CITY OF MILFORD
SEWER COMMISSION REGULAR MEETING
February 23, 2022

The Sewer Commission of the City of Milford held a regular meeting on Wednesday, February 23, 2022, at 6 PM. This meeting was held by videoconference via Zoom.

The following Commissioners were in attendance:
*Chairman Edmund Collier*
*Vice Chairman, Bradford Hubler*
*Commissioner Edward Abel*
*Commissioner Tara Carroll*

Others in attendance:
*Lindsay King, Wastewater*
*Christopher Saley, Director of Public Works*
*Robert Tedeschi, Sewer Consultant, Weston & Sampson*
*Chris Wester, Sewer Consultant, Weston & Sampsno*
*Beverly Hayes, Recording Secretary*
*Michelle Parente, Aldermen Liaison*
*Scott Marlow, Alderman Liaison*

Commissioners and others not in attendance:
*Commissioner Brian Bier*

Chairman Collier called the meeting to order at 6:00 pm.

1. **CITIZEN'S COMMENTS** - *None*

*Statements limited to the legislative function of the Sewer Commission. The time limit granted to each speaker shall be three (3) minutes. Residents, taxpayers, or electors may address the Commission.*

2. **APPLICATIONS (PETITIONS)** - *None*

3. **SEWER ASSESSMENTS** - *None*

4. **WESTCOTT & MAPES, INC.** – Report from Mark Davis – presented by Lindsay King

   A. Gulf Pond Sanitary Pump Station Repairs

      No change since last report.

   B. Lower Wepawaug "Stonebridge" Pond Sewer/Manhole Lining

      No change since last report.

5. **CONSULTING ENGINEER'S REPORT** – Weston & Sampson – Robert Tedeschi

**On-Call Support Services**

1. Sanitary Sewer Pump Station Upgrades #1 Various Locations:
   a. This project consists of proposed improvements to the following wastewater pumping stations:
      i. Sailors Lane Pump Station
      ii. Old Gate Lane Pump Station
      iii. New Haven Ave Pump Station
      iv. Watrous Lane Pump Station
      v. Live Oaks Pump Station
   b. Base mapping completed at each station
   c. Working towards developing 60% design drawings scheduled for end of March 2022. Submitted Basis of Design Report for review.
   d. Electrical and Instrumentation and Controls design underway

2. Collection System Flow Evaluation:
   a. This project consists of the development of a subarea-by-subarea prioritized schedule for future Sanitary Sewer Evaluation Surveys (SSES) that would identify sources of Infiltration and Inflow (I/I) and other defects in the wastewater collection system. This evaluation utilizes available pumping station flow data, pump motor run-time meter data, water consumption data from the Regional Water Authority, and the City's GIS access database.
      i. Tabulated and processed multiple years of pump motor run-time meter data, from paper format, for each of the wastewater into Excel files.
      ii. Reviewed water consumption data from the Regional Water Authority. This data is being compared to the pump station run time meter data.
      iii. Developed subsystem mapping based on pump station sewershed areas.
      iv. Received revised data on 12/10/2021 from RWA and currently incorporating the data into the on-going analyses
      v. Report submitted on January 24, 2022 for review and comment.
   b. Next step will be to incorporate City comments, finalize report, and begin planning SSES activities budgeted for FY 22/23.

3. Housatonic WWTP Modeling & Assessment: Athletic Brewing Co.
   a. Modeling results indicate that the Housatonic wastewater treatment facility can accept and treat the applicant's initial loading (at 20,000 gpd) without need for modification to current processes or equipment. However, modeling for the applicant's ultimate loading (at 80,000 gpd) indicates that the treatment plant will require operational and physical changes to allow for both the applicant's flows and continued acceptance of planned flows from continued development within the City. As currently determined from the modeling effort, these changes should consist of:
      - Addition of chemicals to the primary clarifiers to aid in the settling efficiency of the primary clarifiers as they continue to operate in a co-settling mode.
      - Addition of a new sludge dewatering rotary press and conveyor system in the existing dewatering building to accommodate the increased sludge production necessitated by the addition of the applicant's ultimate load.

b. Weston & Sampson completed a preliminary engineering report summarizing the findings of the study which includes the improvements to the Housatonic wastewater treatment plant needed to accept the final buildout flow from the brewery, along with corresponding opinion of project cost to implement the WWTP improvements.

   Discussion ensued regarding the cost of the improvements to the Wastewater Plant and the parties share of the preliminary cost of $1,700,000 (cited in the draft report by Weston & Sampson). It is noted that they were administratively approved for the 20,000 GPD. The discussion also included an on-property pre-treatment process to reduce the cost to the current system.

