

**GROVELAND WATER & SEWER BOARD
MEETING MINUTES
March 18th, 2025**

A Regular Meeting of the Groveland Water & Sewer Board was held on Tuesday, March 18th, 2025 at 5:00 p.m. The meeting was held at The Town Hall, 183 Main Street, Groveland.

Board Members Present

Sarah Sheehan-McGrath, Chairperson
Bill Dunn

Staff Members Present

Colin Stokes, W/S Superintendent
Kimberly Bourque, W/S Office Manager

Guest

Ryan Allgrove, Project Manager APEX (Environmental Partners)

OPENING

Chairperson Sheehan-McGrath made a motion to open the meeting at 5:01 p.m. Seconded by Commissioner Dunn. All in favor.

APPROVAL OF MINUTES

Ms. Bourque presented the minutes from the February 18th, 2025, Water & Sewer Board meeting. **Commissioner Dunn made a motion to approve the minutes from February 18th, 2025, as submitted. Chairperson Sheehan-McGrath seconded. No further discussion. All were in favor.**

ENGINEERING REPORT DISCUSSION POSSIBLE VOTE

Ryan Allgrove is present to speak about the engineering report. The purpose of this study was about Groveland treating its water or buying water from Haverhill. Allgrove explains that the first thing that they did was figure out hydraulically the interconnection with Haverhill; would the water flow the right way, would a pump station be needed to make it work. He states that our goal here was to see how you would replace all of Groveland's supplies, which can pump approximately 1,000 gallons per minute and to see how we would get Haverhill's water to Groveland's tower at the same rate of 1,000 gallons per minute. The first thing that was done, was they took Groveland's hydraulic model, which had not been calibrated in about ten years, and with the flow test, the hydraulic model was calibrated and went fine. Haverhill's consultants did the same thing on their side to make sure the most recent information was being utilized. The interconnection location is at the town line on Salem Street, as that is where the historical interconnection had been several years ago, approximately in the late 1990s. We know that Haverhill has a larger size main in that location, so that is why that location was selected. Once everyone did their flow tests and calibrations, we got the results from Haverhill and put them into Groveland's model and what was determined was that the water would flow to Groveland under most circumstances, not all circumstances, depending on what is going on in Haverhill. When Haverhill is in a high demand period and their tanks are on the lower end, the pressures in Haverhill would actually be lower than the pressures in Groveland. Because of this, Groveland would need a pump station to account for all those scenarios. Allgrove states that the idea of having Haverhill supply Groveland, you are "putting all your eggs in one basket," so the idea of things working *most* of the time is not good enough. Fire flow was also looked at in Groveland to make sure that if you switched the supply over to that end of town, it would reduce fire flows, although Allgrove is more concerned on the part of town where the current wells are. They found that it actually improves fire flows because the tank is already centrally located and if you move your supply to the western edge of town, it provides another stabilizing force. Allgrove states that this

is not a huge improvement and does not make a difference in their recommendations, they just wanted to make sure it was not going to make it worse, which it does not.

Allgrove states that the next thing that was looked at was water quality. Haverhill is a surface water supply source, while Groveland is a ground water supply source, so there are inherent differences in the two waters. Groveland's water is much harder, about twice as hard as Haverhill's water. The pH that each municipality sends the water out at is approximately the same, high 7's which is related to corrosion control. Because Groveland's water is so hard, the alkalinity is a lot higher, which means that the pH is more stable. This is important because as water goes out into the system, the pH does not drop and start to become a corrosion issue with peoples' plumbing. Because Haverhill's waters' alkalinity is naturally lower, Allgrove believes that they add alkalinity as it leaves their treatment plant and they also add a phosphate to their water (which is typical with surface water supply) which is a corrosion control chemical that creates a film on the inside of the distribution system and peoples' plumbing as well. Allgrove suspects that in this scenario, if you try and blend Groveland and Haverhill water, DEP would require Groveland to add that phosphate so that there is the same corrosion control and the water is consistent across the board. If the water was changed over to Haverhill 100%, Groveland would have their strategy and Groveland would go through a period of change.

Allgrove explains that the big difference between surface water and ground water is disinfection byproducts, which are more of an issue with surface water supplies. Disinfection byproducts are the result of reactions between chlorine and organic precursors because surface water has more organic material in it naturally versus ground water, which has higher mineral content. Haverhill has a sampling area not far from the interconnection point, which is well below the regulatory standard, which seemed stable throughout the summer and winter. Sometimes you see a spike in the summer months because the reaction is based on temperature.

