

4 Turkey Hill Road
Newtown, CT 06470
Tel (203) 270-4300
Fax (203) 426-9968



Fred Hurley,
Director

TOWN OF NEWTOWN
WATER AND SEWER AUTHORITY

Marianne Brown,
Chairman
Louis Carbone
George Hill
Alan Shepard
Eugene Vetrano
Richard Zang
Carl Zencey

THESE MINUTES ARE SUBJECT TO APPROVAL BY THE WATER AND SEWER AUTHORITY

The Water and Sewer Authority held a regular meeting on December 11, 2014 at the Waste Water Treatment Plant, 24 Commerce Road, Newtown, CT. Chairman Brown called the meeting to order at 7:00pm.

Present: Dick Zang, Gene Vetrano, Lou Carbone, Marianne Brown, Alan Shepard, Carl Zencey

Absent: George Hill

Also Present: Director of Public Works Fred Hurley, Jason O'Brien and Julio Segarra of United Water, Brian Atherton, Chris Smith of Shipman and Goodwin, Kurt Mailman of Fuss & O'Neill, Ray Macaluso and Ray Paier of Westcott and Mapes, Inc.

Public Participation - None

Approval of Minutes – The previously distributed minutes of the regular meeting of 11/13/14 were unanimously approved.

UNFINISHED BUSINESS

79 Church Hill Road – Chris Smith of Shipman and Goodwin, who is representing 79 Church Hill, LLC presented the proposed sewer service area extension (Attachment A). The front of the property which is an estimated 3 acres is in the sewer service area but the balance of the property estimated to be 32 acres is not. They are requesting that the sewer service area be expanded to cover the additional 32 acres of the property. Mr. Smith articulated that the Planning and Zoning commission has identified properties in town that may qualify for IHZ zoning and this property is included. Alan Shepard articulated that a letter of interest was required from EDC or P&Z.

Ray Macaluso, President and Principal of Westcott and Mapes, Inc explained that they have looked at the sewer infrastructure and found two 6 inch laterals on the property, that hook up to an 8 inch pipe that goes down to the Sandy Hook pump station. They noticed that there is also an 8" force main that is parallel to the 6 inch.

Dick Zang explained that the estimated sewage flow and preliminary layout of the proposed development with approximate grades and sewer schematics is normally required for preliminary review.

Alan Shepard moved to deny the request to expand the sewer service area to include the entire property at 79 Church Hill Road without prejudice. It has not fulfilled the requirements for preliminary review. Dick Zang seconded, motion unanimously accepted.

Establish a Hawleyville Sewer District – Kurt Mailman from Fuss & O’Neill who is the project manager presented (Attachment B). Dick Zang moved to recommend to the purchasing authority that the detail design phase of the project be authorized subject to further review. Gene Vetrano seconded, Alan Shepard suggested getting an updated report from Karen & Fazio and compare that with construction costs. Dick Zang withdrew his motion.

Water Pollution Control Plan/review and update – Fred Hurley presented his analysis of unused sewer capacity There was more than just the vacant properties. There needs to be an allowance for Sandy Hook school coming on line. A buffer needs to be set before you go to the state and ask for additional sewer capacity. Fred’s proposal is a 3% buffer which is almost 10,000 gallons. Fred also discussed in detail about the Incentive Housing Zone proposed by George Benson. With the town proposal, there could be 12 units per acre depending on how many gallons per unit are used per EDU. 79 Church Hill Road is the only IHZ zone that would be in the central sewer service area.

NEW BUSINESS

2015 Meeting Schedule – Dick Zang moved to move to adopt the 2015 meeting schedule as presented, Alan Shepard seconded, motion unanimously approved (Attachment C).

Committee Reports: SCADA, solar, I&I, Finance, regulations, water supply, collection and distribution systems – I&I - Julio Segarra reported that during the rains the other day the plant was over capacity but it didn’t affect the treatment process. An inspection of manholes in the Taunton Lake area revealed excessive flows. A dye test on one of the homes was negative. There are other homes in the area that warrant a smoke test.

Report by United Water Environmental Services Inc. – Attachment D.

Report by Public Works Director – Reported within agenda items.

Having no further business, meeting was adjourned at 10:06pm

Arlene Miles, Clerk

HARTFORD, CT



SHIPMAN & GOODWIN^{LLP}[®]
COUNSELORS AT LAW

Christopher J. Smith
Phone: (860) 251-5606
Fax: (860) 251-5318
cjsmith@goodwin.com

December 11, 2014

VIA HAND-DELIVERY

Ms. Marianne Brown, Chairperson
Water & Sewer Authority of the Town of Newtown
c/o Mr. Frederick W. Hurley, Jr., Director
Public Works Department
Town of Newtown
4 Turkey Hill Road
Newtown, CT 06470

RE: Request to the Water & Sewer Authority of the Town of Newtown, Connecticut, to extend the Authority's designated sewer service area to include an entire parcel of land known as 79 Church Hill Road, Newtown, Connecticut, and designated Map 38, Block 2, Lot 1, by the Assessor of the Town of Newtown, Connecticut.

