



TOWN OF LINCOLN

WATER DEPARTMENT

MIDDLESEX COUNTY

MASSACHUSETTS

TOWN OF LINCOLN
WATER DEPARTMENT
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Water Commissioners Zoom Meeting

April 14, 2020, 9:00 AM

Virtual Meeting Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law

Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law, G.L. c. 30A, §18, and the Governor's March 15, 2020 Order imposing strict limitation on the number of people that may gather in one place, this meeting of the Lincoln Board of Water Commissioners was conducted via remote participation to the greatest extent possible. Specific information and the general guidelines for remote participation by members of the public and/or parties with a right and/or requirement to attend this meeting can be found on the www.lincolntown.org.

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Meeting ID: 495 671 549

Dial by your location

1-646-558-8656 US (New York)

1-312-626-6799 US (Chicago)

Attendees:

Ruth Ann Hendrickson, Chairman
Jennifer Glass, Commissioner
Michelle Barnes, Commissioner
Colleen Wilkins, Finance Director
Jim Hutchinson, FinCom
Tom Sander, FinCom
Ryan Neyland, Tata & Howard
MaryBeth Wisner, Water Superintendent
Monica Kacprzyk, Administrative Assistant

Chairman Hendrickson called the meeting to order at 9:10 AM.

1. Discuss LWD Rules and Regulations – vote expected

Chairman Hendrickson shared that she has not yet seen the latest version of the draft Lincoln Water Department (LWD) Rules and Regulations with everyone's comments. She said that once she reviews the revised document, she will approve the document. Ms. Wisner said that she will send out the draft LWD Rules and Regulations for everyone to review, and then she will send it to Ms. Hendrickson for final review and approval.

2. Jim Hutchinson to Discuss the Safe Handling and Storage of Chemicals at the Water Treatment Plant Bid Results (2018 Sanitary Survey Deficiency)

Mr. Hutchinson shared that he had discussions with Ms. Wisner and Mr. Neyland about whether the LWD should rebid the Safe Handling and Storage of Chemicals at the Water Treatment Plant project. Mr. Hutchinson said that he wasn't able to convince them to adopt any of his cost reduction ideas, and thus they recommended not rebidding and instead asking the

Town for an additional \$125,000 to complete this project (including funds for contingency). Mr. Hutchinson added that he does not have enough familiarity with the Massachusetts Department of Environmental Protection (DEP) Chapter 6.0 guidelines for correcting the Sanitary Survey deficiency, and he does not know how these matters are typically enforced in practice, and thus he is not in a position to challenge the recommendations of Ms. Wisner and Mr. Neyland.

Mr. Hutchinson said that he reviewed the project specifications and plans for the bid, and he came up with a list of cost reduction ideas. Some of his cost reduction ideas included feeding processes directly from the chemical drums vs. adding day tanks to feed the chemical processes. He said that DEP requires water operators to measure how much chemical is injected into the treatment process, and the LWD would like to know much chemical is left. He added that the drums do not allow for easy chemical measurement, and day tanks are the most used measuring tool across the board.

Then, Mr. Hutchinson shared his idea for a simpler way to fill the day tanks because he wondered if the proposed solution was excessive relative to typical practice. He explained that there were previous employee complaints about off-gassing problems from hydrochloric acid which led to the current proposal. He noted that the Drumquik fittings used in the current proposal were perhaps not strictly required, but that it was difficult to successfully simplify the design since we have to put the drums and day tank somewhere and we cannot keep them in the loading area because it would be a violation. He said that we need a design that provides adequate storage space.

Mr. Hutchinson mentioned that some of the operators were questioning the replacement of the bulk hydroxide tank. His suggestion had been to patch up the two-foot retaining wall instead of replacing the hydroxide tank. He continued that Ms. Wisner believes this was not a viable solution since there was a history of leaks in this area and last fall there was a leak at the Tower Road Well that necessitated a \$10,000 clean-up by Clean Harbors, and that the treatment plant needs better containment of these tanks. He also shared that Superintendent Wisner said that the current containment floor would need to be cleaned due to the previous leak before any patching work of the retaining wall could be done. Mr. Hutchinson suggested taking the bulk tank out of this project and putting it into a different project, but Mr. Neyland and Ms. Wisner recommended keeping the bulk tank work with this project to satisfy DEP guidelines. Mr. Hutchinson added that even if we took the bulk tank work out of the project, Mr. Neyland does not believe it would be enough to bring the project under budget.

Next, Mr. Hutchinson asked Mr. Neyland if we need to have separate cleaning process tanks for the sodium hydroxide. He added that there are four sodium hydroxide tanks, but he is not sure if all four are necessary or if they can be combined. Mr. Hutchinson said that according to Mr. Neyland, the plant needs two separate day tanks because operators are not allowed to feed more than one injection point from each day tank. He added that the operators need to visually see what they are adding to each injection point.

