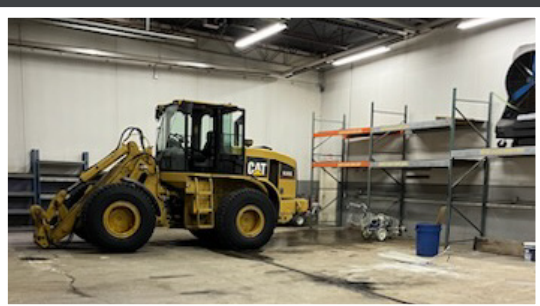
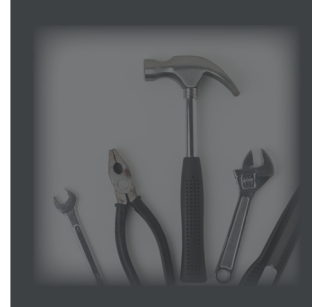
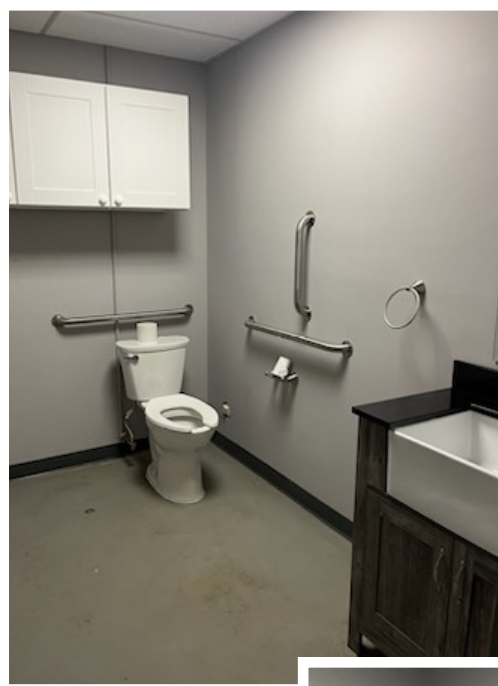




423 Hours of building maintenance

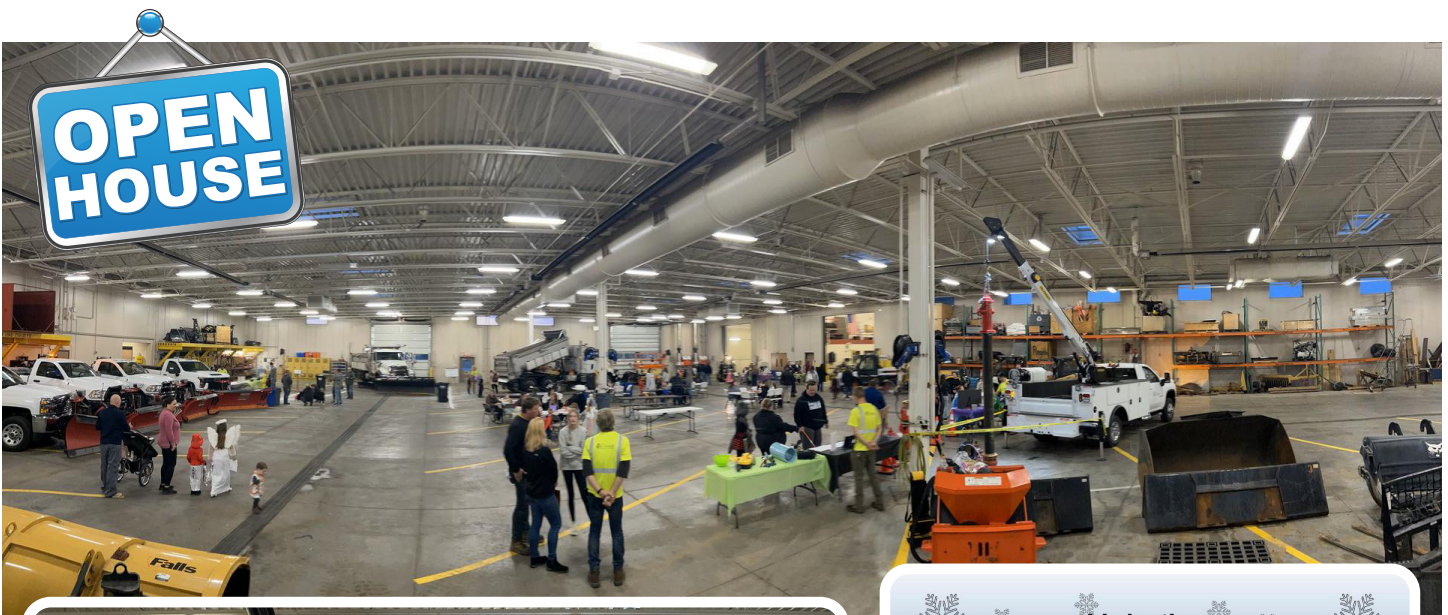


**232 Site Inspections/
Preparations for Events**



**Remodeling the old
Public Works building into
the temporary fire station**





Plow truck navigating garage cans in the way

Help the City of St. Francis name our Snow Plow!



We will take the most popular names (up to 5) mentioned below. We will have a table set up at our upcoming Public Works Open House "Truck or Treat" Event to cast YOUR VOTE for your favorite Snow Plow Name! Let's get creative and pick an AWESOME name for our hardworking 65,000 lbs. City of St. Francis Snow Plow!

Winning name for the snow plow is "SNOW FORCE ONE"

PUBLIC WORKS OPEN HOUSE TRUCK OR TREAT EVENT!

- ADULT & KID DRAWINGS TO WIN—FREE ITEMS!
- TEMP TATTOOS/COLOR PAGES
- HOT DOGS, CHIPS SERVED!
- HALLOWEEN CANDY!
- WASTEWATER FACILITY TOUR AT 6:30PM!

HELP US NAME ONE OF OUR CITY SNOW PLOWS!
 WIN \$100 CREDIT TOWARDS YOUR WATER BILL!
 WIN A RIDE TO SCHOOL ON A SNOW PLOW! (WE WILL PICK YOU UP AND BRING YOU TO SCHOOL!)

WEAR YOUR COSTUMES!