Dear Chairperson Brown and Members of the Water & Sewer Authority,

The undersigned firm represents 79 Church Hill Road, LLC ("Church Hill"), which is the contract purchaser of 79 Church Hill Road, Newtown, Connecticut ("subject property").

Church Hill seeks to have the designated sewer service line, which bifurcates the subject property into two sewer service areas, moved so as to locate the entire property within the sewer service area. Currently, three acres that front Church Hill Road are located within the sewer service area. The balance of the property comprising thirty-two acres is located outside of the sewer service area. Therefore, approximately 91.4% of the subject property is excluded from sewer service. There are a number of justifications for this application.

First, there are two existing laterals on the three acres that front Church Hill Road. The balance of the property is currently excluded. This bifurcation of the property makes no planning sense.

Second, there is no environmental condition on the acreage beyond the current line that warrants this bifurcation of sewer service.

Ms. Marianne Brown, Chairperson
c/o Mr. Frederick W. Hurley, Jr., Director
December 11, 2014
Page Two

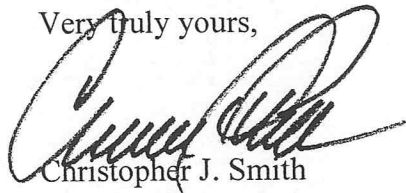
Third, this exclusion of approximately 91.4% of the subject property prohibits uniform use of the property.

Fred Hurley, Newtown's Public Works Director, issued last month an update of the sewer use matrix for the Town's sewer system originally adopted in 1994. The purpose of that matrix was to restrict sewer capacity based on zoning (Exhibit A, attached). As you are aware, the Connecticut courts have ruled in recent cases that sewer applications are to be handled based on sewer system management and engineering, and are not to be used by a water pollution control authority as a way to control land use or enforce existing zoning regulations. In *Dauti Construction v. Water and Sewer Authority*, 125 Conn. App. 652 (2010), the Connecticut Appellate Court ruled that this Sewer Authority could not deny a request for sewer capacity because the application was submitted in connection with a development proposal that did not meet the Town's existing zoning. The Court expressly stated that municipal sewer authorities are tasked with administering the sewer system, not controlling the land uses that sewer may support, which is the exclusive purview of planning and zoning commissions. We respectfully submit that Mr. Hurley's November 2014 report partially updates capacity numbers, but still ties allocation to land use and zoning – that the Appellate Court invalidated.

As previously represented, once sewer service is confirmed for the entire property, Church Hill will then be able to prepare a development proposal. Church Hill will also file an application with the Sewer Authority to confirm the availability of the sewer capacity required to service the property, as provided by the Sewer Authority's Regulations and the Intermunicipal Agreement ("IMA") between the Town of Newtown and State of Connecticut, dated November 17, 1993 (Exhibit B, attached). As provided by the Regulations and IMA, Church Hill would be entitled to any unused capacity on a first come first serve basis as referenced by Newtown's Town Attorney, David Grogins, in his report to the Sewer Authority, dated September 22, 2014 (Exhibit C, attached). We note that if required capacity is not available, the Town and WSA are authorized by the IMA to request additional capacity from the State's unused allocation.

Thank you for your consideration and assistance concerning this matter.

Very truly yours,



Christopher J. Smith

cc: 79 Church Hill, LLC
Westcott and Mapes, Inc.
David L. Grogins, Town Attorney
George Benson, Director of Planning



FUSS & O'NEILL

Attachment B


Hawleyville LPS Sewer Extension Newtown WSA



December 11, 2014

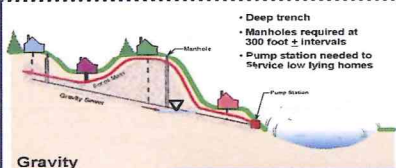
Agenda

- LPS vs Gravity Refresher
- Interested Parties (19)
- Project Progress
- Preliminary Design Elements
- Estimated Costs
- Grinder Pump Easements
- Questions and Answers



JUSSA O'NEILL


LPS vs Gravity



Gravity

- Deep trench
- Manholes required at 300 foot ± intervals
- Pump station needed to service low lying homes

Common Sewer Collection Systems



Low Pressure

- Shallow trench
- Follows grade
- Low lying homes easily served

JUSSA O'NEILL

Why LPS & GP Stations for Hawleyville Area?

- Less Disruption, Less Intrusive
- Shallower Piping Than Gravity Sewers
- Reduced Bedrock Removal
- Reduced Groundwater Pumping
- Smaller Diameter Pipes
- Flexible Vertically and Horizontally
- Optional Directional Drilling for Road Crossings
- ... Less Expensive

JUSSA O'NEILL

Design Elements

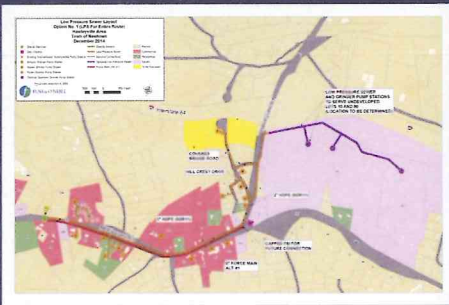
- Materials (7,200+/- ft HDPE for LPS and 4,000+/- ft of Force Main & 700+/- ft of PVC for Gravity)
- Air Release/Vacuum Valves to Prevent Air lock/Negative Pressure and Maintenance
- Clean Outs at Terminal Ends
- No Bolted and Gasketed Manhole Covers
- Tee / Isolation valves at Intersections
- Grinder Pump Stations Sized for Flows
- Odor Control Systems – Bioxide and Scrubbers
- Trench Patches on Town Roadways
- DOT Paving Requirements



