Chairman Attwood called the meeting to order at 7:30 p.m. Roll was called and a quorum determined. The assembled group recited the Pledge of Allegiance. Mr. Attwood explained to the audience how to exit the chamber in the event of an emergency, in compliance with the Fire Marshal’s order.

**PUMP STATION UPGRADE PROJECT**

Mr. Chelton informed the Authority that bids for the Pump Station Upgrade Project were opened on Thursday, March 4, 2010. Five bids were received, and the low bidder was C. H. Nickerson & Co., Inc. with a bid of $473,248.00. Mr. Chelton reported that the low bidder is a quality contractor who has worked successfully for the Town on other projects. Mr. Chelton stated that the price is very competitive, and under budget. He recommends that the Authority approve the low bid.

Mr. Attwood questioned why C. H. Nickerson bid so low on the primary tank pipe replacement. He queried whether the Town would end up paying more for this if the contractor has underestimated the work. Mr. Chelton responded that the low bidder has their own excavation equipment, which is what a large part of this work entails. He further commented that it is not known why the other bidders were higher on this item. Mr. Dievert commented that the low bidder spent a great deal of time at the site during the bidding process, so was very familiar with the work to be done. One bidder did not
even come to look at the site. Mr. Michelangelo commented that the low bidder has done more sewer related work than any other contractor in the State.

It was noted that the appropriation for this entire project is $950,000, so this bid leaves a large contingency and the possibility of being completed under the appropriated amount.

Mr. Gancarz moved that the Water Pollution Control Authority approve the low bid of C. H. Nickerson Co., Inc. in the amount of $473,248.00 for work related to Phase 2 of the Influent Pump Upgrade Project. The motion was seconded by Mr. Eberle and carried unanimously.

It was noted that the project will take approximately nine months to complete and there is a long lead time for the pumps. Mr. Milone commented that the fact that this project has come in under budget helps the debt service of the WPCA. Mr. Dievert stated that this project is the first step towards the renovation of the treatment plant, and the presentation by AECOM tonight relates to the second phase.

**PHASE 2 FACILITIES PLAN – INFLUENT PUMP UPGRADE PROJECT**

Mr. Chelton, Mr. Pearson and Mr. Formica from AECOM addressed the Authority and others present regarding the Pump Upgrade Project. Mr. Chelton presented a flow chart detailing how the treatment plant operates. He described every component and how each one ties in to treat the influent from the sewers.

Mr. Eberle noted that all other related Boards, Commissions and staff members were invited to attend this presentation. Those listed above were in attendance.

Mr. Chelton addressed Phase I of this project which established sewer needs for the next 20 years. The issue is how the Town will handle 4 m.g.d. at the treatment plant over the next 40 years. At this time the plant must be upgraded to meet current needs and to replace old and outdated equipment.

Mr. Chelton stated that this plan was put in place after meeting with Mr. Dievert and staff to develop requirements for improvement. A team of experts has reviewed all requirements, which are part of the presentation by Mr. Chelton. He informed the Authority that he will be looking for direction from the Authority in terms of size and timing of this project.

Mr. Chelton began the Power Point presentation detailing each portion of the proposed project. He asked the Authority for input during the presentation. In response to a query from Mr. Attwood, Mr. Dievert commented that the by-product from the sewer process has very limited use, as the contents are contaminated.

Mr. Chelton commented that the presentation will begin with a description of existing facilities, followed by a discussion of needs and recommended upgrades, an estimated
total cost and finally a discussion of what approach should be used to move forward in terms of final design, scheduling and phasing of the work.

The presentation contained aerial views of the entire plant facility, with each component labeled as to its use.

The first component is the pump station upgrade. There are existing comminutor issues, related to age and reliability of the equipment. The technology is old and there is a reduced performance and capacity. The report recommends a new influent screen and related work. The cost of that work is projected at $2.25M.

Mr. Attwood stated that one of the goals of this workshop will be to determine if the recommendations are necessary and justifiable, and whether the cost can be justified or could be done cheaper. Mr. Chelton commented that payback is not relevant to all components of this project, and the entire project must be looked at as a whole. Outdated or failing equipment must be replaced in order for the plant to continue to work efficiently.

It was noted that the treatment plant runs 24 hours a day, and must be reliable and always working. In response to a query from Mr. Schrumm, Mr. Chelton stated that the technology recommended in this report is proven technology, and will save money on some of the processes.

Mr. Chelton informed those present that the estimates being presented can go up or down by 40%. He noted that this is just a plan, not a detailed formal design, which will follow. At this time there are many unknowns, which will become more clear as design takes place. He noted that because of the fluency of the numbers, it is not relevant to second guess each component at this time. The numbers at this point are not final, but just an estimate.

