



TOWN OF COHASSET

Sewer Commission

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Sewer Commission Meeting Agenda

DATE: March 25, 2008
TIME: 6:00 p.m.
PLACE: Meeting Room 2B, Town Hall

Meeting called to order @ 6:02 pm.

Attendance: John Beck, Sean Cunning, Ray Kasperowicz, Diane Hindley, Dan Coughlin

1. **Office Business:**

Date of next meeting: Saturday March 29, 8:30 am, April 28, 2008 motion should be made to change the board around

- 2008 Annual Town Meeting: Saturday, March 29, 2008 @ 9:00 AM, Sullivan Gymnasium
- Annual Town Election: Saturday, April 5, 2008
- Drain Layers License: Signatures needed
- Approval of minutes from meeting 2/25/08; postponed until next month.

2. **Veolia Water:**

- a. Monthly Operating Report for February: Attached
- b. WWTP: Noise / Odor / Light Complaints: None
- c. Collection System:
- d. Maintenance Fund:

Dick Nye is on medical leave starting March 19, 2008 and will hopefully return to work within two weeks. The replacement operator is John Fritsch; cell phone #603-396-8082. Dick is doing well and is available by phone and the new operator is current on the expected protocol. Beck wants assurance that the substitute operator fully understands the use of the extreme flow pipe and everything else that goes along with that. Dan Coughlin will meet with the new operator on Wednesday.

3. **Enterprise Fund Report:**

Income Statement / Balance Sheet –February: Attached

4. **Connection Status March:**

- North – 269
- Central –810

5. **Correspondence/Communications:**

- Veolia Water: Revised report of storm event 2/13 & 2/14
- Around town events update: Annual Little League Parade and South Shore Arts Festival
- Town of Hull: Sewer User Charges

- Board of Health: 792A Jerusalem Road
This is still a BOH issue.

6. **Old Business:**

- 429 King Street-sketch of proposed extension as requested; deed restriction will be included in the approval.

7. **New Business:**

- 195 Hull Street-Sewer connection application-on the vacant lot list in the North Cohasset district
- Lot 9 Jerusalem Road/Jerusalem Lane-request to go on vacant lot list in the LH district
- 715 Jerusalem Road-inquiry regarding available connection. First we have to connect Deep Run and Rust Way and bring that into the system, evaluate our flows based upon the flow meter. We are not sure if he is within the four hundred feet of the buffer zone. We would need a plot plan as to where the septic system is located. The flow meter will be installed July of this year. Ray suggests that capacity would probably be evaluated within 5 years.

8. **Coughlin Environmental Services:**

9. **Abatement Requests:**

- 107 Ripley Road-approved
- 597 Jerusalem Road-approved
- 27 Linden Drive-so noted

10. **Connection fees due:**

- 40 South Main Street, Watson: \$71,500.84 due on or before July 18, 2008

11. **Open Discussion:**

- Robert Sturdy, 270 Jerusalem Road: Mr. Sturdy would like to discuss public sewer on his property: the engineers have designed a public sewer going down his driveway that would serve three of his neighbors but not him. He would be stuck with the liability of a pipe on his property. A few years ago the phone company wanted to run a new cable and he gave them a new easement. One abutter is 262 Jerusalem with no frontage, 264 Jerusalem may have a few feet of frontage and they have an easement for access but not for utilities through Sturdy's property, their water is on their own. 268 Jerusalem is the Littauer's; they only have a prescriptive easement for access. He continues that there is a plan for a sewer connection for his "non-use" which looks like a logical spot but it is an inaccessible spot on the property and there is huge swale of solid granite. It does happen to line up where his cesspool is but it is a mighty difficult place to get to. Mr. Sturdy doubts that he will affect LH so much to be concerned about connecting him to sewer. He has tried to contact engineers at least three times and has not had the courtesy of a return phone call. Dan Coughlin responds that he didn't think Mr. Sturdy wanted a call back. Mr. Sturdy does not plan on connecting but Dan responds that this is a separate matter for the Board to hear; Dan is requesting an indication as to where the service would be placed by returning the service layout.

