

The Regular Meeting of the Water Pollution Control Authority was called to order by Chairman Michael DeAngelis at 7:00 p.m. on Wednesday, June 10, 2009 in Room 305 of Shelton City Hall, 54 Hill Street, Shelton, CT 06484.

The following Commissioners were in attendance to constitute a *quorum*:

Commissioner Steve Morse
Commissioner Anthony Presutto
Commissioner Michael DeAngelis
Commissioner Regis Dognin
Commissioner Richard Jager
Commissioner Todd Dowty
Commissioner Edwin Hellauer

Absent was: Commissioner Bronislaw Piotrowski

Also attending were: Thomas Sym, Sewer Administrator
Ed Comboni - Treatment Plant
Jeffrey Shortell - Treatment Plant
James Convertito - Treatment Plant
Alan Asikainen - Maguire Group
George Pendleton - Maguire Group

1. PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was recited.

2. PUBLIC PARTICIPATION

There was none.

3 a. APPROVAL OF MINUTES OF THE PUBLIC HEARING OF MAY 13, 2009

Motion: A motion was made by Commissioner Dognin and seconded by Commissioner Hellauer to approve the Minutes of the Public Hearing of May 13, 2009. All were in favor. Motion carried unanimously.

3 b. APPROVAL OF MINUTES OF THE REGULAR MEETING OF MAY 13, 2009

Motion: A motion was made by Commissioner Hellauer and seconded by Commissioner Jager to approve the Minutes of the Regular Meeting of May 13, 2009. All were in favor. Motion carried unanimously.

4. Communications

A. Consent Decree - Phase II Construction Documents

George Pendleton from Maguire Group said the Phase 2 documents were submitted to DEP/EPA for their review. Those are the repairs that were recommended on the SSES Report for areas 10 and 12 and were completed two months ago and per the Consent Decree the contract documents had to be submitted for review and we submitted them prior to their deadline.

When the City receives the DEP comments, then that project has to go out to bid by the end of August to comply with the Consent Decree.

B. Consent Decree - CMOM Program

This is the CMOM Program Self Assessment.

Note: Commissioner Dowty arrived

George Pendleton said this is part of the Consent Decree document and is a self evaluation put together by Maguire Group with the assistance of Tom Sym, Ed Comboni and Jeff Shortell and the items that need future work are the FOG Program, the Asset Management Program and Training.

The corrective action plan highlight how the City plans to improve those items and is due the end of August. That was submitted for DEP/EPA approval.

Commissioner Morse asked if there was an organizational chart? He asked George to provide him a copy of the organizational chart.

C. Maguire Group (Amendment #5 Breakdown)

George Pendleton said at one of the prior meetings, the WPCA agreed to approve our contract amendment to extend the contract construction management inspection of the project going on right now. (Sewer rehabilitation Contracts 29-10, 29-11, 29-12). When they came up at the Board of Aldermen meeting, it was tabled, and the Mayor required additional information documents which Maguire submitted to the Mayor for his consideration as shown in the letter dated June 2, 2009 in your packets. There is no additional information or update as of this date.

What that means is essentially about May the project was running low on funds - we had enough to make it to May 24th and ran out of money but Gherlone and the other contractors are continuing to work so we are working as well to make sure the project keeps moving and hope for a resolution soon.

D. Budget Worksheet

Commissioner Morse said we finally got a budget worksheet from the Accounting department and he put together a breakout as seen in our packages. So far, we are still in the green.

The revenue page shows a short fall because the monies collected on a current year remains in the prior year and is not brought forward and that is why we show a deficit. I hope the May and June letters that Tom sent out and collections will show up on this sheet.

The last page shows Revenue vs Actual and the black line is the estimated revenue, the red line is the actual expenses and the green line is the actual revenue.

Commissioner DeAngelis asked what is the projection?

Commissioner Morse said if we get the May and June collections we will be OK.

Commissioner Morse continued that the electrical consumption shows we are one month behind because of the way they bill. We will have a new electrical supplier soon.

E. Superintendent's Report

Report to WPCA from the Plant Superintendent

Date: June 10, 2009

Wastewater Treatment Facility (WWTF)
Riverdale Avenue, Shelton, CT

The WPCA needs to be kept informed and aware of all facets of the WWTF and is interested in anything out of the ordinary. The Superintendent should be prepared to give details on what is happening, why it occurred, what caused it, how it was resolved, as well as anticipating problems and issues.

