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Fred Hurley,  
*Director*

**TOWN OF NEWTOWN**  
WATER AND SEWER AUTHORITY

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

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

The Water and Sewer Authority held its regular meeting on Thursday, October 10, 2013 at the Waste Water Treatment Plant, 24 Commerce Road, Newtown, CT. Chairman Zang called the meeting to order at 7:08pm.

**Present:** Dick Zang, Alan Shepard, George Hill, Carl Zencey, Marianne Brown, Gene Vetrano  
**Absent:** Lou Carbone

**Also Present:** Julio Segarra of United Water, Director of Public Works Fred Hurley

**Public Participation – NONE**

**Approval of Minutes** – The previously distributed minutes of the regular meeting of 9/19/13 were unanimously approved.

**OLD BUSINESS**

*Capital Needs Study* – There is no update.

*Renewable Energy Project-grant payment* – The application can be filed for the final payment.

**NEW BUSINESS**

*Hawleyville sewer extension contract* – Six proposals were received. George Hill made motion to approve the qualified bidders as Fuss & O’Neil, GHD, Tighe & Bond, and Weston & Sampson. Civil 1 and Zurvic-Carr are not qualified. Gene Vetrano seconded, motion unanimously accepted.

Results are expected from the benefit assessment the last week in October. November 7<sup>th</sup> and the 14<sup>th</sup> are tentative dates for interviews.

*Committee Reports:* **SCADA**-The project is moving along. Sandy Hook pump station will be the first to run on the RTU. The station will be put on-line and put through the testing procedures. They will go from pump station to pump station until they are all running properly. There have been a few change orders. **I&I** – The two meters have been moved to concentrate on the Taunton area.

*Report by United Water Environmental Services Inc.* – A copy of the September 2013 monthly operating report is attached.

*Report by Public Works Director* – There were high copper readings in the water at the Municipal Center and it could be from a grounding issue. We have received the sign off putting the generators on a general permit. Bungalow terrace is also an individual permit and will go to a general permit. The permitting cost reduces going to a general permit rather than an individual.

Having no further business, meeting was adjourned at 8:30pm

Arlene Miles, Clerk

Attachments: RFQ Evaluations  
Monthly Operating Report

**Hawleyville Sewer Extension  
 RFQ Evaluations**

	Staff	Relevant Experience	Comments	Discussion
Civil1 Woodbury	4 professionals led by Curtis C Jones, PE	none listed		
Fuss & O'Neill Manchester	260 professionals	13 sewer projects including Newtown	Estimated Hawleyville extension as part of Phase I	
GHD Middletown (formerly Stearns & Wheler)	National firm	21 CT sewer projects listed, currently working on Well #8	Trumbull office has been closed	
Tighe & Bond Shelton	Full service from six offices in New England	35 sewer projects listed in past 5 years, including 10 in CT		
Weston & Sampson Rocky Hill	National firm	39 sewer projects in New England in past 10 years		
Zuvc-Carr Rocky Hill	9 professionals	limited sewer experience		

Hawleyville Sewer Extension Phase II  
'Economic Feasibility Study'

Qualifications of Design/Build Firms

Carl Zencey, WSA mbr

The packets presenting qualifications for my review on hand thru Wed 2 Oct 13 are:

Kerin, Fazio	estb 2004	empl 4 prof'ls	previously worked for Newtown
Civil 1	estb 1993	empl >=4 prof'ls	
Fuss & O'Neill	estb 1933	empl 260 prof'ls	previously worked for Newtown
Tighe & Bond	estb 1911	empl 250 prof'ls	previously worked for Newtown
Zuvic, Carr	estb 1988	empl 20 prof'ls	

Kerin, Fazio appraises real estate, estimating benefit assessment due to addition of sewer.

Civil 1 is a design firm of civil engineers for major facility site development, w/ no experience in municipal sewer.\*

The others are Design/Build civil engineering firms, for in-ground & public structures, with municipal sewer expertise. The design/build firms each will have to subcontract for soils investigation, and variously wetlands delineation or surveying or geo-technical/environmental site assessment, which raises the specter of any leaking equalization tank /underground storage tankage erosion-corrosion/brownfield being investigated as needed, in order to dig. (eg. The existing Hawleyville pump station. eg. one property that is to be sewered, is an active gas station.)

F & ON is the only other company here that offers *benefit analysis due to sewer installation* per real estate evaluations.

F & ON; T & B; Z,C have designed municipal sewers; F & ON, T & B have administered their *construction* as well. The WSA would be well served to have a firm that is experienced in running sewer trenched across ledge rock, for their cost estimate to be realistic. But only one *design* engineer at Z,C has monitored the field work of one municipal sewer (its *refurbishment*), and just one engineer at Civil 1 has sewer experience in the public domain which is for *design-only*.

