



LYNNFIELD CENTER WATER DISTRICT WARRANT
The Commonwealth of Massachusetts
Regular Board Meeting
6:30 p.m. November 26, 2018

Date, time, place: The regular meeting of the Board was held on Monday, November 26, 2018 at 6:30 PM in the cafeteria at the Lynnfield Middle School at 505 Main Street, Lynnfield.

Present were: Commissioners Chairwoman Constance Leccese, Richard Lamusta, Treasurer James Alexander, Water Foreman Nick Couris, Clerk of the Board Christine Smallenberger and District Counsel Attorney Christopher Casey.

Absent: None.

Also attending were: See sign-in sheet for ratepayers incorporated into the minutes hereto.

Additional attachments: Agenda, incorporated into the minutes hereto.

Next Regular Meeting: December 10, 2018 at 6:30pm

Adjourn: 8:15pm

Chairwoman Leccese called the meeting to order at 6:38 pm.

Agenda Item 4. Tax Rate Classification Hearing.

Mr. Raymond Boly from the town assessor's office was in attendance for the Tax Rate Classification Hearing.

Motion: Chairwoman Leccese made a motion to remain at level 1 with no shift and no change.

Second: Commissioner Lamusta seconded and the motion was approved.

Agenda Item 1. Retirement of Superintendent and plan to hire his replacement.

The First item on agenda is after 40 years of service Mr. Kenneth Burnham is retiring as superintendent of the District.

Motion: Chairwoman Leccese made a motion to form a search committee to interview candidates to be comprised of the 3 commissioners and 2 ratepayers from the district.

Second: Commissioner Lamusta seconded and the motion was approved.

Chairwoman Leccese asked 2 members of the District, Mr. Robert Almy and Mrs. Patricia Campbell to join the search. These 2 individuals will work in the best interest of the District. The District wishes Mr. Burnham good luck; Mr. Burnham's last day is January 2, 2019.

Agenda Item 5. CDM Smith Review

Chairwoman Leccese handed the meeting over to Angela Moulton who introduced CDM Smith engineers Meredith Sullivan and Al LeBlanc, a technical specialist for the facility planning for Glen Drive.

Angela Moulton continued to give a brief overview of the District by showing a map of the Lynnfield Center Water District service area that provides drinking water to 2/3 of the town and the other 1/3 of the town receives water from MWRA. The District has 2 water tanks and 4 locations where drinking water comes from and is drilled from the ground. Locations 1 and 3 are Phillips Road and Locations 2 and 4 are Glen Drive and Main Street. Glen Drive provides 40% of the drinking water, the other 40% is provided by Phillips Road and 20% from Main Street. The District receives water from two different river basins: the Ipswich River Basin and the North Coastal Basin. The Glen Drive site was built in the 1990s. CDM Smith had come out and studied the bedrock fractures in the area to find specific drinking water and did a series of pumping and water quality tests. CDM Smith wanted to make sure there was adequate water supply and water quality was good. In the 1990s the tests showed very high-quality drinking water and there was no need for any filtration plant. The water comes from the ground, chemicals are added and pumped to the distribution system. What happens over time is not unusual to see iron and manganese develop into the deep rock wells. Over time it makes its way into the drinking system. There have been discolored water concerns and we have looked at the water quality and determined a greensand filter plant would be best to remove iron and manganese from the water.

Schematic of Glen Drive: there are 4 existing wells that pump in a clear well and are pumped into the distribution system; we want to add greensand filters to remove the iron and manganese. Greensand filters been used for 7 decades and we have a greensand filter at another site; it has been proven to be successful.

A question was asked: do we need to remove the iron and manganese and how big of an issue is it? The red area shows the residents that have been experiencing discolored water. When

you find manganese, it doesn't go away on its own, it will develop and increase over time and could potentially spread through the District. If it is not addressed and treated, it could increase and make its way into the system.

A ratepayer asked: does Main Street have a greensand filter plant? Angela Moulton said it does not at this time and we are watching the levels at Main Street and keep an eye on the water quality at that location. The warrant article the District proposed is a 2-part article. Phase 1 is to address water quality concerns and we recommend the greensand filter. At the same time residents are concerned with water quantity so Phase 2 is to complete a study to look at additional water sources to supplement existing supply. It is 1 vote for a 2-phase approach. A yes vote will be to design and construct a greensand filter plant and fund studies for additional water sources.

