



UTILITY/MARINA COMMITTEE
420 N Front St.
Suttons Bay, MI 49682
Monday March 7, 2022 8:10 am


Due to continuing concerns about COVID-19 transmission there will also be a Zoom link (which can be found on our website at www.suttonsbayvillage.org) for remote attendance for those members of the public wishing to participate.

AGENDA

Call to Order

1. Reports (staff)
 - a. DPW Director Report
 - b. Marina Report
 - c. WWTP Report
2. Public Comments

Please limit remarks to no more than three (3) minutes or less.
3. Committee Business
4. Status Update – Other Committees
 - a. VSB Report 2022-13 Property Sale Request
 - b. Report VSB 2022-14 Fire Training Request
 - c. Report VSB 2022-15 Bathroom Discussion
5. Public Comments/Written Communication
6. Committee Member Comments
7. Announcements
8. Adjournment

		DEPARTMENT OF PUBLIC WORKS REPORT DPW -2022- 01	
Prepared:	March 1, 2022	Pages:	1 of 3
Meeting:	General Services - Utility/Marina Committees	Attachments:	<input type="checkbox"/>
Subject:	March 2022 Update; DPW		

GENERAL SERVICE HIGHLIGHTS

Winter road maintenance and snow removal work has been steady. Crews have been starting at 4am on snow days to have the town cleaned up prior to morning traffic. When the trucks are not out, plenty of maintenance has been going on to make sure everything is ready to go at a moment’s notice.

The DPW will soon begin replacing worn and faded traffic signs for better visibility within the village.

John Deere loader was ordered, anticipating delivery in Nov of this year.

Currently in the process of obtaining information for replacing the salt truck, we plan on speaking and visiting with similar communities that have recently made such purchases.

UTILITY HIGHLIGHTS

Village Main Lift Station SCADA was installed and completed late last month. Trend analysis along with real time tracking of system information management is available to staff 24/7. Alerts are available via phone call and text on a mobile platform to aid in response to call outs. Development is nearing completion of emailed daily reports detailing pump run hours, pump starts, gallons pumped per day. Alarm summary page will be also generated for historical backups. This unit operates on cellular data and will replace the antiquated analog phone dialer.

Attached are screen shots of system overview and lift station status page.

Village Main Wellhouse is the next addition for SCADA reporting and monitoring. This will be the first time that information concerning our water supply have real time reporting.

Consumer Confidence Reports (CCR) are complete and off to the print shop along with Residential Cross Connection Survey to village residents.

Sewer cleaning, pump station, catch basin and manhole inspections village wide to take place in this spring. Sewer cleaning notices will be issued through robocalls and village website.

PFAS sampling of the collections system is due by the end of April, sample kits have been ordered.

Village supplied water to a barn fire on 2/28, approximately 21,000 gallons of water was pumped on various community tankers.



