

Public Works Quarterly Report - 2024



1st Quarterly Report - 2024



2 0 2 4 R E P O R T

STREETS AND
PARKS 1ST
QUARTER

643
Hours

Building
Maintenance



With the milder winter, staff was able to take advantage of that to do some deep cleaning. Move and clean behind work benches, clean out corners that tend to collect things and so on. Staff was able to get creative with some much-needed organizing.



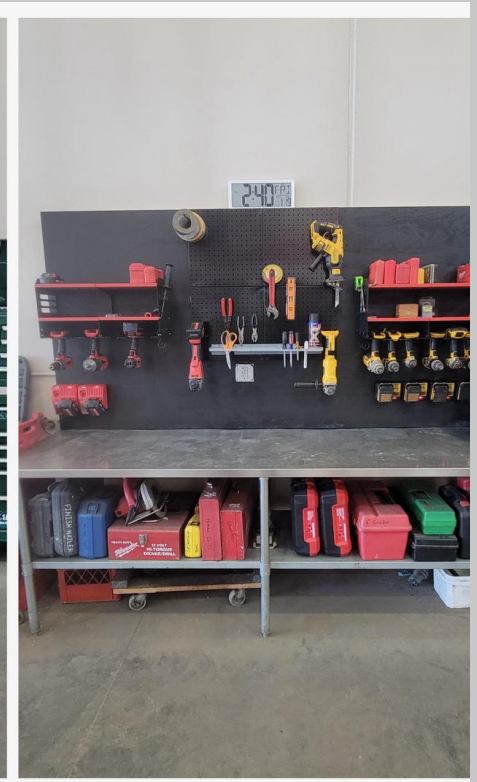
Cleaning grease and dirt off garage doors.



Before



After



143
Hours

Equipment
Repair

180
Hours

Equipment
Maintenance



Facility Management Institute

A couple of staff attended a 5-day course that the Minnesota Recreation and Park Association hosted at 5 different locations throughout the Metro. There were 31 members that attended the course, they were from different governing agencies throughout the state.

1 **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.

2 **Chaska Community Center**
Topics: Enterprise, General, and Special Revenue Funds, Budgets and Capital Improvement Plans, Funding Facilities, Maximizing Revenue Generation, and Generating Revenue vs. Building Spaces.

3 **Mississippi Crossing: Champlin**
Topics: Risk Management and Emergency Preparedness, Lessons Learned from Construction Project Process, Programming and Events.

4 **Buckham West: Faribault**
Topics: Asset Tracking, Faribault Facilities, Smaller Projects and Re-Purposing Spaces, Revitalizing Aging Assets and Rochester's Projects.

5 **Westwood Hills Nature Center: St. Louis Park**
Topics: Guest speaker Annie Frisoli presenting People, communicating, customer relations, and working with difficult behaviors.



January - March Comparison

What an interesting winter season we have had. This year we have seen roughly a 71% decrease in our winter activities compared to the beginning of 2023. Most of our moisture decided to wait until the end of winter. The mild winter also played havoc on our hockey rink this year only allowing us to have it opened for 16 days instead of 51 days.



January's Appliance & Oil Bin Recycle Event was successful! We had 18 Appliances dropped off!

SW Inspections:
Residential - 26
Commercial - 18

	2023	2024	Difference
Miles of Road Plowed	1257.2	362	895.2
Number of Cul-Da-Sacs	826	236	590
Parking Lots	63	18	45
Miles of Trails Plowed	340.2	97.2	243
Tons of Salt Applied	476.2	222.89	253.3



Staff was hoping to have some snow for the ride to school in a snowplow event. But they made the best of it and the kids still had a blast. They had big smiles on their faces.