Then Mr. Hutchinson asked if we could eliminate the work for the fluoride and phosphate chemicals since they are not as dangerous as the cleaning chemicals. He reported that Mr. Neyland said we cannot omit this part of the project because first, there is no liner in the containment area, and second, it is difficult to get to the fluoride saturator. He added that the new design moves the saturator to a more accessible spot.

Mr. Hutchinson continued to discuss smaller items such as leaving out the new apron outside the filter room exterior doors and the interior doors. Also, he suggested finding a lower cost option for the chemical resistant paint on the containment walls that was estimated to cost \$30,000 just for the section around the bulk hydroxide tank. Mr. Neyland advised against leaving out the paint because it would be irresponsible not to have it. Mr. Hutchinson asked whether the plant needs another shower and eye wash station or if operators could use the existing one in the pump room. Mr. Neyland responded that it is possible to leave out the eye wash station if we remove the door between the CIP (Clean in Place) and pump room. He added that it makes sense to keep the CIP room more contained and the elimination of this project would not provide a lot of savings.

Next, Mr. Hutchinson explored the possibility of skipping the new hot water heater replacement, but he later found out that the current heater does not meet the shower code. He added that there is a lot of plumbing work that goes along with installing the new hot water heater and there are potential cost savings in avoiding this project, but he is not confident that pushing harder on this topic is going to bring us under budget. Mr. Neyland responded that the existing water heater

doesn't provide 20 gallons per minute for 15-minute, which is a requirement. Ms. Barnes asked about the emergency shower and if there were any temperature requirements for the worker's safety. Mr. Neyland responded that the minimum temperature requirement of 65 degrees is in place to keep workers comfortable under the shower in the event of an emergency. He added that the hot water heater and emergency shower is a good safety measure and worth the investment. Mr. Neyland confirmed that \$47,000 of the project was for the plumbing sub-bid, which included the shower, piping, and new water heater. Mr. Hutchinson asked if 300 gallons was the total amount of gallons needed from the hot water heater in the event of an emergency shower. Mr. Neyland agreed that perhaps half of the 300 gallons needed would be cold water, not hot, but nonetheless, the 30-gallon capacity of the existing heater was insufficient.

Mr. Hutchinson suggested eliminating the need for temporary fluoride and phosphate systems during construction. Mr. Neyland said that we did get permission to leave the fluoride system offline during construction. He said that we can do this with a change order after we award the bid, which may save the LWD about \$10,000-\$15,000. Mr. Hutchinson also asked if we could avoid other temporary feed systems such as for the CIP or hydroxide chemicals. He found that it would be difficult to avoid the need for a temporary hydroxide feed system unless we skipped the bulk hydroxide tank work. Ms. Hendrickson asked what the hydroxide is needed for. Mr. Neyland responded that the hydroxide is for raising pH of our naturally acidic water to prevent corrosion in the mains and in interior plumbing throughout the system.

Mr. Hutchinson shared that he does not think they can remove enough scope to meet the current project budget. Ms. Hendrickson shared her appreciation for Mr. Hutchinson's time and effort to vet all the cost-reduction ideas. She said that his work was very worthwhile, and she feels confident that the LWD is making best efforts to reduce costs. Mr. Hutchinson shared that the suggestion from Superintendent Wisner and Mr. Neyland was not to rebid the project, and instead request an additional \$125,000 with built-in contingency at town meeting.

3. Jim Hutchinson to Discuss the SCADA System

Mr. Hutchinson reminded the group that roughly \$60,000 of the CIP project is for SCADA (Supervisory Control and Data Acquisition) work. He added that roughly \$30,000 is for hardware and integration work. He shared that it was possible to convince R.E. Erickson to help solve problems identified in the SCADA project evaluation as part of the CIP project. He added that as part of the CIP project, we could ask them to control the hydroxide flow based on the flow rate instead of the pH meter reading. In addition, Mr. Hutchinson shared that we may be able to reduce spare hardware needs. Mr. Neyland commented that he spoke with R.E. Erickson about hardware and it is possible to trim down hardware needs if we focus just on keeping the main PLC running. Mr. Hutchinson shared that the software needs could be trimmed down as operators become more familiar with the quirks of the current setup, which would also reduce costs.

Ms. Barnes said that this project is predicated on everyone staying well and not needing any interim water operators. Mr. Hutchinson shared that the LWD has seen a decreased need for temporary staff recently. Ms. Hendrickson asked Ms. Wisner if the department is fully staffed. Ms. Wisner responded that we have one open water operator position left to fill. Mr. Hutchinson shared that approximately \$20,000 of the total budget is for software changes and \$20,000-\$30,000 is for hardware updates, so the total cost of the SCADA work is \$40,000-\$50,000. It was unclear if the SCADA work could be considered a capital project, and Mr. Hutchinson made a note to ask Ms. Wilkins.

Mr. Hutchinson said that he is working on a definitive proposal and waiting for an estimate from R.E. Erickson. He said he would check in with Ms. Wilkins on the capital aspect and provide an update to the Water Commissioners at a future meeting.