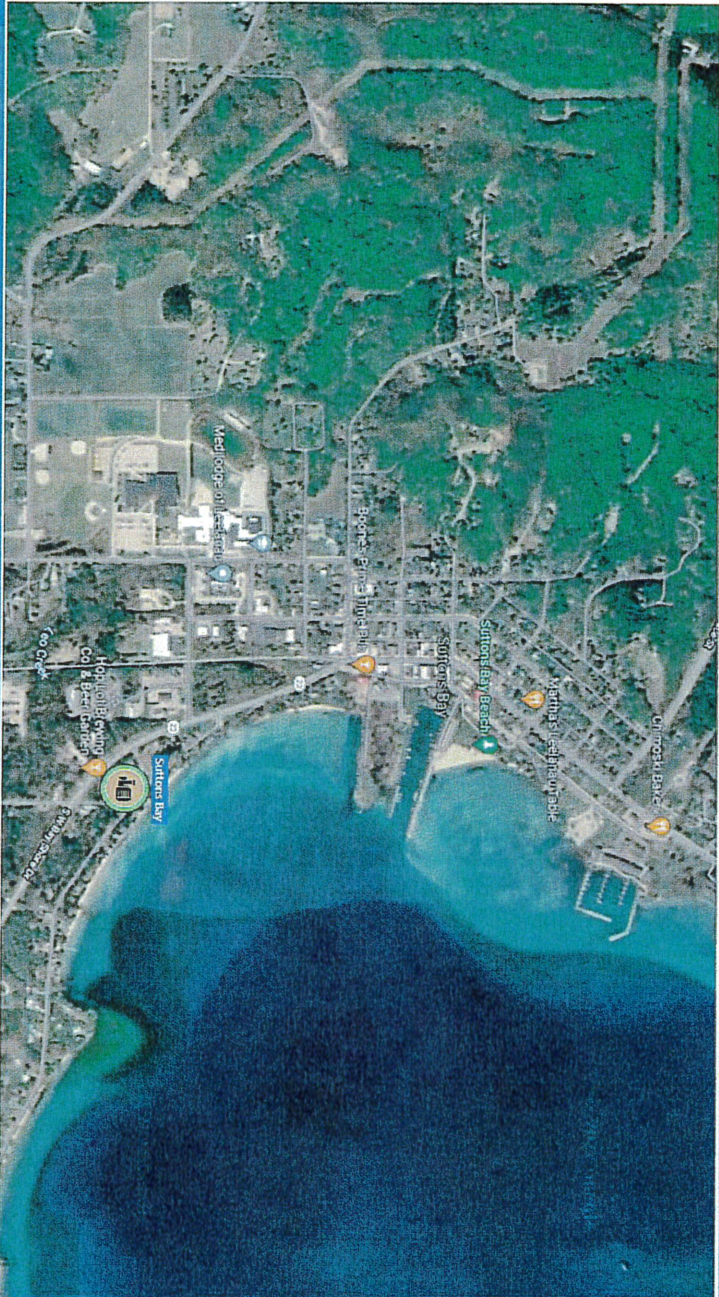
KENNEDY
INDUSTRIES

INNOVATE
SOLVE
MONITOR
REPAIR

Suttons Bay

CONTROLS & SCADA
Water is our business.
Michigan is our turf.

- KI ALARM DIALER
- Overview Map
- Alarm Summary
- Roster Setup
- Notes
- O&M Manuals
- Contact Us



Suttons Bay
4.0 P1

P1 P2
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Setup Wizard

Time	Name	Description	Act
2024-03-28 11:40:35	Suttons Bay Keem Test Callout Alarm Test	Suttons Bay Test Callout Alarm	