Z,C sewer design/build experience entails site development of large-facilities including sanitary sewer collection/lift on site only. (One engineer designed treatment and the collection upgrades for a US Navy Facility, one designed and observed the installation of a public pump station, another designed and monitored the *refurbishment* of sewers of municipal pipe named @ 22,000ft, and a POTW WPCF refurbished/expanded)

Note Well-- F&ON's proposed team member for both survey and design is Douglas Brisee (DB), who is a *draftsman* by education who surveys, and led a pipe laying crew, now certified EIT, not PE. Structural Leader KB has experience inside the treatment plant facilities only. Tighe & Bond's JC expertise is landscape engineering, site development only; CF's structural design is buildings/bridges only. AM is geo-tech/env'l site assessment only, MD (not itemized below) has no relevant sewer experience. JU is building facilities only. RW is out-of-state const'n monitoring. Civil 1's Proj Mgrs, CF, (BB) have sanitary sewer experience which is not itemized. SC no sewer exp. indicated. Z,C's team is top-heavy in management, administration and environmental site evaluation/remediation.

Thus, I suggest the WSA seek proposals suitable for contracting from K-F, F&ON, T & B, Z,C rather than from Civil 1. I suggest these be design with intent to estimate the cost to build later, ie. With an option later for construction-ready documents.

A detailed review of qualifications reveals the following re: municipal sewer design and build

	1000Lineal ft Past 5+ yr	Pump Stations	\$ value (\$ Mil)	Proposed Team					n/a =none applicable/available
				PP	PM	Civil	Mech	Elect	Constn
						Survey	PS	SCADA	admin
						GPS/GIS		I & C	monitor
Civil 1	n/a	?	?	CJ	CF*	BB	SC*	n/a	n/a
F&ON	278	13	69.7	PG	KM	DB*	JD	JS	KS, DL
					MG	KB*			FD,SL
T & B	435	43	?	DH	LC	AM, JC*	FM,	RM, RS	EG, RW*
						NN,CF*	JU*		
Z,C	41(est.)	2	>48	TG	JO	RC, JB	n/a	n/a	ML,FB
					EM	GS, JW			



**MONTHLY OPERATING REPORT**  
**September 2013**  
**TOWN OF NEWTOWN WPCF**

**EXECUTIVE SUMMARY**

During the month of September the plant process performed well. Nitrogen average pound per day during the month was 17.5 lbs. The open channel flow meter data has been collected from both locations. The meters are located at a manhole on Main Street near School House rd. and Commerce Road. Taunton Lake will be our next areas of focus.

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

Plant generator air discharge permit has been submitted to Fuss & O'Neil to prepare and submit to the Air Compliance Department for modification.

SCADA project is progressing on schedule.

Fairfield Hills water line installation complete.

Clarifier # 1 is back in service.

The flow meter converter has been replaced at the Sandy Hook pump station.

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

**PROJECTS**

**SCADA**

- The RTU'S have been received and programed.
- Electrical Energy Systems has installed all the radio antennas at each location.
- Knapp engineering will be submitting the final electrical drawings to GHD.
- All the pump station back-up float panels are installed, and online.
- The float trees have been move to their present location by Electrical Energy Systems.
- Baldwin float system has a defective float and scheduled for replacement.
- The week of October 14<sup>th</sup> each pump station will be operated in the float mode for final testing.
- October 15 and 16 power monitors are to be installed at all the designated locations.
- October 18<sup>th</sup> the main central and computers will be temporarily installed at the WPC.
- The week of October 21 Sandy Hook pump station will be the first installation of the rtu and expected to be fully commissioned by the end of the week.
- The 12 pair fiber optics cable has been pulled at the plant.

- All the panels appear to be working fine.
- Web site is now active.

## OPERATIONS & MAINTENANCE

- Inspect all plant fire extinguishers, eyewash, and emergency exit lighting.
- Fire sprinkler system inspected by simplex Grinnell.
- Changed the synthetic oil on all gear cases, drives, and motors.
- Inspected all fan belts and screens throughout all the facility and replaced as needed
- Inspect and programmed the replacement effluent sampler in the filter building.
- Hosed secondary wells and troughs.
- Cleaned the grit washer screen, and hopper.
- Cleaned both levels in the filter building.
- Cleaned the Roto-mat and the rag hopper.
- Greased gravity belt thickener.
- Inspected and cleaned all eye wash stations.
- Cleaned secondary tanks 1&2 draft tubes.
- Cleaned gravity belt thickener belt.
- Calibrated Dissolved oxygen probe in the Oxidation ditch.
- Replaced tubing on both influent and effluent samplers.
- Inspect all plant equipment oil levels.
- Painting in lower level of the clarifier building. (on-going)
- Modifying seal flushing lines in the clarifier building.(In Progress)
- Cleaning and Painting equipment in the filter building. (work in progress)
- Collected flow data from manholes at Main St and Commerce.
- Moved collection system flow meters to new locations: 1. Intersection Taunton lake dr. and cross lot, and at the entrance of the Taunton Lake pump station.
- Number 1 clarifier back in service and cleaning.
- Clarifier #1 had all the algae brushes replaced.
- Plant generator was inspected and tested by Cummins technician.