The next component discussed in the upgrade to the pump station. The pumps are insufficient and not energy efficient. There are problems with the sluice gate actuator/shaft. The study recommends replacing one pump with two pumps and replacing the gate actuator/shaft. The cost of this is projected to be $0.475M.

In response to a query from Mr. Gancarz, Mr. Dievert responded that the pumps are variable speed. It has been determined that there is enough space in the current facility for this work. In response to a query from Mr. Attwood, Mr. Chelton stated that the reason that this work was not being done in the current project is because there were not enough funds to do so.

The next influent pump upgrade relates to septage receiving, where the problems relate to spillage, odors, limited screening and no septage metoring or billing. The report calls for a new package septage facility and a card reader at an estimated cost of $1.05M.
Mr. Attwood inquired as to how much revenue is generated from the septage facility. That sum is approximately $35,000. Mr. Attwood asked if the Town has to accept sewage from other towns. A discussion ensued relating to accepting sewage from septic systems. It was stated that the entire Town financially supports the treatment plant and septic sewage should be accepted. Mr. Gancarz commented that the plant must service all properties.

Mr. Pelton noted the importance of looking at the septage receiving facility. Mr. Attwood concurred that this item should be looked at more carefully and asked Mr. Chelton to note the concerns of the Authority.

It was noted that these recommendations need to be reviewed with Chesprocott to determine if there are any health issues that should be considered. It was noted that there are approximately 4,000 septic systems in Town. In response to a query from Mr. Attwood, Mr. Chelton responded that there is no requirement to have the new septage receiving facility. Mr. Pelton commented that at the end of the day, the Town has to accept the septic flow from residents. The cost of these recommendations are estimated to be $1.05M.

The next recommendation relates to the age and corrosion of the aerated grit chamber. The report recommends new blowers, aeration diffusers and a new clam shell bucket. The chamber is 40 years old and needs to be replaced at an approximate cost of $1.05M.

The next issue is the age and corrosion of the settling tanks and pumping system. It is recommended that drives and components of the tanks be replaced, as well as the primary scum and sludge pumps. Mr. Attwood questioned why we are replacing tanks that are only 20 years old, when some of the working equipment is 40 years old. It was noted that the tanks are fine; it is the internal components that need to be replaced because of the corrosive environment. Cost of this work is estimated to be $1.55M.

There are issues with the aeration tanks, and it is recommended that there be DO control and aeration upgrades and the addition of mixers to the aeration distribution chamber. Mr. Chelton explained how the tanks work and stated that it makes sense to do this work, especially because of the DO control problem. This recommendation will basically pay for itself over time. Cost is estimated to be $0.95M.

The next phase relates to the age and reliability of the final settling tanks and RAS pumping. It is recommended that drives and internal mechanical components be replaced, as well as the installation of a new RAS pump. Total cost is expected to be $1.375M.

The next phase deals with the new Denitrification Facility, built a few years ago, which Mr. Chelton reports is working very well. He reminded the Authority that the facility was the first separate stage denitrification filter in the United States. The Town has received funds from the State in the form of nitrogen credits for the last three years.
There is a problem that will require the installation of a dehumidification system, as well as the need for a screen to control birds perching on the building. Those costs are included in the ancillary facilities recommendations.

The report discusses issues with phosphorus removal, which has recently been a requirement of the DEP. There is now an anticipated phosphorus permit limit. The report recommends chemical phosphorus removal with a two-point chemical addition, new chemical storage and feed facilities and a downstream disc filtration. This cost is anticipated to be $5.25M.

Mr. Chelton explained that this is a two-step process. The disc filter is the largest cost for this system. Discussion ensued regarding the possibility of penalizing the Town for not removing the required amount of phosphorus. Mr. Pelton noted that there is no choice but to do it, and the Authority must show that it is making efforts to reduce phosphorous.

Mr. Schrumm inquired as to how the installation of this equipment/process will affect the operating costs of the treatment plant. He queried whether this would eliminate any other possible savings. Information is not available at this time in the process to determine what the increase in operating cost would be, although there probably will be an increase.

Mr. Milone commented that early on in the denitrification facility project it was thought that the Town would receive much more funding from nitrogen credits. Mr. Chelton responded that the nitrogen credit amount was an unknown early on in the project. Cost of this part of the project is estimated to be $5.25M.

There is an issue relating to the age and reliability of disinfecting equipment, as well as storage and use of chemicals. The report recommends utilizing ultraviolet disinfection and reaeration to address the problems. Mr. Chelton commented that it is important to change the disinfectant system, which will now be green technology. This system is used seasonally. Cost is projected to be $2.7M.