FUSSELL

Option #1 - LPS Entire Route

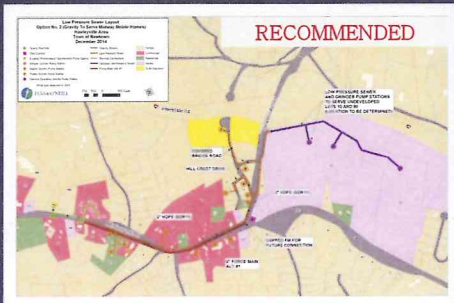
- Alt. #1 - A 6" HDPE Dry Force Main (Serves #10 & #90)
- Common to each option



FUSSELL

Option #2 - Gravity to serve Midway Mobile Homes


- Alt. #1 - A 6" HDPE Dry Force Main (Serves #10 & #90)
- Common to each option



FUSSELL

LPS Installation

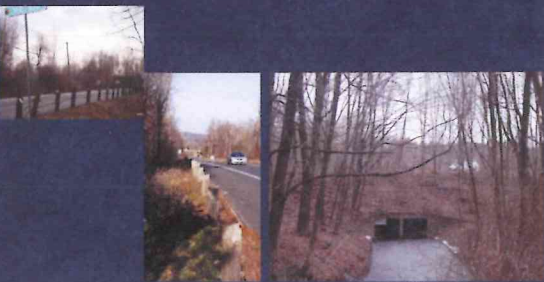
- LPS off the Roadway Within Rights-of-Way Where Possible



10 JUSAK O'NEILL

LPS Installation


- Short Sections Within State Roadways
- Pond Brook Bridge Crossing Above Culvert (Route 25)



11 JUSAK O'NEILL

LPS Installation


- Directional Drilling for Service Connections Across the State Road




12 JUSAK O'NEILL

LPS Restoration

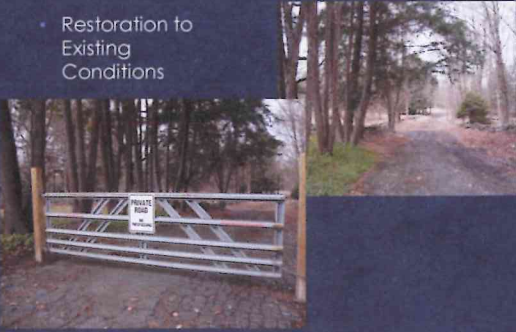
- Gravel Roads and Paths Will be Repaired to Match Existing Conditions




13 


Restoration at #9 Covered Bridge Rd.


- Restoration to Existing Conditions



14 


Midway Mobile Home Estates



15 


Midway Mobile Homes Connection

- 8-inch PVC Gravity Sewers Within Midway Mobile Home Estates



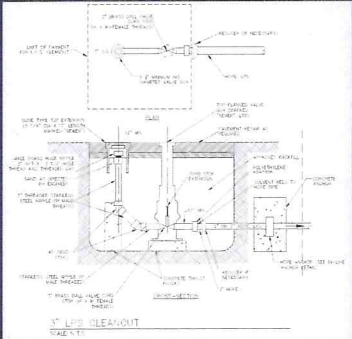
16 JUSKASNEHL

Homesteads (The Woods) PS

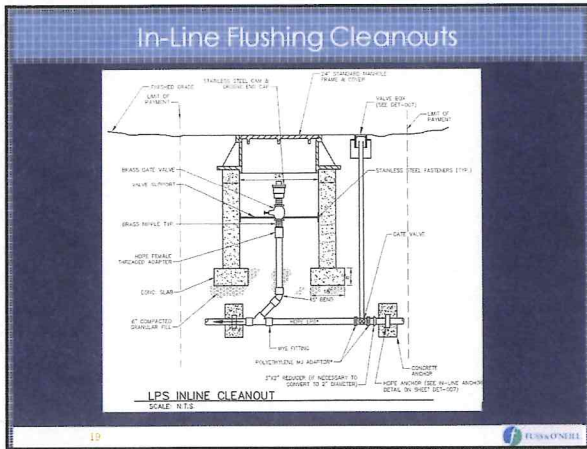


17 JUSKASNEHL

Terminal Flushing Cleanouts



18 JUSKASNEHL



Grinder Pumps

- Small Semi-Positive Displacement Pump with Cutter Blades
- Pump Grinds and Pumps Wastewater to LPS mains in the Street!
- Housed in Underground Cylindrical HDPE Tank with Generator Receptacle and ATS
- GP Cover With 4-inch Reveal Above Grade

1. TYPICAL LPS USE: LOW VOLTAGE (120V) TO POWER THE GRINDER PUMP AND GENERATOR.
2. WASTEWATER FLOWS INTO THE GRINDER PUMP FROM THE HOUSE.
3. THE GRINDER PUMP GRINDS THE WASTEWATER INTO PARTICLES SMALLER THAN 2MM.
4. THE GRINDER PUMP PUMPS THE GRINDED WASTEWATER TO THE LPS MAINS IN THE STREET.
5. THE GRINDER PUMP IS HOUSED IN AN UNDERGROUND HDPE TANK WITH A GENERATOR RECEPTACLE AND ATS.
6. THE GRINDER PUMP COVER IS 4 INCHES ABOVE GRADE.