Mr. Sturdy would also like to comment on the construction crew leaving trenches in the poor condition they have been in. He is referring to Deep Run and they have not been filled in. Most contractors work 4 days and fill streets on the 5th day. He also adds that the signage should be changed. It is unreasonable to have that many trenches left unfilled. Mr. Sturdy would like to know what the plan is with his driveway. He does not want to be surprised to go out one day and have his driveway torn up when he comes back. There must be 4 feet of separation, he pays taxes on his driveway and does not want the liability of the sewer line on his property. John Beck asks if Mr. Sturdy has any suggestions to an alternate plan. There is a choice of going right along the edge of the driveway. What would the liability be if an easement is granted by Mr. Sturdy? The contractor would be responsible for anything that happens on the driveway for a year after construction is complete. DC says that they can evaluate overlaying the entire driveway. DC continues that the neighbors to this property may have rights to the driveway but Town Counsel will have to look into this. In the past Town Counsel has indicated such use includes utilities. If Mr. Sturdy got a detailed spec that he had 100% assurance and a new driveway that would not swale then maybe this would be agreeable. Is Mr. Sturdy willing to work with the town if conditions are met? The answer is yes but with many conditions. Mr. Sturdy has no intention on paying taxes on the overlaying land of a town sewer pipe. This is an Assessors decision not the Board of Sewer Commissioners. There are further complications because of the proximity to the water. Dan has the details to the issues at hand. It would be simpler to go down the driveway. The line would most likely have to be encased and replace the driveway. Either reclaims the surface or do patch and overlay. If the Nelsons prove they do not have the rights and Mr. Sturdy does not grant the town an easement rights it will be very difficult to serve the other homes by sewer. The Water Dept has approached Mr. Sturdy to put in a new water main to which Mr. Sturdy has disagreed. Does anything in this discussion trigger change orders with the contractor? Dan answers no. Discussion of the deeds of the neighbors is brought up. It would decrease the scope of the work of the contractor. Sean Cunning suggests that a new driveway could be worthwhile if Sturdy does grant the easement. Sturdy replies that he is not looking for a new driveway. DC states that at this point the Nelson's deed will go to Town Counsel for review. There may be some discernable easement for access of utilities along the driveway to the Nelson's. Stubs will be placed on the street for now because we are not sure of the rights. However we cannot charge those homes betterment unless they can tie in. The properties are very close to wetlands not necessarily LH. We also need a preference of the location of the stub at the Sturdy's property. If not the pipe will go where the engineer's decide. The Sewer Commission will let Sturdy know the opinion of legal counsel. The pipe would be town owned if anything went wrong; the town would have to stand behind the property. Sturdy requests that the contractor does not leave trenches open week after week. The mess at the end of Deep Run has been there all winter long. The contractor should dress the roads once a week using reclaimed material, when it rains out it tends to settle and reform but every time it rains it does get in poor condition. Deep Run is tough because of the multiple utility work and a few open trenches; this is being addressed now with a change order that will reclaim the entire service. Deep Run should be done probably after April 15th. A request for additional drainage has been submitted and will require a change order. Different issues on Jerusalem Road, the electric company has to come back to rerun that line. The plates are down because it doesn't regrade as fast. The reclaim material would have to be redressed every day. Tom Hamilton hit a pot hole and taking a right out of the yacht club due to the fact that the cones blew over in the high winds so the pothole was not marked. A bill will be

submitted according to Sean. The contractor has an employee that does a drive by on the weekends to check if everything is in place and not knocked over.

