AGENDA

DATE: Tuesday, January 17, 2017
TIME: 5:30 PM
PLACE: Public Works Center (Second Floor Conference Room), 15 South Smith Street

WPCA Regular Meeting:

1. Call to Order

2. Approve the minutes from WPCA Meeting held on December 19, 2016 (copy included)

3. Contract Operations Report:
   a. OMI Monthly Operating Report – December 2016 (copy included)

4. Reports:
   a. Introduction of Chris Torre
   b. FY16/17 Revenues/Expenditures MUNIS Reports (copy included)
   c. Discussion on proposed Project at 537 Newtown Avenue (copy included)
   d. Discussion on WPCA Projects:
      1) Main Lift Pump Replacement Project Update
      2) Solids Handling, Aeration Improvements and Odor Control Evaluation
   e. Sewer Use Bill Appeals/Adjustments Update
      1) Appeal status
   f. Information Copies:
      1) WPCA Contact List Update (copy included)

5. Executive Session to discuss ongoing litigation with Flowserv about main lift pumps’ failure, sewage overflow findings by Connecticut Fund For the Environment

6. Adjournment

Next WPCA Meeting: Monday, February 13, 2017, 5:30 PM
Second Floor Conference Room, Public Works Center
15 South Smith Street
CITY OF NORWALK
WATER POLLUTION CONTROL AUTHORITY
December 19, 2016

Attendance: Darren Oustafine, Chairman
            Lewis Clark, Vice Chairman
            Frederika Bikakis-Hajian
            John Igneri
            John Flynn
            Greg Burnett

Staff:       Bruce Chimento, DPW Director
            Ralph Kolb, DPW Senior Environmental Engineer

Others:     John Ahern, CH2M Hill, OMI, Inc.
            Paola Molloy, CH2M Hill, OMI, Inc.

1. CALL TO ORDER

Chairman Oustafine called the meeting to order at 5:30PM

2. EXECUTIVE SESSION TO DISCUSS ONGOING LITIGATION WITH FLOWSERVE
ABOUT MAIN LIFT PUMPS’ FAILURE AND SEWAGE OVERFLOW FINDINGS BY
CONNECTICUT FUND FOR THE ENVIRONMENT

** MR. MCCARTHY MOVED TO ENTER INTO EXECUTIVE SESSION
** MOTION PASSED UNANIMOUSLY

Executive session began at 5:30PM
Executive session ended at 5:40PM

3. APPROVE THE MINUTES FROM WPCA MEETING HELD ON NOVEMBER 21,
2016 (COPY INCLUDED)

** MR. MCCARTHY MOVED TO APPROVE THE MINUTES
** MOTION PASSED UNANIMOUSLY
4. CONTRACT OPERATIONS REPORT:

a. OMI Monthly Operating Report- November 2016 (copy included)

Mr. Ahern reported on the plant activates and said that preventative maintenance was performed on primary settling tank number four and that the flights and chain were repaired. He said that there were no performance or permit violations received for the month. He reported on the collections system and said that the air release valve was replaced at the Sammis Street pump station. He reported on the production rate for CCTV and said that for the month of November it was 0.48 miles and that the monthly TV rolling average is 0.91 miles a month and for cleaning was 3.97 miles a month. He said that nitrogen fell into band “D”

5. REPORTS

b. Draft FY 17/18 Capital Budget (copy included)

Mr. Kolb presented and said that he has contacted ARCADIS to begin gathering data to re-run the financial model. He said that it will be done in January and presented at the February meeting. Ms. Bikakis-Hajian asked how much is in the account for capital projects. Mr. Kolb said that he will need to check with Mr. Barron. Mr. Burnet said that the current approved budget for solids handling is 3 million dollars and said that staff is requesting to increase that amount, and asked what the impact will be if the funds do not come through. Mr. Chimento said that it may be possible that the request may be reduced after some of the numbers from ARCADIS are received, and there will be more precise numbers on the construction and engineering costs. Mr. Kolb said that by early 2017 the study should be completed by ARCADIS. Mr. Oustfine asked if the blowers are included in this. Mr. Kolb said that they are part of the solids handing project.

c. Discussion on WPCA Projects:

1) Main Lift Pump Replacement Project Update

Mr. Kolb said that three Flygt pumps have been operating and that they are doing well. He said that the fourth pump is scheduled for a 48 hour start up test next week, and that if all goes well there will be four pumps on line, and will then have two more to install to complete the project.

