

TOWN OF IPSWICH
Finance Committee
Meeting of February 27th, 2020
Town Hall, 25 Green Street

With a quorum present, the Chair called the meeting to order at 7:34.

Finance Committee members present: Michael Dougherty, Walter Hartford, Michael Schaaf, Joseph Bourque, Timothy Goodrich, Rob White

1. Citizens Queries – Michael Dougherty

- none

2. Acceptance of Finance Committee Minutes – Michael Dougherty

- No minutes to approve.

FY21 Budget Reviews: Water, Water Treatment & Wastewater

3. Water – V. Halmen

Vicki Halmen presented the budgets for Water, Water Treatment, and Wastewater. Vicki began by explaining the setup of the department. There are two divisions: treatment and distribution. The goals of the department are to protect the town water supplies, treat the supplies, distribute the water to costumers, to manage rates as equitably as possible while meeting O&M and Capital needs, and to ensure water supply is drought resilient and efficient to meet community needs of the future. Lastly, the department plans for and executes rehabilitation of the water infrastructure, which is developing the proactive Asset Management Plan and the funding strategy. This is funded by a grant for water and wastewater.

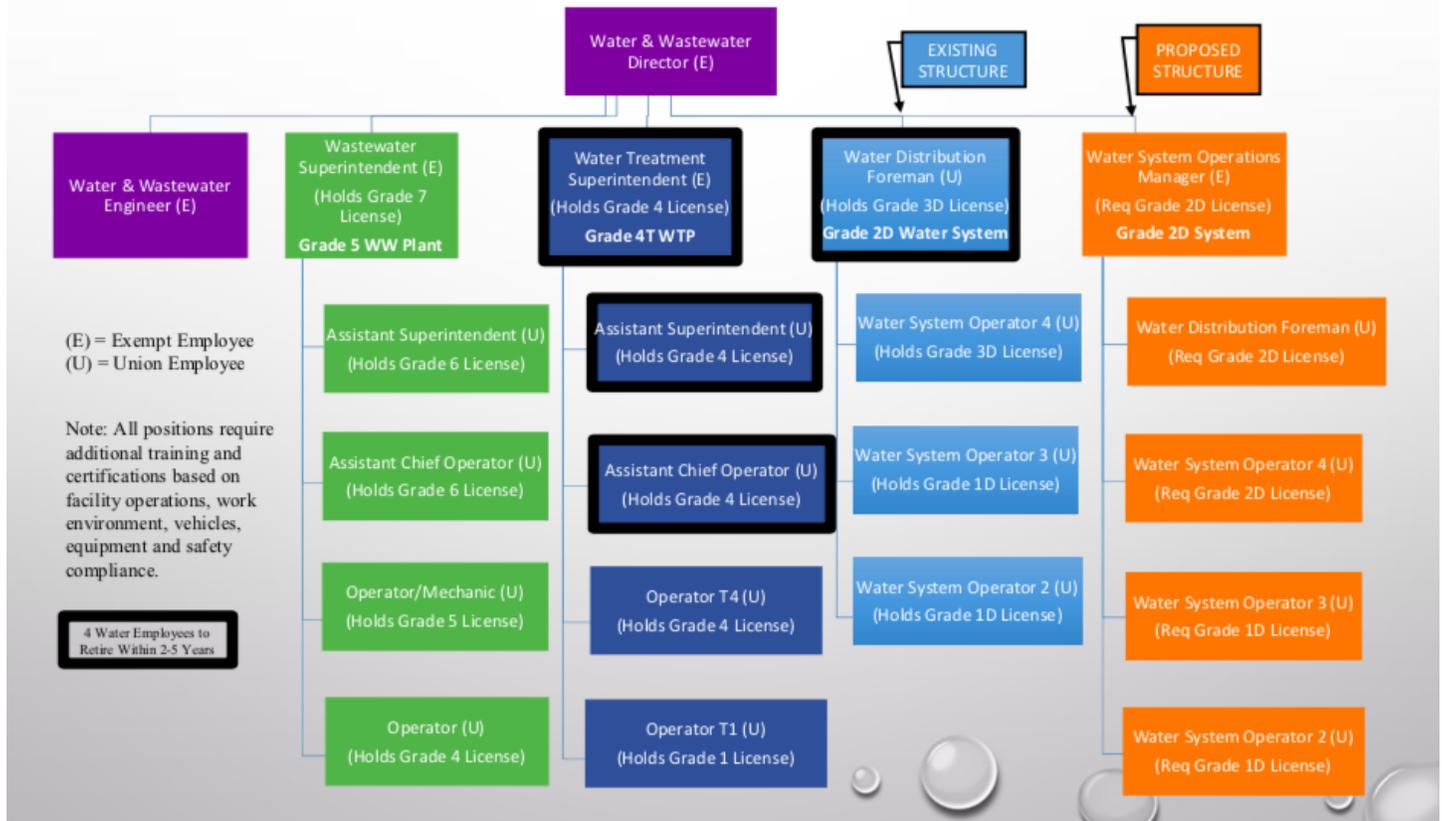
Accomplishments include the Dow Brook Dam rehab completion, which was designed, permitted, and constructed in less than a year and used \$711,000 of grant money to fund half of the project. Another accomplishment was the completion of the water demand and supply evaluations which is a report that was commissioned after the drought of 2016, which put a lot of pressure on the supply. It looked at the current demand, future demands, current sources, and restrictions with those resources. The study dug into all of this and then offered options for enhancing the supplies so that supplies can be reliable and redundant. The report and its findings are posted on the website. The department also worked to lower the manganese levels in two of the wells. Another accomplishment was that the department started looking for new groundwater sources and they located a site at the former Lynch property. They have been working toward the development of that site and have applied to the DEP to get that to be a full production site. They went through a long-term pump test and a lot of evaluation of that site. Walter asked about the manganese levels there, Vicki said it has no manganese. Another accomplishment was the water main replacements. There was a catastrophic failure on Mill Road in a pipe under the water. It drained one of the tanks. They had it repaired but then found out that the pipe was bad in other parts so they had to come up with a rehab plan. There were some water quality problems because having this pipe offline was affecting the pressure. They were able to complete the project by inserting a structural liner. It is up and running now. There were also several catastrophic failures on High Street so priorities shifted to replacing a section. When that pipe fails almost the whole town feels it. This affects residents, travelers, business, and water customers. That project is under construction right now and full construction will ramp up in a few months once the weather is better. Additionally, they have converted fully to the smart meter system.

