

The Water and Sewer Authority held its regular meeting on February 10, 2011 at the Waster Water Treatment Plant, 24 Commerce Road, Newtown, CT. Chairman Zang called the meeting to order at 7:00pm.

*Present:* Dick Zang, Gene Vetrano, Lou Carbone

*Absent:* Marianne Brown, Richard Conte, Alan Shepard, Carl Zencey

*Also Present:* Julio Segarra of United Water Environmental Services, Inc., Fred Hurley, Director of Public Works

*Public Participation* - None

*Approval of Minutes* - Tabled

## **OLD BUSINESS**

*Gallons processed vs gallons billed study/flow monitoring* – Julio Segarra reported that the meters have been pulled out of their current locations and are ready to be relocated. The meters were initially installed on October 22, 2010 through February 8, 2011. Data was collected once a month. The rain data needs to be compiled to analyze the data.

*Sewer mapping* – Tabled

*Capital Needs/SCADA system/new well/water distribution system* – **New well-** Lou Carbone reported that the state cannot inspect the land with the snow on the ground. Donna Culbert from the Health Department will follow up with the state and make an apt. **The SCADA system** – Fred Hurley is still working on the draft.

*USGS update/Stream gauges* – There is nothing new for the USGS on the stream gauge however, they have sent a letter in response to the damage to Well #3 stating that they are not responsible.

*Fairfield Hills Sewer Service Area* – Dick Zang presented a draft map of the sewer area. Dick would like to finalize the map and meet with the FFH advisory committee as well as other town agencies to review the area. Fred Hurley will schedule and arrange a workshop.

*Renewable Energy Project* –The proposal from OPEL for Solar is that they get the first right of refusal and they will write the proposal and assist in the submission of the grants. There are two grants available, Best of Class and Commerical non-profit which are available through the CT Clean energy fund. The wind is more problematic because there are no current P&Z regulations to build the towers.

*Sewer Benefit Assessment/Toll Brothers, Mt. Pleasant Road known as the Woods at Newtown* – Chris Kerin and Fred Hurley met with Toll Brothers and Burt Dorfman to discuss the appraisal. The original proposal had 36 condos and the new is 80 What was determined was that the Woods foot print was

NOT the same as the homesteads and there may be more similarity with the Woods and Toll brothers proposals, which calls into question the new benefit assessment. Once Chris Kerin has reviewed the appraisal, a special meeting will be held.

## **NEW BUSINESS**

Priority Matrix – Tabled

*Report by United Water Environmental Services, Inc.* – Overall the plant ran well. The entire month was dedicated to snow removal.

*Report by Public Works Director* – A petition to the Supreme Court to hear the Dauti appeal was filed. If the Supreme Court takes the case, they reverse the apelet court 60% of the time.

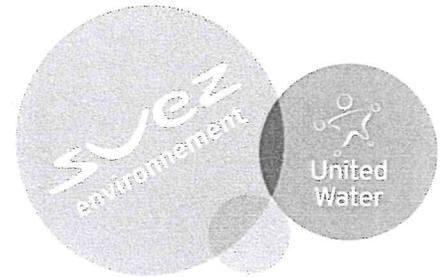
Fuss and O’Neill submitted their proposal to prepare the Water Supply Plan which will cost in the range of \$50,000. It will be completed by early summer.

*Any Other Business* – none

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

Attachments: United Water Environmental Services, Inc Monthly Report  
Fuss and O’Neill Agreement  
USGS Letter

Arlene Miles, Clerk



**MONTHLY OPERATING REPORT**  
**January 2011**  
**TOWN OF NEWTOWN WPCF**

**EXECUTIVE SUMMARY**

During the month of January the plant process performed well, although the nitrogen removal process has been giving us difficulty and only averaged greater than 82%. The open channel flow meters have been removed Feb 9th and ready to be installed at meter location 4 and 5. The data gathered will be inspected once per month. The meters were installed at the manhole near the plant.

The SCADA RFP is in final review. Below are some of the highlighted major operation and maintenance items that are currently in progress or completed.