OPERATIONS: Suggestion: Comment on personnel levels, overtime, outages, general flow rates, overflows, meeting quality standards, equipment breakdowns, backups, emergency repairs, maintenance issues, special response situations, communications with DEP and/or others, etc.

The use of caustic soda has greatly improved our nitrification process showing a steady improvement each week and meeting our goal the final week of May with total pounds of 119. The feed rate is adjusted daily according to the influent ph using approximately 10 to 50 gallons per day. This is a new process and we are still fine-tuning the process. Upon investigation, Russell Linen's new owner, Crown Linen is using the site for storage only for the past four months. When they can purchase the site, they plan to start the laundry process. Hopefully, this will help our process.

FINANCIALS: Suggestion: Comment on any bids, equipment and parts purchases, budget concerns, unusual expenses, anticipated plant investments, anticipated budget transfers, etc.

Borden Remington lowered our sodium hypochlorate cost from \$0.875/gal to \$0.80 per gallon. This is used for disinfection.

WWTF UPGRADE: Suggestion: Comment on current work, required work-around, safety issues, security issues, project schedule, project induced delays, traffic, etc.

OTHERS: Suggestion: Comment on any other matters of interest to the WPCA.

Our June 2nd nitrogen results were 86 pounds of total nitrogen – a great improvement!

Signed: Jeff Shortell

Jeff Shortell – WWTF Superintendent
Superreportwpca

Commissioner DeAngelis asked what is going on with the bar screen?

Jeff Shortell said new bushings are being drilled and greased and changing pins.

Commissioner DeAngelis asked when do you expect it to be back on-line?

Jeff Shortell said he is not sure. When everyone gets back from vacation we can work on it.

Commissioner DeAngelis asked - this has been down for four weeks now hasn't it?

Someone said longer than that.

Commissioner DeAngelis asked about the grit removal?

Jeff Shortell said we are taking it out.....

Commissioner DeAngelis said I thought last month you said there was a problem with the grit removal?

There was no response.

Commissioner DeAngelis said he would like to add to the monthly report ***What equipment is down and why?***

Commissioner DeAngelis said he cannot figure out why the bar screen is still down.

Jim Convertito said it by passes the chamber - it is not broken it is just that we are not using it because of the way the water flows.

Commissioner Morse said he wants a new format for the Superintendent's Report. He would like it modified to reflect today's world - this report is outdated.

Commissioners Morse, Presutto and Dognin will get together to get a new format for the Superintendent's monthly report and will ask Maguire for their input as well.

Commissioner DeAngelis asked what is the status of us accepting septic?

Jeff Shortell said we are not accepting it.

Ed Comboni said he has told people with campers that they can bring campers to dump. We were closed at the time when one person came to dump - but it was because we were closed as it was a weekend and I told them to come back on Monday morning to dump. I don't refuse that quantity and it is mostly water anyway. There are no problems with campers.

It is hard to take septic because of the holding tank size.

Commissioner Presutto said by rights you have to take it.

Ed Comboni said he would feel the same way if he was on septic - he would want to dump as well. Fifty percent (50%) of the town is on septic.

Commissioner Hellauer said they cannot process it by the way I see it.

Commissioner Morse said let's open it up to dumping.

Jim Convertito said I can only take 1-2 loads a day or 10,000 gallons a day. If you want to take it is going to cost you money.

Commissioner DeAngelis said until we get the nitrogen figured out let's not let them in to dump. Let them go to Bridgeport. You are only refusing contractors not people with campers.

Ed Comboni said the PH dropped because Russell Linen stopped - when they start up again it will help us.

There was discussion of handouts on the physical and chemical properties of selected laundry detergents and the ph scale comparisons of bleach, ammonia, etc.

5. OLD BUSINESS

A. Operations Review

Roy Wood
Great Blue Heron Management, LLC
59 Willow Street
Leominster, MA 01453

Alan Asikainen introduced Mr. Wood and said as part of the CMOM Self-Assessment and the CMOM Staffing Report, Maguire Group enlisted the services of Roy Wood of Great Blue Heron Management. Mr. Wood provides consulting services to engineering firms and municipalities. He has reviewed the O&M Manual, the analytical data contained in the recent NPDES Application and related correspondence and did a site visit on May 16, 2009. He is here this evening to discuss his findings and answer any questions.