Walter asked if it is easier to find a leak now than it used to be. Vicki said we have about 100 miles of pipe and we do an annual leak detection with an outside contractor. They utilize two methods to detect leaks. Joe asked to clarify that there are about 100 miles of pipes in the water system, 23 miles of wastewater piping. The Wastewater Department serves 2,100 customers, which is about 50% of the population.

Vicki then went over the budget. The total water department budget is \$4.6M. The salaries and expenses are up 4.2% which is primarily due to short term debt on High Street and Market Street. There is a warrant article for Town Meeting for \$2.5M for more of High Street and Market Street. There is also a new Water Distribution position. The long-term debt is up 42.5%. which is due to the Dow Dam rehab and the High Street project. Operating Capital is up 18.1% which is due to a utility truck replacement, water supply improvements, solar bee mixer for the Dow Reservoir, and for assessment management execution. Walter asked if all of the debt runs through the budget and gets funded by the rate increases, Vicki said yes.

Vicki then talked about the new proposed position. This is a Water Systems Operations manager, which will be an exempt position beneath Vicki to manage the water distribution crew. Vicki went over the org chart to explain the need for the position. Vicki explained that there are several retirements happening in the department and they are difficult positions to fill because the system in Ipswich is old and takes time to learn. They need to prepare ahead of time for these retirements and this is one way to do so. This will also allow the new position to oversee work being done in the field, which will free Vicki up to work on planning for upcoming projects. Walter asked if they are planning to replace the foreman when that person retires. Vicki said the plan is to move the Distribution Foreman up to the Operations Manager so that that person can be in a position to teach the people under him and share his knowledge before he retires. This will build the strength of the crew. Vicki also said that she is proposing this as a permanent position, but everything in the department is fluid as we gain more technology and as we start to replace systems. She referred to the following organizational chart to explain the need for the new position