A ratepayer asked: what is your best sense of timing on the manganese spreading? Angela Moulton replied we can't pinpoint the timing. The District has been flushing and the flushing scours any manganese built up in the pipe and helps alleviate the situation. The only way to get rid of it is to do the green sand filtration site; if you remove Glen Drive it removes 40% of the District's water. The District used a different method of flushing this year unlike in past years. The District instituted directional flushing to isolate neighborhoods and pull clean water out to the hydrants to eliminate the water complaints. Foreman Couris added: some of the issues we had with flushing in spring took significantly less time in the fall; it appears to be going in the right direction.

A ratepayer is concerned about the long-term picture of the supply of water. Angela Moulton said there have been several studies on the Ipswich River Basin, a stressed basin. When water levels decrease it signals certain water restrictions and bans and if communities were to expand they might have a hard time meeting demand. CDM Smith has population projections. Lynnfield hasn't increased a significant amount in the past 5-10 years and isn't projected to expand more, so we don't anticipate demand will be an issue. *A ratepayer said that empty nesters will be selling their homes to families and will add another demand on the supply.* Angela Moulton responded that is part of Phase 2: We want to study additional resources and want to get water from a neighboring town.

Agenda Item 2. Additional Articles for the Warrant.

Agenda Item 3. Close the Warrant at 7:00 PM.

Motion: Chairwoman Leccese made a motion to close the warrant at 7:00 PM.

Second: Commissioner Lamusta seconded and the motion was approved.

No more warrants had been received and three warrants will be added to the ballot. Per the enabling act we cannot add 1 Article to the warrant. *Mr. Almy asked: whether in the opinion of legal counsel we can proceed with these items, and, given the nature of these petitions, how one of the warrant articles could not be considered by the board?* District counsel Attorney

Christopher Casey said he gave the opinion through the chairperson that the article cannot supersede the Lynnfield Center Water District's Enabling Act. The District was created by a statute and can't be overridden by an article. Hiring power is solely vested by the Commissioners. Attorney Casey will send Mr. Almy a formal response. That article will not be presented. *Mr. Almy responded the District is to form an independent committee to advise and assist and not to interfere with the board of directors. How can it be illegal when it is only asking?* Attorney Casey said you will have the ability to challenge it in a court of law. *Mr. Almy responded so I can spend money to challenge this?* This feels like a little bit of engineering that I haven't seen backup information. Chairwoman Leccese said those 3 articles will be posted on the website and will appear on the ballot on December 10, 2018. The language from Mr. Almy and Mrs. Rauseo's articles will be posted on the website and the board's language will also be on the website. Angela Moulton proceeded to read the 3 additional articles on the ballot.

Article: As proposed by the Board of Commissioners: to see if the Lynnfield Center Water District (District) will vote to appropriate and raise funds for a two-phase project to improve water quality and increase capacity during peak periods of consumption during the summer months. Phase 1 is the largest portion of the project scope. It involves construction of a treatment plant at the Glen Drive Pumping Station, which includes a greensand filtration system that removes iron and manganese from the water supply. This treatment plant will be the most efficient, cost-effective approach to ensure that customers district-wide enjoy clear, quality drinking water for the foreseeable future. The useful life of such a treatment plant is 20 to 40 years with normal maintenance. The cost for construction of this plant is estimated to be 5.25 million dollars. Phase 2 of the project is to study additional sources of water to supplement the existing water supply during peak periods of consumption – summer months. The objective of this phase is to understand options to increase the water supply available to our customers. Efforts are being made through discussions with the DEP to minimize watering restrictions imposed on ratepayers. The plan is to source MWRA water either through the Lynnfield Water District or from one of the surround communities (Andover, N. Reading, Reading, Wakefield). The most logical and economical tie to source MWRA water is through the Lynnfield Water District. The estimated cost for this discovery phase of the project is estimated to be \$250,000. Total project cost is estimated to be 5.5 million dollars. The funding source for this project would be from debt, potentially through low-interest state loans, specific to this type of project and modest rate increases to our customers. Rate increases would be based on a new rate structure which increases with higher consumption.

Article: As proposed by ratepayer Robert B. Almy: to see if the Lynnfield Center Water District (District) will vote to appropriate by transfer, or otherwise, a sum of money, not to exceed \$250,000 (Two Hundred Fifty Thousand Dollars), for the purpose of performing evaluation related to importing supplemental supplies to the District service area through interconnections with neighboring towns or the Massachusetts Water Resources Authority. Such evaluation to include capacity studies on the Lynnfield Water District system and evaluation of water quality compatibility issues. Said appropriation may be used to defray direct costs incurred by one or more adjacent water districts whose systems are included in the capacity studies. The results of such evaluations shall take the form of a formal report to the District and shall be available for public review in draft form for at least 60 days before being made final.