**OPERATION & MAINTENANCE**

- Inspect all plant fire extinguishers, eyewash, and emergency exit lighting.
- Inspect plant sprinkler system.
- Hosed secondary wells and troughs..
- Cleaned the grit washer screen, and hopper.
- Cleaned the roto-mat and the rag hopper.
- Cleaned secondary tanks 1&2 draft tubes.
- **The entire month was dedicated to snow removal.**
- **Last week in January we lost the transmission on the truck.**

**PUMP STATIONS**

- Pumps were checked and are operating normally.
- January 3<sup>rd</sup> and 4<sup>th</sup> we installed a new pressure level transducer at the Hawleyville pump station.
- January 5<sup>th</sup> replace all the floats at Hawleyville pump station.
- Inspect all of the fire extinguishers.
- Entire month snow removal at all the pump stations.

## ODOR ABATEMENT

There were no odor complaints for the month.

## STAFFING

We are presently fully staffed.

## TRAINING

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

## REGULATORY COMPLIANCE

No limits were exceeded.

## SOLIDS HANDLING

Type	Gallons This Month	Target	Gallons This Year	Target
Sludge (SYNAGRO)	26,000	40,625 gal/mo 2 loads/wk	0.2578 MG	0.488 MG 75 loads/yr

## ANALYSIS OF WASTED SLUDGE

Waste Activated Sludge	Total Gallons	Min %	Max %	Average %	Total Pounds
SYNAGRO	26,000	4.21	4.77	5.35	9,904

## EMERGENCY CALL-OUTS

Type	Total This Month	Total for Year
Sewer Backup	0	1
Pump Station	0	2
Plant	0	7
Odor	0	0
Grinder Systems	0	6

## 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	9	187
Corrective Maintenance	20	83
Emergency Maintenance	0	1
Call-Before-You-Dig (CBYD)	7	178

## FIELD OPERATIONS

Type	Monthly Ft	Total for Yr	Contract	Amount Left
Sewer Cleaning Scheduled	0	0	16,226 ft.	16,226
Sewer Cleaning Unscheduled	0	0	*****	*****
Other	Monthly Qty	Total for Yr	Contract	Amount Left
Manhole Inspections	0	0	*****	N/A
Grinder Replacements	0	7	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	3	0
Flow (Total MG)	0.117	0.432	1.480	.476	0.505	4.761
(Avg. Daily GPD)	3,791	13,937	47,761	15,356	16,319	153,587

## FINANCIAL STATUS – MAINTENANCE

Item	Budget \$	\$ Spent/Mo	\$ Spent/Yr	\$ Remaining
Preventative and Predictive	\$55,000	\$3,507.22	\$35,852.47	\$19,147.53
Capital Repair and Replacement	\$95,000	\$16,863.99	\$83,409.40	\$11,590.60

## FLOW AND LOADS TRACKING

Budget Month/Yr	Influent Flow, MGD	Influent BOD, lbs	Influent TSS, lbs	Calendar Month / Year	Average N, lbs
July 2010	0.272	611	482	January 2011	29
August 2010	0.278	581	533	February 2011	
September 2010	0.317	710	521	March 2011	
October 2010	0.406	727	709	April 2011	
November 2010	0.449	846	656	May 2011	
December 2010	0.545	820	883	June 2011	
January 2011	0.477	954	761	July 2011	
February 2011				August 2011	
March 2011				September 2011	
April 2011				October 2011	
May 2011				November 2011	
June 2011				December 2011	
Monthly Average	0.392	750	649	Calendar Year to Date Average	29
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 = 19 Lbs/day
Deviation % (+/-)	-26	-25	-8	Deviation % (+/-)	52

# 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 65 gallons per minute. In order to maintain the water quality; Sand filters were installed at Town Hall and The Youth Academy their addition has improved the water quality at each facility. **There has been no flushing during the month of January.** Listed below are some of the highlighted major operation and maintenance items that are currently in progress or have been completed.