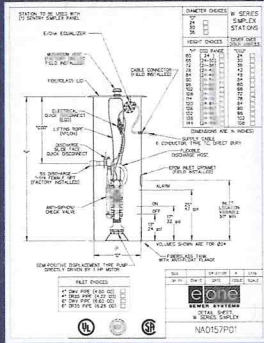
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Typical Grinder Pump Features

- Simplex GP: Homes
- Duplex/Triplex: Restaurants
- Quadplex: Industrial/Commercial
- Control/Alarm panel mounted on the Bldg. exterior

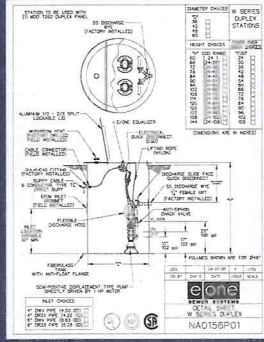
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Simplex Grinder Pump Station (Residential)



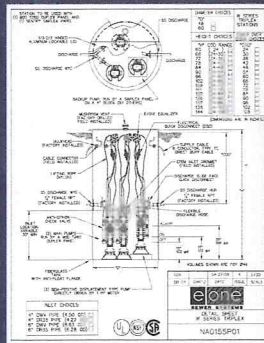
22 

Duplex Grinder Pump Station



23 

Triplex Grinder Pump Station





24 

Quadplex Grinder Pump Station

FUSSELL

Grinder Pump Electrical Power


- Small horsepower pumps 1-2 hp
- Power via property owner's electrical service – Upgrades may be required
- In the event of a power outage:
 - Grinder pump will not operate
 - Pump chamber has storage capacity
 - WSA will provide response including tank pumpdown – 6,500 watt generator req'd
 - ATS is provided for each station

FUSSELL

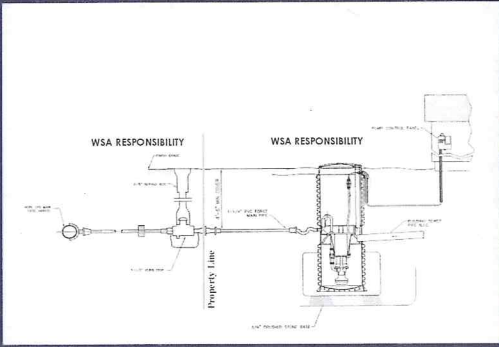
What are Elements of a GP Station Installation?

- Install Grinder Pump and Control Panel
 - WSA will Pay for Electrical Service Upgrades
 - Vendor will Service the Grinder Pumps Through WSA Contract
- Install Service Connection to LPS Main
- Re-route Building Sewer From Septic Tank to the Grinder Pump Chamber
- Crush and Fill the Septic Tank, and Abandon per PHC



FUSSELL

Grinder Pump System X-Section



28



Grinder Pump Installations



29



Typical Grinder Pump Location



30



Typical Grinder Pump Location



31



Typical Grinder Pump Location



32



Typical Grinder Pump Location



33



Odor Control




- Causes of Odor (H₂S)
 - Low flow velocity
 - Detention time
- Methods Recommended
 - Bioxide
 - JAWS vent in structures
 - Carbon Scrubber at PS






34 

Bioxide Odor Control System

35 

Odor Control

- Minor Odor Control Upgrade to Homesteads (Woods) Pump Station
 - Exhaust through a carbon media scrubber system with a blower (if required)



36 

Preliminary Design Opinion of Cost


| Project Construction Costs | | | |
|--|-------------------------------------|---|---|
| | Option No. 1 LPS (18 Parcels) | Option No. 2 Gravity (18 Parcels) | January 2014 Memo (4 Parcels) |
| Base Infrastructure | \$1,990,000 | \$2,010,000 | \$1,914,750 |
| Allowance No. 1 LPS Extension | \$270,000 | \$270,000 | \$24,750 |
| Subtotal Construction Cost | \$2,260,000 | \$2,280,000 | \$1,989,500 |
| Allowance No. 1 Dry Force Main | \$270,000 | \$270,000 | Not Evaluated |
| Allowance No. 1 LPS Extension to Lots #10 & #90 | \$490,000 | \$490,000 | Included in Subtotal Construction Cost |
| Unallocated Land Acquisition Costs Estimated 10.5% of (optional) Construction Allowance No. 1 and Allowance No. 2 | \$500,000 | \$500,000 | |
| Total Project Cost | \$3,520,000 | \$3,480,000 | \$2,489,500 |

Notes:
1.) The costs provided above is a preliminary opinion of cost. These costs are subject to change during final design.
2.) A 15% Contingency is provided in the cost estimate for Opinion of Construction Costs.