Article: As proposed by ratepayer Robert B. Almy: to see if the Lynnfield Center Water District (District) will vote to appropriate by transfer, or otherwise, a sum of money, not to exceed \$200,000 (Two Hundred Thousand Dollars), for the purpose of performing a feasibility study and preliminary engineering design for a filtration or other treatment system for removal of Iron and Manganese from water produced from the Glen Drive Well Field. Such evaluation and design to include cost estimates and proposed funding mechanisms for the recommended design. The results of such evaluations shall take the form of a formal report to the District and shall be available for public review in draft form for at least 60 days before being made final.

Article: As proposed by ratepayer Stephanie Rauseo: to see if the District will vote to give a mandate to our commissioners to study and report additional sources of water to replace the existing water supply or supplement the existing water supply. The objective of this warrant is to understand options to increase the water supply and quality available to our customers. Efforts are being made through discussions with the DEP to minimize water restrictions imposed on ratepayers. The plan is to source all of our water through MWRA directly or to source MWRA water through the Lynnfield Water District or from one of the surrounding communities (Andover, N. Reading, Reading, Wakefield.) The estimated cost for this discovery is \$250,000. This report will be due by April 8, 2019 and will be presented in detail at the April 8, 2019 LCWD regular meeting. The funding source for this project would be from debt, potentially through low interest state loans, specific to this type of project and modest rate increases to our customers. Rate increases would be based on a new rate structure which increases with higher consumption. A YES vote on this Article will provide funding to study additional water sources to the District's water quantity and quality without spending 5.25 million dollars before we really have a cohesive plan to solve all our water problems.

Chairwoman Leccese read the rejected article regarding the superintendent position: To see if the Lynnfield Center Water District (District) will adopt a policy that states: At the time a replacement of the District Superintendent may become necessary, the District will form an independent committee of at least 3 district voters to assist and advise in the selection of a Superintendent and to recommend the two most qualified applicants to the Board of Directors. Said committee shall not include members of the Board of Directors, but during the advertising and selection process members of the Board may consult with the Committee as they deem appropriate.

A ratepayer asked if the District can explain the voting process. Chairwoman Leccese said you will vote for the 2-phase project, if we vote yes on that we will not need to vote on the following articles. A ratepayer asked those voting must be ratepayers? Chairwoman Leccese said they must be registered voters. David Nelson asked will there be communication for the 4 articles for the ratepayers to see. Chairwoman Leccese said we will put on the website and local papers and our Facebook page. Mrs. Toscano asked when we vote for one article is it the majority? Chairwoman Leccese said you can vote yes for the 1st article. Mrs. Toscano asked there is no greensand filter article by itself? Chairwoman Leccese responded no, we cannot separate.

Mrs. Toscano further asked if the study finds that we should get more water supply from MWRA, then we could supplant the existing supply at Glen Drive and not put in a treatment plant? Angela Moulton responded the reason the board moved forward with the greensand filter plant

is at the selectman meeting this summer there were people who had discoloration in their tap water, and the board's job is to deliver high quality water, so in response they engaged an engineering firm to study the issue and quickly solve the problem. The solution is the greensand filter plant and Massachusetts DEP is involved and wants to improve the quality of the drinking water. It is not a quantity issue. There has never been a time the District has never been able to use the water. There are water ban restrictions that have to do with water conservation imposed by the Massachusetts DEP. Massachusetts DEP's goal is 65 gallons of water per person per day and has goals for water conservation. *Mr. Volpe asked what would happen if the MWRA takes over, would you oversee it?* Chairwoman Leccese said why go MWRA, we have fine water. *Mr. Prouty said for 3 years we have been calling about discolored water and now the District is in a hurry to build a treatment plant. I asked about Main Street and what happens if they kick up levels of iron and manganese.* Angela Moulton said the Main Street supply is tested, if it elevates they could tie in to Glen Drive and is part of the facilities planning we have been working on. We are sizing the filter vessels for the appropriate quantity to go into the treatment plant. *How much more if we would tie in Main Street?* Angela Moulton said it doesn't include capital costs for Main Street. *Mr. Prouty said this is why we want to separate the studies.* *Ms. Lagman said this is our final meeting before voting and you can't give us numbers.* *Mrs. Lopez asked if the District can confirm the greensand plant has a 20-40 year shelf life.* Angela Moulton said you have to maintain and operate. The Phillips Road greensand filter plant was installed in the 1980s and in 2010 the District drilled additional wells and increased capacity and that was 30 years before an upgrade was done.