DL_1 Pump1 Running
 N.O. Off Normal
 Starts Runtime 696 30.9 Hrs

DL_2 Pump2 Running
 N.O. Off Normal
 Starts Runtime 659 35.9 Hrs

DL_3 Low Wet Well Level
 N.O. Off Normal
 Starts Runtime 4 1.6 Hrs

DL_4 High Wet Well Level
 N.O. Off Normal
 Starts Runtime 2 0.8 Hrs

DL_5 Pump 1 Faulted
 N.O. Off Normal
 Starts Runtime 2 0.9 Hrs

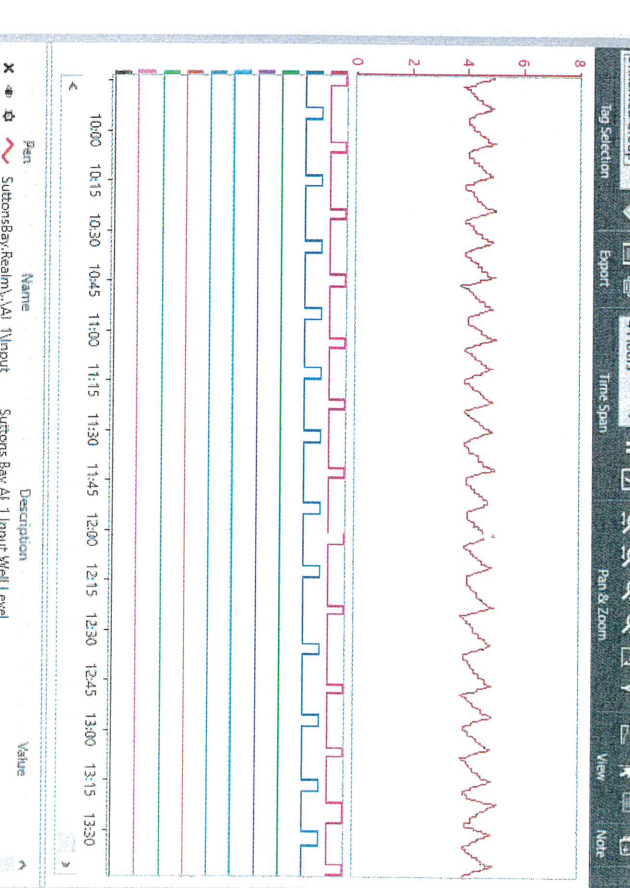
DL_6 Pump 2 Faulted
 N.O. Off Normal
 Starts Runtime 3 0.8 Hrs

DL_7 Phase Failure
 N.O. Off Normal
 Starts Runtime 1 0.8 Hrs

DL_8 VFD 1 / VFD 2 Failure
 N.O. Off Normal
 Starts Runtime 4 1.6 Hrs

DL_9 Running on Emergency Pow
 N.O. Off Normal
 Starts Runtime 4 0.2 Hrs

DL_10 Generator Running
 N.O. Off Normal
 Starts Runtime 6 0.9 Hrs



Suttons Bay Marina

February 2022, Staff Report

Seasonal slip fees were due on February 28th. A handful of slips have opened up and have been filled from the waiting list accordingly.

All permits from the ELGE and Army Core have been received for the final rip rap project on the end of the North Pier. This work will be done as soon as the ice clears. When the equipment leaves the site, ground prep work will be done for landscaping both sides of the walkway going out to the flagpole seating area. The idea for landscaping will be to seed with native flowers and grasses. Plants will grow tall enough to deter geese and will also, after being established, require very little maintenance.

I have been in touch with a company regarding a solution for the Geese problem we have around the marina. The company is called Away with Geese and they have a system that uses a form of light technology to deter the Geese. The system has a money back guarantee. This system will be necessary to help in keeping geese away from newly seeded landscaping.

Work has been begun on the 2022 Reservation booklet and system. The marina officially starts taking reservations for transient dockage starting on April 15th. I have already had a couple dozen emails inquiring about the upcoming season.

Even though we have not received the normal snow fall this season the cold weather has kept the harbor frozen. Bubblers have been working overtime to keep the necessary areas clear of ice.

Below is the Lake Michigan-Huron Basin Water Level Summary:

Lake Michigan-Huron continued its seasonal decline from December to January by falling 4 inches to a level of 579.40 feet. The January mean level was 11 inches above the LTA level, but 19 inches below its level from last year. The January mean level was also 26 inches below the record high January level from 2020. The Lake Michigan-Huron basin received well below average water supplies in January likely due to well below average precipitation and above average evaporation. The forecast indicates Lake Michigan-Huron will continue its seasonal decline through February. Over the next 6 months, water levels are forecast to be 7 to 17 inches below last year's levels and 26 to 28 inches below record high levels, which were set in 2020. However, water levels are forecast to remain above LTA levels over the next 6 months by 6 to 10 inches.*

What this mean for the harbor: a portion of sleeves and spuds will need to be replaced with shorter sleeves and spuds. The sleeves need to float freely above the lake bottom and the spuds cannot sit so high above the docks that our winch arm has no leverage to raise them. Unless the water levels rise higher than predicted this work will need to take place in the spring before opening. Another adjustment that will need to take place in the spring will be with the gangways at the coal dock and on the A Dock (main marina). The adjustments will involve moving rip rap around so that the gangways are not hung up.

The rest of my time had been spent corresponding with customers on many different marina related questions.