- ### Preliminary Design Opinion of Cost Assumptions
- Pipe sizes, cleanout structures, and air release structures do not exceed 3 inches in size for the Low Pressure Sewer.
 - LPS and 6 HDPE inch dry force main will be installed in the same trench
 - Majority of the LPS will be located off the roadway surface, therefore paving costs will be nominal.
 - Minimal bedrock will be encountered based on results from the subsurface investigation. Please note that boring and probes were not conducted in the area of Allowance No. 1, (X-Country Route at rear of lots 10 and 90)
 - **Stubs for future connections to LPS system are not accounted for in the Preliminary Design Opinion of Cost.**
 - **State Police Officer hours are based on the assumption that the Contractor will install 100 LF of pipe per day and that two officers are required.**
 - Ten (10) test pits will be required as part of this project.
 - A total of 1,500 LF of holedales, silt fence, and barrier fence will be required for this project.
 - Clearing and grubbing will be required 50% of the total pipe length with a ten-foot width.
 - Trenchdams will be required 1% of the total pipe length.
 - **Temporary and permanent pavement repair will be required for one third of the total pipe length.**
 - Curb repair will be required for a third of the total pipe length.
 - **Mill and overlay will be required for one fourth of the total pipe length from edge of curb to centerline.**
 - **Costs provided assume no land acquisition fee for siting Bioxide Station**
 - **Costs provided assume \$10,000 allowance for Homesteads (The Woods) Pump Station Improvements**

Grinder Pump Easement

- Provides Permission for WSA to Enter Property to Install and Service Grinder Pumps
- Documents Location of Grinder Pump and Piping
— Important for service calls
- Is Recorded with Town Records
- Legal Document for Assessment



Grinder Pump Easement Agreement

**TOWN OF NEWTOWN
WATER AND SEWER AUTHORITY (WSA)
GRINDER PUMP EASEMENT**

This EASEMENT GRANT (the "Easement") is made by the following property Owner, hereinafter referred to as the "Grantor," to the TOWN OF NEWTOWN, a Municipality located within the County of Allegheny in the State of Pennsylvania, being known to WATER AND SEWER AUTHORITY (WSA), hereinafter referred to as the "Grantee."

WHEREAS, the Grantor is the owner of certain real property in the Town of Newtown, Commonwealth of Pennsylvania, located at the address of _____ and _____;

Grantor's name(s): _____
 Grantor's address: _____
 (Street address) _____
 (City and state) _____

Grantor's name(s): _____
 (Name of the person or entity to whom the Easement is granted)

WHEREAS, the portion of the Grantor's property subject to this easement (the "Easement Area") is more particularly described in the attached Exhibit A, attached hereto, and the "Easement Map";

NOTE: INTENT: The purpose of this Easement is to allow the Grantee, its authorized employees, agents, assignees, and contractors to install, maintain, operate, and repair the grinder pump system, including the grinder pump and related equipment, on the Easement Area. The Grantee shall have the right to enter the Easement Area at any time for the purpose of installing, maintaining, operating, and repairing the grinder pump system, including the grinder pump and related equipment, on the Easement Area. The Grantee shall have the right to enter the Easement Area at any time for the purpose of installing, maintaining, operating, and repairing the grinder pump system, including the grinder pump and related equipment, on the Easement Area. The Grantee shall have the right to enter the Easement Area at any time for the purpose of installing, maintaining, operating, and repairing the grinder pump system, including the grinder pump and related equipment, on the Easement Area.

1. The Village of the Grantor hereby grants, conveys, and assigns to the Grantee, its authorized employees, agents, assignees, and contractors, the right to enter the Easement Area at any time for the purpose of installing, maintaining, operating, and repairing the grinder pump system, including the grinder pump and related equipment, on the Easement Area. The Grantee shall have the right to enter the Easement Area at any time for the purpose of installing, maintaining, operating, and repairing the grinder pump system, including the grinder pump and related equipment, on the Easement Area. The Grantee shall have the right to enter the Easement Area at any time for the purpose of installing, maintaining, operating, and repairing the grinder pump system, including the grinder pump and related equipment, on the Easement Area.

2. Ownership of the Grinder Pump Facility shall be and remain in the Grantor or its assigns. The Grantor shall own the Grinder Pump Facility until replaced or removed by the Grantor and the Grantee may commence such use.