A ratepayer asked: if the District article passes will all 4 articles be voted on? Mr. Almy asked a procedural question that, during the December 10, 2018 meeting can there be a motion to re-order the articles and if so what percentage has to agree to them? Attorney Casey said the commissioners will determine and will be in the chronology of how they are received. *Mr. Almy asked: is there a legal process to make a motion and take in a different way?* Attorney Casey responded I don't know. Chairwoman Leccese said we will investigate. We are operating under Roberts Rules of Order. Chairwoman Leccese asked: does it make a difference? *Mr. Almy said the people want to make sure the studies are done and approve the expenditures.* *Mr. Almy said he is simply asking a procedure question and is not advocating one way or other.*

A ratepayer asked: will the greensand filter have capacity for Main Street? Angela Moulton responded CDM Smith is sizing the plant appropriately so they can clean the amount of water the District can obtain and can assist Main Street. However, CDM isn't designing the means to connect right now but the vessels will be big enough. They can clean that value of water.

A ratepayer asked: will all 4 articles will be voted on? Chairwoman said if you vote for 1 it includes the other 3. *Mrs. Toscano asked: what if there is a tie?* Attorney Casey said we will have to figure that out.

A ratepayer mentioned Article 4 has a deadline of reporting, and Article 2 has a 60-day review but all the other aspects. *Mrs. Toscano said we haven't talked much about costs, Article 1 is about the block structure and that has been previously voted on.* Chairwoman Leccese said it is an open meeting and we can post the minutes of the meeting and it was voted by the District;

whoever shows up votes. *Mrs. Toscano said the whole purpose is to reduce water consumption.* Chairwoman Leccese said the rate structure is to fund the operation of the District; we need to fund our operating expenses. *Mrs. Toscano asked has those rates gone up significantly? I'm an average water user and with the block structure my annual rate will double with the block structure.* Chairwoman Leccese said we want to raise the rates for the highest consumers. *Mrs. Toscano said they will go up even more based on the December 10, 2018 vote.* Chairwoman Leccese said we are trying to mitigate the cost as much as we can. We are doing our best to keep costs down. We have to give a worst-case scenario.

Mr. Almy wants to preface with thanking Attorney Casey for being responsive and thorough and with a quick turnaround. My question I asked before is there written material regarding engineering and cost estimates detailed behind the greensand filter. It should be available before any project is undertaken. I want to be sure it's out to the public before the project moves forward. Angela Moulton said we have been working on a facility plan and it is in draft form and once finalized will be available to be seen at the District but will not be on the website. *Mr. Almy asked: does it include cost estimates and when will it be available.* Angela Moulton said it will include water quality and quantity, preliminary layout plans and is up to the District when it will be available to you. We plan on finalizing within the next couple of weeks and will need to wait for the District to comment on the report before finalizing. Unfortunately, it won't be available before the December 10, 2018 Special District Meeting. *Mrs. Lopez said: what if none of these pass, what is the plan?* Chairwoman Leccese said the District will keep flushing, that's all we can do and continue to offer the rebates. We have come forth with a plan. *Mrs. Lopez asked: will you continue to educate the district?* Chairwoman Leccese responded yes, we will continue to issue more educational material and not hide anything. After the December 10, 2018 meeting, we will move forward.

The District have been keeping an eye on manganese levels at Glen Drive, the levels were low and over time the manganese increased and that's why users see discoloration at the tap and is likely to increase. Massachusetts DEP is aware of it and checks in with us for updates and what the District will do to solve the problem. If the warrant doesn't pass the levels will continue and we will be in same situation same time next year. If nothing moves forward the District will continue to flush. Keep in mind we can't flush in peak summer months and will flush when they can in the spring and fall. *Mrs. Lopez asked: there used to be localized flushing in the summer, why can't it happen?* Foreman Couris said we have to be cautious and our plan is to flush as often as possible as long as we have the water and do as much as we can. *Mrs. Lopez asked, can you flush just the areas that have the problem?* Foreman Couris said we hope to localize it so not to interrupt other areas and minimize the impact. It might take 1-2 times and once we get there it will be easier and faster. *Mrs. Lopez replied: you said the infrastructure is fine but how do you know that?* Angela Moulton said we know it is cement lined pipe and CDM Smith did a hydraulic model study. We do hydrant flow tests where you physically operate the hydrant and observe flows in the system to match what is going on in reality. If we open a hydrant and see a pressure drop we may see an issue of build-up. From the hydrant flow tests and c value testing we can determine the condition of pipe without digging up pipe. If we have a water break and physically remove the pipe, we can physically see what the pipe looks like and we aren't seeing a high build up in the pipe. *Mrs. Lopez asked: how do you explain that the same houses get*

