CITY OF MILFORD
SEWER COMMISSION SPECIAL MEETING
March 26, 2020

The Sewer Commission of the City of Milford, held a special meeting on Thursday, March 26, 2020, at 3 PM, via the online program ZOOM.

The following Commissioners were in attendance:
Chairman Lee Cooke
Vice Chairman Edmund Collier
Commissioner Brian Bier
Commissioner Vito Castignoli

Others in attendance:
Lindsay King, Wastewater
Mark Davis, Westcott & Mapes
Beverly Hayes, Recording Secretary

Commissioners and others not in attendance:
Commissioner Bradford Hubler
Jay Tranquilli, Jr., Board of Alderman Liaison

Chairman Cooke called the meeting to order at 3:09 pm.

Chairman Cooke asked for Citizens Comments and reminded everyone that statements are limited to the legislative functions of the Sewer Commission and the time limit granted to each speaker shall be 3 minutes, residents, taxpayers or electors may address the Commission.

1. **CITIZENS COMMENTS**- *None*

2. **APPLICATIONS/PETITIONS**-*None*

3. **WESTCOTT & MAPES, INC.** – Mark Davis

A **Sailors Lane Pump Station Generator Replacement**

Mr. Davis reported that the Contractor, Kovacs Construction Corp. has completed work on the project and will perform restoration of landscape areas during the recommended spring planting season.

Mr. Davis recommended that Substantial Completion be approved for the project, subject to landscape restoration. This will initiate the 1-year guarantee period required under the Contract.

Chairman Cooke called for a motion. Commissioner Castignoli made a motion to approve substantial completion on the project with Commissioner Collier seconding the motion. The motion carried unanimously.

A letter was received from Kovacs Construction Corp. requesting a change order in the amount of $3,425.00 for an additional one month temporary stand-by generator rental. Additional compensation is requested for delay claimed by the Contractor due to U.I.'s

requirement to replace existing transformers and for adverse winter weather conditions. W&M has reviewed the letter and recommends denial of the requested change order.

Chairman Cooke called for a motion. Commissioner Castignoli made a motion to deny the request for a change order in the amount of $3,425.00 with Commissioner Collier seconding the motion. Chairman Cooke explained that he reviewed the request with Mr. Davis and there is no need for the change order. The motion carried unanimously.

4. CONSULTING ENGINEER'S REPORT – *None*

5. WASTEWATER REPORT– Lindsay King

Mr. King explained that he submitted his report that the Commission requested, regarding the Beaverbrook Wastewater Pollution Control Facility Flow Exceedance. Chairman Cooke suggested that the Commission review the report and they will address it at the next Sewer Commission meeting.

6. COMMITTEE REPORTS – *None*

7. OLD BUSINESS – *None*

8. VOTING

a.) Regular Meeting Minutes of February 26, 2020

Chairman Cooke called for a motion to approve the February 26, 2020 regular minutes. Commissioner Castignoli made a motion to approve the minutes seconded by Commissioner Collier. The motion carried unanimously.

b.) Public Hearing Minutes of February 26, 2020

Chairman Cooke called for a motion to approve the February 26, 2020 public hearing minutes. Commissioner Castignoli made a motion to approve the minutes seconded by Commissioner Collier. The motion carried unanimously.

c.) Approval of Payments

Chairman Cooke called for a motion to approve the payments in the amount of $191,176.31. Commissioner Castignoli made a motion to approve the payments in the amount of 191,176.31 seconded by Commissioner Collier. The motion carried unanimously.

Chairman Cooke called for a motion to allow the Chair, in consultation with the Public Works Director, to approve the payments, should the need to cancel a meeting occur. Commissioner Collier suggested that we put an amount not to exceed and also a time limit. Discussion ensued. Commissioner Collier made a motion to approve the payments up to $300,000 until the next Sewer Commission meeting is held. Commissioner Castignoli seconded the motion. The motion carried unanimously.

9. CHAIRMAN'S REPORT

a.) Administrative Approvals

Chairman Cooke stated there were 10 Administrative Approvals through March 25, 2020.