## OPERATION & MAINTENANCE

- Youth Sports Complex happy with the water quality.
- Inspect fire extinguishers at the water treatment plant.
- Replacing chemical feed pumps (phosphate).
- Rebuilt backflow in the Town Hall sprinkler system pump house. The ten inch feed line has a leak at the flanged coupling.

## 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
<b>Plant</b>	<b>0</b>	<b>0</b>
<b>Well Houses</b>	<b>0</b>	<b>0</b>
<b>Reservoirs (Storage)</b>	<b>0</b>	<b>0</b>
<b>Customer Service Issues</b>	<b>0</b>	<b>0</b>
<b>Water Main Breaks</b>	<b>0</b>	<b>0</b>

## 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	0	16
Corrective Maintenance	20	23
Emergency Maintenance	0	0

## FIELD OPERATIONS

Other	Monthly Qty	Total for Year
Valve Inspections	0	0
Hydrant Inspections	0	5
Service Inspections	0	0
Call-Before-You-Dig (CBYD)	1	14

## FINANCIAL STATUS – MAINTENANCE

Item	Budget \$	\$ Spent/Mo	\$ Spent/Yr	\$ Remaining
Preventative and Predictive	\$15,500.00	\$694.78	\$8,671.70	\$6,828.30
Capital Repair and Replacement	\$20,000.00	\$0.00	\$13,537.46	\$6,462.54

## FLOW TRACKING

Month/Yr	Well No. 3 Gallons	Well No. 7 Gallons	Well No. 8 Gallons	Plant Production Gallons
July 2010	1,197,000	4,200,200	0	5,397,200
August 2010	1,176,000	4,522,200	0	5,698,200
September 2010	1,184,000	4,366,900	0	5,550,900
October 2010	1,028,000	4,366,600	0	5,394,600
November 2010	790,000	3,939,800	0	4,729,800
December 2010	1,002,000	4,351,000	0	5,353,000
January 2011	830,000	3,828,900	0	4,658,900
February 2011			0	
March 2011			0	
April 2011			0	
May 2011			0	
June 2011			0	
Monthly Average	1,029,571	4,225,085	0	5,254,657
Daily Average	26,774	123,512	0	150,287



**FUSS & O'NEILL**  
*Disciplines to Deliver*

January 21, 2011

Mr. Fred Hurley  
DPW Director  
Town of Newtown  
4 Turkey Hill Road  
Newtown, CT 06470

RE: Water Supply Plan  
Fairfield Hills Campus, Newtown, Connecticut

Dear Mr. Hurley:

Thank you for requesting assistance from Fuss & O'Neill, Inc. to prepare a Water Supply Plan (WSP) for the Fairfield Hills Campus (FH) water system.

## **PROJECT UNDERSTANDING**

Fuss & O'Neill understands the Town wishes to proceed with updating the Water Supply Plan for the Fairfield Hills Campus. We can prepare a Water Supply Plan under our existing on-call contract with the Department of Public Works (DPW) that will comply with the requirements of the Department of Public Health Services (DPH) and be in conformance with Section 25-32d-1a to 25-32d-6 inclusive of the Regulations of Connecticut State Agencies, entitled "Water Supply Plans". This Plan will update the 1992 Plan prepared by Cardinal Engineering Associates, Inc. for the State of Connecticut's Department of Mental Health through the Connecticut Department of Public Works. We understand this 1992 Plan was approved by DPH.

### **I. SCOPE OF SERVICES**

This scope is based in part on discussions at our July 19, 2007 and January 13, 2011 meetings and subsequent reviews of existing resources including the newly completed United States Geological Survey Report of the Aquifer in the Pootatuck River Basin. These items may contribute to plan contents. The scope will include the following tasks:

#### **A. Review Existing Information**

Relevant project information will be collected and reviewed by Fuss & O'Neill. This will consist of previous reports, studies, monitoring data, mapping, and other items previously completed by Fuss & O'Neill for the Newtown DPW. A site visit to the existing water supply facilities will be conducted with Newtown DPW staff and their contract Operator to review existing conditions, collect miscellaneous information and confirm details.