Sincerely,

Edie Aylsworth

Suttons Bay Marina, Harbor Master

To: Rob Larrea
Dave Miller

From: Mark Huggard, JACOBS

Date: February 23rd, 2022

Copy: Kevin Dahl, JACOBS
Nick Lenzi, JACOBS
Andrew Waldron, JACOBS
Justin Straub, JACOBS

This report describes our activities during the month of February 2022. If there is additional information you would like included in the report, please let us know.

Permit compliance:

Available lab results for the month of February indicate the facility is in compliance with its National Pollution Discharge Elimination System (NPDES) permit.

Jacobs completed and submitted January’s Discharge Monitoring Report (DMR) to the Michigan Department of Environment, Great Lakes, and Energy (EGLE). The facility was in full compliance.

Treatment Plant Aerial View



Operations:

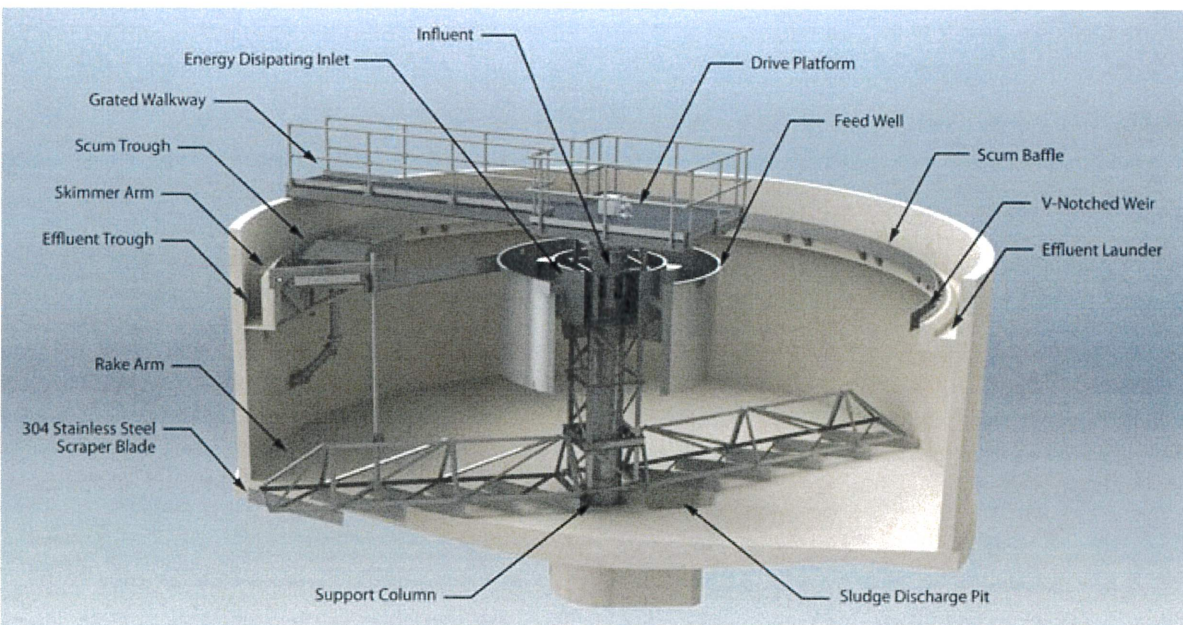
February Flow Report

Average Influent Flow 2022*	0.076	Million Gallons per day
Average Influent Flow 2021	0.117	Million Gallons per day
Total monthly hauled truck waste 2022	112,350	Gallons
Total monthly hauled truck waste 2021*	166,946	Gallons

* Through February 23rd

Annual preventive maintenance was performed on the cloth disk filter and headworks screening unit.