OCTOBER 24TH
 5:00 PM-7:00 PM

4050 ST. FRANCIS BLVD NW



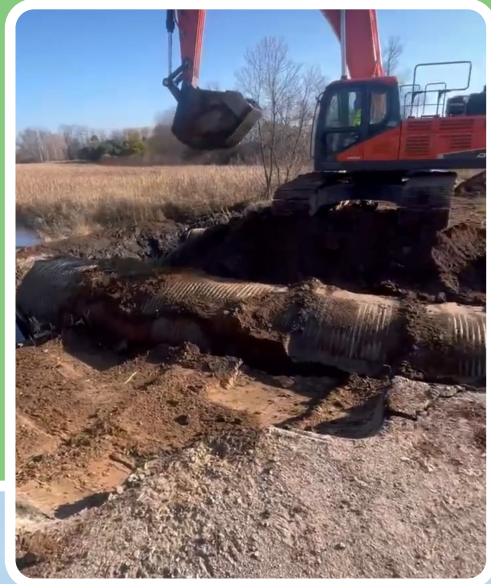
CITY OF ST. FRANCIS

In October, Public Works organized a successful open house event called "Truck or Treat." It was a delightful occasion enjoyed by both staff and attendees.

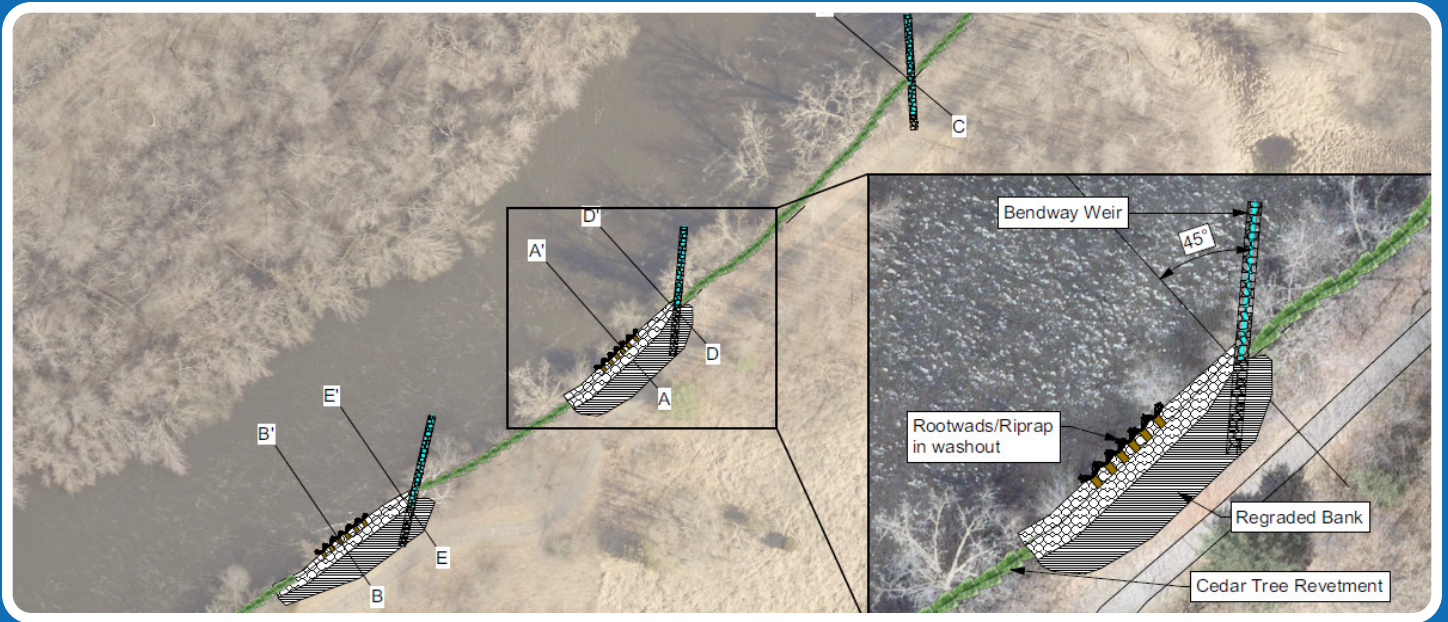
Additionally, we provided tours of our Wastewater Facility during the event.



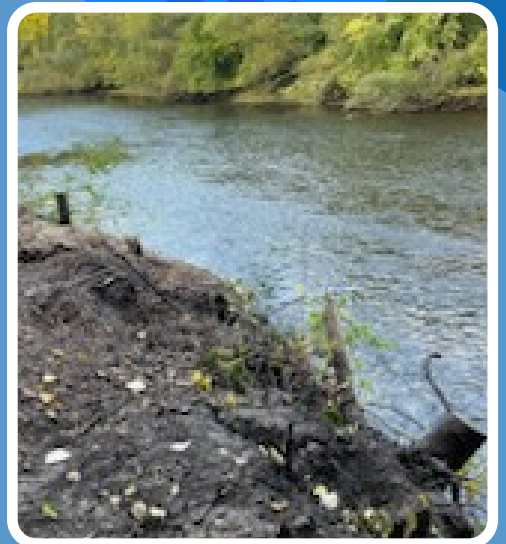
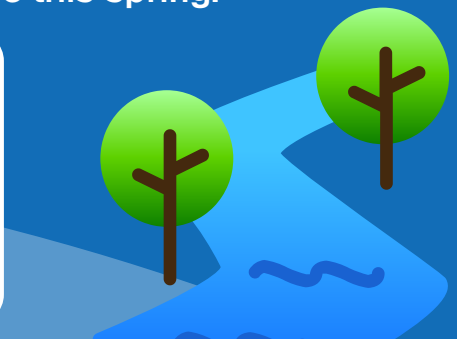
We were happy to see the creative costumes worn not only by the children but also by their parents. 90 kids and 150+ Adults



This past summer, the City of St. Francis and Stanford Township signed a shared road agreement. This allows the two entities to work on projects together. The first order of business was to tackle a much overdue project of three rotting culverts in the Seeyle Brook. These culverts over the years have slowly deteriorated causing failure of the road. When the culverts were removed it was discovered that two of the three culverts were completely collapsed leaving only one to do the job. This is what caused the road to fail this past spring allowing the water to come over the road.