brown water repeatedly and their neighbor does not? Angela Moulton said the model is hydraulics water flow and pressure, not quality. It is more about quantity and not quality. Every house uses water different. It is happening in a concentrated area, you may be receiving water from Glen Drive one day and another day you receive water from Phillips Road so the flow may be changing. *Mrs. Lopez said it seems more random and is having a hard time understanding the full force of the problem as her neighbor has never seen brown water but she gets it all the time. A ratepayer on Chestnut Street said if all water is mixing but only this area is getting the brown water why is no one else getting the brown water? Could something be up with the pipe system? No disrespect has anyone got a second or third opinion?* Angela Moulton responded with residents in one area the flow pattern is consistent and likely receiving from a storage tank and going to the bigger part of district. We know those areas affected are likely getting from Glen Drive and at times they may use water from others and its pulled in a different direction and that's why you are seeing discolored water. We have collected water from others in the District and see elevated levels. We know there are high levels of manganese and it is lower in the 2 other sources. We know it is showing up in your tap water and is at Glen Drive. The manganese settles in pipes over time. The manganese is coming from Glen Drive and depositing in the pipes in the concentrated area and overtime it is left untreated. Eventually, you will see it further down Chestnut Street and over time it will expand. Years ago, it may have been a concentrated area and now it is getting worse and worse and more residents will see it. *A ratepayer asked: there must be other communities dealing with it and at what point do you intervene and are there other options?* Angela Moulton responded this is a common issue and Al LeBlanc from CDM Smith has worked with other communities regarding this issue. Al LeBlanc said the solution is greensand filter which is the most common solution for iron and manganese and it works. *A ratepayer asked about the sense of timing; Phillips Road was put in immediately and now it has taken 20 years for Glen Drive is that typical?* Al LeBlanc said another community is in your shoes and it is common. *A ratepayer asked has technology improved or stayed the same?* Al LeBlanc said it's the same technology, we oxidize the iron and manganese and remove it; it works and has been around forever. *A ratepayer asked are there any other alternatives?* Al LeBlanc said there is biological filtration, strain out the manganese to oxidize, a high energy process, we run water by gravity and is costly. There are a good number of alternatives.

Mrs. Toscano asked: did you evaluate installing a water source tank, would it help the situation and be less costly? Angela Moulton said that's not something we looked into and it won't necessarily solve the problem. The District considered isolating valves to help the flow. *Mr. Volpe asked: why can't we put cameras in the pipes? I get discoloration all the time and my neighbors haven't. Can we take a look at the pipes?* Al LeBlanc said to expand on that it is not random and repository and patterns ebb and flow in the piping system. Angela Moulton said we can certainly look at drawings in those areas for discrepancies and if it is an issue. *Mr. Volpe said it has been said maybe it's my piping and I had my pipes checked and it is not my pipes. It is something that should be investigated before we jump into this.*

A ratepayer wants to hear more about the stressed Ipswich River Basin and looking at the longer term and how long it will last? Angela Moulton said a previous study was done that the District was involved with other communities. The study has been done and will be linked on

the District's website. *A ratepayer asked: what is the recommendation?* Angela Moulton responded the study has a lot to do with increase in demand, conservation, and population. More communities with room to build out are in a different situation than us.

Agenda Item 8. Board review and approval of payroll and A/P warrants.

Chairwoman Leccese made a motion to approve the minutes of the November 7, 2018 meeting. The motion was seconded and approved.

Mr. Steven MacNichol from 2 Wildewood Drive came before the board to discuss removing his water ban fines. The board said they will review his fines and will get back to him with their decision.

The board has to come up with a dollar figure for ratepayers that do not allow us access to fix their meters. We need to set the bill high enough to gain access to their home. The office will contact Attorney Christopher Casey's office to send letters to these homeowners and determine what fine we can impose.

Agenda Item 6. New Business.

Agenda Item 7. Old Business.

Chairwoman Leccese made a motion that was approved and meeting adjourned at 8:15 PM

Respectfully submitted,