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*Connecticut  
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Mr. Fred Hurley  
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## **B. Draft Water Supply Plan (WSP)**

The Draft Water Supply Plan will consist of the following sections:

### **1. Introduction and Summary**

The purchase of the Fairfield Hills Hospital Campus from the State of Connecticut Department of Public Health by the Town of Newtown will be described. The Town's plan for the campus will be summarized and include details on the types of uses that could occur including municipal, recreation and commercial as described in the current Master Plan.

### **2. Facility Structure and Assets**

The Fairfield Hills Campus water system will be described and the organizational structure, responsibilities, assets including existing treatment systems, storage tanks and pumping facilities will be summarized.

### **3. Existing Sources**

Fuss & O'Neill will describe the existing water supply sources and prepare an overall map locating the existing wells, storage tanks, pump station, interconnection with United Water and the overall water distribution system (scale: 1 inch = 300 feet). Further, a profile for the system will be developed to depict the hydraulic grade line and normal system pressures for the overall system.

We will describe the Town's existing source protection measures as they relate to the Town's Plan of Conservation and Development and Zoning regulations. Also, we will delineate potential sources of contamination and how they may affect the existing sources of supply.

We will collect diversion registrations for the existing sources of supply; review previously calculated safe yields for each of the groundwater wells and determine the margin of safety for the overall system now and for the fifty year planning period. The system safe yield and margin of safety will be compared against projected demands and a demonstration of whether the existing supplies meet projected demands will be completed. The analysis will include review of potential land available for development, projected demands and other factors which may affect system demands.

Finally, we will review the completed USGS Report that studied the Aquifer in the Pootatuck River Basin where the existing groundwater supplies for this system are located. We will review and utilize the Level "A" mapping provided and incorporate results of pumping tests to determine the safe yield of the sources of supply.

Mr. Fred Hurley  
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#### **4. Existing System Performance**

Fuss & O'Neill will evaluate the performance of the existing supply wells, water treatment system, pump stations, storage and distribution system based on available data and our site visit to the facilities. The existing treatment system and distribution system will be described and its performance summarized. If there are limitations or deficiencies, these will be discussed and a plan to mitigate or minimize their effect on system operations will be outlined.

The existing meter system reading and testing program and the extent to which the overall system is metered will be summarized. The existing system operation and maintenance program will be generally reviewed and discussed in the plan.

Water quality results for the raw water, treated water and in the distribution system will be summarized in the report. If there were any violations or water quality trends showing parameters approaching standards, these will be discussed and the Town's response to them will be presented.

#### **5. Population Served**

An analysis of the present and future population served during the fifty year planning period will be defined. Specific tasks under this section will include:

- Existing and projected populations will be estimated with assistance from the Newtown DPW. These projections will use information from the Fairfield Hills Campus Master Plan and include the Garner Correctional Institution and the Reed School. Office of Policy and Management population data will also be reviewed and utilized where applicable.
- Local, State and regional land use plans will be described as they relate to projected population/occupancy estimates. Any potential for future expansion in the existing service area will be discussed.

#### **6. Water Consumption Trends and Projections**

Fuss & O'Neill will review and summarize historic water production/consumption data for the previous five years and complete a trend analysis for the FH Campus. This will be used to help develop projections of future water demands in conjunction with estimates of population trends as developed above and as defined in the Water Company Owned Lands Permit Application completed in May 2004.

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## **7. Water Conservation Program**

The existing water conservation program in the 1992 Water Supply Plan will be reviewed. We anticipate significant revisions will be needed to meet the current requirements for a complete Water Conservation Plan. The final plan will identify supply and demand management measures to meet the specific needs of the FH Campus system. The plan will promote increased efficiency within the system, reduce the waste of water and encourage consumers to conserve water.

Short and long term measures for both supply and demand management efforts will be addressed and a schedule for their implementation will be drafted for Town review and approval.