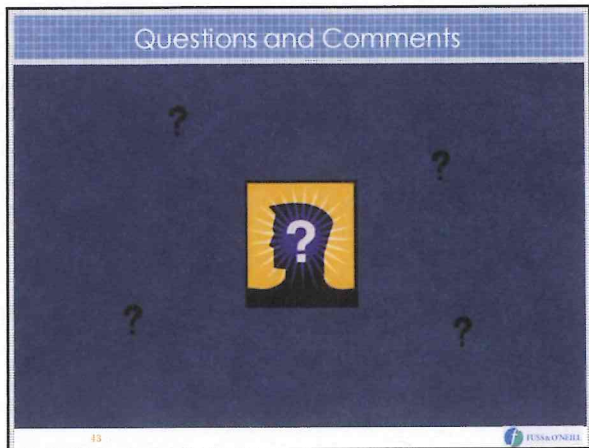
SAMPLE

Next Steps (1)

- F&O to Finalize PDR
- F&O to Begin Detailed Design
- F&O to Create Lateral & GP Location Forms
- WSA to Transmit & Collect Lateral and GP Location Forms
- F&O/WSA Counsel to create GP Easement Agreement and Binding Agreement
- WSA to Transmit and Obtain Binding Agreement/GP Easement Agreement with Interested Parties
- F&O to Finalize GP and Lateral Locations

Next Steps (2)

- F&O/WSA to Finalize Flows/Development Scenarios
- F&O to Obtain Permits
- F&O to Create Bid Documents
- F&O to Present Design at 70% and 90% to WSA
- F&O/WSA to Bid and Construct Project
 - Assume 4 months for construction
- F&O/WSA to Closeout Project
 - Startup and Commissioning
 - Record Drawings



4 Turkey Hill Road
Newtown, CT 06470
Tel (203) 270-4300
Fax (203) 426-9968

Fred Hurley,
Director



TOWN OF NEWTOWN
WATER AND SEWER AUTHORITY

Richard B. Zang,
Chairman
Marianne Brown
Louis Carbone
Richard Conte
Alan Shepard
Eugene Vetrano
Carl Zencey

2015 Meeting Schedule

The Newtown Water and Sewer Authority will hold meetings at 7:00pm in the meeting room at the Treatment Plant, Commerce Road, Newtown, CT on the second Thursday of the month.

- Thursday, January 8
- Thursday, February 12
- Thursday, March 12
- Thursday, April 9
- Thursday, May 14
- Thursday, June 11
- Thursday, July 9
- Thursday, August 13
- Thursday, September 10
- Thursday, October 8
- Thursday, November 12
- Thursday, December 10
- Thursday, January 14, 2015



MONTHLY OPERATING REPORT
NOVEMBER, 2014
TOWN OF NEWTOWN WPCF

EXECUTIVE SUMMARY

During the month of NOVEMBER the plant process performed well. Nitrogen average pound per day during the month was 19 lbs. The open channel flow meters have been relocated to new locations. The meters are located at a cross lot manhole on Taunton lake dr. coming from Diamond Dr. and directly prior to the Taunton Lake pump station. This will be our next areas of focus.

The plan will be to inspect during heavy rains for signs of inflow.

SCADA project is progressing through the pump stations

Pump stations have been in operation and working well with a few more items on the punch list.

There have been no operational events due to the upgrade work being performed. The DEEP has been kept in the loop as the project proceeds..

We are no longer operating ultraviolet treatment and alum dosing process until May 1st 2015.

December 9th the area was hit with a Nor-easter substantial rainfall. The plant full went up to 1.7 mgd and secondary blanket rose to 10 feet in the clarifiers.

Our crew put the plant into a wet weather operating mode for two hours and were able to maintain the process without incident.

During the rainfall we inspected the Taunton lake manholes and observed little change in flow from the cross-lot manhole.

But the manhole just prior to the pump station was flowing significantly greater.

It appears that some homes on the lower end may have inflow connections to the sanitary system.

Below are some of the highlighted major operation and maintenance items that are currently in progress or completed.

PROJECTS

SCADA

Operating well with a few more modifications remaining.

SOLAR

operational

- Put together three sets of o&m manuals so we can attain a new company to maintain the panels.

OPERATIONS & MAINTENANCE

- Did Plant Check List Inspection.
- Daily testing and sampling. Fecal and E-Coli testing.
- Worked on TWAS Pump #2 – changed shear pin.
- Cleaned basement in Filter Building
- Continued to power wash basement floors and equipment in Filter Building.
- Cap water line at FFH.
- Power washed Filter Building.
- CBYD.
- Worked on plant heating – Administration Building.
- Dug trench from Well #3 head for meter Pit for transducer.
- Blew out RAS tubes in Clarifier #2.
- Turned on hydrant at FFH.
- Ran conduit from Well #3 to meter pit.
- Connected conduit for Well #3 transducer.
- Greased and started the two Arien Snowblowers.
- Cleaned out polymer feed tube.
- Clean and painting in the Headworks building.

PUMP STATIONS

- Checked pump stations.
- Collected flow meter data at Taunton Lake.
- Changed grinder pump at 16 Hanover.
- Cleaned out transducer tube at Taunton Lake and Hawleyville Pump Stations.

ODOR ABATEMENT

No odors this month.

STAFFING

We are presently fully staffed for the month of November.

TRAINING

All employees continued with our in house OSHA compliance safety training through Pure-Safety.