Allgrove states that the other major "issue" with switching water supplies is simple aesthetics. The water is much softer coming from Haverhill, so people would definitely notice a difference in taste and texture, which is something that we need to be aware of. Surface water is more prone to changes in aesthetics, as taste and odor can change seasonally. Haverhill's water supply is Kenoza Lake. Surface water changes over seasonally, all the cold water from the bottom flips up top when the surface temperature changes, so treatment plant operators are always sort of chasing the conditions of the raw water that they are getting, which causes more fluctuation in taste and odor. Groveland's ground water comes from 50 feet below the ground, so the quality, aesthetically, does not change much seasonally. Allgrove states that they spoke to some of the regulatory authorities about how that would work if the town decided to pursue it. On the Water Management Act side of things, Groveland is allowed to withdraw 0.41 million gallons per day throughout the year, and the town currently uses a little bit less than that. Similarly, Haverhill has a withdrawal authorization of 7.1 million gallons per day (MGD), much higher because of the population. In 2023, Haverhill used 5.38 MGD, which leaves 1.72 MGD in a theoretical surplus, which could be allocated to Groveland. Haverhill needs to keep in mind any projected growth and future demands on their end. The numbers of the authorized withdrawals could possibly change in the next year, as all the communities that withdraw their water from the Merrimack Water Basin are up for renewal of their water basin permits. The other major issue that would come up, if the town were to pursue being supplied by Haverhill, would be the Interbasin Transfer Act (ITA). The State does not want water withdrawn from one basin and discharged to another basin. In Groveland's case, all the supplies are in the Merrimack River basin and the same with Haverhill. Because Groveland has a couple small areas where the water system goes into the Parker River basin, that technically, right now, is an inter-basin transfer because the water comes out of the Merrimack, goes into peoples' septic systems, and ends up in the Parker River. Right now, because it is all within one town, Groveland has never had to deal with that issue. It is like an exemption, but once you cross a municipal boundary, it becomes an issue with the Water Resource Commission and would have to go through an approval process. The process can be pretty lengthy, years not months, and the general process is that they want to see the interbasin transfer as a last resort and prove that there are no other options.

Some recommended improvements for Groveland would be the pump station, as already mentioned, chemical feeds in the pump station to, at minimum, re-chlorinate. In order to make the pump station work without having the pressures being extremely high in that area of Salem Street, there needs to be about 2,800 feet of water main upgrades, as pressures on that side of town are already high. It is also recommended to install a new water main on Lawrence Road in Haverhill, that would service a redundant feed between the two systems in case of an issue at the pump station. Allgrove states that there is no town land at the town line where the pump station would have to be placed, so for budgeting purposes a number was placed in the cost analysis to acquire land for this purpose. Haverhill's consultants proposed that sometime in the near future, they would need a pump upgrade at their facility, in approximately twenty years from now, due to their projected demands in the future.

The final step in the analysis is cost, looking at it from a Capital Cost and a Lifecycle Cost perspective. Allgrove states that the Capital Cost perspective is not a very good way to look at it because the big expense in switching over to Haverhill water would be, instead of making your own water for pennies on the dollar, now you are paying the municipal water rate (buying water). The Capital Cost of the Water Treatment Plant is at about \$44,600,000.00 versus the interconnection which is at about \$20,000,000.00, so the treatment plant is about twice as expensive from a Capital Cost point of view. Allgrove restates that it is not the best way to look at it, since you are not comparing "apples to apples." Allgrove explains that they took information from the City of Haverhill, but **NONE** of these assumptions about water rates are what Haverhill has agreed upon, it is all subject to negotiation. We have taken historical information, with a little bit of guidance from Haverhill, and the water rates are shown as a low/high range, hoping the numbers would end up somewhere in the middle. Allgrove refers to a table in his report of all the assumptions made on rates, inflation, loan terms, interest rates, etc. Again, referring to his report, on page ten, the overall costs over forty years, which is a typical number for a water treatment plant lifespan, the treatment plant present discounted value is \$42,000,000.00, which is lower than the capital cost. The partial supply cost for present discounted value is between \$55,000,000.00 to \$66,000,000.00, which is \$13,000,000.00 to \$24,000,000.00 higher over the forty-year life cycle cost. Full supply present discounted value is \$74,000,000.00 to \$90,000,000.00, **which is approximately double the life cycle cost for the water treatment plant.** Allgrove mentions that the difference between the partial and full supply is that out of the three wells in Groveland, two of them are going to be above the regulatory standards for PFAS. Well number four does not have a ton of PFAS data, but the town has not been required to sample it, as we have only been required to test a blend of wells three and four, but with the little data we do have, there is a potential for well four to be under the regulatory standards. Allgrove states he wanted to be able to show this blending scenario, supplying the difference from Haverhill.