WATER & WASTEWATER ORGANIZATIONAL CHART



Vicki then discussed the debt. The new debt service in FY21 is for the Dow Dam rehab and the partial High St. water main. There is a projected debt of \$45M for FY21-25. This is due to water main replacements (\$10M), the new well at town owned Lynch Property (\$2.5M), a second tank on Town Hall (\$1.5M), Town Hall tank painting (\$900K), and the Water Treatment Plant (\$30M). Additional potential future debt includes replacements for Browns Well and continued water main replacements to be funded by the Asset Management Plan. Vicki showed two pie charts to aid in her explanation of the reactive vs. proactive water asset replacement. The 5-year water budget projections are as follows:

Projections	FY21	FY22	FY23	FY24	FY25
O&M+Capital	\$3,528,867	\$3,520,033	\$3,513,934	\$3,510,652	\$3,670,271
Long Term Debt	\$830,074	\$1,258,851	\$1,455,556	\$1,687,766	\$4,074,407
Total Budget	\$4,358,941	\$4,778,884	\$4,969,490	\$5,198,418	\$7,744,679
Rate Increase	13%	13%	13%	12%	12%
Last Year Projections	15%	15%	10%	2%	2%
Surplus Use	\$201,333	\$93,786	-\$311,670	-\$704,481	\$1,145,432
Surplus Ending Balance	\$491,535	397,749	709,419	1,413,900	268,468

Vicki explained that with all of this capital spending plugged in, the department is looking at a 13% rate increase for three years, and then 12%, which was recommended by the subcommittee. Rob asked how much revenue the 13% would bring in. Vicki said that gives the department about \$400,000 additional revenue. Vicki also went over the rate comparison with other towns nearby. Rowley and Topsfield take the lead but they both have new treatment plants so they are paying for those. There are a lot of towns that are cheaper than Ipswich but you have to look at all of the reasons for this and must consider the whole picture.

Tim said Vicki mentioned there would be an article related to the water main replacement on High Street and Market street. He asked why we needed an article, Vicki said for the borrowing. They will use the cash they have in design projects and then they need authorization at town meeting to borrow for construction. Tim asked how you explain to rate payers that their rates will go up but we also have to borrow money. Vicki said it is all included. Tim asked how rate increases get approved, Vicki said the Select Board (as Water and Sewer Commissioners). She has already had the first rate hearing, on Monday she has the second rate hearing and they will vote on the rate increase. Tim asked if there was a risk to the article failing at Town Meeting, Vicki said there is always a risk but in the past the town has been supportive.

Michael Schaff said they are conducting an asset management analysis and are anticipating that the Water Treatment Plant will need to be replaced, and he said he doesn't understand the rationale. Vicki said the equipment itself is aging significantly and it's difficult to maintain and operate the plant. It is a manually operated plant which is challenging. We also have size limitations. We remove a lot of material or sludge from the water as we treat it, and that material gets placed in lagoons at the plant. It's very costly to remove that and process it, and we have to have it removed because we don't have enough space. The plant has issues with the concrete, electrical and safety code issues, and the plant is not expandable in its current state. It is very restricted in its size and ability. It can't be taken offline partially either so if we have to do any major upgrade to the facility, the rest of the wells in the town cannot support the town for an extended period while the plant is offline. Vicki said something needs to happen, the typical life of these plants is 20-30 years and we are past that. We are also looking for more adaptability in the new plant. Michael asked if the Water Department has made orderly investments in maintaining the plant over the last few years. Vicki said they have, they are having difficulty with the building but they have new equipment, they keep the chemical feed systems up to date. The facility itself doesn't lend to a smooth operation. They only have one office, they have no break room, and treatment wise it is also restricted. Michael asked if they would build the new one next door. Vicki said there is various things they can do and a lot of thought has to go into this. There are different options where you could build a redundant plant next door so you can still use some of the operational abilities of the current plant, then switch it over to the new plant, and then rehab the old plant. You have to figure out a way to run while you are upgrading. This would also take care of the redundancy problem. Michael asked if the Asset Evaluation will also evaluate the Water Treatment Plant. Vicki said it will but because of the plant's age it will evaluate it less. Michael asked how we decide how important it is and what kind of plant do we need. Vicki said this asset is past its useful life. They are going to have to commission a new study separate from the Asset Evaluation. They will work at the subcommittee level to hire an engineering firm. This will be in fiscal year 22 or 23. Michael asked what the leakage percentages are, Vicki said 16%. Michael said that seems like it would be a significant financial priority because we are losing money on it. Michael said it seems like if we are able to conserve our water through leaks and usage we might be able to get by. Vicki said you have to remember that everything is old. They received a grant to do a water neutral growth study which will be released this March. It deals with land use and zoning, and encourages positive growth. They looked at consumption data and showed that a small percentage of customers use a tremendous amount of water. With some social marketing they may decrease that rate. 60% of commercial use comes from 10% of e customers. With that type of data they can target certain places that use a lot of water and create an education component. Commercial customer inclusion in the seasonal rate structure has also been considered, but when digging into this more Vicki realized that it wouldn't save much water because a lot of the commercial customers need the water for their business needs, like Marini's. Vicki also suggested commercial audits. The state has offered to continue to work with Ipswich to develop more ideas for ways to cut back on water. Vicki said there are many projects and initiatives that they are trying to prioritize those that will have the biggest impact. Lastly, Michael asked Vicki if she has compared their department to other department in terms of number of employees. Vicki said that can be challenging because everyone runs their departments differently. Some towns contract water out, some towns have water in the DPW.