For a few years now the Rum River has been slowly eroding away the bank on portions of the Dellwood Trail. During a Stormwater collaboration meeting it was brought to our attention that the Anoka Conservation District (ACD) was looking for potential projects along the Rum River. In 2020, the ACD met with city staff on site, and it was determined that the site met all the qualifications. In 2022, the city partnered with the Anoka Conservation District to come up with a solution to stabilize the eroding bank along the Dellwood Trail. 85 percent of the cost of this project was grant funded and the city paid for the other 15 percent. This past fall the project was completed except for the trail portion. The portion of the trail that has been disturbed is scheduled to be completed sometime this spring.



Rum River Swale Project

- Anoka Conservation District
- ISD 15
- City of St. Francis



Improving Drainage
at the Waste
Water Plant



Cleaning of Culverts
on 238th Avenue



STORMWATER 2023

The City of St. Francis has been implementing the MS4 stormwater permit requirements and regulations since 2016. Every year, the program requirements and regulations increase and it's the City's job to ensure that we as the municipality as well as the City's residents are following these restrictions and regulations.

I, Jen Gulbrandson, have been certified for stormwater inspection since 08/15/22. I continue to handle approvals of Erosion Control Plans for all (residential) new construction, additions, accessory structures (over 200 sq. ft.), grading/excavation and demolition permits that come in for approval when they submit their building plans and I also handle the site inspections and/or violations. I have to ensure that all contractors/builders/developers are following the Minnesota Pollution Control Agency's Best Management Practices for sediment/erosion control, while doing any work in our City.

PROJECTS

- Swale Project with Anoka Conservation District, ISD 15
- Rain Garden Project with Anoka Conservation District - 2023 we chose sites and approved concepts; construction to begin spring 2024
- 245th Ave Culvert Replacement with Standford Township (3, 72-inch culverts)
- 238th Ave Culvert - Clean Out
- 233rd Ave Culvert - Clean Out
- Stormwater Pond Clean Out - Pond Locations: 238th Ave, 235th Ave, Vintage St and Crocus St
- Stormwater Catch Basin/Storm Drain/Storm Weir/Stormceptor Clean outs:
 - Wier/Storm Pit/Stormceptor Clean out - Butterfield Dr and River Dr
 - Storm Drain Clean out - 233rd Ave, Quay St, Silverod St, Vintage St, 235th Ave, Ivywood St, 225th Ave, 226th Ave, 227th Ave, Rum River Blvd, 238th Ave, Roanoke St, Yakima St, Salish St, 245th Ave, and Variolite St
- Street Sweeping
 - Spring - Swept a total of 95 hours on St. Francis City Streets.
 - Fall - Swept a total of 71.5 hours on St. Francis City Streets.



TRAINING



- PW Staff completed Annual Illicit Discharge Training in March 2023
- PW Staff completed Annual Smart Salt Training in August/September 2023
- Turf Grass Management Training was completed by Colin McDonagh & Nate Hanson

INSPECTIONS

- 65 Inspections/Site Visits - Residential
- 9 Inspections/Site Visits - Commercial (CHFS)
- 2 Demolition Permit - Site Inspection/Approvals
- 1 Excavation Permit - Site Inspection/Approvals



RECYCLING ROCKS!



2023 has been a year for the books. We had over 598 vehicles drive through our Recycle Events! That's our highest yet. Contributing factors were good weather and stable prices. We continue to battle rising costs so we are diligently finding new ways to run events that will save money for both the city and residents.



Appliance collection was up 15% from 10 tons to 12 tons collected last year. Cardboard continues to be a big-ticket item. We are looking to expand cardboard collection including larger bins and possibly more events. Organics drop-off program continues to grow. We have a 2-yard bin that gets emptied every week. With periodic checks throughout the year, the bin is over half full. That adds to our recycle tonnage number of around 12 tons a year.



New to 2023!

We finally have our oil bin! We partnered with East Side Oil companies to collect motor oil, filters and coolant. We received the bin in August, and we collected over 500 gallons of oil so far.



Staff sent out two recycle newsletters this past year. In the past, we had sent out one recycle newsletter and multiple postcards of recycle information. We found it easier to create two newsletters and still send out the same amount of information. This saves the program money by saving on postage and staff time.

Grants

We were awarded over \$65,000 in total grants for Recycling in 2023. This money covers the cost of running events, labor and promotion. We applied for Supplemental funding to pay for two recycle/trash bins for our parks. They cost over \$5300 for the two sets. They will be replacing our old blue barrels that are difficult to handle and not clearly labeled. They make it easier for park visitors to recycle and help keep our parks clean.



Lastly, but certainly not the least, we were awarded a grant for \$20,500 to purchase an enclosed trailer. This will give us the opportunity to collect more items in between events and store items temporarily. It will also help to promote the recycle program at city events including Night to Unite.





2023 Water & Wastewater Final Report

Prepared by Parish Barten

WATER TREATMENT FACILITY WELLS & DISTRIBUTION SYSTEM PAGES 22-29
TREATMENT AIDS – ASSET MAINTENANCE – METER READING TECHNOLOGY - UPCOMING 2024 PROJECTS

WASTEWATER TREATMENT FACILITY & COLLECTION SYSTEMS..... PAGES 30-33

MEET THE TEAM..... PAGE 34

Honorable Mayor and Council,

I am pleased to present the Water and Wastewater Final Report for 2023. Throughout the year, we encountered various weather conditions typical of Minnesota, from heavy snowfall in January, February, and March to spring flooding and drought conditions in late summer, followed by a notably snow-free period.

I must acknowledge the late Mayor Feldman; whose dedication continues to inspire us. His calls, often lasting longer than anticipated, were a reminder of his commitment to our community.

Our staff approaches each day prepared for any challenges that may arise. I'd like to highlight a few completed and ongoing projects: the comprehensive utility locating using our RTK-GPS device, focusing on gate valves, curb stops, and manholes. This data has significantly enhanced our Asset Management System through Diamond Maps software, improving maintenance and record-keeping efficiency.

Additionally, we've begun replacing membranes in one of three aeration basins, with the remaining two scheduled for completion by the upcoming spring or summer. This initiative, led by our staff, has resulted in cost savings of approximately \$30,000.