REGULATORY COMPLIANCE

In Compliance

SOLIDS HANDLING

| Type | Gallons This Month | Target | Gallons This Year | Target |
|------------------|--------------------|-----------------------------|-------------------|-------------------------|
| Sludge (SYNAGRO) | 32,500 | 40,625 gal/mo 2 loads/wk | 1.257 MG | 0.527 MG 75 loads/yr |

ANALYSIS OF WASTED SLUDGE

| Waste Activated Sludge | Total Gallons | Min % | Max % | Average % | Total Pounds |
|------------------------|---------------|-------|-------|-----------|--------------|
| SYNAGRO | 32,500 | 4.16 | 4.87 | 4.52 | 12,121 |

EMERGENCY CALL-OUTS

| Type | Total This Month | Total for Year |
|-----------------|------------------|----------------|
| Sewer Backup | 0 | 1 |
| Pump Station | 0 | 41 |
| Plant | 1 | 33 |
| Odor | 1 | 5 |
| Grinder Systems | 2 | 36 |

PLANT MAINTENANCE

The following data is provided as a record of maintenance work order activities during the month.

| Type | Total This Month | Total for Year |
|----------------------------|------------------|----------------|
| Preventative Maintenance | 25 | 763 |
| Corrective Maintenance | 24 | 512 |
| Emergency Maintenance | 3 | 14 |
| Call-Before-You-Dig (CBYD) | 36 | 1011 |

FIELD OPERATIONS

| Type | Monthly Ft | Total for Yr | Contract | Amount Left |
|----------------------------|-------------|--------------|--------------|-------------|
| Sewer Cleaning Scheduled | 0 | 9650 | ***** | ****7650*** |
| Sewer Cleaning Unscheduled | 0 | 3450 | ***** | ***** |
| Other | Monthly Qty | Total for Yr | Contract | Amount Left |
| Manhole Inspections | 2 | 135 | ***** | N/A |
| Grinder Replacements | 2 | 43 | As Necessary | N/A |
| New Grinder Stations | 0 | 0 | ***** | N/A |

PUMP STATIONS

| Station | Baldwin | Hanover | Sandy Hook | Taunton Lake | Hawleyville | Fairfield Hills Metering |
|------------------------|---------|---------|------------|--------------|-------------|--------------------------|
| Number Inspections/Mo. | 8 | 8 | 8 | 8 | 8 | 8 |
| Service Failures | 0 | 0 | 0 | 0 | 0 | 0 |
| Number Callouts | 0 | 0 | 0 | 0 | 0 | 0 |
| Maintenance & Repair | 0 | 0 | 0 | 0 | 0 | 0 |
| Flow (Total MG) | .107 | .319 | 1.618 | .442 | .620 | 6.688 |
| (Avg. Daily GPD) | 3,554 | 10,632 | 50,609 | 14,736 | 20,677 | 222,942 |

FINANCIAL STATUS – MAINTENANCE

| Item | Budget \$ | \$ Spent/Mo | \$ Spent/Yr | \$ Remaining |
|--------------------------------|-----------|-------------|-------------|--------------|
| Preventative and Predictive | \$55,000 | \$9,767.45 | \$27,808.90 | \$27,191.10 |
| Capital Repair and Replacement | \$95,000 | \$24,241.82 | \$75,785.43 | \$19,214.57 |

HAWLEYVILLE SEWER DISTRICT
EXECUTIVE SUMMARY - OPERATION & MAINTENANCE

INSPECTIONS

| Type | Total This Month | Total for Year |
|--------------------------|------------------|----------------|
| Hawleyville Pump Station | 9 | 45 |
| Grinder Pump Station 1 | | |
| Grinder Pump Station 2 | | |
| Grinder Pump Station 3 | | |
| Grinder Pump Station 4 | | |

EMERGENCY CALL-OUTS

| Type | Total This Month | Total for Year |
|--------------------------|------------------|----------------|
| Hawleyville Pump Station | 0 | 1 |
| Grinder Pump Station 1 | | |
| Grinder Pump Station 2 | | |
| Grinder Pump Station 3 | | |
| Grinder Pump Station 4 | | |

HAWLEYVILLE MAINTENANCE

The following data is provided as a record of maintenance work order activities during the month.

| Type | Total This Month | Total for Year |
|--------------------------|------------------|----------------|
| Preventative Maintenance | 9 | 32 |
| Corrective Maintenance | | |
| Emergency Maintenance | | |

FIELD OPERATIONS

| Hawleyville District | Monthly Qty | Total for Year |
|----------------------------|-------------|----------------|
| Service Inspections | | |
| Call-Before-You-Dig (CBYD) | 5 | 15 |
| | | |

HAWLEYVILLE - FINANCIAL STATUS – MAINTENANCE

| Item | Budget \$ | \$ Spent/Mo | \$ Spent/Yr | \$ Remaining |
|--------------------------------|-----------|-------------|-------------|--------------|
| Preventative and Predictive | | | | |
| Capital Repair and Replacement | | | | |