2) Solids Handling, Aeration Improvements and Odor Control Evaluation (solids disposal email and NEWEA article updated)

Mr. Kolb said that ARCADIS began the evaluation in the middle of November, and did a walkthrough of the Wastewater Treatment Plant and they will summarizing it in a detailed report.
d. Sewer Use Bill Appeal/Adjustments Update

1) Appeal Status
   Mr. Kolb said that the adjustments to date are $57,337.

e. Information Copies:

1) 2017 WPCA Meeting Schedule (copy included)

   There was discussion ensued and it was decided that the January 23, 2017 meeting date be changed to January 17, 2017.

2) Proposed Nitrogen Credit Exchange-2016 (copy included)

   Mr. Kolb said that Norwalk will be receiving $77,712 for nitrogen credits. Mr. McCarthy asked why Stamford will be receiving roughly ten times the amount that Norwalk will be receiving. Mr. Kolb said that Stamford’s Wastewater Treatment Plant upgrades remove nitrogen concentration to low levels all year round. Therefore, they receive significantly more credits.

10. ADJOURNMENT

** MR. MCCARTHY MOVED TO ADJOURN
** MOTION PASSED UNANIMOUSLY

The meeting adjourned at 6:05 PM

Respectfully Submitted,

Dilene Byrd
1 Plant Activities

A Maintenance

MRR Repairs/Upgrades
Cleaned DE chlorination tank. Cleaned plant water strainers. Replaced sludge pump #1 for BFP. Replaced primary tank #3 cross collector chain. Replaced valves from plant water to GBT hose connection. Fixed program issues with secondary lift pumps. Replaced BFP sludge pump VFD. Cleaned and reset breaker to AST #2. Installed FST scum pit gates. Replaced gravity thickener sump pump. AST #2 was replaced. Cleaned Final Settling Tank scum trough piping. Disconnected blower motor electrical in preparation for sending blower for repair.
Conducted air monitoring in the Secondary Building

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<tr>
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B Violations

Permit Monthly
Excursion - Reason
None

Performance Guarantee
None

C Training

Safety
Continued with HANDS on line training
Updated and conducted training on Work Control Plan, AHA's and pre-task planning

Other
ABB and FLYGH conducted MLP training

2 Collection Systems

A Pump Stations

MRR Repairs/Upgrades
Fixed program issues with Sammis Street PS pump program

B Collection System

Spill / Overflow Reports
12-1 clogged line caused a 1200 gal spill at 11 Cutrone Rd.
12-17 grease caused blockage at 15 Bouton, 150 gal spill
12-21 grease caused a 169 gal spill at 4 Country Club road
Grease was cleared from all lines and spills were cleaned up.

C Collections Repairs

None
3 Personnel

A Number of Associates / Wastewater Operator Certifications

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<th>Certifications 11</th>
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B Changes

4 Safety

OSHA Recordable Incidents None
Lost Time Incidents None

5 Total Nitrogen Performance

Avg. Influent Wastewater Temp. (°C) 16
Avg. BOD Loading (lbs./day) 14,435
Actual TN Performance (lbs./day) 561
Lookup Value (lbs./day) 801
Actual minus Lookup (lbs./day) -240
TN Performance Band D
Uncontrollable Circumstances None

Operational Review Findings None
SOP Status

Summary of Findings Inventory at targets.