Currently, our team is utilizing Neptune 360 Meter Reading software to identify accounts with continuous water usage, often due to faulty toilets. By addressing this issue, we not only conserve water but also potentially save residents money.

I extend my gratitude to our Public Works Director, Paul Carpenter, for instilling a productive work environment that upholds the standards of our department.

In conclusion, I thank you, Mayor, and all of the Council Members for their support of the Water and Wastewater department.

Respectfully,

A handwritten signature in black ink that reads "Parish Barten". The signature is written in a cursive, flowing style.

Parish Barten
Water & Wastewater Supervisor

WATER TREATMENT FACILITY, WELLS & DISTRIBUTION SYSTEM

The Water and Wastewater Department is comprised of four operators, myself included. We are on call twenty-four/seven; 365 days a year to respond to any one of 600 Scada Alarms at any of the facilities, or to an Anoka County Dispatch call, stating one of our residents has an emergency.

Our weekly rounds are divided into three daily jobs. Water Treatment Operator, Wastewater Treatment Operator, and a Fire Guy. Each week, the three operators rotate each respective job. The Fire Guy duties include locates, meter issues, lift stations and assisting with maintenance at one of the treatment facilities.

The Water Treatment Facility is a Class C, Iron and Manganese Facility that continues to operate as designed. The licensed Water Treatment Operators make treatment aid adjustments, compile data, perform maintenance, follow, and collect samples, required by the Minnesota Department of Health (MDH). Other tasks performed by the operators this year included:

- Collecting 60 required bacteria, and 28 other samples required by MDH from around the City of St. Francis
- 490 hours of operator interface at the facility
- Performed over 400 Chlorine, Iron, Fluoride, and Manganese tests
- Replace 500 feet of treatment aid lines
- Performed oil changes on four high service pumps
- Completed 1,095 Well drawdowns (inspecting depth to water in the well)
- Cleaned and performed a washout of the detention tank
- Cleaned and performed a washout of three reclaim tanks
- Flushed 400 fire hydrants
- Repaired 20 hydrants
- Painted 40 hydrants
- Inspected our Water Tower for abnormalities; none were found
- Inspected four filters for media loss

Lab results:

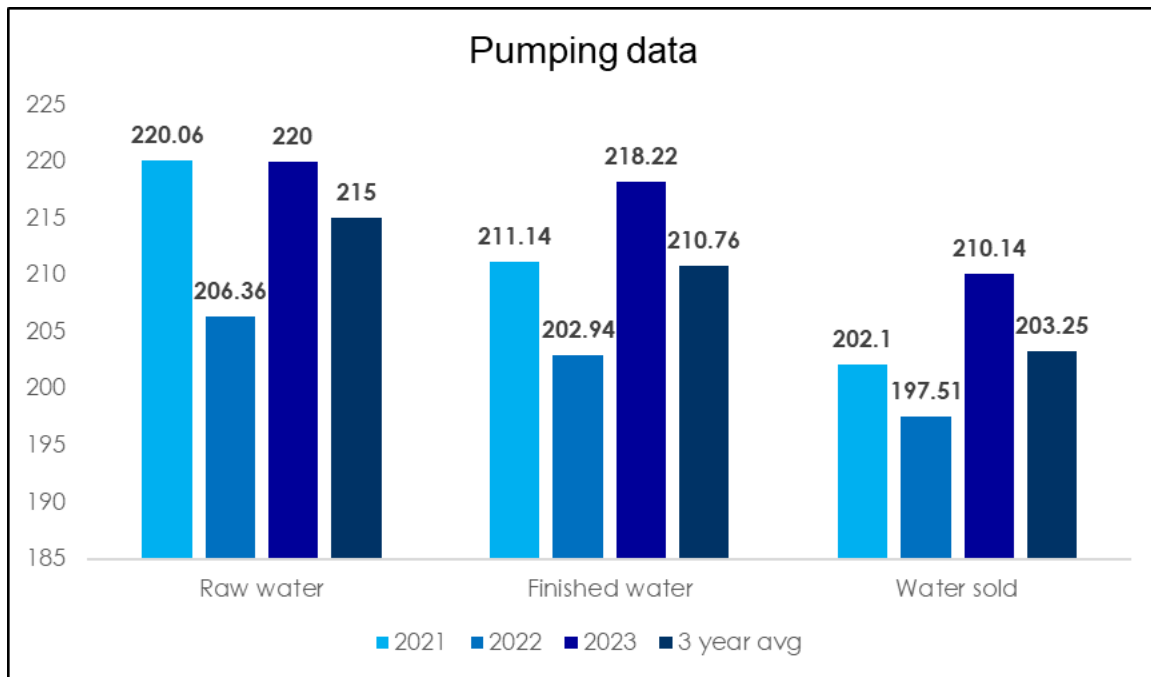
Every day, the Operators collect water samples from both the Raw Water and Finished Water sources and conduct in-house laboratory tests to ensure compliance with the guidelines set forth by the Minnesota Department of Health. Each test is conducted within specified limits and ranges mandated by regulatory standards. In 2023, our daily average results for these tests were as follows:

RAW WATER RESULTS		FINISHED WATER RESULTS	
Iron: 1.02 mg/l		Chlorine: .78 mg/l	Iron: .002 mg/l
Manganese: .089 mg/l		Fluoride: .72 mg/l	Manganese: .032 mg/l



*Every three years, the City of St. Francis is required to collect 20 random lead and copper samples for analysis. **NONE** of the 20 samples exceeded maximum levels!*

