

# Public Works Quarterly Report - 2024



3rd Quarterly Report - 2024



In 2023 Public Works applied for DNR Releaf Grant and received \$147,797.75 to help mitigate Emerald Ash Borer. Since then, the city has hired a contractor to remove the 117 trees and plant 104 new trees. Staff has been watering the newly planted trees multiply times a week and all are surviving nicely.



During the week of August 26th the city contended with multiply rounds of severe storms. With down trees and power outages throughout the city.



81

Events in the Parks



55

Ball Games



262 Hrs

Building Maintenance



Stormwater -

- 15 New Construction Residential Inspections
- 17 CHFS Commercial Inspections
- Staff continues to utilize the RTK to identify stormwater catch basins for future maintenance.



126 Hrs

Equipment Repair



155 Hrs

Equipment Maintenance



Staff held a leash cutting ceremony for the new St. Francis Bark Park. We had a great turn out with roughly 40 dogs. Since the opening, the dog park sees a steady stream of dogs throughout the day. On average, staff collects roughly 25 pounds of dog waste every 2 days

**Recycling**



Staff has hosted 2 recycling events throughout the summer. One of them was in July and one in September. During the July event there were 79 vehicles. During the August event there were 101 vehicles despite the 2 storms that came through.



23.5

Miles of Road Graded



578

Acres of Grass Mowed

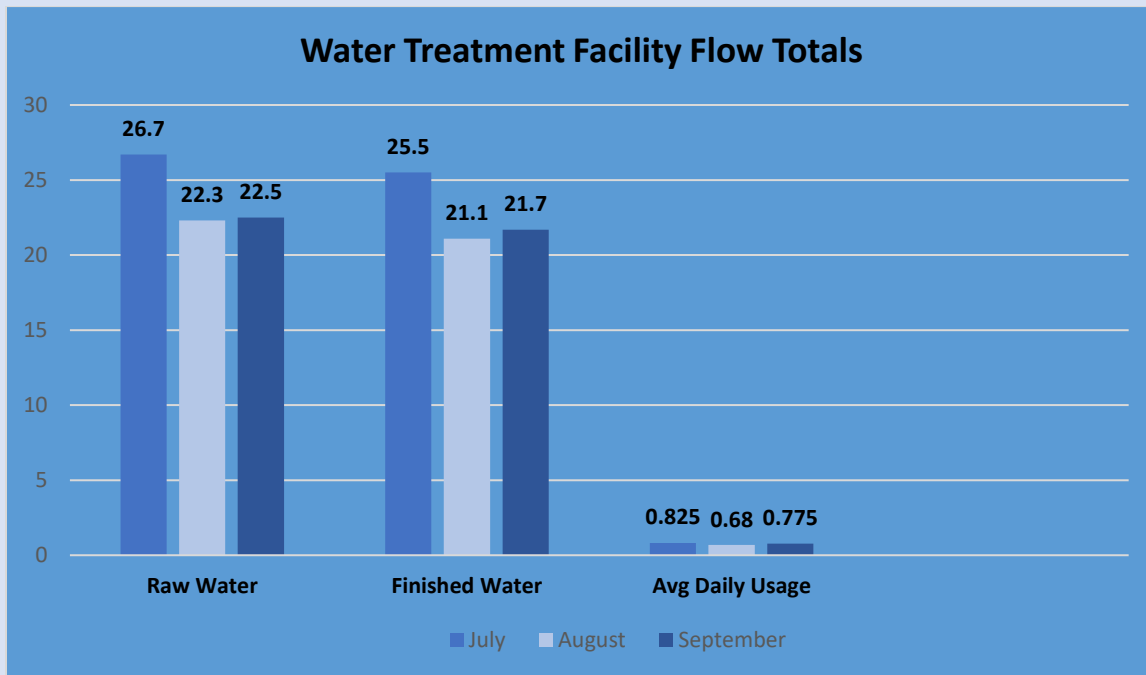


**Water and Wastewater 3<sup>rd</sup> Quarter Report**

**Summer-Fall 2024**

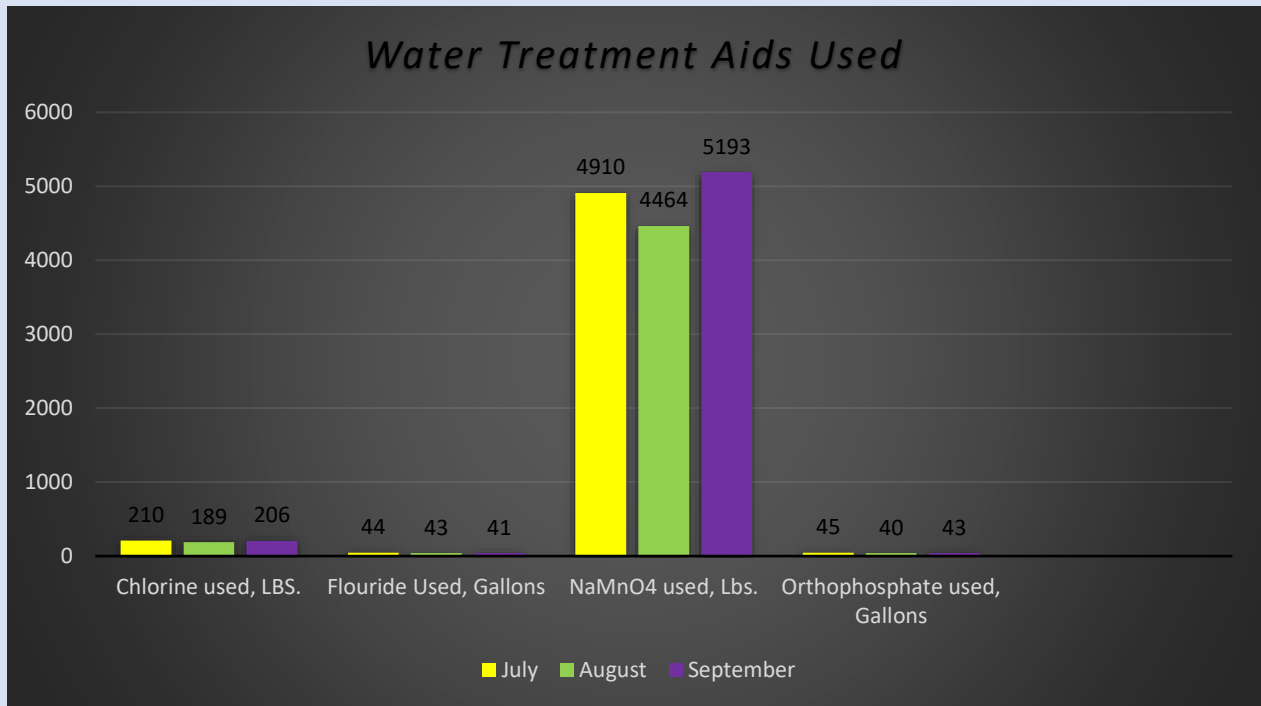
**To: City Council**

**Water Treatment Facility Report:** Below is a graph showing the second quarter flow data.



TASK	DESCRIPTION	QUANTITY	UNITS
Inspect Facility Daily	Facility Inspection	61	Inspections
Operational Hours	Hours spent at facility.	124	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



NaMnO<sub>4</sub> 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.

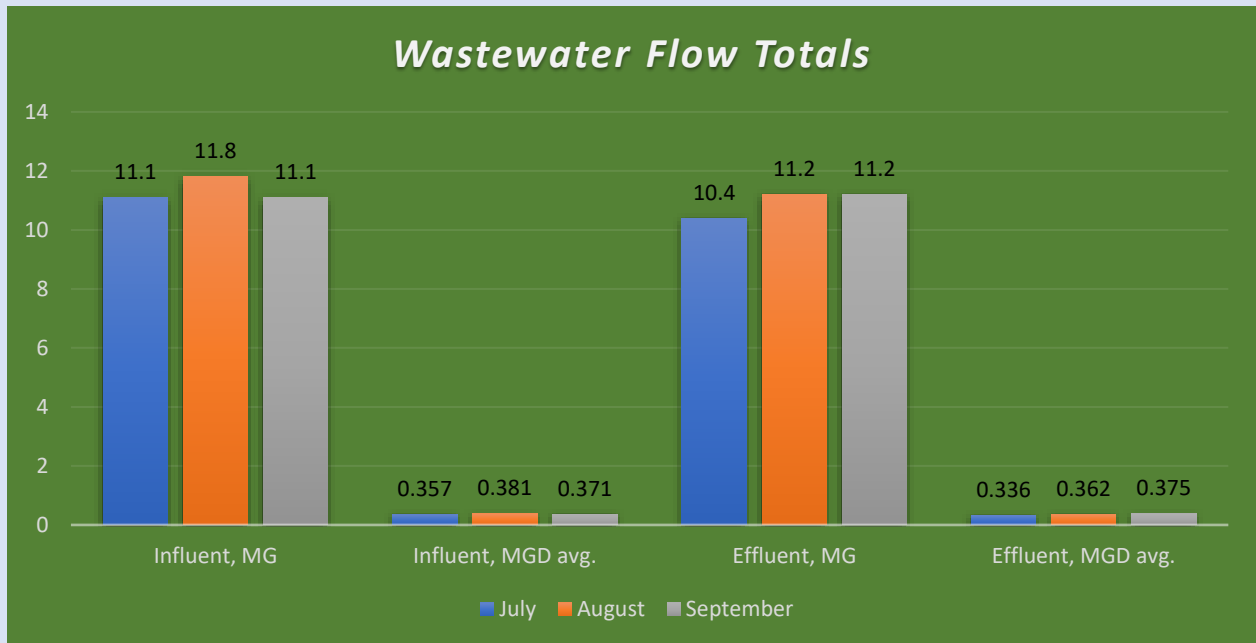
#### Water Treatment Facility, Lab Results

	Average Chlorine	.61	Mg/l
	Average Raw Iron	1.01	Mg/l
	Average Raw Manganese	.076	Mg/l
	Average Fluoride	.72	Mg/l

	Iron Removal	99	%
	Manganese Removal	87	%

**Water Treatment Facility Pumping Summary:** The water treatment facility met all targets and limits for the third quarter.