Sheldon Road- Sean Cunning spoke with Dave Calhoun today. All of the homeowners of the road own to the center of the road. The road has shifted to the left over a period of time, they do not want a sewer pipe which is not even to their benefit to be on the left hand side of the road they would like it placed on the right side. They do not want the sewer pipe on the left hand side of the street. This has been referred to Town Counsel; they said we do have the rights to put the pipe in and trying to maintain the offset to the water main. Dave Calhoun is not present at this meeting but told Sean Cunning that he was representing all of the neighbors. Dan Coughlin states that we do have the right to go up the road without anything further. Dave Calhoun wants Town Counsel opinion before they meet again. Dan recommends another meeting with Dave Calhoun. We do have the opinion and conveyed that to Calhoun. The service layouts that were returned indicated where the connections would be made, there did not seem to be any objections other than Mr. Calhoun's.

- Jacobs Meadow abutters: follow up from previous meeting held on 2/25/08
 - Review of draft protocol
 - Update on the extreme flow pipe-installed and functioning
 - Update on the I&I issues

There will be no Reverse 911 call if the operator opens the extreme overflow pipe. What about foam, it is always an issue. Foam can collect in the system, the operator is supposed to hose down the foam in anticipation of an overflow event. He has to maintain the foam in the anoxic tank. Foam is always an issue. Because it has bottom withdrawal point foam can always collect in that system, in anticipation of a high flow event the operator is supposed to pump the foam out in the anoxic tank, get the foam out. The other part of the protocol is basically when he stops recycle some of the existing foam can be beaten down within the tank. Take a hose and break up the foam with nothing overflowing. He must maintain the anoxic tank. The only time foam (outside of the anoxic tank) becomes a problem is when the mix liquors drop down very low and then that system starts foaming out. Typically this is because he is trying to recycle his flow and if he loses his bugs in the process then there can be a problem with the level. The idea is to not drop down on your solids levels in those reactive tanks. As long as the mix liquor is maintained then he shouldn't have a foaming problem in that tank. The excess flow would be diverted through the extreme flow pipe so long as he keeps the foam down in the anoxic tank. Can one person handle all of those points? Typically there are two people operating the plant. Generally there is no one there at night unless there is an alarm. If they are aware that there is potential overflow they can plan for it. A lot of these things are anticipated and he can usually see where his flows are. Historically he can anticipate the high flows. If we do 1.5 million gallons per day, the high flows that Dick is quoting can the channel handle that in 12 hours? The quotes by Dick were peak flows. Are the new UV trays installed? The influent and affluent boxes are not in place yet. They will be in within the next six weeks, all bulbs and sleeves are being changed and will be like brand new again. The peroxide will be flowing and dosing inside, it will be like a drip with metering pumps that will be set up. Right now we do a manual dose of peroxide. What is the flow rate of the peroxide? Dan replies that he will have to double check but he believes it to be somewhere between 5mg per liter. 5 to 10 parts per million. We always have some peroxide on site. The foam is the major component that is hard to beat down and ends up in the marsh. Is it fair to say the foam happened because the protocol was not followed properly? The operator was not able to implement the protocol properly. Basically what happened were

those reactor tanks inside the building overflowed and that is how we lost the solids and that's what led to the foam problem. What happens if foam gets into the overflow? It's tough to handle, it starts getting messy, and it does not want to stay in the channel. Where will the water be tested? The operator's protocol is to test the effluent, whether he takes it from inside the pump chamber or at the end of the UV channel; it is a DEP requirement. Bill Bell asks about the "limited access" section of the protocol sheet. The first priority is dealing with the event, warning the abutters and testing the results of the event. It does not seem necessary to have an abutter at the plant during an overflow event. Bill Bell responds that his sense was that in the past he felt that they were being excluded from the happenings at the WWTP. He feels that there was a disconnect between the "town" and the townsfolk. The abutters feel that this is a big deal. It is agreed to strike the visit by an abutter. Now that we have the Reverse 911 system in place there is no need to have a specific abutter notified because they are all notified at the same time. The abutters seem satisfied with messages we have recorded, the first one being a warning of a possible overflow and the second one will only be generated if we actually do go into overflow mode.