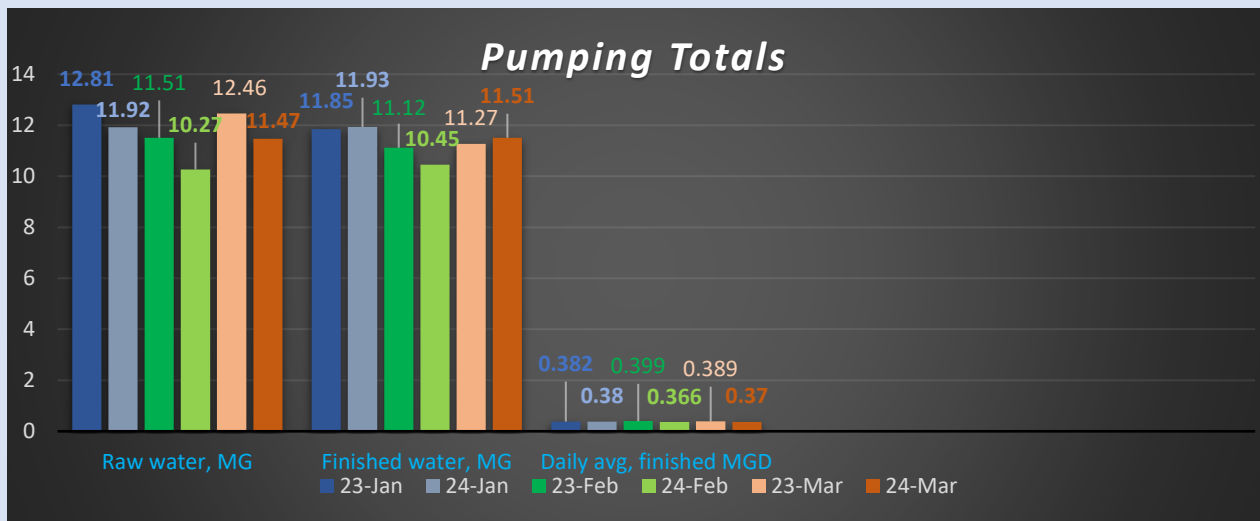


Water and Wastewater 1st Quarter Report

Winter-Spring 2024

To: City Council

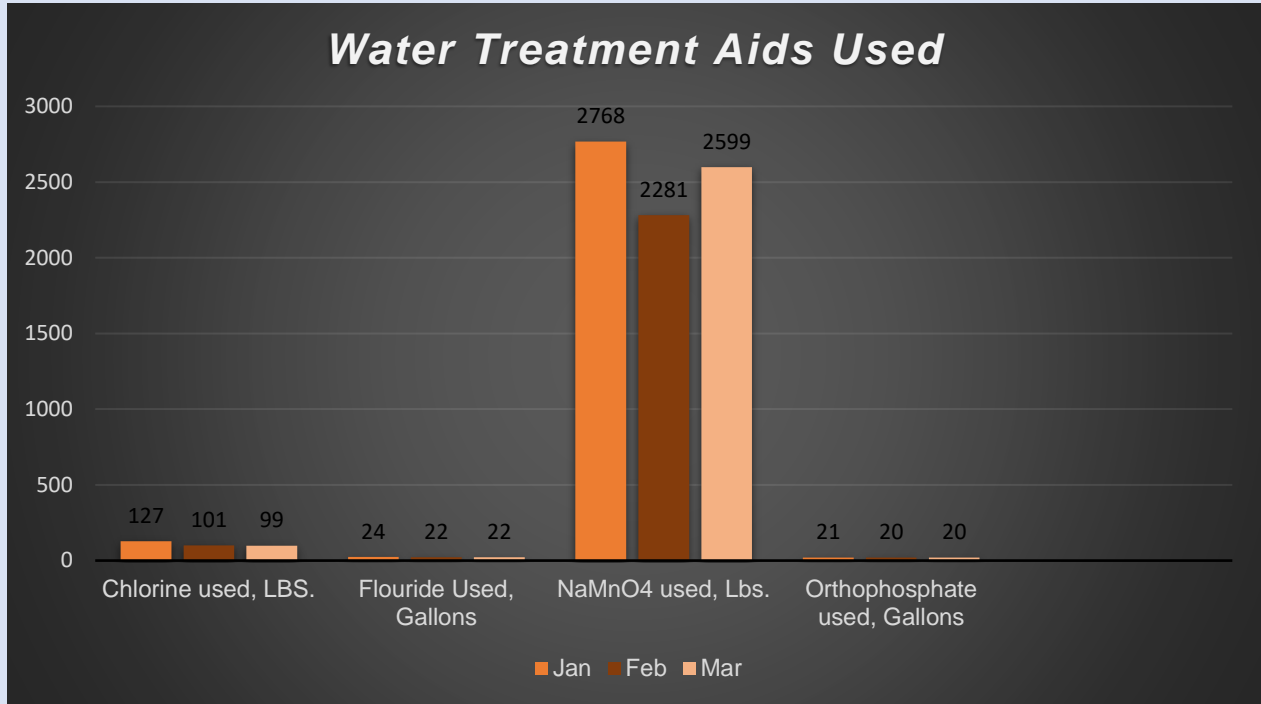
Water Treatment Facility Report: Below is a graph showing the first quarter difference between 2023, 2024 monthly and daily water usage.