Rob asked what percentage of residents we serve, Vicki said 98% of the town is on municipal water. Rob also asked about the smart water system and if there is a way to monitor how much water is being used. Vicki said the company they went with fell short on that. They had a web portal but it is ineffective. They have developed an app so Vicki is looking into that now. Rob mentioned the new IT person that Vicki might be able to work with. Rob said a few members of the Finance Committee went to see the Water Treatment Plant and it was very informative. He noted that the

building was very small and tight and it had unacceptable ventilation. He asked if the ventilation issues have been solved. Vicki said that falls into water systems improvements and they are getting quotes. Rob also said when he thinks of water he thinks of when we lost the million gallons of water in 2016. He asked if we should start rejecting some projects, and is there a project that could prevent the loss of water. Vicki said if you were to further an idea like that she would look toward some commercial customers. Rob asked if the SCADA system monitors the water storage and if there is an outlier can it be shut down. Vicki said it is monitored and there are alarms when things are broken. But if you were to shut the valve to try to stop the leakage, the whole town would be shut off. Rob asked if we could do that, Vicki said you could but the pressure in the pipes floats on the tank. If you cut the tank off the pipes will blow out. We would cause more harm by turning the tank off. Vicki said the best they can do right now is have the alarms to monitor the pressure and the levels. Rob asked about the overtime budget. The OPEB budget for water and sewer is still in an asset position. Vicki said in the past they have fluctuated. The repairs are up for the Utilities Department Office because it is an aging facility that needs some attention. Rob asked about the purification chemicals and asked why it has been so different from year to year. Vicki said that relates to the use of the plant, when we pump more from the plant we use more chemicals. When the plant goes offline they don't spend all of the money in the budget. The chemical costs also increase.

Walter asked if we plan to put the \$30M in for the water plant in the year 2025 why doesn't the rate go dramatically up. Vicki said because they are starting to plan for it now. The 13% per year is creating the cushion so the cost doesn't hit us all at once. Michael D. said that in regards to the new position, it seems like the senior workers hold most of the information and now we are hitting a problem because the younger employees don't know what they need to know. He recommended to spread out the knowledge more in the future so this doesn't happen again. Michael S. asked how the projects on Market and High Street relate to the Capital Needs project. Vicki said that the Market Street project came to her because the road will be open. The pipe is stable but it's over 100 years old so it should be done while it is convenient. Vicki said they are doing the pipes that have the biggest criticality of failure.

4. Water Treatment – V. Halmen

Water treatment was discussed with water and wastewater.