4. Rogers Avenue Sanitary Pump Station Upgrade
   a. Visited pumping station to compile information related to proposed pumping station improvements at the Rodgers Ave. wastewater pumping station. Upgrades to this pumping station were originally planned for 2012 but was postponed awaiting funding. The station receives approximately 10% of the City's wastewater and serves the Milford Center area.
   b. Proposed upgrades will consist of replacing:
      i. 3 Pumps 75 HP 1,300 gpm; 104 TDH 480 3 phase (Allis Chalmers)
      ii. Level and Pump controls,
      iii. Channel grinders,
      iv. 180 Kw Stand-by generator
      v. Buried fuel oil tank.
   c. Upgrades will also be made to protect against flooding during storm events.
   d. Weston & Sampson developed a detailed scope and fee proposal to implement the needed improvements which will be reviewed by the City.

6. **WASTEWATER REPORT** – Lindsay King

**Wastewater Treatment Plants**

Both Wastewater Plants performed well in the month of January, producing a high-quality effluent. 237 million gallons was treated at the Housatonic Plant and 50 million gallons at the Beaver Brook Plant for a total of 287 million gallons. The Housatonic plants monthly average effluent nitrogen was 243 lbs./day (annual average for 2022 is 243 lbs./day and is under the 307 lb./day permit limit). The Beaverbrook Plants monthly average effluent nitrogen was 76 lbs./day (annual average for 2022 is 76 lbs./day and is under the permit limit of 94 lbs./day).

At the Housatonic Plant normal monthly maintenance was performed:

1. Replaced hydraulic lines on press #1 and #2
2. During monthly testing the Housatonic Plant Generator failed to switch over to backup power. Northeast Generator was onsite to troubleshoot and found the 1600-amp breaker had failed on the generator. A portable generator was brought onsite and hooked up so the plant can have backup power. A new breaker is on order but will take six weeks to arrive.

   Discussion ensued on various costs involved for the breaker part, the generator rental and purchase of portable generator. Mr. King added that they are in process of purchasing 4 new

generators. It is suggested that Mr. King put together a wish list of items needed so we can be proactive.

3. Troubleshoot the Housatonic forklift as the battery was not holding a charge. Modifying the charging mode helped increase capacity but the batteries will need to be replaced soon.
4. A new rooftop unit on the solids building was not producing heat so the heating contractor was called in to troubleshoot and get the unit working.

At the Beaverbrook Plant normal monthly maintenance was performed:

1. Replaced bearings and seals on belt filter press feedbox #1
2. Replaced rubber drive coupling on RAS #3
3. Cleaned level probes and polymer wetting cone on polymer make down machine
4. Used jet truck to clear blocked pipe in digester

**Collection System**

**Pump Stations**

Scheduled maintenance was performed at the following pump stations: Mathew St, Boston Post Road, Rock St, and Anderson Ave.

Other Duties Performed:

1. Generators were exercised on full load at Crowley, Naugatuck, Ford, Flax Mill, Old Field, Watrous, Cricklewood, West Mayflower, Mathew, Sailors, Boston Post Road, Live Oaks, Milford Point, Viscount, Rogers, Gulf Pond, Grove, Anderson, Carriage, Old Gate, Rose's Mill, and West Ave Pump Stations
2. Exercise and lube chain hoists @ Rock, Welches, Gulf Pond and Anderson
3. High well at Watrous and Kinlock
4. Cleared clogs in pumps at Kurk Volk, Rogers and Flax Mill

There were 3 alarms at the pump stations:

1 for Power Outage
2 for High Wet-well
0 for Control Power
0 for Station Trouble
0 for Over-temperature
0 for Low wet-well level

**Sewer Maintenance**

Sewer Maintenance answered 5 complaints.

Sewer Maintenance crews performed scheduled maintenance at the following T-sites:

T-49 and carry over T-sites T-40 and T-50, T-56, and T-9.

There were sewer excavations at the following locations:

None

Other duties performed were:

1. Walked and located manholes on North Rutland Easement
2. Cleared vegetation and fallen trees from South Washington Street Regulator (behind Subaru dealer) and put down road mix to help with access to the location
3. Cleared trees from French drive easement and jetted the entire line
4. Friday T-sites

A total of 11,410 ft. was jet flushed, 3,975 ft. televised, 1,640 ft. spy TV 'ed, 650 ft. hand rodded, 1,310 ft hydraulically root cut, 0 ft smoke tested, 285 ft root treated, and 0 ft. dye tested.