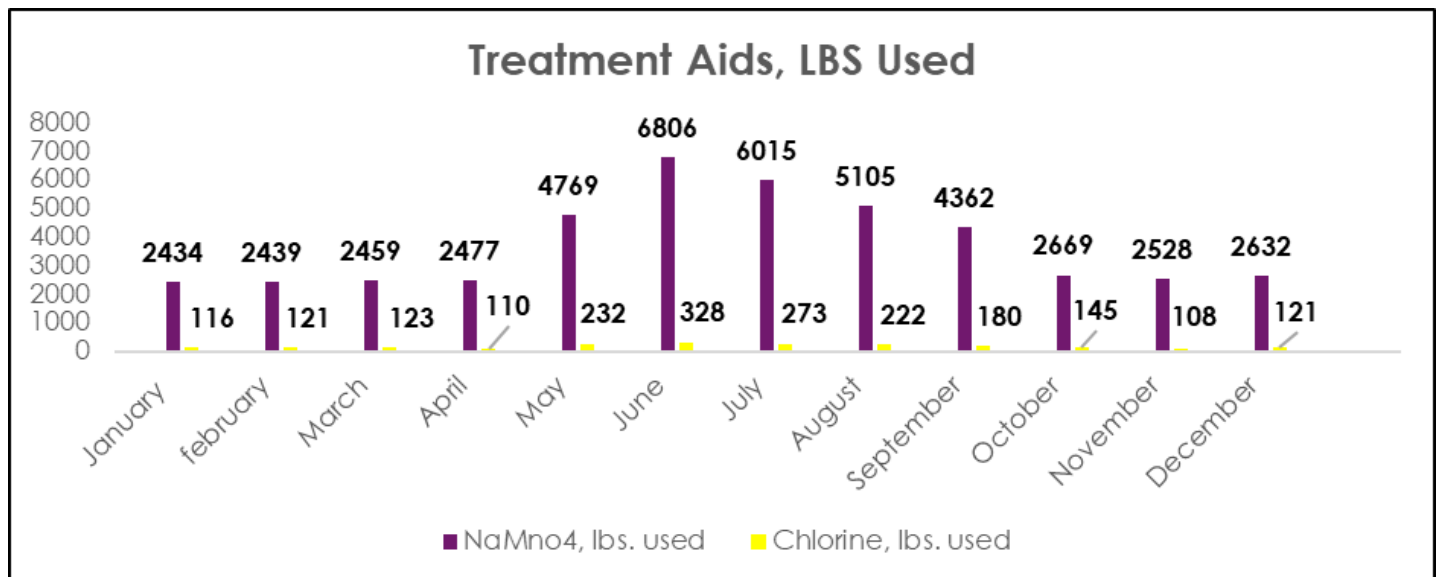
WATER TREATMENT FACILITY, WELLS & DISTRIBUTION SYSTEM



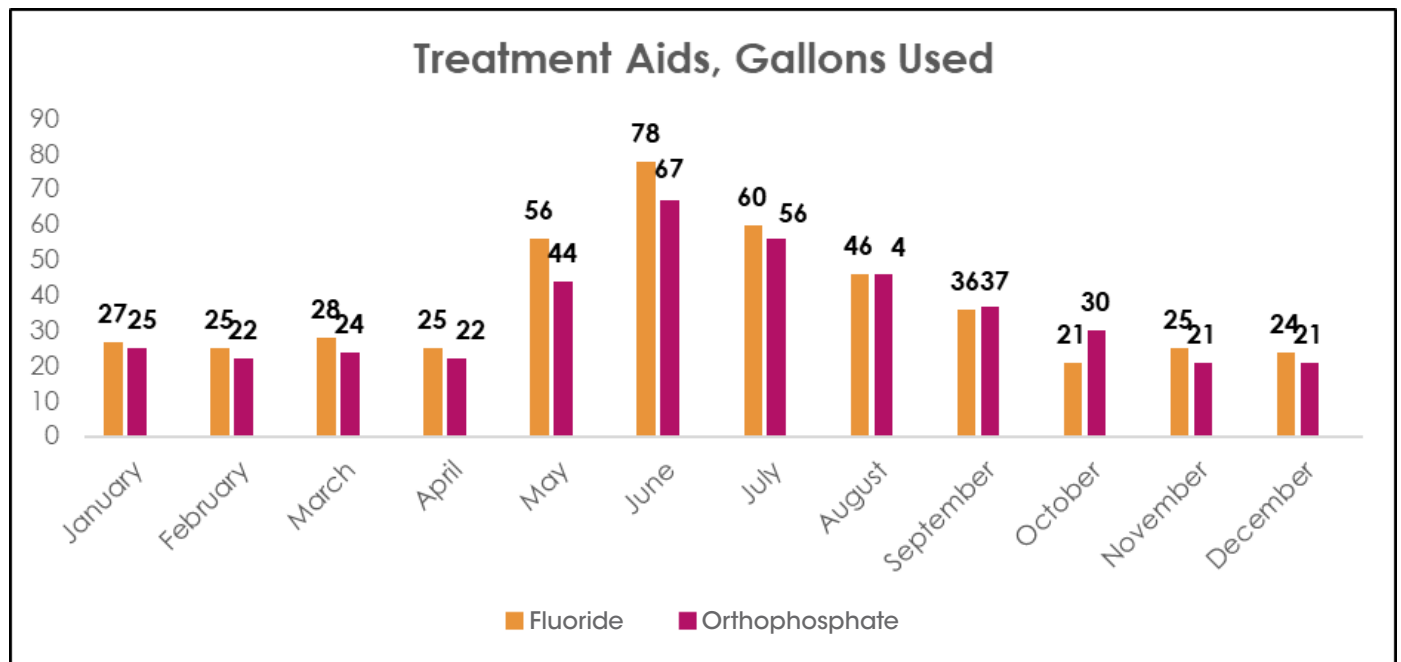
The figure above is in million gallons. We did account for 96% of the water sold in 2023.

Treatment Aids

Treatment Aids play an important role in the treatment of drinking water. Each Treatment Aid accomplishes a particular task in having safe, clean drinking water. Sodium Permanganate (NaMnO_4) removes Manganese and Radium. Chlorine is a disinfectant. Orthophosphate is added as a corrosion inhibitor for copper plumbing and Fluoride is used for dental health. Below, you will see the quantities used of each treatment aid.



Treatment Aids (Continued)



The graphs display measurements in pounds (lbs.) and gallons, reflecting the units in which the product is supplied to us. Sodium permanganate is our primary aid, extensively employed for removing Radium, Manganese, and maintaining the charged state of greensand media.

Summer Draught

As a Public Water System, we are obligated to conserve water during designated drought conditions. In August, the Department of Natural Resources reiterated their request for our watershed to implement conservation measures. Our watershed entered a drought warning phase, necessitating stricter measures beyond our existing odd/even conservation plan.