Chairman Cooke called for a motion to adjourn at 3:23 p.m. Commissioner Castignoli made a motion to adjourn with Commissioner Collier seconding the motion. The motion carried unanimously.

Respectfully submitted,

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Beverly A. Hayes, BS
Recording Secretary

SEWER COMMISSION MEETING
Wescott & Mapes Report
March26, 2020

A. **Rock Street and Welch's Point Road Pump Stations**

Mr. Davis reported no change since the last report.

B. **ViscountDrive Sanitary Sewer Force Main Replacement**

Mr. Davis reported that Empire Paving, Inc.will schedule permanent pavement repair along Naugatuck Avenue and Welton Street for mid-April. Hefurther reported that Payment Application No. 5 has been reviewed and certified by W&M in the amount of $144,776.31.

C. **Sailors Lane Pump Station Generator Replacement**

Mr. Davis reported that the Contractor, Kovacs Construction Corp. has completed work on the project and will perform restoration of landscape areas during the recommended spring planting season.

Mr. Davis recommend that Substantial Completion be approved for the project, subject to landscape restoration. This will initiate the 1-year guarantee period required under the Contract.

A letter was received from Kovacs Construction Corp. requesting a change order in the amount of $3425.00 for an additional one month temporary stand-by generator rental. Additional compensation is requested for delay claimed by the Contractor due to U.I.'s requirement to replace existing transformers and for adverse winter weather conditions. W&M has reviewed the letter and recommends denial of the requested change order.

Mr. Davis also reported that Payment Application No. 6 has been reviewed and certified by W&M in the amount of $2781.22. Also, Payment Application No. 7 has been reviewed and certified by W&M in the amount of $4343.78.

D. **Housatonic Wastewater Digester Gas Piping Repairs**

Mr. Davis reported that revisions to the Contract Documents are being completed and that rebid of the project is being coordinated with Purchasing.

E. **Repair/Replace Sanitary Sewer Force Main Failures at Various Locations**

Mr. Davis reported that submittal of shop drawings from the Contractor, John J. Brennan Construction Company, Inc., for review and approval is ongoing and that test pits to confirm utility locations are taking place this week. He further reported that installation of the force main within the Boston Post Road right-of-way is

awaiting authorization fromDOT District 3 to end winter shutdown.

F. **Gulf Pond Sanitary Pump Station Repairs**

Mr. Davis reported the design contract is being processed through the Departments for approval.

G. **Lower Wepawaug "Stonebridge" Pond Sewer/Manhole Lining**

Mr. Davis reported the design contract is being processed through the Departments for approval.

H. **Consulting Engineer's Report**

None

City of Milford, Connecticut
- Founded 1639 -

Housatonic Wastewater Treatment Facility
1255 Oronoque road – Milford, CT 06460

Telephone
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(203) 783-3264

FAX
(203) 876-7357

To: Lee Cooke, Sewer Commission Chairman

From: Lindsay King, Wastewater Superintendent

Date: March 20, 2020

Subject: **Sewer Report for February 2020**

Wastewater Treatment Plants

Both Wastewater Plants performed well in the month of February, producing a high quality effluent. 196 million gallons was treated at the Housatonic Plant and 55 million gallons at the Beaver Brook Plant for a total of 251 million gallons. The Housatonic plants monthly average effluent nitrogen was 187 lbs/day (permit limit = 307 lb/day) and the Beaverbrook Plants monthly average effluent nitrogen was 65 lbs/day (permit limit of 94 lbs/day).