Mr. Wood said his expertise is in operation of wastewater treatment plants. He met with Jim, Ed and Garret at the plant and they showed patience with me and all my questions. I spent about three hours there and I have spent many more hours talking with Maguire Group about the historical challenges, goals and objectives.

Basically, I did a quick process review and all the typical process parameters to operate a treatment plant are achieved. The plant seems to be operating in a good range. There is no problem with process control as far as these numbers are concerned.

Air Supply and DO Control

1. Air flow meters need to be removed and sent back to the manufacture and re spanned because right now the guys do not know how much air is going into the tank because the meter has stopped at 1100 cfm. Something is not right. This needs to be fixed as quickly as possible.

2. DO Control

Terminating the blower at a certain DO. If you don't react long enough with enough DO, you cannot nitrify and if you don't nitrify you cannot denitrify and if you don't denitrify you will be paying credits. Must keep above 2 and it must lengthen out.

You can limit the batch quantities and you can raise the level of the SBR's and can change blower so it maintains a DO of 2 for the entire react cycle. The problem with a batch process is if you don't treat the first batch, then you are constantly working behind. And, I saw that tonight at the Plant. You can operate with 4 ft of space instead of 6 feet of space and try to spread it out with two tanks.

Jim Convertito said we need more air.

Alkalinity Control

Mr. Wood said he is not sure how often alkalinity is measured.

Tape 1 Side B 7:45 p.m.

Mr. Wood said it was unclear during his visit how often the alkalinity is measured in the influent and effluent and where the samples were taken.

He recommends that alkalinities be performed on the influent daily. Also, each SBR decant should be tested for alkalinity per day. It is important to take the samples in the middle of each decant prior to chlorine addition. Sodium hypochlorite will affect alkalinity concentrations. The caustic soda should be adjusted routinely to make sure alkalinity levels are kept at 100 ppm (parts per million) minimum in each decant.

You need to police the decants everyday.

Mr. Sym asked Alan Asikainen how low can you go to be cost effective?

Mr. Asikainen said 2.5 milligrams per liter and the Plant is designed for 6. You are 2 under right now.

Sometimes it is cheaper to buy credits and that is the situation you are in now. The goal is 124.

Mr. Sym asked Mr. Wood we are operating at 86 now per day and the limit is 120 pounds how long will it end up in the long run over a year span? Can we keep it there? Will it go up in the winter?

Mr. Wood said he does not know enough right now. That is a good question.

Ed Comboni said the caustic soda used to bring the PH up costs \$50 a day.

Perhaps the laundry had helped but it is not operating now.

Mr. Wood said I think it is cost effective to use the caustic to keep the nitrogen down and at \$50 a day you may get money back if you are below 120 pounds per day. Measure the influent and decant as much as possible.

FOG

FOG and how it relates to foaming issues at the plant. Mr. Wood said he took samples of foam and it is a filament that is a grease eater "microthrix parvicella".

Jim Convertito said you get a lot of grease into the plant from the collection system.

There are multiple issues going on with fats, oils and grease and are all related.

Jeff Shortell said the dumping of septic is loaded with grease.

Roy Wood said there is a lot of foam on SBR's - the only way to make it go away is manually getting rid of it. Raising the SBR's and pushing the scum toward the skimming trough and wasting it out on the plant and that is a temporary fix. Some passes through on effluent.

Stop the food source - stop feeding the grease. Discontinue use of all chemicals in the collection system and pumping stations.

One of the problems is the emulsified grease in wetwells - this is harming the plant. You are feeding the plant grease rather than collecting it in the wetwells.

The chemicals are affecting the ability of the SBR's to transfer DO because of the size of the bubbles. It cannot get enough air into the activated sludge.

Mr. Wood continued that the grease traps have to be managed. Stop using the emulsifier and clean out the wet wells.

Ed Comboni said we clean them daily at the pumping station.

Mr. Wood said the SBR's can handle grease - just not huge amounts - stop using the emulsifiers.