Mr. Chelton presented a table showing alternatives for phosphorus removal and disinfection alternatives. A discussion ensued regarding capital costs, 20-year present O & M costs and 20-year life cycle costs. He noted that there is no plan in place at this time regarding the location of new sewers in the next 20 years. Mr. Attwood stated that there needs to be an agreement about availability of sewers over the next 20 years. Mr. Chelton responded that it could be added to the agreement, or the Authority can try to keep a firm handle on the situation over the years. In response to a query, Mr. Chelton stated that the processes described in the table do not qualify for funding as green technology, as they are no longer considered emerging technologies.

The next area relates to issues relating to effluent and stormwater pump station upgrades. Pump equipment is old and outdated, and there is a problem with the reliability of the system controls. Recommendations are to install two stormwater pumps, four effluent pumps and a control system, at a cost of $0.55M. Mr. Chelton noted the importance of keeping the pump capacity at peak flow.
The next discussion relates to solids handling and sludge thickening. Currently there is reduced capacity and an increase in energy and chemical use. Another issue is the reduced digestion capacity and energy efficiency. The report recommends separating primary sludge, a rotary drum and gravity DN filter backwash. Costs are estimated to be $2.25M.

Mr. Attwood inquired as to whether the Authority is required to do this, or is it an option. Mr. Chelton responded that at some point the situation will become a problem and will have to be addressed. Mr. Dievert commented that he needs more space in which to work. Mr. Pearson noted that it will be necessary to install more digester equipment. Mr. Chelton noted that there is a return on this investment.

The next issue regarding solids handling needs further discussion according to Mr. Chelton. The issue relates to the age of the digester, corrosion issues and the reliability of the equipment. There are several upgrade alternatives which must be discussed. Mr. Chelton stated that one option would be to get rid of the digester.

Mr. Chelton presented a table detailing solids handling upgrade alternatives and estimated costs. He noted that there are some staff members who would like to remove the digester because of concerns regarding dealing with methane, which could be dangerous. Mr. Chelton commented that the current system is green technology and the facility is in place. It was determined that the issues relating to solids handling will be examined more thoroughly during the design process.

Mr. Eberle offered that the Energy Commission may want to look at this issue. It was the consensus of the Authority that Option #1 is the best alternative. This will enable the Authority to control its own destiny. Mr. Witek inquired as to whether homeland security has been investigated as part of this process. Mr. Chelton responded that it is not part of this project. Mr. Witek suggested that it should be reviewed to determine if there are any concerns.

Mr. Chelton presented the next portion of the report dealing with ancillary facilities. There are issues of age and corrosion relating to control systems, software and instrumentation which will need upgrades at an estimated cost of $0.15M.

There is a recommendation to replace the communication system, which is old and outdated. That cost will be 0.15M. Authority members discussed the high cost of the communication system, and suggested that a more modest approach be investigated, specifically the use of cell phones and related technology. Mr. Schrumm informed the Authority that a cell phone tower will soon be installed near the treatment facility. He queried as to whether that could cause any problems. Mr. Chelton stated that he did not foresee that to be a problem.

The report recommends replacement of systems related to the HVAC, which could cost $0.8M. Mr. Attwood questioned how those systems could cost as much as estimated. He
requested that Mr. Chelton look further into those recommendations. Mr. Chelton reminded the Authority that the costs are not hard costs at this point and will not be until final design.

Component upgrades to the electrical systems are recommended at a cost of $2.2M. There is a recommendation to replace sump pumps and automatically cleaning strainers because of age and maintenance issues. Cost will be $0.45M.

Another need addressed in the report is insufficient power capacity which may cost $0.7M. Mr. Eberle inquired as to whether the old generator could still be used. Mr. Chelton agreed to investigate whether the old generator could be used in conjunction with the new one.

Fuel issues are another issue, with age of systems and reliability factors. An above ground tank is being recommended at a projected cost of $0.525M. In response to a query from Mr. Pelton, it was determined that propane is not an option as a fuel source. Mr. Gancarz commented that the cost for the tanks seems excessively high. Mr. Chelton will check on that.

The next item discussed were upgrades to the building. There are structural issues which require increased maintenance. The report recommends new roofs, new doors and hardware and other related upgrades at a projected cost of $1.475M. Mr. Chelton stated that a great deal of the costs are related to roof replacement.

Another recommendation is to build a new administration building and reconfigure the current operations building. The original building was built in 1968, and the plant has increased 1 ½ times since then with three additional processes. The new building will contain meeting and conference rooms, secure reception area secure operations area and separation of operations and administrative functions.

With the current operations building, Mr. Dievert can not see the entrance gate to the facility. Mr. Eberle suggested the possibility of installing a camera at the gate for security purposes. A discussion ensued regarding the fact that the proposed roofs are flat. Mr. Chelton stated that pitched roofs will be evaluated during the design process. Cost of this part of the project is estimated to be $1.95M.