Other efforts such as leak detection surveys, water audits for large users and the use of retrofit fixtures or conservation kits will be investigated and discussed with the Town for potential inclusion in the plan as future activities.

A list of approved water conservation measures will be summarized, a budget estimated and a tentative 5 year plan for implementation developed for inclusion in the Plan.

## **8. Land Use and Ownership**

Existing zoning designations of the FH property will be reviewed and the existing land use presented in the Town's Plan of Conservation and Development will be described. New supply source feasibility will be discussed, if needed, and source protection measures and conflicts will be described.

## **9. Future Service Area**

The present and future needs and service area for the system will be outlined and detailed on maps after discussion with the Town DPW. The projected water needs will be discussed in terms of available supply and recommendations will be provided, if additional sources of supply are required.

## **10. Analysis of Future Need & Assessment of Options**

As the water supply plan is compiled, we will identify existing system deficiencies and future system needs and prepare a schedule of recommended short and long term water system improvements and maintenance needs. These will be summarized in short and long term improvement schedules and tentative dates for implementation will be provided. An on-site

Mr. Fred Hurley  
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meeting with Town DPW staff will be held to discuss the recommended improvements and schedule proposed.

We will also provide a description of the recently completed water system improvement projects as well as the anticipated projects planned (e.g. water tank repairs) that were recently communicated to DPH.

#### **11. Financial Planning**

A brief description of the funding available and the process required to obtain this funding will be included in the Plan

#### **12. Emergency Contingency Plan**

We will evaluate the existing Emergency Contingency Plan, review current procedures the system utilizes to respond to emergency conditions, and compare with requirements and guidelines provided by the CT DPH. The Emergency Contingency Plan will be revised, as necessary. Specific areas requiring modification include:

- Identifying critical system components and prioritizing how the sources will be brought back on-line
- Identifying priority/critical users during an emergency,
- Notification procedures for local, state and federal officials and the public, and
- Development of trigger levels for the groundwater supplies in conjunction with the five stages of response to water supply emergencies in the system.

Necessary forms required to be updated for a complete Emergency Contingency Plan include a vulnerability assessment, summary of equipment, critical personnel, emergency phone numbers and a sabotage prevention and response form.

#### **C. Deliverables**

##### **1. Submit Preliminary Draft Water Supply Plan Update to Town**

- Submit 3 copies of Preliminary Draft Water Supply Plan to Town DPW and Operator staff for review.
- Meet with Town DPW and Operator staff to review comments on Preliminary Draft and resolve any questions
- Revise plan based on Town DPW & Operator input and prepare draft plan

Mr. Fred Hurley  
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## **2. Submit Draft Water Supply Plan Update to CTDPH/other Agencies**

We propose to complete this work on an hourly basis not knowing the full extent of the effort needed in addressing Town DPW comments. We expect the following tasks to be included in this effort and propose a budget of \$3,500 be set aside for this work. Costs for printing the 15 copies to be submitted to the State Agencies are included in the budget presented for the original submission of the plan.

- Prepare Public Water System General Application for Approval
- Submit Plan to CTDPH and other agencies. We anticipate the following number of copies for distribution
  - Town DPW (1 copy)
  - Operator (2 copies)
  - DPH Water Supply Section (3 copies)
  - DEP Water Resources (4 copies)
  - OPM (1 copy)
  - DPUC (2 copies)
  - Health District (1 copy)
  - Council of Governments of the Central Naugatuck Valley (1 copy)
  - Fifteen copies of the Draft Water Supply Plan Update will be prepared (included in Budget for Submission of Draft WSP).

## **3. Submit Final Water Supply Plan Update**

We propose to complete this work on an hourly basis not knowing the full extent of the effort needed in addressing comments received from State Agencies. We expect the following tasks to be included in this effort and propose a budget of \$4,700 be set aside for this work. Costs for printing the final 15 copies are included in the budget presented for the original submission of the plan.