Inspections




Every year, the Minnesota Department of Health conducts a sanitary inspection of our water system. They meticulously review our records to ensure accuracy and verify compliance with State and Federal guidelines. This includes reviewing maintenance records, collecting test samples to assess equipment functionality, and evaluating overall cleanliness and conditions. I am pleased to share that we had no deficiencies or violations identified during this inspection.

Asset Maintenance

Every ten years, each well and high service pump is taken out of service for maintenance. This work includes pulling the pump, casing, shaft, and replacing failed and worn parts.

 Above the well house, there are hatches positioned directly over the wells.



 This year, maintenance was performed on well #3. A total of 160 feet of drop pipe and pump shaft were extracted for inspection and servicing.


The bowl assembly houses the impellers responsible for pumping the water.




BEFORE



AFTER

 Due to the outdoor elements, the hydrants are often in need of a little TLC. Staff painted over 40 hydrants this year.
Nice job, fellas!

 Hydrants with blue caps signify that they do not drain naturally and require pumping.

The hydrant drain is plugged due to groundwater infiltration.

SOMETIMES THINGS FAIL & JUST START TO LEAK



This picture shows an 11.5-degree bend that had loosened and started leaking. Some bolts on the flange were only hand tight, leading to what was initially presumed to be a water service leak earlier this summer.



During hydrant flushing, this hydrant would not shut off due to failure within the hydrant. When staff went to close the isolation valve, it broke as well. During the repair, it was discovered that stainless-steel bolts were not used.



This picture is the water valve for the fire station site. It started leaking when we turned the water off for demolition. Another case of stainless-steel bolts not being used.



This picture is new valve for the fire station site.



It's worth noting that the majority of water main repairs in St. Francis result from failing bolts rather than issues with the water main itself. We've found that installation methods in the early to mid-nineties didn't utilize stainless bolts.

Asset Maintenance (Continued)

We usually conduct hydrant flushing in May, which typically lasts two to three days and consumes approximately 200,000 gallons of water. Before the water treatment facility was built, this process would take around two weeks due to the presence of iron in the system.



Hydrant flushing serves two primary purposes: ensuring the hydrants are in working order and removing sediment from the water mains.



The device on the left is a hydrant buddy, a battery-powered tool designed for opening and closing hydrants.

It also includes an adapter for operating gate valves, which will be useful when we begin exercising gate valves this spring.

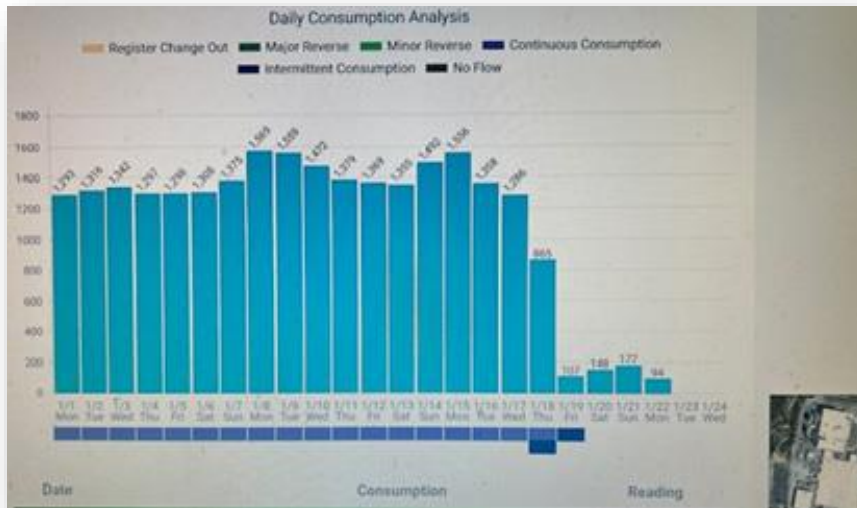
We owe thanks to Wyatt for securing an OSHA grant that covered fifty percent of the device's cost. The crew and I are eager to use it this summer and witness its effectiveness, firsthand!

Meter Reading Technology

The City of St. Francis employs an Automated Metering Infrastructure (AMI) for water meter reading. Utilizing Neptune 360 software, the system continuously gathers data from our water meters and calculates total flows for each account.

Additionally, it categorizes various flow patterns and alerts us to conditions such as reverse flows, continuous flows, no flow, and identifies top users, among other functionalities.

This winter, our staff-initiated work on the continuous flow alert system. This alert, triggers when water flows continuously for 24 hours. We began by sending 10 letters to each account meeting this criteria and scheduling appointments. Our findings indicate that many of these issues stem from leaking toilets, of which most residents are unaware. Thus far, residents have been receptive to receiving notifications about potential problems and appreciate Public Works' assistance in diagnosing them.



This chart describes the daily usage of a flagged account, followed by a mailed letter to the resident and the repair outcomes. After investigation by Public Works, it was discovered that the leaking toilet was the cause. As Public Works continues this effort, we anticipate gathering more data to share at a later date.



So, it's not like it is on TV?

We experienced one incident of a vehicle hitting a hydrant earlier this winter, which occasionally occurs. Our hydrants are specifically engineered for northern climates, with a design feature where the flange attaching the hydrant to the buried barrel section is intended to break away upon impact. Unlike what's often depicted on television, our hydrants, known as dry barrel hydrants, do not release water upon impact. This is due to the valve mechanism being situated 8 feet below ground level, unlike hydrants in warmer climates such as California, where the valves are located on the hydrant itself.



Wet Barrel Hydrant



Hydrant hit this winter



The valve assembly for this hydrant is 8 ft. below ground. When installed correctly, the hydrant breaks off and no water flows. If installed improperly, water could flow similar to “TV hydrants.”