**Five-Year Historical Flows at Housatonic and Beaverbrook Wastewater Treatment Plants**

The attached graphs depict the Housatonic and Beaverbrook plants flow for the last five years. The jagged light blue line is the treatment plants actual flow in million gallons per day. There are large peaks in flow occurring during rainstorms and flooding. In 2021 there were three unusually large rain events labeled on the Housatonic graph (4.88", 5.77" and 2.87").

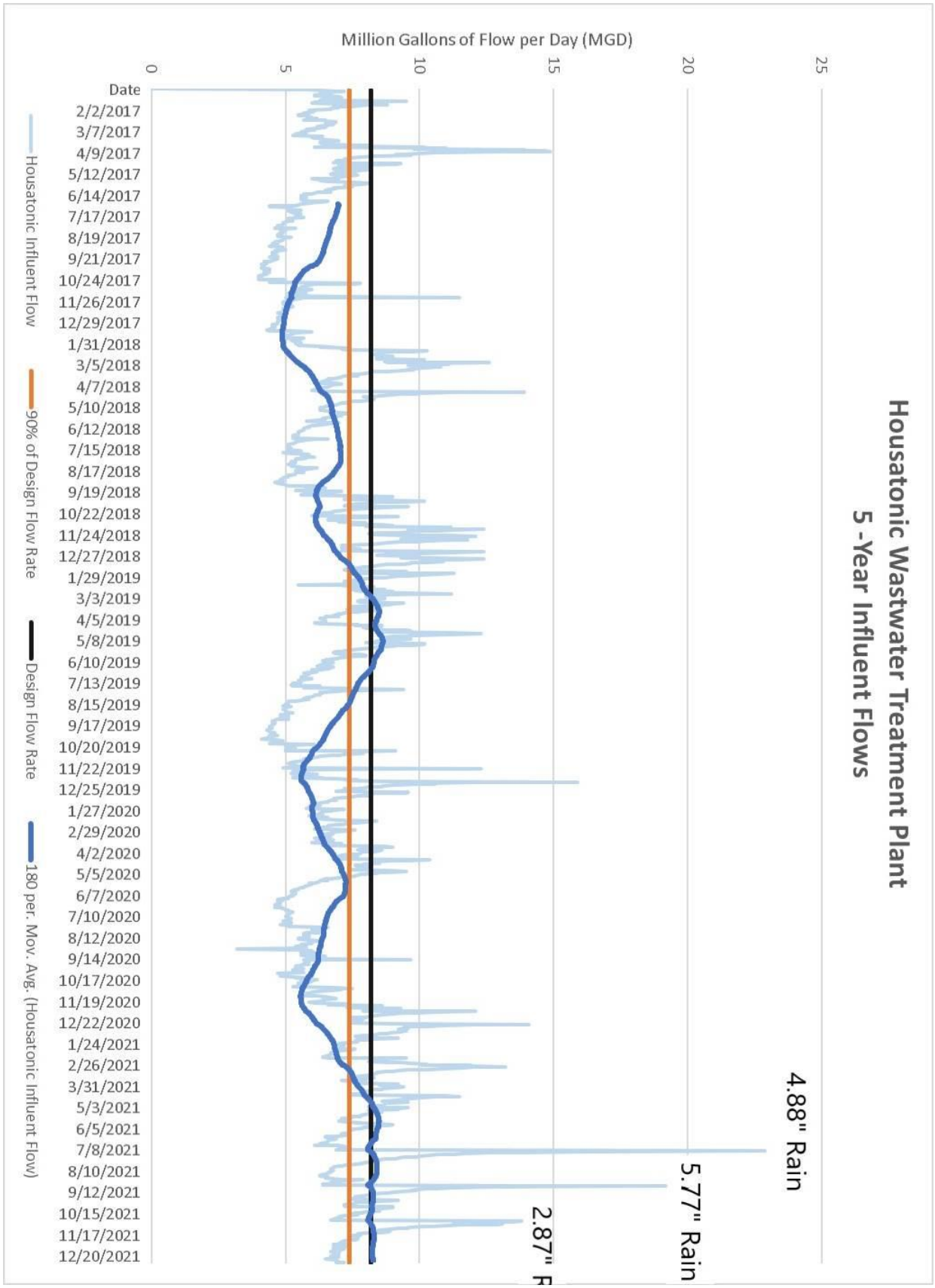
When looking at a treatment plants flow capacity, The Department of Energy and Environmental Protection looks at a 180-day average. The dark blue line is the rolling 180-day average. The plant design capacity is the straight black line (8.2 MGD for the Housatonic plant) and 90% of plant capacity is the straight orange line at (7.28 MGD for Housatonic). Any time the 180-day average (dark blue) exceeds 90% capacity (Orange) the city is triggering the following clause in the permit:

**"When the arithmetic mean of the average daily flow from the POTW for the previous 180 days exceeds 90% of the design flow rate, the Permittee shall develop and submit within one year, for the review and approval of the Commissioner, a plan to accommodate future increases in flow to the plant. This plan shall include a schedule for completing any recommended improvements and a plan for financing the improvements."**

The flow changes dramatically from year to year depending on rain, flooding, and increased usage (new development). In 2019 the Housatonic Plant was over the limit and almost hit it again in 2020. The three significant rain events in 2021 pushed the plant over its limit for an extended period.

The Beaverbrook Plant was already cited by DEEP for the same issue in March 2019. The situation has improved at Beaverbrook when the South Washington Street by-pass was plugged in July 2019. The by-pass was sending flow to both plants but now only sends flow to Housatonic (exacerbating Housatonic's flow problem!).

Discussion ensued regarding a flow study and facilities plan and sitting down with DEEP. Mr. King explained that we need to look at a 20-year Facility Plan to let Sewer Commission know what we need to do. Much is dependent on weather. An Inflow & Infiltration Study can address the areas where water is getting into the system from sump pumps, manholes and other illegal connections. Mr. Abel suggested a Facilities plan and a sit down with DEEP.


Housatonic Wastwater Treatment Plant
5 -Year Influent Flows
Million Gallons of Flow per Day (MGD)
0
5
10
15
20
25
Date
2/2/2017
3/7/2017
4/9/2017
5/12/2017
6/14/2017
7/17/2017
8/19/2017
9/21/2017
10/24/2017
11/26/2017
12/29/2017
1/31/2018
3/5/2018
4/7/2018
5/10/2018
6/12/2018
7/15/2018
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11/24/2018
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1/29/2019
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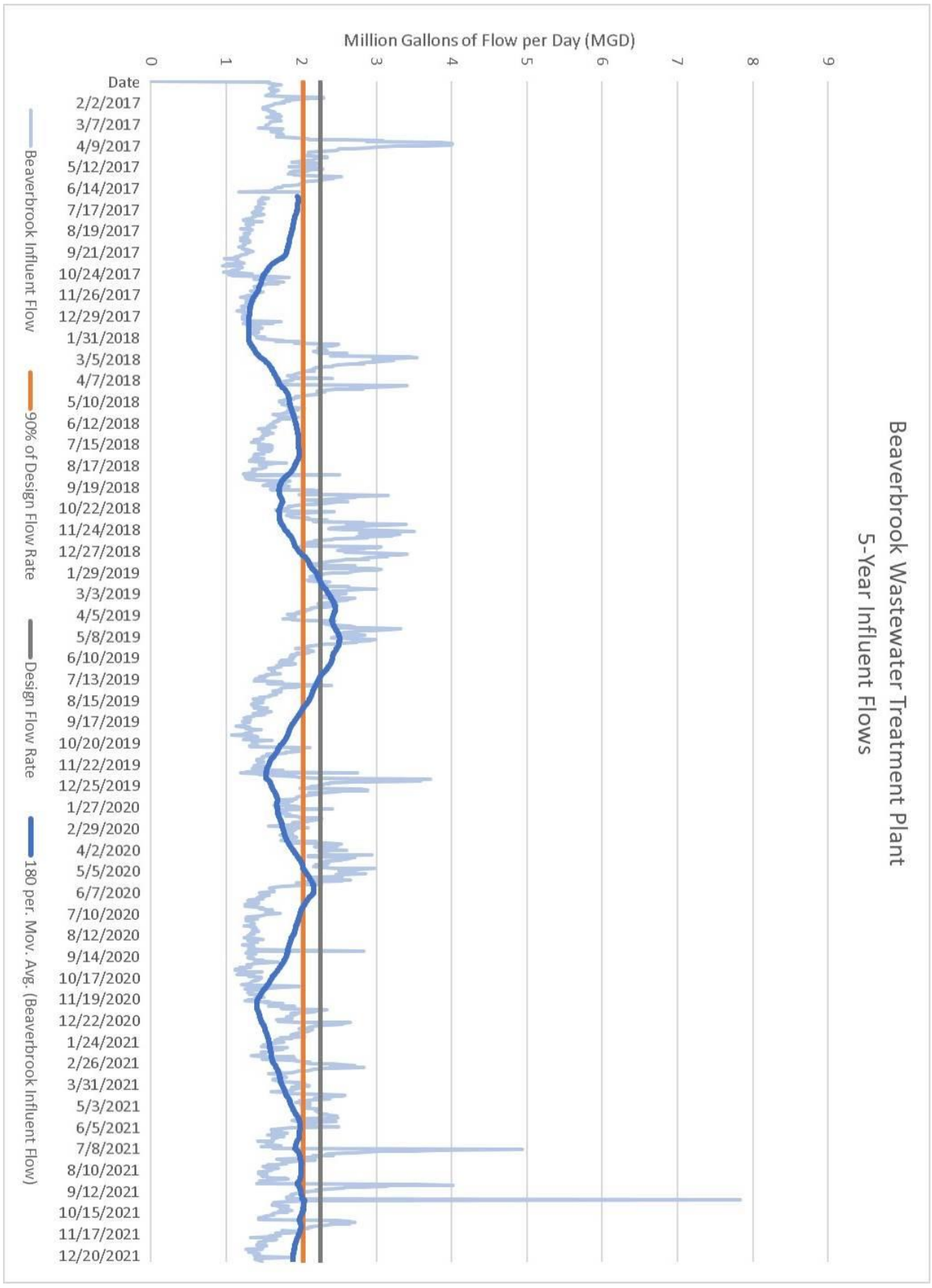
6/10/2019
7/13/2019
8/15/2019
9/17/2019
10/20/2019
11/22/2019
12/25/2019
1/27/2020
2/29/2020
4/2/2020
5/5/2020
6/7/2020
7/10/2020
8/12/2020
9/14/2020
10/17/2020
11/19/2020
12/22/2020
1/24/2021
2/26/2021
3/31/2021
5/3/2021
6/5/2021
7/8/2021
8/10/2021
9/12/2021
10/15/2021
11/17/2021
12/20/2021
4.88" Rain
5.77" Rain
2.87" R
Housatonic Influent Flow
90% of Design Flow Rate
Design Flow Rate
180 per. Mov. Avg. (Housatonic Influent Flow)