- Meet with Town DPW and Aquarion to discuss review comments from CTDPH and other agencies on Draft report submitted
- The plan will be revised to incorporate the relevant comments from other agencies and finalized. We will prepare written responses to all comments received.
- Fifteen copies of the page updates/response to the Final Water Supply Plan Update will be submitted to the same agencies listed above (included in Budget for submission of the Draft WSP).
- Electronic copies (pdf of full report, AutoCAD files of maps and Excel spreadsheets) will be provided to Town DPW.



Mr. Fred Hurley  
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## II. ASSUMPTIONS

- Town DPW and Operator will provide the necessary information and data of the existing water system including available record drawings and water consumption data for the past 5 years (minimum).
- Town will provide a copy of the most recent FH campus Master Plan.
- No field testing will be required (i.e. yield testing of wells, water quality testing, etc.).
- No survey/deed research for Town owned land or easements will be needed.
- Public hearings are not typically required for water supply plan updates, and are not included in this scope.

## III. SCHEDULE

We will perform our services in accordance with the following schedule:

Task	Expected Completion Date
Submission of Preliminary Draft Water Supply Plan	18 weeks after authorization to proceed
Submission of Draft Water Supply Plan	4 weeks after review meeting with Town DPW & Operator
Submission of Final Water Supply Plan	6 weeks after all comments are received and a review meeting with Town DPW & Operator

## IV. FEES

Fuss & O'Neill proposes to provide these professional services on a lump sum basis for a fee of **\$57,800.00**. Our policy is to invoice on a monthly basis using a percent complete for each of the project tasks shown below.

Submission of Preliminary Draft Water Supply Plan Update	\$49,600
Submission of Draft Water Supply Plan Update (Hourly- Budget)	\$3,500
Submission of Final Water Supply Plan Update (Hourly - Budget)	\$4,700

We have provided two (2) copies of this proposal for your use. Receipt of a signed copy of this agreement or issuance of a purchase order referencing this proposal will serve to authorize the work outlined in the Scope of Services. The second copy of this proposal is for your records.



Mr. Fred Hurley  
January 21, 2011  
Page 8

Thank you for requesting engineering service from Fuss & O'Neill. We look forward to working with you on this project.

Sincerely,

Kevin M. Flood, P.E.  
Senior Project Manager

Virgil J. Lloyd, P.E.  
Senior Vice President

c: Fereshteh Doost - Fuss & O'Neill

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**AUTHORIZATION TO PROCEED**

I hereby authorize Fuss & O'Neill to proceed with the above-referenced project in accordance with the General Terms and Conditions and proposal dated January 21, 2011. I understand that billing will be monthly, payable within thirty (30) days of date of invoice with interest accruing at the rate of 1.5% per month thereafter. A 15% administration charge will be added to subcontract services that are billed through Fuss & O'Neill. I further understand that Town of Newtown will be responsible for the reasonable cost of collection.

Fred W. Hurley Jr

Printed Name

2/11/11

Date

Signature

Public Works Director

Title



# United States Department of the Interior

U.S. GEOLOGICAL SURVEY  
USGS Connecticut Water Science Center  
101 Pitkin Street  
East Hartford, CT 06119  
(860) 291-6740

February 3, 2011

Mr. Frederick Hurley, Director  
Department of Public Works  
4 Turkey Hill Road  
Newtown, CT 06470

Dear Mr. Hurley:

I have reviewed the invoices that you sent me in October, 2010. Two were from the Stephen B. Church company for refurbishing Well #3, and one was from The Franklin Fence Company for installation of gates. I assume the latter was sent in error; therefore it will not be addressed in this letter.

The U. S. Geological Survey (USGS) ran an aquifer test on Well #3 as part of a cooperative agreement with Newtown. The test was run according to guidelines established by the Connecticut Department of Environmental Protection. You have stated to me that you believe the USGS overpumped Well #3 causing damage that necessitated refurbishing the well.

As I stated in my letter to you of September 25, 2009 (copy enclosed), the USGS did not set the pumping rate of the well and did not actually turn the well on or off; that was done by Julio Segarra, the Town's contractor. Mr. Segarra determined the maximum rate the well could achieve.