Another proposal is for a new vacuum jetter/truck and garage. Presently there is limited sewer cleaning now being performed. Material is not being removed from the pipes. Mr. Attwood inquired as to whether this work could be outsourced. Mr. Chelton responded that it could be. He further commented that this is the only item in the project that is really a want versus a need. This would be something for the Authority and staff to discuss. Cost of the truck and garage would be $1.1M.

Mr. Chelton informed the Authority that he has been in contact with the DEP. He stated that there have been changes in personnel at the department, and the current contact person is not aware of where the Town is on the priority list, or even if we are on the list.
The representative was not even aware that Phase 1 of this project had been presented to the DEP for review and approval. Thus, it is not likely that the Town will be on the 2011 list for funding. Mr. Chelton offered that this is not a serious problem, as it is unlikely that the project will get underway before 2011. He asked the Authority for direction in terms of time, specifically the referendum date.

Mr. Chelton stated that the permit will still remain in place. The Town has four years to complete work under the current permit.

Mr. Schrumm inquired as to whether the Town could still get on the DEP list for funding for 2012. Mr. Attwood suggested that the project be on the funding list for 2011. Mr. Milone stated that the project has to go to referendum with a firm number, and that requires final design costs. Mr. Pelton offered that the Authority not rush through this project. More detail and discussion is needed before the project can go to final design phase.

In response to a query from Mr. Chelton, Mr. Pelton stated that the Authority would have to have further discussion regarding all parts of the project, and will then give AECOM a roadmap to follow. It would be premature to request funding for 2011. Mr. Chelton reminded the Authority that the DEP funding list is a two-year list. The members present were clear that they want Mr. Chelton to pursue funding for the year 2012 at 20%. Mr. Attwood noted his concern that if the Town is not on the 2011 list that it may not make the 2012 list as well.

Mr. Milone stated that it is not possible to move forward until a firm cost is in place. Mr. Chelton stated that the design process will take approximately 12 months, but could be rushed if necessary. Mr. Milone informed the Authority that the final design cost will have to be ready by the end of August in order to be placed on the referendum in November of 2011. Costs must be available 60 days prior to the referendum.

Mr. Gancarz noted the necessity of not rushing with this costly project. He stated that the project and related costs must be thoroughly reviewed. Mr. Pelton offered that this project would be a good project for value engineering, which saved a great deal of money on the last major project.

In response to a query from Mr. Schrumm, it was noted that there is no way of knowing when the DEP will review and approve Phase 1 of this project, which has been at the department for two years. In terms of funding, Mr. Schrumm stated that he does not feel that the Clean Water Fund will be taken away. Mr. Chelton agreed, and added that additional requirements are being placed on municipalities. Mr. Chelton also referred to the “Jobs for Main Street” bill which has passed the House and Senate. It is not clear as to whether the Town will benefit from this bill.

The final section of the report relates to peak flow management and I & I reduction. There are several approaches that may be taken. The sump pump program which was initiated a few years ago may be continued. The influent pumping capacity can be
increased. The most costly would be the construction of a flow equalization facility. The alternative is not recommended because of the high cost of $5.0M, in addition to the facts that it is seldom used and it does not reduce flow to the plant.

Mr. Chelton’s final presentation was a table of all cost summaries contained in the report. Authority members agreed that there needs to be a great deal more discussion regarding the recommendations in the report. Mr. Chelton recommended an additional workshop to have those discussions.

Mr. Attwood inquired of Mr. Milone as to what are the parameters in which the Authority should be working. Who will make final decisions regarding the recommendations in the report? Mr. Schrumm and Mr. Milone offered that the Authority is in charge of making the decisions regarding what the facility should be.

It was determined that the Authority must have a firm number to the Town Manager by May, 2011. Mr. Chelton stated that he is not sure that the original budgeted amount of 1.5M is enough for design of this facility. He will have more information regarding that increase to the Authority at the next meeting.

The next meeting to discuss this project will be held on April 14 at 6:00. Questions may be directed to Mr. Chelton via e-mail, but FOI dictates that he must respond to all Authority members.

ADJOURNMENT

Mr. Eberle moved that the Water Pollution Control Authority adjourn at 9:45 p.m. The motion was seconded by Mr. Pelton and carried unanimously.

Respectfully submitted,

John Attwood, Chairman
Water Pollution Control Authority

Attest:

Susan F. Zwick

Distribution:

Members: W.P.C.A.
Michael Milone, Town Manager
David Schrumm, Town Council Liaison
Andrew Lord, Town Attorney
Donald Chelton/Jon Pearson, AECOM
Joseph Michelangelo, Ex-Officio Member
George Noewatne, Operations Manager
Dennis Dievert, Superintendent WPCD
Susan Zwick, Recording Secretary