Beaverbrook Wastewater Treatment Plant
5-Year Influent Flows
Million Gallons of Flow per Day (MGD)
0
1
2
3
4
5
6
7
8
9
Date
2/2/2017
3/7/2017
4/9/2017
5/12/2017
6/14/2017
7/17/2017
8/19/2017
9/21/2017
10/24/2017
11/26/2017
12/29/2017
1/31/2018
3/5/2018
4/7/2018
5/10/2018
6/12/2018
7/15/2018
8/17/2018
9/19/2018
10/22/2018
11/24/2018
12/27/2018
1/29/2019
3/3/2019
4/5/2019
5/8/2019
6/10/2019
7/13/2019
8/15/2019
9/17/2019
10/20/2019
11/22/2019
12/25/2019
1/27/2020
2/29/2020
4/2/2020
5/5/2020
6/7/2020
7/10/2020
8/12/2020
9/14/2020
10/17/2020
11/19/2020
12/22/2020
1/24/2021
2/26/2021
3/31/2021
5/3/2021
6/5/2021
7/8/2021
8/10/2021
9/12/2021
10/15/2021
11/17/2021
12/20/2021
Beaverbrook Influent Flow
90% of Design Flow Rate
Design Flow Rate
180 per. Mov. Avg. (Beaverbrook Influent Flow)

7. **COMMITTEE REPORTS** - *None*

**8. OLD BUSINESS** - *None*

**9. VOTING**

a.) Regular Meeting Minutes of January 26, 2022

*Commissioner Hubler made a motion to approve the Regular Meeting Minutes of January 26, 2022, with Commissioner Abel seconding the motion. The motion carried unanimously.*

b.) Approval of Payments

*Chairman Collier called for a motion to approve the payments in the amount of $16,073.00. Commissioner Hubler made a motion to approve the payments in the amount of $16,073.00 seconded by Commissioner Carroll . The motion carried unanimously.*

**10. CHAIRMAN'S REPORT**

a.) Administrative Approvals

Chairman Collier stated there were 17 Administrative Approvals through February 23, 2022. Correction to Item 2 – 24 Art Street on the list where the proposed flow and the allowed flow needed to be corrected.

**11. ADJOURN**

*Chairman Collier called for a motion to adjourn at 6:38 p.m. Commissioner Hubler made a motion to adjourn with Commissioner Abel seconding the motion. The motion carried unanimously.*

Respectfully submitted,

Beverly A. Hayes, BS
Recording Secretary