5. Wastewater – V. Halmen

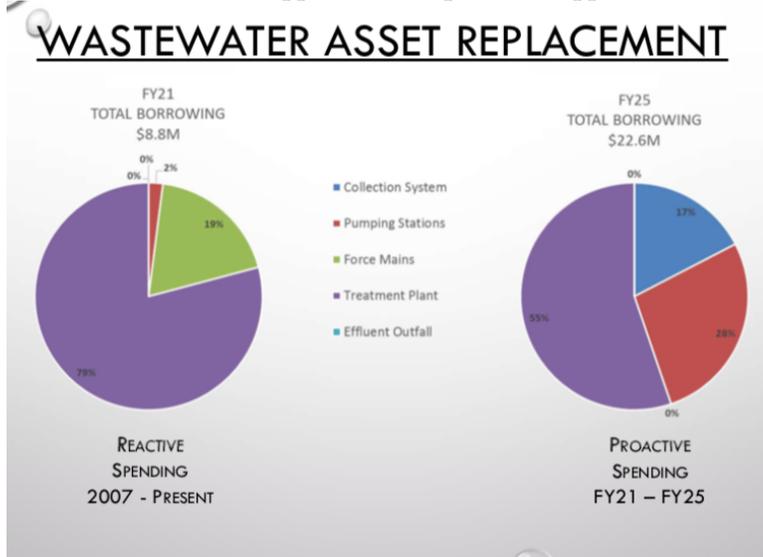
Vicki went over the goals for the department, as stated in the budget book. Goals include maintaining and operating the collection systems and treatment systems in compliance with all state and local laws, managing the rates as equitably as possible while meeting operational and capital needs, and planning and executing rehabilitation of the wastewater infrastructure. This includes considerations for resiliency for critical components and ensuring operation through the ever-changing climate hazards. Another goal is to create an Asset Management Plan, which is already under way. The department received a state grant for this for \$150,000 and the town is contributing \$100,000. This should be completed by June.

Accomplishments include the SCADA system that manages and monitors the system. This system controls the alarms, and allows the system to make automatic adjustments when needed. This has been a huge operational improvement. They were able to bring more systems online with screens that monitor everything. Another accomplishment is the Town Wharf Pump Station Evaluation. This is complete but has not been publicly released yet. They are working with their consultant to provide renderings for a new system so people can understand what they would be getting based on the recommendation. This would take storm surges and sea level rise into consideration. The sewer interceptor and siphon is the biggest project going on right now. They have already done an evaluation and are completing the permitting. Once permits are in place they will be completing the design and going out for bid to complete the project in early fall. They also received an MVP Action grant for this project. The department has also been working on the infiltration and inflow control which is the water that comes into the sewer system that isn't supposed to be there. Ipswich doesn't have a combined system but water that isn't supposed to be there gets in, so they completed a metering program in the spring and they are now developing a plan to target areas of the pipes that need rehab.

The total wastewater budget is 2.94M. Salaries and expenses are up 9.7%. This increase is affected by retirement costs, OPEB, Health, and Short-Term Interest. The Operating Capital is up 11.1% which is working to develop and further all of the current projects along in order to get to good numbers for bonding. Projects include the Town Wharf Pump Station, Aeration System Replacement Design, Infiltration and Inflow Pipe Rehab, and Asset Management Plan Execution. This budget needs a 12% rate increase. The department has almost \$1M surplus balance. Even with the 12% rate increase they are still using \$100,000 of the surplus to help fund the budget. Vicki said the debt is really driving the budget. There is no new debt service but they will be requesting an authorization for the construction costs for the siphon project and that will hit in 2022. Walter asked if there is anything coming off, Vicki said not until next year or the year

after. Vicki said this budget carries on business as usual and does not include the Care Fund proposal. They are moving forward, there are known projects that they know they need to carry out.

Vicki gave preliminary numbers for each project and referred to a PowerPoint slide which she said she would give to FinCom. Vicki also showed two pie charts that explained how much money the department has been spending and how to take a reactive approach vs. a proactive approach.



Vicki said when they put the budget together they look at the needs for the current year but they also take a 5-year look ahead and try to balance out the expenses, capital, long term borrowing, and rates. She referred to a chart that showed the past years budget and ending balance. She explained that the 12% increase is needed, despite the surplus, because looking out the debt service goes from \$546,000 to \$1.6M. The Select Board adopted a policy for the department to keep \$200,000 in surplus by the end of every year, and not to go below \$100,000 in a given year. Vicki showed projections to show where the surplus will be over the next several years. Mike asked what would happen if we did a smaller increase this year, Vicki said they would go negative and they would have to significantly increase the percentage in the following year. They have gotten advice in the past to make rate increases that are somewhat consistent each year vs. waiting and doing a large increase. Rob asked what the Select Board said about this plan. Vicki said this is uncomfortable and they spent a significant amount of time with this budget at subcommittee. Vicki has not gotten the feedback to say to stop the projects, and the Select Board said to move ahead with this but anything could change at any time. Vicki said the only project that is critical is the siphon interceptor project, which has a really good chance of being grant funded. She said this can be fluid and the priorities might change, but they are putting a lot of thinking into this. Vicki also went over a 10-year outlook. She said that we need to plan for these updates, and if something breaks or comes up then we can shift what we do and prioritize things differently, but it's important that we plan and be proactive.