The Suttons Bay WWTP is equipped with two secondary clarifiers located downstream of the treatment basins. The example diagram below shows the standard components that make up a typical wastewater clarifier. The clarifier acts as basically a wide spot in a pipe, decreasing flow velocity and allowing solids (including plant biology) to settle and clear water (effluent) to flow over the v notched weir into the effluent launder and on to the cloth disk filter process. The scraper arm at the bottom rotates clockwise continuously drawing solids towards the center of the clarifier where they're pumped and returned to the head of the treatment basins. This is done to both maintain the desired sludge depth in the clarifier (typically 1 ft) and to ensure biology is returned to the treatment basin to continue its job removing contaminants. Each day a predetermined portion of the solids are wasted to the solids holding basin. This wasting procedure is essential to maintaining control of biological inventory. During the recent colder weather ice accumulated on the scum collection trough on clarifier #1 causing the skimmer arm to catch an edge and overload the motor circuits. The ice was removed, circuits were reset and a broken weld on the skimmer arm was repaired before returning to service.



On Friday February 4th, we responded to a ferric chloride feed pump alarm and found the pump was off. The pump was reset, and proper operation was confirmed before departing. We have not experienced a similar event since.

Jacobs management team performed a site safety walk through of the treatment facility. During these walkthroughs we look to identify immediate safety hazards and other lower risk safety concerns that could pose a hazard if left unattended or could result in an OSHA violation. Following the walkthrough, any hazards requiring follow up to correct are entered into our maintenance program where a corrective maintenance work order is generated and tracked to completion. This month there were some general housekeeping issues found that are being addressed, with no immediate hazards identified.

While completing plant operational rounds, we noted faults on the plants utility line power surge protector located in the headworks electrical room. The surge protector monitors the voltage entering the facility and diverts any overvoltage to ground in order to protect overvoltage sensitive electrical equipment downstream. The facility most likely encountered a power surge that caused the failure of two internal modules, which triggered the faults. The unit is under warranty and we are currently working with Windemuller Electric to complete the warranty repair.

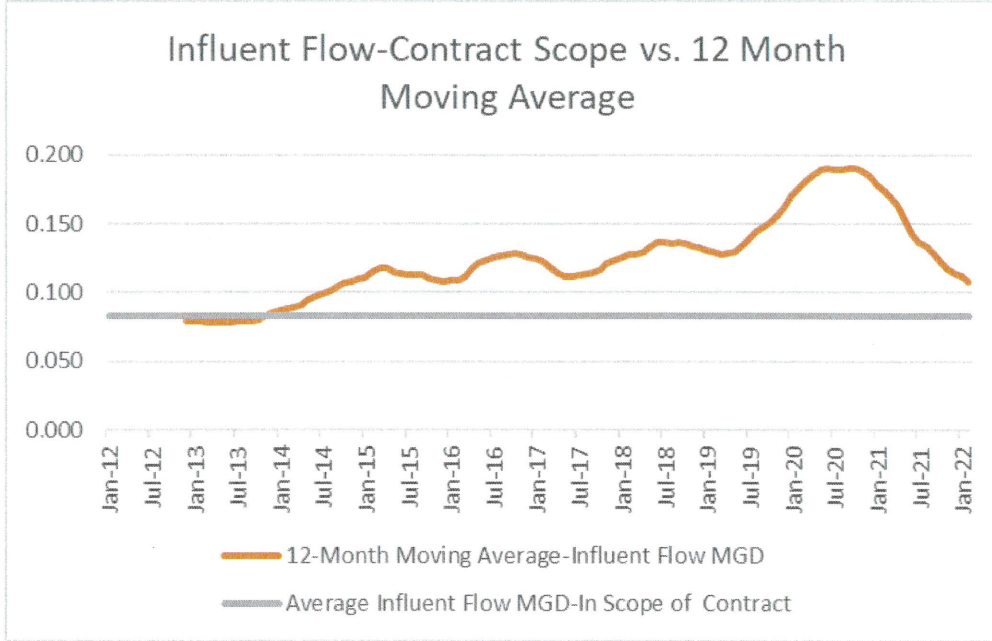
On the Horizon:

- Repair leaking yard valve by clarifiers. (2022)
- Upgrade of headworks fine screen PLC (2022)
- UV PLC uninterrupted power supply installation (2022)
- Cloth disk filter interior coating replacement (2022)
- HTW programming upgrade (2022)

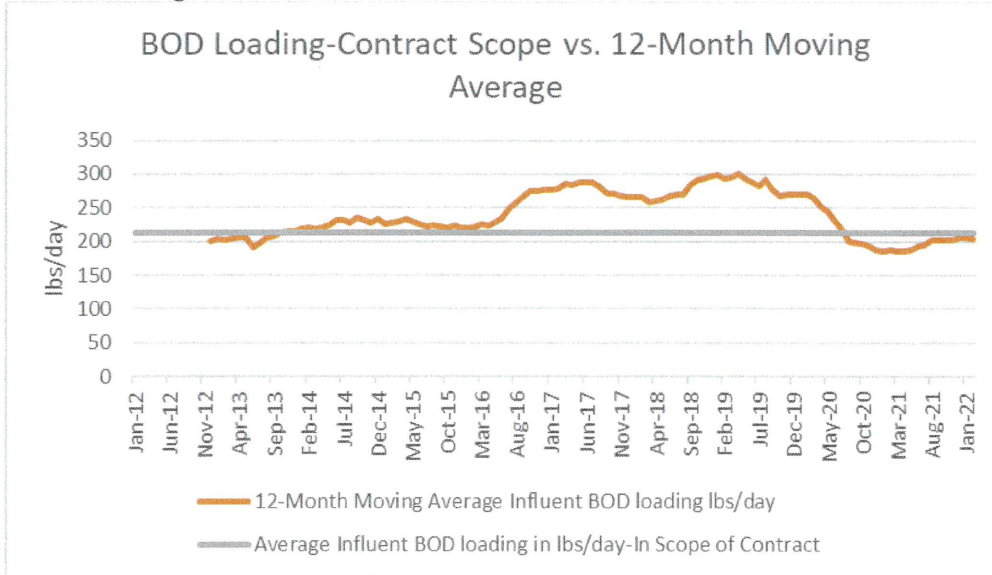
Plant Influent and Effluent Trends:

The following graphs illustrate the facility's influent characteristics encompassed in our scope, per Amendment 3 to our 2010 agreement, compared to actual influent characteristics. Influent flow characteristics are based on a 12-month moving average.