Description of Ranges/Bands

Expected Operating Range
Band A Actual TN (aTN), Lookup Value (LV)
Band B aTN between 1 to 175 lbs./day less than LV
Band C aTN greater than 234 lbs./day in excess of LV
Band D aTN between 118 and 234 lbs./day in excess of LV
Band E aTN between 1 to 175 lbs./day in excess of LV

6 Miscellaneous

Regulatory Inspections None

Storm Flow Events None
1. Plant Operations
   A. Major Parameters

   - **Monthly average BOD (mg/l)**
   - **Monthly average TSS (mg/l)**
   - **Monthly average Fecal (#/100 ml)**
   - **Monthly average TN (lbs/day)**

   - **12-month Rolling average TN (lbs/day)**
   - **Monthly average Flow MGD**
1) Collection System Data Management and Inspection

(a) Cityworks data entry for December 2016 are reflected in attached tables
   (i) Production rate for CCTV for the month of December was zero miles, since the truck was
       being repaired. Next month's TV inspection efforts continue to focus on documenting known
       critical areas and sewer lines crossing streets on the 5-year paving list.
       1. Monthly rolling averages
          a. TV – 0.79 miles a month
          b. Cleaning – 4.01 miles a month
       (ii) Focused CCTV and Cleaning priorities
            1. Older clay pipes that haven't been TV'd in over 3 years
            2. Sewer problem areas
            3. CCTV lines that intersect the paving list – Received the 5-year paving list from the
               City. CCTV in progress for 2016 paving list. See attached maps for paving list details.

(b) Hot spot list
   (i) Some hotspots that have not shown signs of debris build up will be added to a watch list and
       potentially phased out
   (c) Pipe condition downstream of PS forcemains
       (i) 1 PS remaining – Perry Ave PS. Need low flow and traffic control to perform.
   (d) Protruding laterals
       (i) No protruding laterals cut in the month of December
   (e) Manhole raising
       (i) No manholes were identified to be raised in December

2) Major Repair & Replacement Projects:

(a) Nothing new to report this month.

3) WPCA Capital Improvement Projects (CIPs):

(a) Task Order 1: Basis of Design
    (i) Task is 75% complete
    (ii) Next work item is to complete borings near Marvin Beach PS

4) Current Evaluations:

(a) New items this month:
    (i) Cutrone Road: Bypass reported at 11 Cutrone. Crew cleaned pipes from Dixie to Cutrone and
        added this location to hotspot list.
    (ii) 15 Bouton St: Grease issues. Line has been cleaned and added temporarily to be cleaned
        with hotspot on Bouton St.
    (iii) 4 Country Club Rd: Grease issued. Pipe has been cleaned.

(b) Carry over from previous month:
    (i) Crescent Street – CCTV is almost complete. Results show water main leak into sewer system
        and a few storm connections. Water company has fixed the issue.
    (ii) East Avenue (West Port Ave to Merrill) – Wet weather issues – OMI CCTV data Merrill @ East
        Ave – state drainage tied to sanitary. CCTV of side roads is complete. CCTV results show
        catch basin connection
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GRAND TOTAL: 8
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## CLEANING (FEET)

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FOR 2017 99

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22 WATER POLLUTION CONTROL

040 PUBLIC WORKS

224062 WATER POLLUTION CONTROL

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224062 4051 SEWER CHARGE INTEREST  -65,000  0  -65,000  -38,789.19  .00  -26,210.81  59.7%
224062 4121 NITROGEN CREDIT TRADING  -315,824  0  -315,824  -315,824.00  .00  .00  100.0%
224062 4441 SEWER PERMITS  0  0  0  -2,050.00  .00  2,050.00  100.0%
224062 4453 SEPTIC LICENSE  -1,500  0  -1,500  .00  .00  -1,500.00  100.0%
224062 4513 SEWER USE CHARGES  -14,516,300  0  -14,516,300  -15,316,202.13  .00  799,902.13  105.5%
224062 4516 SEPTIC DISPOSAL FEE  -325,000  0  -325,000  -137,900.00  .00  -187,100.00  42.4%
224062 4521 SEWER USE CHARGES-WILT  -490,000  0  -490,000  .00  .00  -490,000.00  100.0%
224062 4522 SEWER USE CHARGES-OUT  -55,000  0  -55,000  -55,713.00  .00  713.00  1.3%
224062 452C INDUSTRIAL PRETREATNEN  -220,000  0  -220,000  -215,900.00  .00  -4,100.00  38.1%
224062 452D SEWER CONNECTION FEES  -100,000  0  -100,000  -17,930.00  .00  -82,070.00  17.9%
224062 452E INDUSTRIAL PRETREATNEN  0  0  0  -2,499.62  .00  2,499.62  100.0%
224062 489F EXPENDITURE REIMB G F  -430,741  0  -430,741  .00  .00  -430,741.00  100.0%
224062 4901 INVESTMENT INCOME  -100,000  0  -100,000  -10,255.00  .00  -89,745.00  10.3%