I do not see anything in the invoices you provided that would change the factual background of the USGS involvement in this matter.

Sincerely,

Virginia de Lima  
Director, USGS Connecticut Water Science Center

cc: E.P. Llodra, First Selectman, Newtown, CT ←  
R.B. Zang, Chairman, Water and Sewer Authority, Newtown, CT  
A.R. Conte, Regional Solicitor, Department of Interior



# United States Department of the Interior

U.S. GEOLOGICAL SURVEY

USGS Connecticut Water Science Center  
101 Pitkin Street  
East Hartford, CT 06119  
(860) 291-6740

COPY

September 25, 2009

Mr. Frederick Hurley, Director  
Department of Public Works  
4 Turkey Hill Road  
Newtown, CT 06470

Dear Mr. Hurley:

In your email of September 21, 2009, you said you wanted to “resolve the global problem of damage to our property.” I believe it would be useful to recount the factual background of the U.S. Geological Survey’s (USGS) involvement in this matter.

In a meeting at your office on August 20, 2009, you said that the USGS had overpumped Well #3 during an aquifer test and caused damage for which the Town of Newtown had large bills. Well #3 was undergoing significant repairs before the USGS-run aquifer test.

The aquifer tests on Wells #3 and #7 and the United Water Company well were conducted as part of a cooperative study between the Town of Newtown and the USGS. The aquifer test on Well #3 and Well #7 originally was planned for the late summer or fall of 2006. The USGS was not able to conduct the test that fall because Well #3 was undergoing rehabilitation. I have email communication from Jim Duncan of The Stephen B. Church Company, dated November 16, 2006, stating that they were still working on the well; they were cleaning it, installing new 8-inch casing and screen, and were installing a new pump. The aquifer test had to be postponed because Well #3 was not available to be pumped. Because an aquifer test has to be run during low-flow conditions, the USGS could not run the test until the following July. Thus approximately nine months of the delay in the project was caused by pre-existing problems with Well #3.

The USGS conducted the aquifer tests on the public supply wells in Newtown in a manner that would produce data that also could be used to fulfill the Level A requirements of the Connecticut Department of Environmental Protection (DEP). The regulations state:

1. The pumping rate shall be the highest feasible constant rate.
2. The aquifer test shall be continued until such time as sufficient data are collected to allow for interpretation of aquifer properties and hydraulic boundary effects, but shall under no circumstances be less than three days<sup>1</sup>.

Well #3 was turned on July 23, 2007 by Julio Segarra of the Town’s contractor, AOS, Inc. and was shut off by him on August 3, 2007. Mr. Segarra determined the maximum rate the well could achieve. The pumping rate ranged from 100 to 150 gallons per minute (gpm) and averaged 113 gpm, which was significantly lower than the rate of 270 gpm that is registered with the DEP.

<sup>1</sup> Regulations may be accessed at URL: <http://www.ct.gov/dep/lib/dep/regulations/22a/22a-354b-1.pdf>

(Note: the system does not have a pumping-rate meter, only a volume-pumped analog meter. Therefore the instantaneous pumping rates indicated above were determined using the volume meter and a stopwatch.) At no time did USGS personnel tell the pump operator at what rate to pump the well. Professional judgment dictated that the test be run for eight days, more than the mandated minimum time, in order to collect sufficient data for hydrologic analysis. This was based on several factors: 1) it rained on day three of the test; 2) at least one of the hydraulic boundaries was far from the well; and 3) because Well #7 was pumped at the same time, it was necessary to verify that there was no interference between the two wells.

Accordingly, the facts presented in this letter should demonstrate that the USGS is not responsible for the alleged damage to Well #3 and thereby resolve the issue.

Sincerely,



Virginia de Lima  
Director, USGS Connecticut Water Science Center

cc: J.E. Borst, First Selectman  
R.B. Zang, Chairman, Water and Sewer Authority  
A.R. Conte, Regional Solicitor