Allgrove refers to the graphs on pages eleven and twelve of his report to show how the costs look over forty years. For 100% Haverhill supply, the annual expenses of buying water would be slightly less the first few years, but it does not take that long for the lower end of the estimates for the annual expenses to exceed what you would pay for the water treatment plant. The water treatment plant cost is really just debt payments and some operational costs. The total costs of the treatment plant and purchasing water from Haverhill would "break even" or equal each other at eight years and everything past that, the water treatment plant is **less expensive**. For the partial supply scenario, because you are buying less water, the estimated payback period is extended out to a range of twenty-four to thirty-one years. Similar to the 100% model, the operational costs annually for the water treatment plant will be higher initially until the increased water rates catch up with it. Allgrove states he estimated that Haverhill's water rate would go up 3.75% per year, which means in about ten years, the expenses would be equal, and then twenty-four to thirty-one years, the water treatment plant is less expensive until the end of its' life cycle. He also notes that since there is not a lot of data on well four, if the blend model is something Groveland wanted to pursue, he recommends to start sampling that well individually, on a regular basis. Allgrove states that just because one well might be meeting regulations now, it does not mean that it will in the future and well three has pretty high PFOA and is only four hundred to five hundred feet away from well four, which leads him to believe that PFAS can or will make its way to well four. With this being said, if Groveland goes the "Partial Supply" route and not the water treatment plant, and something happens to well four, Groveland would have no recourse but to buy all their water from Haverhill, which is **the most expensive** option.

Commissioner Dunn asks Allgrove about the operational costs associated with the treatment plant. Allgrove refers to the bulleted points in his report on page ten that were included in the expenses of the treatment plant route.

- Additional power usage - \$20,000.00
- Additional chemical usage - \$5,000.00
- Annual replacement of Parts and Materials - \$25,000.00
- Residuals Disposal to Sewer - \$7,000.00
- Filter Media Replacement - \$100,000.00
- Additional Water Department Personnel (1 additional full-time) - \$100,000.00

Dunn also asks about the pump station and if it is definitely needed or if it is more of a safety thing. Allgrove explains that it would “kick on” when needed, especially in the height of the summer. Dunn also questions after spending all this money, that there is no way our wells will go bad. Allgrove explains that the way the treatment plant is conceptually designed is to treat for iron and manganese and PFAS. The plan right now is to treat the PFAS with granular activated carbon (GAC). Wells can get old, just like everything else, screens can collapse, and in that scenario, you would do a replacement well. Superintendent Stokes explains that there is an area for a new well where they found a ton of water. Allgrove also explains that a well can collapse, but the aquifer will not go away and that one of the benefits with the treatment plant is that it will increase Groveland’s capacity. He states well three is only currently pumping at half capacity because of its water quality and needs to be blended with well four, which is almost like getting another well or another 200 gallons per minute. Commissioner Dunn asks Allgrove if the numbers for the treatment plant are based on today’s cost or the end day cost and Allgrove explains that they used a 3% inflation rate built into the numbers. He explains that for the treatment plan loan, the \$44,600,000.00 is the last estimate we provided to DEP on the SRF financing application, which the town has accepted, and that dollar value is assigned to a certain index called the Engineering News Record Index, which tracks inflation. Mass DEP dictated what index was to be used and we have not quite gotten to that number yet, but should by mid-summer this year. Dunn inquires about that number growing a large amount and Allgrove explains that if construction was awarded next year, whatever inflation is from now to then would be added, which will probably be between 2-3%.

In Allgrove’s professional opinion, the water treatment plant would be his choice, as the lifecycle cost is the lowest. He also wants to point out, referring to the graphs in his report on pages eleven and twelve, the water treatment plant payment/expenses are more of a flat line, where the major cost is the repayment of a debt on a large loan that number is not going to change, and you can see what those payments are for the length of the loan. This is easier to plan around. When you buy water from Haverhill, the rates have been estimated, there are a lot more variables, wondering how much the rate would go up year to year, or after each negotiated term. Allgrove explains that Groveland has been accepted into a SRF loan program, it is not the full cost yet, they have awarded \$15,000,000.00. Until this past year, once you were awarded a project, you were guaranteed that you were going to be financed through SRF for the length of the entire project, but now you have to go back every year and get it in chunks, which is just the function of the amount of money that program has right now. PFAS litigation projections are eligible for 0% financing (but in the report is reported as 0.5%), which is huge. He also states that Groveland is eligible for some loan forgiveness, estimated at about \$1,000,000.00.