Mr. Wood said I used to manage treatment plants. Remove and take it out of town. The goal is to eliminate the fastbreak emulsifier.

Ed Comboni said they stopped using that and stopped the neutralizer.

There was a discussion on how much we have spent and what we budgeted for on chemicals.

Mr. Wood said to manage the collection system and measure the H₂S's. You don't want to use the chemicals forever.

Remove the FOG at the pumping stations with the vacuum-pumping trunk.

Mr. Wood said it is an issue in every town to make the restaurants get rid of FOG.

Your sewer bylaws should supercede because it is it your treatment plant - the restaurants are causing the problem.

Wells Hollow and upper and lower Rt. 8 are the biggest.

Mr. Wood said to skim the SBR's more and track it out and it helps aesthetically and helps the odor.

Mr. Wood asked is there a way to put the skimmings directly into the thickened sludge tank?

Jim Convertito said no there is no way but it would be a good idea - because the piping would need reconfiguring.

Alan Asikainen will look at the piping configuration.

Mr. Wood said all these things are labor intensive.

Mr. Sym said the eco catalyst chemical - SBR breakdown of grease.

Mr. Wood said the grease is BOD - let it float and skim it off rather than turning it into a food source. I don't want to create more load on the plant.

Mr. Wood said all these things are labor intensive. One of his more significant concerns is the addition of maintenance chemicals used in the operation of the SBR's. These chemicals include:

- Eco-Catalyst - SBR breakdown of grease
- 207 Grease Eater - SBR grease eater
- Sodium Nitrate - sludge holding tank odor control
- Enzyme (Temp) - Temp product used in when Eco Catalyst is not available

Mr. Comboni said I don't like the idea of using chemicals, but without it we are in trouble.

Mr. Wood does not think it is necessary to use the chemicals and not worth the cost.

Thickening polymer is used to aid the thickening polymer on the rotary drum thickener. The polymer being used is a cationic polymer which has a propensity to “float sludge” if overdosed. My point is if the polymer dose in the sludge thickening process is not controlled, there is a risk of floating sludge in the SBR’s as a result of recycling filtrate to the head of the plant.

On the day of my visit, I witnessed one decant. The decant clarity was marginal at first and then deteriorated to very bad. This is a common problem with SBR’s that are not settling correctly. It would be beneficial to do a demonstration using one or two SBR’s to prove the plant can nitrify and denitrify.

Conclusions and Recommendations

Mr. Wood also said do not take any septage until you get at least three months of total nitrogen removals.

Limit the septage to one truckload a day. Septage has a lot of grease, BOD and they are all bad things.

Tape 2 Side A 8:30 p.m.

Commissioner DeAngelis said let the septage haulers worry about where to go for now.

Mr. Wood will forward to Alan Asikainen monthly reports he has used in the past for a template.

He will also pass on real good maintenance reports.

B. Consent Decree - Engineering Support - Amendment 1

George Pendleton said this is the Asset Management Portion for \$98,500. \$20K of this is the software purchase. It is a requirement in the consent decree.

Commissioner DeAngelis was given a larger chart to review from Maguire Group.

Motion: A motion was made by Commissioner Morse and seconded by Commissioner Dowty to approve Maguire Group's Amendment #1 Engineering Support for the Asset Management in the amount of \$98,500. Monies to come from the Capital Sinking Fund. All were in favor. Motion carried unanimously.

Commissioner DeAngelis and George went over the graph Maguire Group provided.

Commissioner Morse wants to be sure Maguire Group takes into account our proposed new hire – Assistant Sewer Administrator.

Commissioner Dognin asked about the GIS.

George Pendleton said we will use InfoNet and we can export into the city's GIS. InfoNet has a mapping capability.

The contracts were signed.

C. FOG Program

This is Maguire Group's Engineering Services Agreement Amendment #2 Consent Decree Support: FOG Reduction Program.

Alan Asikainen, George Pendleton and Roy Wood left the meeting for this discussion.

Commissioner Dognin handed out his FOG Program Cost Comparisons that he prepared, and commented as follows:

He indicated that Maguire Group has over looked some items that are critical.

Hadlyme - this is their expertise. The hourly rate is cheaper with Hadlyme and they offer more hours and more expertise. There is a difference in hours provided by each.