Fun fact... Our daily water use for the first three months of the year averages out to roughly 381,000 gallons a day. Minneapolis uses around 57,000,000 gallons a day.

TASK	DESCRIPTION	QUANTITY	UNITS
Inspect Facility Daily	Facility Inspection	65	Inspections
Operational Hours	Hours spent at facility	130	Hours
Calculate Influent and Effluent	Calculate gallons pumped for both influent and effluent.	Daily	Calculation
Calculate Chemicals	Calculate treatment chemicals used daily.	Daily	Calculations
Chemical Adjustment	Adjust chemicals based on lab testing results.	As Needed	Chemical Adjustments

Daily Labs	Perform lab on chlorine, fluoride, orthophosphate, iron and manganese.	325	Labs
Well House	Inspect daily, take readings, drawdowns, and pump runtimes.	91	Inspections
Bacteria Samples	Take set of monthly MDH bacteria samples.	20	Samples Per Set



NaMnO4 or Sodium permanganate is used to remove manganese and radium in raw water. Chlorine, Fluoride and Orthophosphate is added to the finished water when leaving the facility.

Water Treatment Facility, Lab Results

	Average Chlorine	.74	Mg/l
	Average Raw Iron	.99	Mg/l
	Average Raw Manganese	.071	Mg/l
	Average Fluoride	.72	Mg/l
	Iron Removal	99	%
	Manganese Removal	87	%

Water Treatment Facility Pumping Summary: Compared to 2023, we are pumping less water for the same time of year. The raw water pumping is down 8 percent, our finished water is 3 percent and our daily average is 5 percent from last year. Good news is for the first time in a few years, we are classified as being “None” as far as draught is concerned in the area.

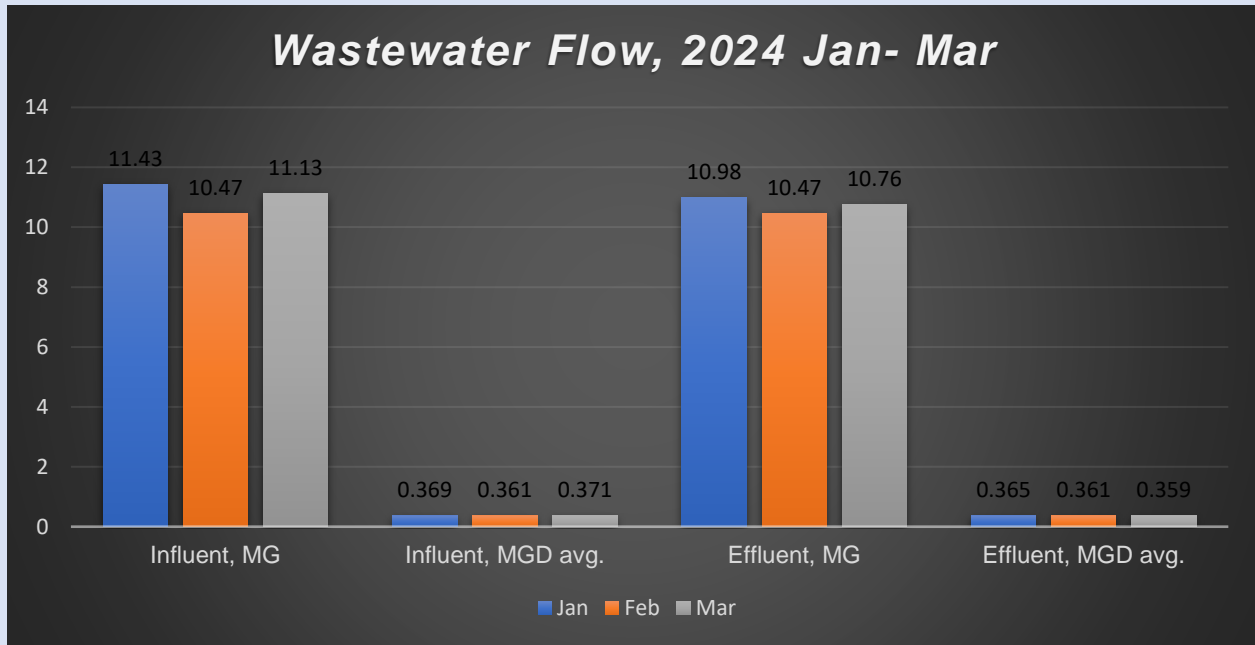
DNR Appropriations: Staff has started discussions with the DNR about our appropriations. We are authorized to pump two hundred million gallons of water, each year. For the last four years, we have exceeded the limit by an average of fifteen million gallons each year. This process will be rather lengthy in duration, but staff is hoping to have this completed by year-end.