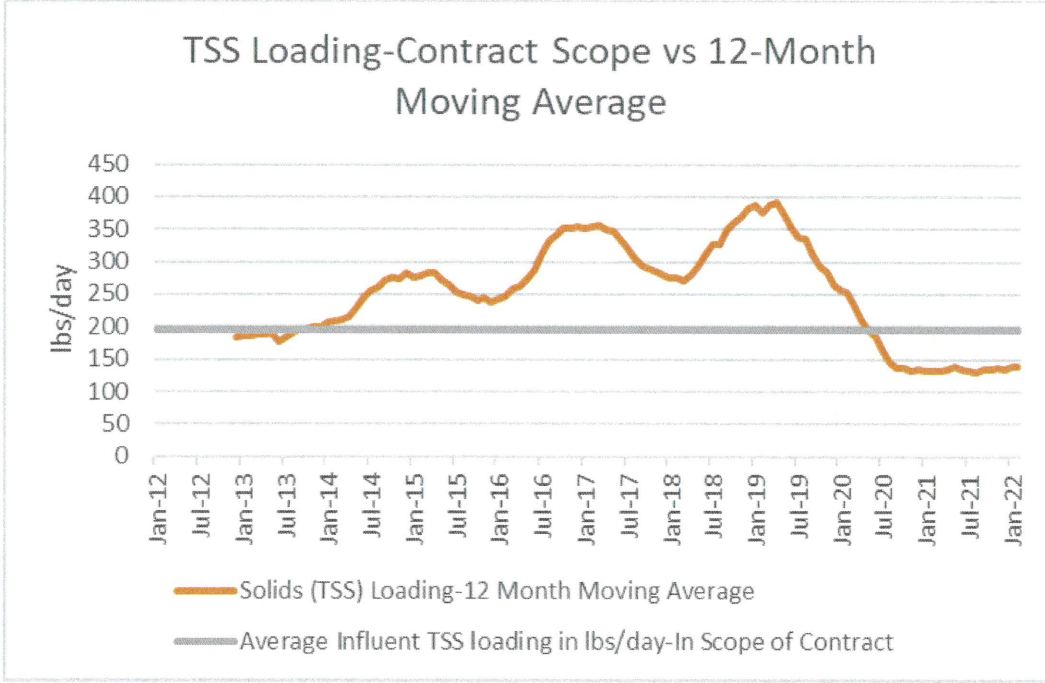
Influent Flow



BOD Loading

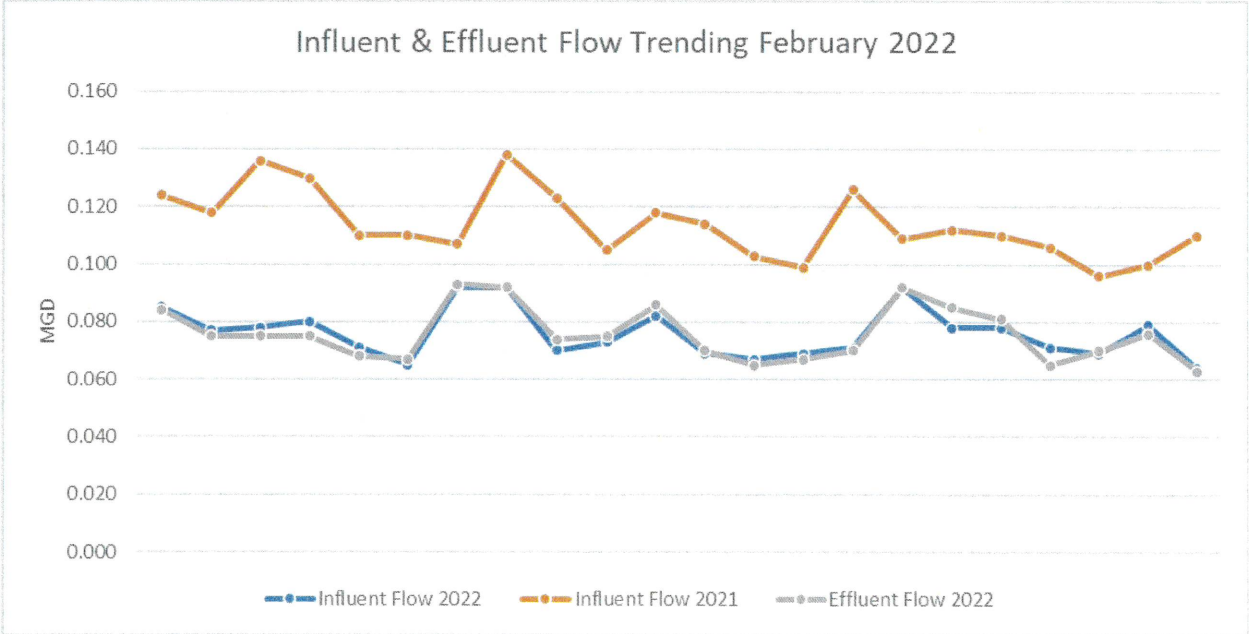


TSS Loading



The following plant flow graph illustrates the facilities current influent and effluent flow trend for the reporting month and the influent flow for the same month of the previous year. The NPDES permit limit table details the monthly average permit limits for each parameter, the graph below this table illustrates the available parameter concentrations for the reported month.