COMMENTS

SCADA UPGRADE TO STATION, FLOW METER CALIBRATION

FLOW AND LOADS TRACKING

| Budget Month/Yr | Influent Flow, MGD | Influent BOD, lbs | Influent TSS, lbs | Calendar Month / Year | Average N, lbs |
|-------------------|--|---|---|-------------------------------|---------------------------------|
| July 2014 | .422 | 828 | 746 | January 2014 | 9.5 |
| August 2014 | .351 | 695 | 513 | February 2014 | 8.5 |
| September 2014 | .299 | 589 | 586 | March 2014 | 17.0 |
| October 2014 | .351 | 650 | 607 | April 2014 | 8.0 |
| November 2014 | .421 | 753 | 850 | May 2014 | 9.0 |
| December 2014 | | | | June 2014 | 9.0 |
| January 2015 | | | | July 2014 | 10.0 |
| February 2015 | | | | August 2014 | 7.0 |
| March 2015 | | | | September 2014 | 8.0 |
| April 2015 | | | | October 2014 | 13.0 |
| May 2015 | | | | November 2014 | 19.0 |
| June 2015 | | | | December 2014 | |
| Monthly Average | .369 | 703 | 660 | Calendar Year to Date Average | 11 |
| Contract | Average 0.53 MGD Adjustment = Change in Flow in MG * \$17.83/MG | Avg. 999 lbs/day Adjustment = Change in BOD in lbs * \$0.04/lb | Avg. 703 lbs/day Adjustment = Change in TSS in lbs * \$0.16/lb | Contract | NPDES Permit Limit = 17 Lbs/day |
| Deviation % (+/-) | -30.4 | -29.6 | -6.1 | Deviation % (+/-) | -35.3 |

FAIRFIELD HILLS WTF

EXECUTIVE SUMMARY

The staff continues to improve equipment and standard operating methods to prevent Fairfield Hills WTP failures. Well # 3 is operating as the lead pump at 124 gallons per minute. The water treatment plant operated very well in November. GHD and Fuss & O'Neill are working to comply with the DPH upgrade requests and all temporary repairs or modifications have been completed. Pictures of the completed work were sent to the DPH.

Check and maintain calibrations of all equipment.

The lines were flushed at Fairfield Hills Town Hall during the month of NOVEMBER.

Listed below are some of the highlighted major operation and maintenance items that are currently in progress or have been completed.

OPERATION & MAINTENANCE

- Worked on water main at FFH and sealed lines off.
- Capped water line at FFH.
- Cleaned FFH Water Bunker 2 silt. (With a Diver the floor was also vac & cleaned).
- Well # 3 was re-developed and is now on-line as lead pump at 124 gpm.
- The generator pad and conduit are now in place at the Water treatment plant.

STAFFING

Currently, all the regulatory required staffing positions are met for the Water Treatment Facilities.

REGULATORY COMPLIANCE

The Department of Health Monitoring Report did meet full compliance during the month.

EMERGENCY CALL-OUTS

| Type | Total This Month | Total for Year |
|--------------------------------|------------------|----------------|
| Plant WTP | 0 | 13 |
| Well Houses | 0 | 0 |
| Reservoirs (Storage) | 0 | 1 |
| Customer Service Issues | 0 | 14 |
| Water Main Breaks | 0 | 0 |

FAIRFIELD HILLS MAINTENANCE

The following data is provided as a record of maintenance work order activities during the month.

| Type | Total This Month | Total for Year |
|---------------------------------|------------------|----------------|
| Preventative Maintenance | 12 | 286 |
| Corrective Maintenance | 3 | 32 |
| Emergency Maintenance | 0 | 13 |

FIELD OPERATIONS

| Other | Monthly Qty | Total for Year |
|-----------------------------------|-------------|----------------|
| Valve Inspections | 5 | 82 |
| Hydrant Inspections | 0 | 53 |
| Service Inspections | 12 | 181 |
| Call-Before-You-Dig (CBYD) | 6 | 88 |

COMMENTS WTP UPGRADE CONT, Clean silt and debris out of the northern water bunker. Redeveloped well 3.

FINANCIAL STATUS – MAINTENANCE

| Item | Budget \$ | \$ Spent/Mo | \$ Spent/Yr | \$ Remaining |
|--------------------------------|-------------|-------------|-------------|--------------|
| Preventative and Predictive | \$15,500.00 | \$2,313.90 | \$7,858.38 | \$7,641.62 |
| Capital Repair and Replacement | \$20,000.00 | \$9,539.83 | \$44,998.92 | -\$24,998.92 |

FLOW TRACKING

| Month/Yr | Well No. 3 Gallons | Well No. 7 Gallons | Well No. 8 Gallons | Plant Production Gallons |
|-----------------|-----------------------|-----------------------|-----------------------|-----------------------------|
| July 2014 | 456,000 | 6,014,500 | 0 | 6,470,500 |
| August 2014 | 1,000 | 5,589,800 | 0 | 5,590,800 |
| September 2014 | 0 | 6,124,500 | 0 | 6,124,500 |
| October 2014 | 0 | 6,215,200 | 0 | 6,215,200 |
| November 2014 | 93,000 *** | 2,257,500 *** | 0 | 2,350,500 *** |
| December 2014 | | | 0 | |
| January 2015 | | | 0 | |
| February 2015 | | | 0 | |
| March 2015 | | | 0 | |
| April 2015 | | | 0 | |
| May 2015 | | | 0 | |
| June 2015 | | | 0 | |
| Monthly Average | 110,000 | 5,240,300 | 0 | 5,350,300 |
| Daily Average | 3,100 | 75,250 | 0 | 78,350 |

***Water reading were only two weeks' worth of operation due to holiday schedules