RESIDENT QUESTIONS/COMMENTS

A resident spoke about the water and his family history and also asks if Haverhill’s water has fluoride in it. Superintendent Stokes states that Haverhill’s water does have fluoride in it and, from his understanding in Groveland, it was voted in at Town Meeting and would need to be voted out at Town Meeting, if that was something the resident wanted to put together.

A resident asks about where the money will come from to fund the project and Allgrove explains that it will be a loan that the town will have to take.

A resident asks if the treatment plant will take care of the PFAS problems and if he should put in a home filtration system or wait for the treatment plant to be built. The resident asks if he will be wasting his money. Allgrove

explains that if he had to put a date on the treatment plant being complete, it would be 2029, so it would not be a waste for the next few years. He also explains that if a treatment plant is built, PFAS will be “non-detect.” The resident inquires about if the treatment plant will take care of the mineral sediment/brown water issues as well. Allgrove explains that in order for the PFAS filters to work, the water quality has to be at a certain place, so the town’s iron and manganese levels have to be reduced in order for the PFAS removal to work. Superintendent Stokes explains that he does not want a false sense of security that as soon as the plant goes online, it is not going to be a light switch. There are hundred-year-old pipes that have a hundred years of mineral build up in them. If we go the treatment plant route, as soon as the plant goes online, these pipes will stop getting the continuous iron and manganese, but there is still a hundred years of it in them that needs to come out or systematically be replaced, which would be part two, happening at the same time. He explains that there are two things that need to happen at the same time: either buying water from Haverhill or build a plant **AND** we need to replace pipes in town and both of them will be happening concurrently. Chairperson Sheehan-McGrath explains that is why customers are paying the Capital Fee, for the infrastructure work. Stokes explains that we are being forced to do this because of PFAS. Commissioner Dunn wants to make it clear that only water customers will be paying for whichever option is chosen, not people on private wells, although private wells and town wells are the same water quality.

A resident asks what PFAS is. Stokes explains that it is called the “forever chemical” and for long-time manufacturers put it in everything. He states it is in clothing, the food you eat, non-stick pans, gore tex rain coats, firefighting foam, but only 2% of the PFAS in your body comes directly from the water.

A resident asks about private wells still being untreated and Chairperson Sheehan-McGrath explains that only water customers on town water will be paying for the treatment plant and receiving the treated water. The resident also inquires about how much the bills would increase and Superintendent Stokes states that it is unknown, as the board has not voted on which way we are going to go yet.

A resident inquires about the water being safe right now and Superintendent Stokes states that we meet all current regulations. He explains that Massachusetts had a regulation for PFAS, we comply with that. The feds adopted a regulation that is about a fifth of what the Massachusetts regulation was and Massachusetts **HAS** to adopt the federal regulation. Once that happens, we will no longer be compliant and we have until 2029 to be in compliance.

WARRANT ARTICLE FINALIZATION

Superintendent Stokes states that the board has already preliminarily approved them all. He explains that there are a few things that we need to decide on. There was a previous warrant article that was for \$600,000.00 for when we were trying to drill a new well and looking for new sources, now that that is not an option anymore, there is a remaining amount of money. He explains that we can have a warrant article at Town Meeting to reauthorize that money to go towards something else, such as the water main projects or engineering for whichever route we choose. Stokes’ personal opinion is if it is reallocated, it can be combined with the \$1,000,000.00 we are receiving from the feds, which would allow us to do more.

Commissioner Dunn makes a motion at 6:02 p.m. to reallocate the money that was set at Town Meeting to be combined with the \$1,000,000.00 from the feds to do a bigger project. Seconded by Chairperson Sheehan-McGrath. No further discussion. All were in favor.