Vicki then went over how they came up with the rates and she showed a chart that shows the surrounding towns budgets. She also went over specifics for the town, which include an older system, a small number of customers (2,100), and several strict permits due to environmental concerns. Michael Schaff mentioned Rob's comments about projects that could be stopped and Vicki's response to him. He asked why they are not essential projects. Vicki said that certain projects are planned to be proactive, and not to be run to failure. In the past we have just waited until things fail and then have to fix it, we are now trying to be more proactive. If we aren't, we are risking failure and we will see big jumps in rates instead of steady long-term increases. Michael also asked Vicki to walk them through the income statement and the balance sheet relative to the surplus. Vicki said it's the undesignated fund balance. It has been looked at several ways and a few years ago the Select Board adopted a policy about the surplus and how we use it. We don't build it to sit on it, the idea is that it would go toward Capital or emergencies. Vicki said they are an enterprise fund so they are basically bottom line. They bill out and then utilize some surplus to meet the budget bottom line. Legally, the surplus can support expenses if the revenues are not coming in the way they expected. They can't overspend the budget using surplus, but can use it as backup. Water revenues can be variables depending on weather. Michael asked if there have been any compliance issues with Wastewater. Vicki said they had one hiccup which was related to unexpected discharge from a customer but it was managed and addressed properly. They have been in full compliance and the plant has been running smoothly.

Rob asked Vicki if there are any roads that are being paved in the near future that will be tied with piping projects. Vicki said they are doing inline trenchless correctios to the pipes. They will search for leaks in pipes and leaks in manholes, repairs will have no impact on roads. On Market St. they will correct a sewer problem that will have some

digging, but the road will be dug up so they can do it easily. Pipes don't need to be replaced unless they are cracking or sagged. They don't have to tie paving with the wastewater work because they don't have to dig. Rob asked about the capacity to serve the public. Vicki said the plant is designed for 5.4 MGD (million gallons per day), our permit allows 1.8, and we are just under 1. We have a lot of capacity but we have other restrictions. Rob asked if they are looking to shrink the capacity. Vicki said the capacity is tanks, but you can't design all of your mechanical and electrical equipment for all of those tanks because then they will be inefficient. They have to use the water demand analysis, and factor in safety measures and growth, and then pick a number so they can meet a reasonable target. This will make things more manageable. Rob asked what part of our infrastructure could fail in a big way to cause us a problem and what would they do to fix it. Vicki said the department has an Emergency Response Plan. The biggest failures would be the piping along the river and the siphon, which is being replaced. If either of these failed there would be raw sewage going right into the river. The town wharf pump station would also be a big failure, and if the plant itself were to fail it would be incomplete treatment depending on what fails and when. Rob asked how it would work if we needed money that we don't have to fix a problem. Vicki said they would have to go up the chain of command to alert everyone and dive into the financial status at that time and what the exact failure is. Michael D. asked about the Linebrook Road development and if that will be on sewer, Vicki said no. Mike also asked about the 40B projects. Vicki said the Bruni property is on sewer.

6. New/ Other Business – Michael Dougherty

- Michael said this concludes the municipal part of the budget hearings.
- Joe asked what happens when the Finance Committee and the Select Board make suggestions to Tony and Sarah about the budget. Sarah said they have already made a few tweaks and they have updated the budget and sent out updated versions. Mike said the Town Manager comes up with the budget, the boards review it, and then the Finance Committee looks at it. They all work it out at Bean Counting and then vote on the budget after the warrant hearing.

7. Adjournment – Michael Dougherty

- Motion to adjourn made by Rob, seconded by Michael S.
→*Vote: Motion passed unanimously, 7-0*

Respectfully Submitted By
Alyson von der Esch
3-16-20