TOTAL WATER POLLUTION CONTROL  -16,655,365  0  -16,655,365  -16,149,062.94  .00  -506,302.06  97.0%
TOTAL PUBLIC WORKS  -16,655,365  0  -16,655,365  -16,149,062.94  .00  -506,302.06  97.0%
TOTAL WATER POLLUTION CONTROL  -16,655,365  0  -16,655,365  -16,149,062.94  .00  -506,302.06  97.0%
TOTAL REVENUES  -16,655,365  0  -16,655,365  -16,149,062.94  .00  -506,302.06  97.0%
GRAND TOTAL  -16,655,365  0  -16,655,365  -16,149,062.94  .00  -506,302.06  97.0%

** END OF REPORT - Generated by Dilene Byrd **
### FOR 2017 99

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#### 040 PUBLIC WORKS

**224062 WATER POLLUTION CONTROL**

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<th>Item Code</th>
<th>Description</th>
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<tr>
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</tbody>
</table>

**TOTAL WATER POLLUTION CONTROL**

17,505,365 232,839 17,738,204 11,020,669.13 2,838,958.82 3,878,575.57 78.1%

**TOTAL PUBLIC WORKS**

17,505,365 232,839 17,738,204 11,020,669.13 2,838,958.82 3,878,575.57 78.1%

**TOTAL WATER POLLUTION CONTROL**

17,505,365 232,839 17,738,204 11,020,669.13 2,838,958.82 3,878,575.57 78.1%

**TOTAL EXPENSES**

17,505,365 232,839 17,738,204 11,020,669.13 2,838,958.82 3,878,575.57 78.1%

**GRAND TOTAL**

17,505,365 232,839 17,738,204 11,020,669.13 2,838,958.82 3,878,575.57 78.1%

**END OF REPORT - Generated by Dilene Byrd**
**Summary**

Tighe & Bond, Inc. has been tasked to review options to provide sanitary sewer service to the 537 Newtown Avenue/19 Newtown Turnpike site. The proposed development is to construct 200 units of Senior Independent and Assisted Living.

Tighe & Bond inspected the property on July 29, 2015 and attended the following meetings with the City of Norwalk representatives to discuss options for the project:

- August 5, 2015 with DPW and WPCA
- August 5, 2016 with DPW and WPCA
- October 6, 2016 with WPCA
- December 22, 2016 with DPW, WPCA and the Mayor

It was determined at the December 22, 2016 meeting that the options for the site be presented to the Norwalk WPCA Commission for review and comment.

After reviewing several alternatives, it was determined the most viable option to service this property was with an on-site pump station and a private 4” force main installed in City of Norwalk roadways. This option would only serve the 537 Newtown Avenue/19 Newtown Turnpike site and would be privately constructed and privately maintained.

**Site Description**

The property is situated in the northeast area of Norwalk just south of Route 15. Approximately 4.5 acres of the site is in Norwalk and 1.4 acres of the site is in Westport. The portion of land in Norwalk is zoned AA Residence and the portion of land in Westport is zoned AAA Residence. The site is listed as 537 Newtown Avenue, Norwalk and 19 Newtown Turnpike, Westport.

The site currently includes a 30,000+ SF foot building that is entirely in the Norwalk portion of the site that was last used as commercial office space and parking for 110 vehicles. This building is currently serviced with an on-site septic system. Site access is from Newtown Turnpike through the Westport portion of the site.
The proposal is to construct approximately 200 units of Senior Independent and Assisted Living within the Norwalk portion of the site. See attached architectural concept plan.

Sanitary Sewage Flow

The proposed 200 units of senior independent and assisted living will contribute the following estimated average daily flow:

Proposed Use: Senior Independent and Assisted Living

Number of Units: 200

Estimated Average Daily Sewage Flow: $200 \times 150 \text{ GPD}^1$ per unit = 30,000 GPD

---


Sanitary Sewer Options

Tighe & Bond reviewed several options for providing sanitary sewer service to this site:

- A 12” gravity sewer from the site along Thistle Lane to Chestnut Hill Road to Newtown Avenue through an easement to Partrick Avenue to an existing manhole in Partrick Avenue. This option would require relaying approximately 400 feet of an existing 8” line with a 12” line. The approximate length of the proposed 12” gravity sewer is 7,000 lineal feet.