At the Housatonic Plant normal monthly maintenance was performed:

1. Installed new motors on plant water pumps #3 & #4
2. Installed a 3" air relief valve on Pump #3 at West Ave PS to prevent the pump from going air bound. This has been a chronic problem requiring manual air-bleeding of the pumps. After a trial period we would like to install air reliefs on the remaining three pumps.
3. Replaced failed touch screen on Ultra Violet disinfection system
4. Removed all entrapped rags in septage receiving system

At the Beaverbrook Plant normal monthly maintenance was performed:

1. Ran the generator a short time under load for Fuel Cell installation. Generator operated flawlessly
2. Checked oil level on effluent pump and exercised pump
3. Performed a full maintenance on effluent UV system

Collection System

Pump Stations

Scheduled maintenance was performed at the following pump stations: Welch's Point, Milford Point, Old Gate Lane and Rodgers Ave. Some maintenance items were not completed due to limited staffing.

Other Duties Performed:

1. Cleared clogs from oxygen pump #1 & #2
2. Received startup and training for new Generator and ATS at Sailors Lane
3. Cleared clogs on all three pumps at Rodgers Ave.
4. Cleaned wet-wells at Milford Pt, Rodgers Ave, Buckingham, Waltrous, Wanda and White Oaks
5. A clog could not be cleared at Milford Point PS as the gate valve was not holding. A new valve was cut into the force main upstream of the pumps allowing access to clear the pump.
6. A motor failed on a pump at Zion Hill PS and was taken out to be rebuilt
7. Shut down Viscount Drive PS twice for Empire Paving to finish up force main project
8. Ran generators at Concord, West Mayflower, Grove, Sailors and Cricklewood

There were 6 alarms at the pump stations:

0 for Power Outage
2 for High Wet-well
0 for Control Power
0 for Station Trouble
0 Check Fail
2 Low Level
2 Overload

Sewer Maintenance

Sewer Maintenance answered 4 complaints.

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

T-16, T-24, T-25, T-36, T-39, T-47 & T-53

There were sewer excavations at the following locations:

NA

Other duties performed were:

1. CCTV camera sent out for repair; installed loaner camera while camera is sent out
2. Cleared mainline blockage on Coolridge Rd.; all wastewater was contained in collection system
3. Assisted cleaning Rodgers Avenue Wet-well
4. Sewer Solvent added to Sailors, Milford Pt, Viscount, Roses Mill, New Haven, Watrous, Concord, Mathews, Rodgers, Mayflower, Cricklewood, Ryder's Woods, Carriage, Old Field, Grove, Rock and Buckingham
5. Slurried wet-wells at Roses Mill, Gulf Beach, Concord and Naugatuck Pump Stations
6. Friday T-sites

A total of 16,510 ft. was jet flushed, 5,490 ft. televised, 2,690 ft. spy tv'ed, 330 ft. hand rodded, 225 ft hydraulically root cut, 0 ft smoke tested, 155 ft root treated and 0 ft dye tested.

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Housatonic Wastewater Treatment Facility
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To: Lee Cooke, Sewer Commission Chairman
Chris Saley, Public Works Director
Steve Johnson, Assistant Public Works Director
Mark Davis, P.E., President/Principal Westcott and Mapes, Inc

From: Lindsay King, Wastewater Superintendent

Date: March 17, 2020

Subject: **Beaverbrook Wastewater Pollution Control Facility (WPCF) Flow Exceedance**

The State of Connecticut Department of Energy and Environmental Protection (DEEP) performed an inspection of the Beaverbrook Wastewater Treatment Plant on March 20th and 28th 2019. One of the items mentioned in the report is an exceedance in permitted flow allowed at the Beaverbrook WPCF.

The discharge permit (NPDES permit) for Beaverbrook WPCF (also known as Publicly Owned Treatment Works in the permit or POTW) states:

"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."

Beaverbrook WPCF NPDES Permit, section 4, L

Beaverbrook WPCF's permitted capacity is 2.25 million gallons per day (MGD)
90% of Beaverbrook WPCF's permitted capacity is 2.025 MGD

Flow data used from the inspection:

Date	Flow
9/2018	1.7 MGD
10/2018	2.2 MGD
11/2018	2.5 MGD
12/2018	2.6 MGD
1/2019	2.7 MGD
2/2019	2.4 MGD
Average =	**2.35 MGD**

90% of Capacity = 2.025 MGD

There are several ways to accommodate capacity issues at a WPCF.