Bill Bell continues with the question what if some of these safety mechanisms do not work? What if there is discharge to the harbor that is not within the permit? What if the operator didn't put any peroxide in, for example? Any time the Extreme Flow Pipe is used a report must be given to the DEP with a summary of his actions. The membranes will have capacity for over 2 million gallons per day. The membranes will be installed late summer; the process should begin by late July. By the time we start connecting homes in the Little Harbor district, the membranes will have been operational for a year. Joe Coggins reminds the Commission of the abutters desires to have a definitive time of testing of the membranes, thresholds of success and what the other contingency plans were for the I/I. Cathy Witkos would like to know what will happen if the membrane installation was delayed for 6 months, she still would like a full year of testing. She would like a full year (cycle) of wet and dry events to test the membranes before anyone else is connected to the WWTP. Ray replies that to his knowledge that there was a breach of confidence in the past and that the Commission is trying to fix that. Ray reminds Dan of a prior conversation they had that perhaps there are nexus points in the project that we can take pause and evaluate the condition and performance of the membranes, if they are operating to the expected standard then that will allow us to go to the next level and that may include bringing in some streets from the LH district. Dan feels that it is premature to decide this now because we are set up and scheduled for the membrane installation this summer. Summer is the low flow period anyway. Ray asks when the first homes will be emptying into the plant. Dan replies probably not until the construction contract is complete with the collection system until a year from this summer, most likely late next summer. The membrane performance, once they are in place, as far as their effectiveness will be demonstrable right then and there. How much flow can they take and continue to perform effectively in filtering out the bad stuff? Has testing been done by the manufacturer that ascertain with a margin of safety that they can pass the flow that they are guaranteeing when they sell them to us in the first place? 2 millions gallon per day can be handled. We have never surpassed 1.5 million. Have these membranes been tested at other plants? The answer is yes. Membranes are tested daily. The abutters are requesting thresholds of success that we are demanding of the performance of the membranes in writing. The abutters would like to also see what progress has been made in the effort to find the problems with the I/I. Dan proceeds to do a presentation of I/I to the abutters. The existing membrane performance is compared to the expectation of the new ones. Dan has put together an initial I/I response and what they have found is when the marsh floods we get a higher peak rate of flow coming in from the I/I versus when the marsh doesn't flood. This tells us what we have always suspected, that the