He recommends going with Hadlyme. When Maguire Group is here they will do other things here as well but Hadlyme will only do the FOG. The cost per hour is cheaper with Hadlyme than Maguire but they estimate more hours. There is a significant amount of training needed and I am not sure Maguire will put all the time into it when they are here.

We do not have duration times. One year and a half effort.

Phase 1 is six months

Phase 2 is one year.

The money will come from the Capital Sinking Fund and the Assistant Sewer Administrator from the budget.

Commissioner DeAngelis said he does not want to vote on this tonight. Let's schedule a special meeting for this.

Commissioner Morse said Maguire has given us Amendment #2 FOG proposal. We should have Hadlyme give us a similar proposal.

Mr. Sym said we are not ready for this until we get the Assistant Sewer Administrator hired.

Commissioner DeAngelis said we need to write the scope and then compare Hadlyme and Maguire. Ask Roy Wood if he wants to do it - I am impressed with him.

Commissioner Hellauer asked how much knowledge to you need to do such a simple task?

We are talking about 100 food establishments.

Tape 2 Side B 9:30 p.m.

Commissioner DeAngelis said he wants to review this. Mr. Sym called Wendy's Food establishment and they told him when they pump and who does it, etc. So, they already pump.

Commissioner Jager said Hadlyme said permitting would pay for the \$153K. We are looking at Hadlyme to help us get permitting costs. Commissioner Jager wants to see less permit costs and bad guys get charged for violations. The permits and fines are the income.

Commissioner Dowty asked did we contact any other towns on how they do the FOG program?

Perhaps we should have Valley Health here at a meeting and get some guidelines from them.

Commissioner DeAngelis will contract Valley Health to come to a special meeting.

Commissioner Morse said we should get the ordinance and documentation done - let's get Phase 1 done.

Commissioners Morse and DeAngelis said we want to firm up Phase 1 only we don't know where and when the Assistant Sewer Administrator will fall in.

This item was tabled for a Special Meeting.

Alan Asikainen and George Pendleton and Roy Wood returned to the meeting.

D. Sewer Assessment Ordinance

At the request of the WPCA, Attorney Ramon Sous has reviewed the current Sewer Benefit Assessment Regulations as well as the proposed regulations, which Tom Sym has suggested.

Attorney Sous finds the current regulations to be more appropriate than those proposed by Mr. Sym. I feel it is more appropriate to consider the factors of front footage, lot area and valuation rather than just depend upon the number of units.

My suggested changes, however, after speaking with Mr. Sym is to change the reference of 66 2/3% to 100% of all costs including to the design and construction of the lateral sewers if that is what the Commission desires to do.

Also, the reference to figure of \$600.00 under Section 17-109(a) 3 should be changed to \$2,500 in keeping with the new connection fees. It should also be changed in Section 17-109(f) from \$600 to \$2,500.

Mr. Sym indicated he does not agree with Attorney Sous. Everyone who has similar sized lots in R-1 pays the same assessment - like we do with the water main installations.

This item was tabled for Attorney Sous to come before the Board, as we have no projects right now. Let's see how the City sponsors the water line.

E. Maguire Group Status Report

George Pendleton handed out his status report.

Commissioner DeAngelis asked how do you fit Roy Wood into the picture?
Alan Asikainen said he could be a sub-contractor under Maguire Group.

Under the CMOM Corrective Action Plan add on. This is how you decided to resolve your issues.

Roy Wood can come in to train the guys at the plant and we can save money with the elimination of the chemicals and pay Roy. He would know your plant and you need someone to sit with your guys at the plant - not a generalized training.

Roy Wood said he would have to be at the Plant two days a week for three weeks. Get to know the guys and manage the SBR's and he will give guidelines 1-10 - he will do no work as I know this is a union shop but show them how to operate and manage the plant and show them it can be done. I need to see the pump stations. I will teach them how to manage a treatment plant. Then once a week for a month or so and guys can send me daily updates and then I can call them everyday. If they don't use email then they can fax me the information.

I dress very casually, and I am sure I can get along with the guys.

Roy Wood said he will put together a proposal to Maguire by Friday and we can have it at our next special meeting.