Dry Barrel Hydrant



Wet Barrel Hydrant



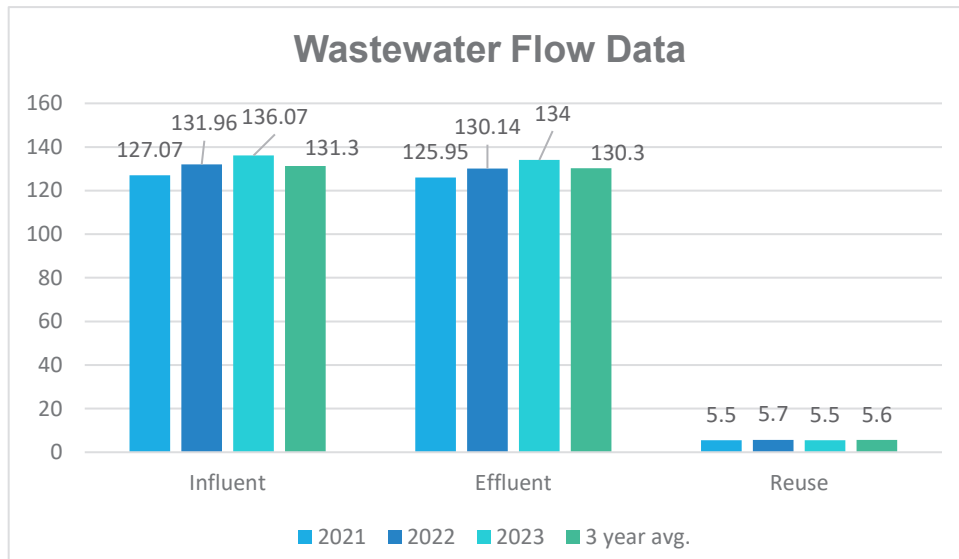
The valve assemblies for this hydrant are actually on the hydrant. They are on opposite sides of the nozzle section, as you can see from the image to the left. When these are hit, water is up to the valve section, where nothing can stop the hydrant from a water geyser.

Upcoming 2024 Water Capital Projects:

- **Ambassador Blvd:** Replacing two 1973 hydrants and adding isolation valves for each hydrant. Also, replacing a gate valve at the intersection of Ambassador and Bridge St. This project will occur in early summer after the middle school year ends.
- **Water Treatment Facility:** Replacing the programmable logic controller (PLC), which controls all treatment facility functions. Scheduled for late fall or early winter.
- **Fiber Network:** Coordinating fiber installation from the new Fire Station and City Hall to the St. Francis Bottle Shop. Tentatively scheduled for this summer.

WASTEWATER TREATMENT FACILITY & COLLECTION SYSTEMS

The Wastewater Treatment Facility is a Class A activated sludge facility utilizing extended aeration to treat pollutants. Operator responsibilities consist of recording meter readings, conducting lab analyses for solids inventory, collecting necessary samples, performing data analysis, maintaining equipment, and submitting reports to the Minnesota Pollution Control Agency.



Water flow & sample results shown above. Flow data is presented in million gallons.



Not all finished water from the Water Treatment Facility is directed to the Wastewater Facility. Out of the 218 million gallons of finished water pumped, only 62 percent (136 million gallons) is routed to the Wastewater Facility.

Every week, our Operators are required to collect two sets of samples for analysis at a certified lab. These samples include CBOD, TSS, Ammonia Nitrogen, and Phosphorus.

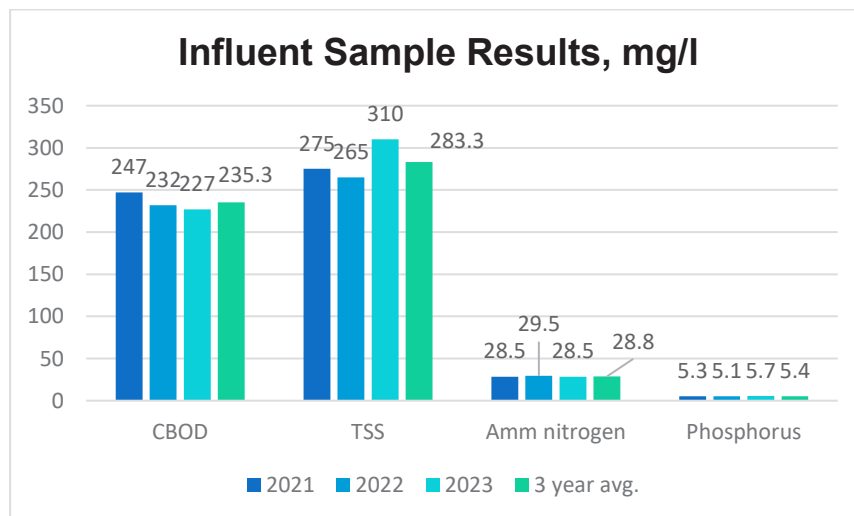


Figure above: Average influent results for 2023

Wastewater Treatment Results

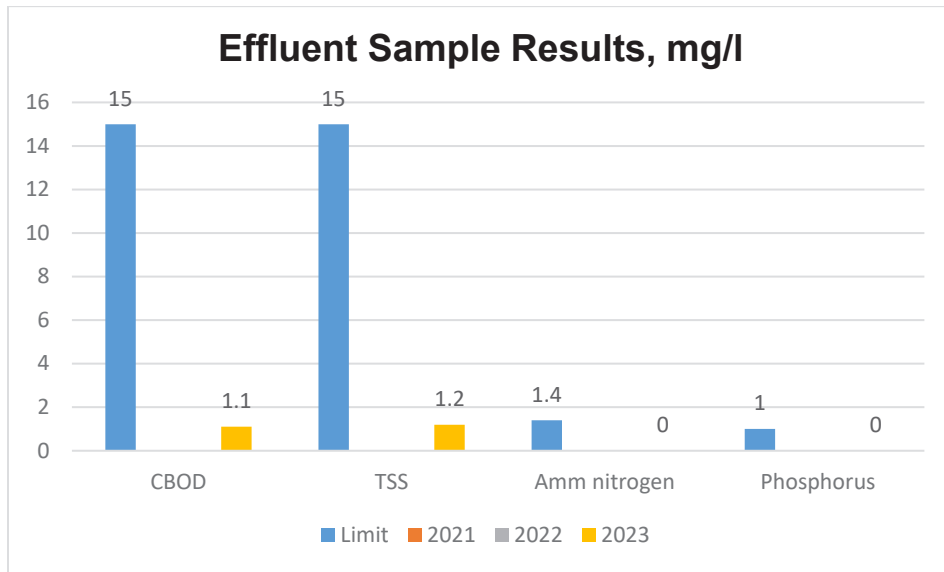


Figure above: Average effluent results for 2023

Reporting:

Annually, staff submits reports to the Minnesota Pollution Control Agency, including:

- 12 Monitoring Discharge Reports (DMRs)
- 1 Reuse Report
- 1 Biosolids Report

Activities Completed:

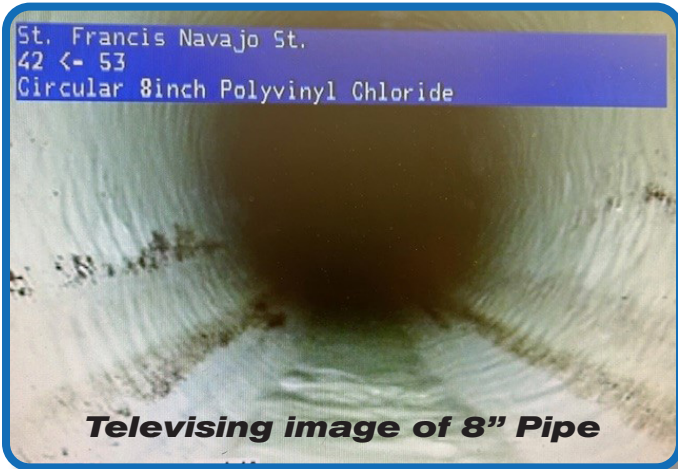
- Collection of 659 samples for lab analysis
- Performance of over 250 solids tests
- HVAC equipment filter changes
- Cleaning of the backwash tank
- Maintenance on two clarifiers, including oil changes and greasing
- Maintenance on eight blowers, including oil changes and greasing
- Processing of over 850,000 gallons of biosolids
- Maintenance on two fine screens, including oil changes
- Maintenance on the UV system, including washing and cleaning

Collection System Maintenance

The City of St. Francis maintains over 24 miles of sanitary sewer pipe ranging from 4” to 18” in size. Following our sanitary sewer policy, we annually clean a fifth of our system to prevent blockages. Additionally, every five years, we conduct televising alongside jetting to assess pipe condition.

This year, we cleaned and televised 25,000 linear feet of sewer main in district three. Upon completion, the contractor provides a written report and a video copy for our assessment. This data helps determine when maintenance or replacement is necessary.

In some cases, we opt for pipe relining using an epoxy liner instead of open trench and full replacement.



Lift Station Maintenance

The City of St. Francis boasts nine lift stations responsible for conveying wastewater. These stations serve the purpose of pumping wastewater to a location where gravity can take over. Annually, our staff conducts oil changes, wash downs, and inspections on electrical components including relays, floats, and transducers.

Listed below are our lift stations and the maintenance tasks completed last year. It's worth noting that we experienced one of our best years with only four instances of pump plugging, necessitating removal.

Lift station	Plugged pump- Pulled	Maintenance	Vac- cleaning
River shores		2	
Dellwood	1	2	
Turtle run	1	2	1
Royal oaks		2	
Rivers edge		2	1
DL-6	1	2	
Ambassador	1	2	1
Deer Creek		2	

Generators

The City possesses six standalone generators and one portable unit, ranging in size from 100kW at the Rivers Edge lift station to 900kW at the wastewater treatment facility. We have a peak shaving agreement with Connexus Energy, enabling remote starting of the Public Works and Water Treatment facility generators during high demand periods on the electrical grid. This arrangement benefits the City with a KW per hour credit.

Each generator undergoes weekly test runs to ensure operational readiness. In the fall, a vendor conducts a comprehensive 120-point inspection, including antifreeze testing, oil changes, belt replacements, and other critical inspections to maintain functionality.

Currently, we are in the process of building a new portable generator, with delivery anticipated later this fall.



Wastewater Maintenance Activities

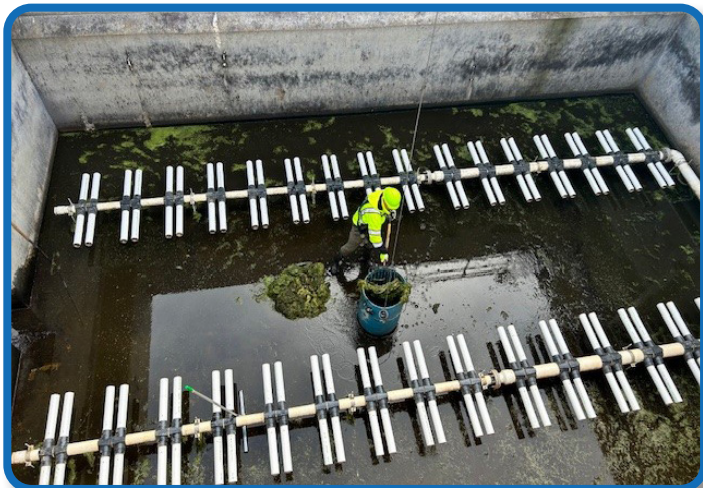


David's hydro-vac assisted cleaning the bottom of the clarifier with their vac truck.

The new crane truck has been a valuable asset to our department. In the image on the left, staff can be seen conducting training and removing our largest pump. The enhanced lifting power of the new crane truck is a significant improvement compared to our old one.



Staff cleaning out the aeration basin and prepping for membrane replacement. First step is to clean the basin. After that, staff removed the old and installed new membranes.



City of **St. Francis** **MEET THE TEAM**

The following individuals make up our Water and Wastewater team of Utility Specialists and Staff. Each member contributes unique skills and expertise, collectively forming a well-rounded team that I'm proud to work with.



MIKE HARRIS

Started in 2017.
Mike is our
"Doesn't miss anything"
member of the team.
C – Water License
C – Wastewater License



JOHN MAKI

Started in 2021.
John is our in-house
Tech Support.
C – Water License
D – Wastewater License



WYATT HUBERTY

Started in 2022.
Wyatt has been known as
the steady presence,
offering a calming presence.
D – Water License
D – Wastewater License



I'd also like to highlight Jen Gulbrandson (top right), for her organizational skills and her pivotal role as our "mission control" in managing work orders and resident interactions. Started in 2016.

As for myself, I've been with the City of St. Francis going on 19 years. In those years, I've seen many changes, and am very proud of the accomplishments during this time. I have a C – Water License, and an A – Wastewater License.

I extend my gratitude to each team member for their hard work and expertise. Together, they ensure that our water flows in the right direction.