services are leaking. There has always been some flow in there but if you try to get in there with a camera during a storm event you really cannot see flows coming in. It's the services from the individual homes as you go from the house to the sewer main, we are getting water infiltrating from there, so when the marsh floods we are getting more water in those pipes. What we do to remediate that is a test and seal program. Dan continues to show a set of plans to take care of services, in and around the marsh. They must be able to enter your homes to get into the pipes. Ideally a cleanout is the best way to access. The test and seal program consists of putting a packing compound around every single joint and these are all clay pipes so they have joints every three feet. Basically a cement solution will be shot into the pipe to seal the seam. This is all done from inside the pipe. There is a need to get access to the services themselves, about 5 feet outside all of the buildings we would need to dig a pit, break into the service, clean and jet the lines, TV it then test and seal each line as they go down into the main pipe. The sealing solution is new and no one really knows how long it will last but assuming it will be good for a ten year period. Cathy Witkos wants to know if a lot of the I/I is coming from the Elm Street area. Fresh water flow is coming in and we know it is not sanitary flow. A test and seal program is advisable in this area just for the sheer fact that there are all clay pipes and the age of them. In order to implement this program easements must be taken, a general meeting of all the abutters would be the best. How much would a program like this cost per house? \$5-10 per foot not including the test pit hole. An easement gives the Town the right to do the work on their property. It seems that a lot of the problem with I/I is the illegal sump pump hook-ups, has there been anymore discussion about further investigating the existence of sump pumps. These are all old clay pipes that are susceptible to leaks and is not the preferred material for a sewer pipe. The answer is that we need to do both, correct the clay pipes and the sump pump problem. We know that we do have some baseline I/I in the system because we have seen it during the TV inspections. Storm water will still be a problem no matter what. There is a leak source on Brook Street that has been recently discovered. That will be fixed soon. There was a lot of water coming down Elm Court because those services are pretty much the same. We will continue to refine the information we are getting and start doing something about it now. The lower the groundwater levels the easier it is to get the grout in place and have it set up so it lasts even longer. The homeowner would have to know that when we do the test and seal program we would have to put in a plug for approximately two hours, this work is typically done in the daytime hours. Dan would like to stress that it always makes sense to do this type of work. Approximate cost would be under 100k as an estimate. Dan suggests doing it all at once because there is only a short period of time to do this correctly. Even if there are some services with no leaks, then at least we will be assured of where the problem is not coming from. Are we confident that this strip is a cause or are we just doing the maintenance? If we do a capital improvement on a private property then we must take a permanent easement. We are looking at this as inspection and maintenance for our purposes of inspection. An interpretation from Town Counsel would be in order to satisfy the constraints and that this cleanout that we are installing is not considered a capital improvement. We are hopeful that this can be achieved. Dan would like a meeting to publicly inform everyone of the work to be done. A package will be distributed to each homeowner that this program would affect.

Joe Coggins shares with the Commission his discussion with the DEP regarding the best solution that was ever proposed was a North Scituate satellite plant and no one knows why this was dismissed. We are lacking the permeable soils in this town. These are ideas or contingencies that the abutters know nothing about and thought they were not an option only to find out it could be a viable solution. Coggins continues that we are spending a lot of money as a town and if we are not hitting the thresholds then instead of spending more

and more maybe we should be taking the foot of the accelerator and looking in another direction. Witkos continues that in her conversation with the DEP, a person at the DEP said that unfortunately towns tend to do things like this they move forward and things don't work out as planned then the town must go back and do the satellite treatment plant after all. It ends up being costly, etc. Ray rebuts that the DEP is the one who has been beating us to connect all of these homes knowing that we would be stressing our own plant. Joe refers to an item on the report that says "install retention tanks to ease the flow to the plant", where, how big, where would they be seen? The answer is on the Common, underground. Dan elaborates on the details of the Facility Plan. Cathy Witkos asks "Is it the case that once LH hooks up that no one else can hook up to the plant?" The answer is that if there is capacity we are obliged to connect them. If we estimated high then we are obliged to connect them. The permit is defined by the amount of flow. David Burns from the DEP told Cathy that we can hook no one else up to the plant; he was referring to the amount of flow too. It is gallons per day. The law states if you have capacity then someone who has a vacant lot pays taxes, we must oblige them. John Beck refers to Cifrino and we may have to grant him connection due to the order of the BOH (this refers to North Cohasset though and Hull will be receiving his flow, not the Central WWTP). If for example, we can get rid of I/I we would have more available capacity. We have always successfully defended ourselves against connections, depending on the capacity.

We will take a look in the fall at our available capacity.

Ray has received calls over the past month from Ted Purdy on Pleasant Street about repeated bad smells probably coming from the sewer. The smell is in the house and outside the house. A hydrogen sulfite detector should be brought in. We have never started the bioxide or chlorine drip this early in the year because it still freezes. It will now be done tomorrow. Yvonne, Assistant Operator, has never smelled the odor, Ray said it's sporadic. The neighbors have never complained this early in the year, the complaints usually start when it gets a bit warmer.

We have received \$719 abatement from the Town of Hull from requests we have submitted to them.

Our next meeting we will address the reorganization of the Board of Sewer Commissioners since this will be Ray's last meeting

Meeting adjourned @ 9:02 p.m.