**Wastewater Treatment Facility Report:** Below is a graph showing our daily flow for third quarter of 2024.



Task	Description	Quantity	Units
Monthly Sampling	Perform required monthly sampling: 8 Influent 29 Constituents; 8 Effluent (50 Constituents); Monitoring wells (25)	240	Constituents
Operational Hours	Hours spent at facility.	488	Hours
Inspect Operations Building	Daily inspection of building.	65	Inspections
Inspect Pre-treatment Building	Daily inspection of building.	61	Inspections

Inspect Tertiary Building	Daily inspection of building.	61	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.	488	Lift Station Inspections
Daily Lab	Process Control Test	216	Tests

**Facility Report: Wastewater Treatment Facility, lab results**

	Influent TSS	215	Mg/l
<b>Limit: (15 mg/l)</b>	Effluent TSS	0	Mg/l
<b>Limit: (85 %)</b>	<b>TSS % Removal</b>	<b>100</b>	<b>% Removal</b>
	Influent CBOD	210	Mg/l
<b>Limit: (15 mg/l)</b>	Effluent CBOD	0	Mg/l
<b>Limit: (85 %)</b>	<b>CBOD % Removal</b>	<b>100</b>	<b>% Removal</b>
	Influent Phosphorus	5.1	Mg/l
<b>Limit: (1 mg/l)</b>	Effluent Phosphorus	0	Mg/l
	<b>Phosphorus % Removal</b>	<b>100</b>	<b>% Removal</b>
	Influent Ammonia Nitrogen	28.4	Mg/l
<b>Limit: (Seasonal) 1.4 mg/l</b>	Effluent Ammonia Nitrogen	0	Mg/l
	<b>Ammonia Nitrogen % Removal</b>	<b>100</b>	<b>% Removal</b>

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

**Daily task:**

Locates	Process Locate Requests	120	Utility Locate Requests
Water/Sewer Connections	Inspect Water and Sewer	2	Inspections
Water Miscellaneous	Work orders: Meter inspections.	0	Work Orders

**Chlorides:** Staff has continued to work with the Minnesota Pollution Control Agency on our chloride limit. At this point, it is the advice of our consulting engineer to accept the limit given to us and use reduction methods to meet the limit. We currently average 290 mg/l and our phase three, imposed limit is 354 mg/l. Reduction ideas can range from public education on how a water softener works, to perhaps a water softener rebate program that is funded through grants. Some cities have done this option and have seen results.

## Completed Projects:

**City Hall Fire Station Fiber Update:** If you remember back in June, fiber was installed from the Bottle Shop to the new City Hall Fire Station. The main Zayo line was installed October 8<sup>th</sup>, 2024. This work happened during the overnight hours as to not disrupt service during working hours, because this fiber line was spliced in from the main out at the street.

Projects completed over the summer included:

- Yearly Clarifier switch over which includes draining and cleaning.
- Yearly Aeration tank draining and cleaning.
- 6-month Pre-treatment room equipment to include the grit removal and mixer.
- Mcdowell roofing was out and inspected all flat roofs. Nothing to report.
- Nelson Sanitation completed jetting for the year. Roughly 25,000 feet of sanitary was cleaned. No issues were found.
- Kodiak power performed maintenance on our seven generators. This is a 120 point inspection and includes oil change, belt check and voltage checks. No issues to report.
- Yale Mechanical was awarded our HVAC service contract for the year. They recently repaired/rebuilt 6 dehumidifiers at the water treatment facility.
- Staff replaced a 12" meter at Rivers Edge lift station.
- Fergus Power Pump completed pressing 812,000 gallons of biosolids.
- Staff completed a rebuild of a retaining wall at Royal Oaks lift station. The original blocks were broken and unsightly.
- Staff assisted Dustys drain cleaning with the installation of a new water service on Pederson Drive. The resident's well had failed.

**Lift Stations Issues:** As many of you know, plugging of our lift station pumps can be a problem. The main culprit is "flushable wipes". Although they "flush" they **DO NOT** breakdown and they tangle up in the impeller. One particular area that we have seen an increase in plugging is Turtle Run lift station that serves the east side of town along Arrowhead St. Staff has pulled pumps 9 times since July, compared to 3 times all of 2023.

The problem with plugging is the over current that the pumps receive that can damage windings and other electrical equipment. The cost of a new pump is \$ 6,000, not to mention the worst case senario of a sewer backup. Staff is working on drafting an educational letter to be send out to the residents within the area that is served by the lift station adressing this issue. Staff is also working on potentially drafting a more robust plan to address this issue city-wide.



*Figure 1. Flushable Wipes*

Respectfully,  
Parish Barten