February Plant Flows



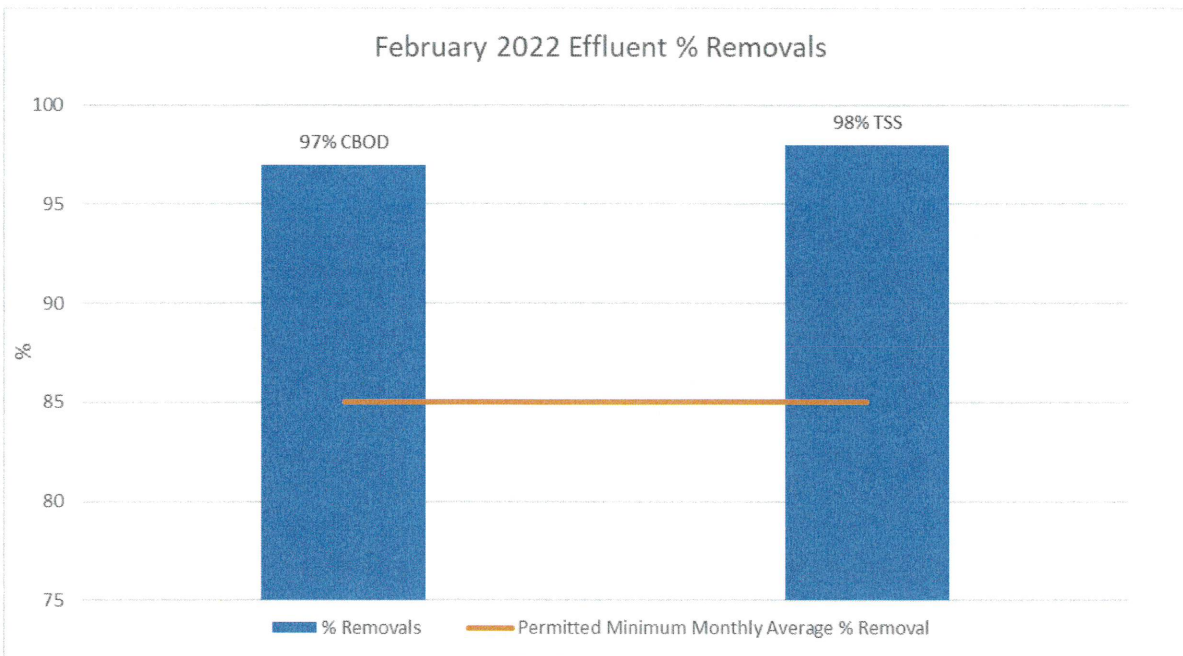
* Data available through February 22nd, 2022

NPDES Permit Limits

Parameters	Monthly average	7-day average
Total Suspended Solids	30 mg/L	45 mg/L
Fecal Coliform	200 counts/100 mLs	400 counts/100 mLs
Carbonaceous Biochemical Oxygen Demand	25 mg/L	40 mg/L
Total Phosphorus, PO4	0.5 mg/L	No Limit
Ammonia, NH3	Report only, no limit	Report only, no limit
CBOD % Minimum Removal	85%	NA
TSS % Minimum Removal	85%	NA

February Effluent Permit Data





Financial Report

Current Month	Feb-22	Comments
Current Month Repairs	\$ 153.21	Clarifier scraper arm repair
Current Month Repair Labor Hrs	\$ -	
Current Month Chemicals	\$ -	
Current Month Electricity	\$ -	
Current Month Natural Gas	\$ -	
YTD Repairs		
YTD Repairs	\$ 153.21	
Repair Budget Remaining (\$6,000 Limit)	\$ 5,846.79	
YTD Repair Labor Hrs		
YTD Repair Labor Hrs	15.50	
Repair Labor Hrs Remaining (Limit 104 hrs)	\$ 88.50	
YTD Chemicals		
YTD Chemicals	\$ -	
Chemical Budget Remaining (\$5,500 Limit)	\$ 5,500.00	
YTD Electricity		
YTD Electricity	\$ -	
Utility Budget Remaining (\$21,000 Limit)	\$ 21,000.00	
YTD Natural Gas		
YTD Natural Gas	\$ -	
Utility Budget Remaining (\$12,000 Limit)	\$ 12,000.00	

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