Superintendent Stokes states that we will need to temporarily borrow the money for the engineering for whichever option gets chosen. He explains that either option will be about \$3,500,000.00 for the engineering, design, and permanenting, so we need a warrant article for this. Stokes explains that the borrowing for the \$3,500,000.00 for the engineering, design, and permanenting will be a temporary borrowing initially, which is called a BAN (bond anticipation note). This means we only pay interest for up to three years, but in this case, it should only be one year until we are fully rolled into the SRF program. He states in order to pay the interest, the budget will need to be increased by \$260,000.00 to cover the interest and the origination fees. Stokes has spoken to the town accountant to add a budgetary line item to pay for this. He also explains that as of right now, our budget was level funded before adding this budget line item and the board and Superintendent will need to figure out what this will do to the rates. He explains that we will need to hold a rate hearing before July 2025 because the rate will need to be changed

before we can start billing customers for the new amount of water. Chairperson Sheehan-McGrath states that the new rate should be included in the PR, so the rate payers will know that the rates are going to be changing now.

Chairperson Sheehan-McGrath makes a motion at 6:07 p.m. that as a board, including Commissioner Grim's email stating he supports moving forward with the water treatment facility, that we vote to continue on with the water treatment facility in house. Seconded by Commissioner Dunn. Commissioner Dunn would like to see more PR with the town about this choice. All were in favor.

Chairperson Sheehan-McGrath makes a motion at 6:09 p.m. to have a warrant article to borrow \$3,500,000.00 for the engineering, design, and permanenting of a water treatment facility. Seconded by Commissioner Dunn. Superintendent Stokes explains that part of the SRF process is we need to temporarily borrow the money in a traditional fashion through the treasurer's office until we are fully into the SRF process until it is reimbursed and becomes part of the SRF. All were in favor.

Superintendent Stokes explains that a warrant article is needed to allow us into the SRF with specific wording in which will be obtained from bond council.

Chairperson Sheehan-McGrath makes a motion at 6:10 p.m. that Superintendent Stokes figures out an appropriate motion to allow us into the SRF. Seconded by Commissioner Dunn. No further discussion. All were in favor.

WEBSITE DISCUSSION

Superintendent Stokes states that the company that does the town's website and PR, the town is moving away from. He states that he has a relative that owns the company and needs the board to decide to keep this company or change directions. Stokes explains that the PR for the town is going to be done in house and the town website will be done by Annie with another company. Commissioner Dunn inquires about the cost and how often we use it and Stokes states that it is about \$4,700.00 for the PR and the website for the year. Stokes explains that this company does all of our PR and maintains our website. Chairperson Sheehan-McGrath states that if we are going to spend the money, we need to utilize it. Commissioner Dunn states that going down the path of the in-house treatment facility, we can use this company to get the information we need out to the people in town.

Commissioner Dunn makes a motion at 6:15 p.m. to keep our PR company. Seconded by Chairperson Sheehan-McGrath. No further discussion. All were in favor.

SIGN DEPARTMENTAL PAPERWORK

Superintendent Stokes states that our copier lease is up and he looked into options for new copiers. He explains that he found one that is less money and give us more capabilities. Stokes would like to move forward with a Canon machine which will save us around \$70.00 per month, but will also give us the ability to fold our bills for us.

Chairperson Sheehan-McGrath makes a motion at 6:16 p.m. to go with the Canon Copier. Seconded by Commissioner Dunn. No further discussion. All were in favor.

Superintendent Stokes explains that we had set money aside for the SCADA Project, which are the computers that run everything. He explains that everything communicates over radio frequency. The current radio receivers and transceivers that we have are not made anymore, so when we need to replace them, we cannot, and we have been having a lot of interference issues based on our frequency. Stokes presents a quote to replace all of our radios at the wells. He states that with this upgrade, it will give us stuff that does not have interference. Stokes states that the cost is \$32,000.00 and we have money in that SCADA line, which was approximately \$550,000.00, in which only about \$50,000.00 has been used. He also explains that this would have to be done when the water treatment plant is built anyways because we cannot buy new radios.

Chairperson Sheehan-McGrath makes a motion at 6:18 p.m. to move forward with the SCADA project to replace the radios at the wells. Seconded by Commissioner Dunn. No further discussion. All were in favor.

OLD OR UNFINISHED BUSINESS

None.

ITEMS NOT REASONABLY ANTICIPATED AT THE TIME OF POSTING

None.

NEXT MEETING

Monday April 14th, 2025, at 5:00 p.m., Town Hall, 183 Main Street, Groveland.

CLOSING

Chairperson Sheehan-McGrath made a motion to close the meeting at 6:19 p.m. Seconded by Commissioner Dunn. No further discussion. All were in favor.

Respectfully submitted,

Kimberly Bourque
Water & Sewer Office Manager