- An on-site pump station with a 4” force main from the site to Thistle Lane, to Columbine Road to Newtown Avenue to an existing manhole in Newtown Avenue 100 feet north of Mola Lane. The approximate length of the proposed private 4” force main sewer is 6,600 lineal feet.

12” Gravity Sewer Extension Option

**Route: Thistle Road - Chestnut Hill Road -Newtown Avenue – Partrick Avenue**

The site is located within the Newtown Avenue Interceptor Sewershed. Early in our study phase, we checked with the Norwalk WPCA and DPW to determine if the City had any immediate plans to extend sewer service to the project site.

1. Currently there are no plans for a sanitary sewer extension in the area of the site. The area north of Patrick Road is part of the current sewer service area as outlined in the Norwalk PCOD (Plan of Conservation and Development).

2. The WPCA also mentioned that any extension of sewers in this area would require a petition from the neighborhood to the City requesting a feasibility study for extending the sewer.

The nearest receiving manhole is located in Newtown Avenue near Mola Lane. The proposed 12” gravity sewer would run from the site along Thistle Lane to Chestnut Hill Road to Newtown Avenue through an easement to Partrick Avenue to an existing manhole in Partrick Avenue. This option would require relaying approximately 400 feet of an existing 8” line with a 12” line. We have attached plan and profile for this alternate.
The approximate length of the proposed 12” gravity sewer is 7,000 lineal feet. The line would be laid at a maximum slope of 0.22 % and there would be several locations that the maximum cover over the pipe would be 2.5 to 5.5 feet. Minimum depth for gravity lines are usually 7 feet.

This option was considered not feasible for this site.

**On-site Pump Station with Private Force Main Option**

**Route: Thistle Road to Columbine Lane to Newtown Avenue**

This option includes an on-site pump station with a 4” force main from the site to Thistle Lane, to Columbine Road to Newtown Avenue to an existing manhole in Newtown Avenue 100 feet north of Mola Lane. The approximate length of the proposed private 4” force main sewer is 6,600 lineal feet. Attached are plans and profiles for this alternate. Preliminary sanitary sewer flow calculations are attached.

This option would only serve the 537 Newtown Avenue/19 Newtown Turnpike site and would be privately constructed and privately maintained. A maintenance agreement would be provided to the City.
Senior Independent and Assisted Living Project
537 Newtown Ave/19 Newtown Turnpike

Estimation of Sanitary Sewer Flows For Pump Option

Proposed Use: Senior Independent and Assisted Living
Number of Units/Bedrooms: 200

Average Daily Flow: 

\[
200 \times 150 = 30,000 \text{ GPD}
\]

Required Pumping Rate:

Average Daily Flow: 30,000 GPD

Peak Flow to PS (over 24 hours) 

\[
20.833 \times 5.6 = 116.67 \text{ GPM}
\]

Force Main:

High Point in FM: 128 Wet well base: 94
Min. water level: 98 Min. water level 98
Static Head: 30
Length of FM: 6,600 LF
Pump Rate: 125 GPM

Wet well sizing:

Diameter (FT): 6 7 8
gal/foot of depth 211.38 287.72 375.80
Operating range needed to pump 5 min: 2.96 FT 2.17 FT 1.66 FT

1 Residential Institutional flow as per Connecticut Public Health Code, Technical Standards for Subsurface Sewage Disposal Systems, January 2015, Table 7 Application rate for Rest Home or Convalescent Home = 150 /bed/day
WATER POLLUTION CONTROL AUTHORITY  
a/o January 12, 2017

Members

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Norwalk, CT 06851  
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(203) 656-7365 (W)  
Doustafine@darienct.gov  
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hrilling@norwalkct.org  
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(203) 807-8818 (C)  
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(917) 576-7946 (C)  
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rbarron@norwalkct.org

Bruce Chimento  
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Others on email distribution group
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