## PUMP STATIONS

- All pump stations checked twice per week.
- Sandy Hook pump station flow meter back in service.
- All pump station generators inspected and tested by Cummins tech.

## ODOR ABATEMENT

No odors this month.

## STAFFING

We are presently fully staffed.

All employees continued with our in house OSHA compliance safety training through PureSafety.

## REGULATORY COMPLIANCE

In Compliance

### SOLIDS HANDLING

Type	Gallons This Month	Target	Gallons This Year	Target
Sludge (SYNAGRO)	26,000	40,625 gal/mo 2 loads/wk	0.0460MG	0.488 MG 75 loads/yr

### ANALYSIS OF WASTED SLUDGE

Waste Activated Sludge	Total Gallons	Min %	Max %	Average %	Total Pounds
SYNAGRO	26,000	4.24	5.29	4.72	10,229

### EMERGENCY CALL-OUTS

Type	Total This Month	Total for Year
Sewer Backup	0	0
Pump Station	0	3
Plant	0	0
Odor	0	0
Grinder Systems	1	4

### 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	18	50
Corrective Maintenance	11	22
Emergency Maintenance	0	0
Call-Before-You-Dig (CBYD)	37	81

**SEWER CLEANINGS**

Type	Monthly Ft	Total for Yr	Contract	Amount Left
Sewer Cleaning Scheduled	0	0	*****	*****
Sewer Cleaning Scheduled	0	0	*****	*****
Sewer Cleaning Unscheduled	0	0	*****	*****
Other	Monthly Qty	Total for Yr	Contract	Amount Left
Manhole Inspections	3	5	*****	N/A
Grinder Replacements	1	5	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.	9	9	9	9	9	9
Service Failures	0	0	0	0	0	0
Number Callouts	0	0	0	0	0	0
Maintenance & Repair	0	0	1	0	0	0
Flow (Total MG)	.117	.336	1.96	.390	.456	4.533
(Avg. Daily GPD)	3,925	11,218	53,357	10,008	15,203	154,100

FINANCIAL STATUS - MAINTENANCE

Item	Budget \$	\$ Spent/Mo	\$ Spent/Yr	\$ Remaining
Preventative and Predictive	\$55,000			
Capital Repair and Replacement	\$95,000			

FLOW AND LOADS TRACKING

Budget Month/Yr	Influent Flow, MGD	Influent BOD, lbs	Influent TSS, lbs	Calendar Month / Year	Average N, lbs
July 2013	.449	962	694	January 2013	21.6
August 2013	.444	697	583	February 2013	17.9
September 2013	.432	827	587	March 2013	14.4
October 2013				April 2013	10.1
November 2013				May 2013	11.96
December 2013				June 2013	17.5
January 2014				July 2013	10.5
February 2014				August 2013	15.5
March 2014				September 2013	17.5
April 2014				October 2013	
May 2014				November 2013	
June 2014				December 2013	
Monthly Average	.441	828	622	Calendar Year to Date Average	15.2
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 % (+/-)	-16.8	-17	-11.5	Deviation % (+/-)	-10.6

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 <40 gallons per minute. The water treatment plant operated very well in August.

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 during the month of August.**

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

## OPERATION & MAINTENANCE

- Over 600 feet of water line was installed from Washington Square to Mile hill south.
- Two service line laterals were moved into the new water line on Mile Hill south.
- A new line cleaning blow off was added in the Washington Square area.
- Three new hydrants were added into the Fairfield hills service area.
- Inspected WTP and made adjustments as needed.
- Monitor chlorine and ph controller at the WTP and adjust as needed.
- Cleaned and calibrated chlorine analyzer at the water treatment facility.

## 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	2	2
Well Houses	0	0
Reservoirs (Storage)	0	0
Customer Service Issues	0	0
Water Main Breaks	1	1

## 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	15	15
Corrective Maintenance	0	0
Emergency Maintenance	0	0
Preventative Maintenance	2	2

## FIELD OPERATIONS

Other	Monthly Qty	Total for Year
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valve inspections		
Hydrant Inspections	6	6
Service Inspections	2	2
Call-Before-You-Dig (CBYD)		6

### FINANCIAL STATUS – MAINTENANCE

Item	Budget \$	\$ Spent/Mo	\$ Spent/Yr	\$ Remaining
Preventative and Predictive	\$15,500.00			
Capital Repair and Replacement	\$20,000.00			

### FLOW TRACKING

Month/Yr	Well No. 3 Gallons	Well No. 7 Gallons	Well No. 8 Gallons	Plant Production Gallons
July 2013	795,000	4,568,200	0	5,363,200
August 2013	845,000	5,439,800	0	6,284,800
September 2013	751,000	4,824,900	0	5,575,900
October 2013				
November 2013				
December 2013				
January 2014				
February 2014				
March 2014				
April 2014				
May 2014				
June 2014				
Monthly Average	785,000	4,944,300	0	5,741,300
Daily Average	25,033	160,830	0	1185,863