6. NEW BUSINESS

A. Bills Rendered

- 1. GREEN MOUNTAIN PIPELINE SERVICES.... \$80,512.03

Motion: A motion was made by Commissioner Hellauer and seconded by Commissioner Dognin to authorize payment to Green Mountain Pipeline Services for \$80,512.03 invoice date 6/1/09 for Sanitary Sewer lining work. All were in favor. Motion carried unanimously. Monies to come from the Bond Referendum Account.

- 2. LOUIS GHERLONE EXCAVATING \$69,751.43

Motion: A motion was made by Commissioner Morse and seconded by Commissioner Dognin to authorize payment to Louis Gherlone Excavating for \$69,751.43 invoice date 5/31/09 for West Canal/Howe Avenue work. All were in favor. Motion carried unanimously. Monies to come from the Bond Referendum Account.

- 3. TRUMBULL CONSTRUCTION CO, INC.....\$ 8,199.77

Motion: A motion was made by Commissioner Dognin and seconded by Commissioner Jager to authorize payment to Trumbull Construction for \$8,199.77 invoice date 6/02/09 for Riverdale Avenue Relief Sewer work. All were in favor. Motion carried unanimously. Monies to come from Revolving Sewer Account.

- 4. SHELTON POLICE DEPARTMENT\$ 2,782.71

Motion: A motion was made by Commissioner Jager and seconded by Commissioner Dowty to authorize payment to Shelton Police Department for \$2,782.71 invoice date 5/20/09 for Canal Street Gherlone work. All were in favor. Motion carried unanimously. Monies to come from Bond Referendum Account.

5. SHELTON POLICE DEPARTMENT\$ 4,092.08

Motion: A motion was made by Commissioner Dognin and seconded by Commissioner Morse to authorize payment to Shelton Police Department for \$4,092.08 invoice date 06/03/09 for Canal Street work. All were in favor. Motion carried unanimously. Monies to come from Bond Referendum Account.

6. SHELTON POLICE DEPARTMENT..... \$ 6,029.90

Motion: A motion was made by Commissioner Hellauer and seconded by Commissioner Dowty to authorize payment to Shelton Police Department for \$6,029.90 invoice date 06/04/09 for Riverdale Sewer work. All were in favor. Motion carried unanimously. Monies to come from Bond Referendum Account.

7. MAGUIRE GROUP.....\$ 8,282.72

Motion: A motion was made by Commissioner Dowty and seconded by Commissioner Morse to authorize payment to Maguire Group for \$8,282.72 invoice date 06/03/09 for Consent Decree Compliance work. All were in favor. Motion carried unanimously. Monies to come from the Capitol Sinking Fund.

8. MAGUIRE GROUP.....\$28,411.79

Motion: A motion was made by Commissioner Dognin and seconded by Commissioner Hellauer to authorize payment to Maguire Group for \$28,411.79 invoice date 06/03/09 for I&I Analysis and SSES work. All were in favor. Motion carried unanimously. Monies to come from the Bond Referendum

Tape 3 Side A 10:00 p.m.

B. Change Order #3 Louis Gherlone Excavating for Sanitary Sewer System Improvements West Canal Street and Howe Avenue

Motion: A motion was made by Commissioner Morse and seconded by Commissioner Dowty to approve Change Order No. 3 between the City of Shelton and Gherlone Excavating, Inc. in the amount of \$18,970.15 for time and material work to resolve unforeseen field conditions for Sanitary Sewer System Improvements at West Canal Street & Howe Avenue.

Funding to come from the Wastewater Collection Systems Referendum Bond.

Further, move to forward to the Board of Aldermen and to authorize Mayor Mark A. Lauretti to sign all documents necessary to effectuate said agreement.

E. Sewer Administrator’s Report

Mr. Sym said he had nothing to add to the meeting tonight.

7. FINANCIAL STATEMENT

It was in the package.

8. ADJOURNMENT

There being no further business to conduct this evening,

<p><i>Motion:</i> A motion was made by Commissioner Hellauer and seconded by Commissioner Jager to adjourn. All were in favor. Motion carried unanimously.</p>

The meeting adjourned at 10:30 p.m.

Respectfully submitted,

Linda M. Hooper
Clerk 3 Tapes on file with the City/Town Clerk