Ms. Barnes recommended prioritizing the alarm systems revisions considering the current COVID-19 climate and the possibility of needing temporary staff if an operator becomes ill. Mr. Hutchinson shared that we do not have a large sample of operators to talk to and we are relying on just a couple of people to prioritize alarm system revisions. He added that he is comfortable with helping to prioritize changes.

Ms. Hendrickson recommended prioritizing the list of tasks, doing what is necessary and essential, and then deciding in some later year if the Water Commissioners want to implement the full \$400,000 project. Mr. Hutchinson said he found spare parts online for \$3,000, but R.E. Erickson will not use parts that come from an unauthorized dealer. Mr. Hutchinson

continued that we would need to find a new SCADA integration firm if we wanted to use cheaper spare parts. Ms. Hendrickson responded that the spare parts would only be used if a part fails, which should not be R.E. Erickson's concern. Mr. Hutchinson continued that if we had an issue with one of the spare parts, R.E. Erickson would not be able to troubleshoot.

Mr. Hutchinson noted that even if we wanted to get a new SCADA system, Superintendent Wiser does not want to work with a software integration firm other than R.E. Erickson. Ms. Wiser commented that R.E. Erickson has been working in Lincoln for the past two years, and has provided tremendous help to the operators, including responding to questions and concerns on the weekends. She added that she has been working with R.E. Erickson for past 10-12 years and has had no issues with their work. She questions whether other integrators would be as skilled and familiar with the system as R.E. Erickson. Ms. Hendrickson commented that if we decide to do the full \$400,000 project, we should go out to a competitive bid. Mr. Hutchinson offered to check references and make sure they are skilled as or better than R.E. Erickson.

The discussion then returned to the CIP project, where Mr. Neyland commented that D&C Construction was the low bidder for plumbing, and they are willing to hold their bids through May 2020.

MOTION: Commissioner Glass made a motion to request an additional \$125,000 for the CIP project at the future town meeting, when it shall be held. Commissioner Barnes seconded the motion. Roll call vote: Hendrickson, Aye; Glass, Aye; Barnes, Aye.

Mr. Hutchinson noted that it was helpful to speak with the operators and become more aware of how the water treatment plant operates. He recommended the same experience to the Water Commissioners. Ms. Glass agreed that the knowledge is helpful to the Commissioners but wants to make sure we are using the time of LWD employees wisely. Ms. Barnes asked if the water operators would be willing to participate in meetings once a quarter or twice per year. Mr. Hutchinson recommended one-on-one interaction to get optimal feedback. Mr. Neyland cautioned that water operators' opinions are important, although they may not understand the big picture. Ms. Barnes responded that operators should attend Water Commissioners' meetings to gain some education and perspective on the overall workings of the LWD. Mr. Hutchinson noted that he would like to see less turnover in the LWD staff moving forwards and would like the staff to feel like their concerns are being heard and considered when making LWD plans.

4. Other Business

Mr. Neyland requested an amendment for additional field and lab analysis as part of the Flint Pond's water treatment plant coagulant pilot study. He said that DEP reviewed their pilot study proposal and required Tata & Howard to perform additional field and lab sampling and analysis. He added that this was an unexpected response from DEP, but it does make sense considering that we will have to discharge processed water from the pilot study to the pond under the existing NPDES permit. Mr. Hutchinson asked why this need was not known at the beginning of the assessment. Mr. Neyland responded that originally, Tata & Howard did not know where they were putting the processed water and they were trying to minimize the need for sampling, but DEP asked for more sampling to prove that there is sufficient removal of organics.

Ms. Hendrickson asked Mr. Neyland to be more thorough in future assessments so there is no need for additional amendments. Mr. Hutchinson asked what the flow rate is for the water discharged. Mr. Neyland responded 20-25 gallons per minute. Ms. Barnes asked what portion of the extra tests is for the water outflow. Mr. Neyland responded that some of the testing is for NPDES compliance sampling and some is for the filtered water coming off the pilot system. Mr. Neyland added that NPDES requirements for suspended solids include weekly sampling for eight weeks for both the discharge and the pond.

Mr. Neyland requested an additional \$7,500 amendment for this portion of the coagulant pilot study, resulting in a three-part project total of \$330,000. He said that the summer demonstration study is no longer required, so they will be able to go from the pilot study to full scale implementation and it will provide cost savings to the project. He added that this is a shift in line items, not an increased cost on the whole project.

MOTION: Commissioner Barnes made a motion to approve the \$7,500 amendment for the Flint Pond's coagulant pilot study. Commissioner Glass seconded the motion. Roll call vote: Glass, Aye; Barnes, Aye; Hendrickson, Aye.

There being no further business, the meeting adjourned at 10:38 AM. Motion made by Commissioner Glass, seconded by Commissioner Barnes. Roll call vote: Hendrickson, Aye; Glass, Aye; Barnes, Aye.

The next meeting of the Water Commissioners is scheduled for May 5, 2020 at 9:00 AM.

Respectfully submitted,

Monica Kacprzyk, Administrative Assistant