1. **Divert wastewater flow to another WPCF**
2. **Remove Inflow and infiltration leaking into the sanitary sewer to reduce overall flows**
3. **Increase capacity of the WPCF**

Option 1: Divert wastewater flow to another WPCF

In June 2019 the Wastewater Division investigated the Washington Street Bypass located behind the Subaru dealership and adjacent to the Metro North Rail Line. Normal wastewater flow travels from West Mayflower Pump Station along South Washington Street and under the tracks to the East West Interceptor feeding the West Ave Pump Station and ultimately the Housatonic Treatment Plant. By opening a gate located in the bypass structure the flow can be diverted to the Beaverbrook Interceptor and flow to the Beaver Brook Plant.

On the initial inspection flow was found to be going to both treatment plants, Beaver Brook and Housatonic. Surcharging in the pipe allowed a portion of the flow to overtop the gate blocking flow to Beaverbrook. The surcharging was caused by the high flows experienced at that time. All four manholes associated with the bypass are badly corroded from hydrogen sulfide and the gate is currently inoperable. The problem has been temporarily corrected by cleaning all piping in the area and by installing a pneumatic plug in the Beaverbrook Interceptor blocking all flow to the Beaverbrook WPCF. **A small capital project is recommended to install a new permanent structure to properly control the bypass (and prevent wastewater flowing to the Beaverbrook WPCF).**

Option 2: Remove Inflow and Infiltration into the sanitary sewer to reduce overall flows.

Excess clean water that leaks into a sanitary sewer system is called Inflow and Infiltration (I&I). Inflow is stormwater that enters into sanitary sewer systems at points of direct connection to the system. Various sources contribute to the inflow, including roof drains, drains from driveways, basement sump pumps, and even streams.... Infiltration is groundwater that enters sanitary sewer systems through cracks and/or leaks in poorly constructed or deteriorating sanitary sewer pipes.

Milford's wastewater collection system is certainly susceptible to I&I. This is apparent by looking at the relationship between rainfall and plant flow. During wetter months both of Milford WPCF's experience an increase in flow. Beaverbrook WPCF's inspection occurred during an extremely wet period. For comparison the same time period this year (Sep 2019-Feb 2020) had an average flow of 1.73 MGD or 0.62 MGD lower than the previous year. Rainfall during the inspection period was 30.7 inches but the same time period this year was only 20.2 inches.

An I&I study can be done by a contracted engineering firm to identify sources of I&I in the collection system. The last study was done in 2002 and certainly much has changed in the system since then. Ageing pipes, construction and sea level rise can add potential sources for I&I. Removing I&I not only brings the WPCF closer to compliance with the NPDES Permit but reduces pumping and treatment costs. The study will involve two phases; the initial I&I phase and based on the results from the I&I study a more detailed Sanitary Sewer Evaluation Study (SSES) that will investigate the most problematic sub-areas identified in the I&I study. From this cost effective projects can be completed to reduce I&I. The CT DEEP Clean Water Fund offers a 55% grant for I&I projects. **I recommend adding an I&I study to the Wastewater Divisions Capital Improvement list.**

Option 3: Increase capacity of the WPCF

Increasing the capacity of a WPCF generally involves a large capital expenditure. Typically this is done in a 20-year planning cycle after completing a system-wide facilities plan (including an I&I study). The last facilities plan projected this cycle to begin again in 2025. **The cost of this option and the timing makes this the least attractive option and I do not recommend pursuing this option.** It is worth noting that the Beaverbrook WPCF permitted capacity was downgraded from 3.1 MGD to 2.25 MGD in a 2008 permit renewal process. As it is not clear why the WPCF was downgraded it may be possible to have the original 3.1 MGD permitted capacity restored. At the very least an in depth engineering study would be required to prove the WPCF can accommodate the 3.1 MGD limit. There is no guarantee this would be successful and the WPCF would have to stand up to today's engineering requirements (TR-16) which may be different from when it was upgraded.