Minnesota Department of Health: In February, our district engineer completed a sanitary inspection of all of our water facilities. We had no deficiencies to report.

High Water Use: Staff continues to utilize the Neptune 360 software to identifying continuous flow (high water usage). So far, we have discovered over 60 accounts with leaking devices in homes and the residents have been very receptive to us notifying them of issues. Staff will have a more detailed summary of this project towards the end of the year.

District Three and Four Asset Management: Staff completed exercising all of the gate valves in these districts. Staff operated over 560 valves to make sure they were in working order. Staff did discover eight valves that need new extension rods.

Wastewater Treatment Facility Report: Below is a graph showing our daily flow for the first three months of 2024.



Fun fact... For the first three months of the year, we treated about 367,000 gallons each day. Between the nine Met Council facilities, they treat roughly 250,000,000 gallons a day.

Task	Description	Quantity	Units
Monthly Sampling	Perform required monthly sampling: 8 Influent 29 Constituents; 8 Effluent (50 Constituents); Monitoring wells (25)	230	Constituents
Operational Hours	Hours spent at facility.	520	Hours
Inspect Operations Building	Daily inspection of building.	65	Inspections
Inspect Pre-treatment Building	Daily inspection of building.	65	Inspections
Inspect Tertiary Building	Daily inspection of building.	65	Inspections
D.O Readings	Take Required D.O Readings.	90	D.O Readings
pH Readings	Take Required pH Readings.	90	pH Readings
Inspections	Inspect 8 lift stations daily and calculate pump runtimes.	496	Lift Station Inspections
Daily Lab	Process Control Test	216	Tests

Facility Report: Wastewater Treatment Facility, Lab Results

	Influent TSS	231	Mg/l
Limit: (15 mg/l)	Effluent TSS	0	Mg/l
Limit: (85 %)	TSS % Removal	100	% Removal
	Influent CBOD	214	Mg/l
Limit: (15 mg/l)	Effluent CBOD	0	Mg/l
Limit: (85 %)	CBOD % Removal	100	% Removal
	Influent Phosphorus	4.9	Mg/l
Limit: (1 mg/l)	Effluent Phosphorus	0	Mg/l
	Phosphorus % Removal	100	% Removal
	Influent Ammonia Nitrogen	29.1	Mg/l
Limit: (Seasonal) 1.4 mg/l	Effluent Ammonia Nitrogen	0	Mg/l
	Ammonia Nitrogen % Removal	100	% Removal

Summary: The wastewater treatment facility met all MPCA assigned limits this quarter.

Daily Tasks:

Locates	Process Locate Requests	98	Utility Locate Requests
Water/Sewer Connections	Inspect Water and Sewer	2	Inspections
Water Miscellaneous	Work orders: Meter inspections.	0	Work Orders

Chlorides: Staff continues to work with our consulting engineer and the MPCA on how to deal with our new chloride limit that will begin in 2026. Currently, we have a 445 mg/l limit, but that limit will decrease to 354 mg/l. The issue is we have no way to treat for chlorides. At this time, we are looking at options on how to decrease the chlorides in our wastewater. Staff will have more information about this topic to share in the future.

Aeration Blower Maintenance: Staff completed yearly maintenance on the three blowers. This includes oil changes, belt inspections, greasing, and filter changes.

Biosolids Blower Maintenance: Staff completed yearly maintenance on the three blowers. This includes oil changes, belt inspections, greasing, and filter changes.

Rapid Mixer Maintenance: Staff completed maintenance on the rapid mixer. This includes oil changes and greasing.

Clarifier Maintenance: Staff completed maintenance on the clarifier. This includes greasing and oil changes.

UV System: The UV System is up and running for the next eight months. This is used for disinfection of the wastewater.

Upcoming Projects:

City Hall Fire Station Fiber: This project will hopefully begin when the Data/IT room is enclosed with sheetrock. At that time, equipment and the fiber will be protected from construction activities. This project is tentatively scheduled to begin in May.

South Ambassador Watermain Improvements: Staff will be hoping to start this project sometime in June. This project will include the replacement of four gate valves, two hydrants and two additional gate valves along Rum River Blvd and Ambassador Blvd. This project hopefully can begin in late June.

Membrane Replacement at WWTP: Staff will complete installing the new membranes that were purchased last fall.

Thank you,

Parish Barten