WAYLAND WASTEWATER MANAGEMENT DISTRICT COMMISSION MEETING
March 18, 2024

Board Members: **Remote Participation:** Mike Gitten and Darrin Bock
Absent: All Present
Other Attendees: **Remote Participation:** Tom Holder, DPW Director; Jared Cotton, Wastewater Operations Manager; Abby Charest, Town Engineer and Sarah Pawluczonek, Wastewater Administrator
Public via Zoom: None
Meeting Location: Zoom

Minutes

1:10 Mike: Call to order and reading of Zoom information

Public Comment

One person in attendance, no comment.

Monthly Operating Report

Jared: In January our UV Ballast lights went out, so Whitewater evaluated and replaced them. They also evaluated the VFD's and found that some fans were not working so therefore not cooling. We thought initially our RAS pump was not working but it was the VFD fans causing issues instead, at a lot lower cost to repair. We performed a hypochlorite wash to MBR2 before having it physically washed, and we had good recovery numbers afterward. There were repeated high anoxic sensor alarms due to a bad float, which was not a difficult fix. We increased the amount of flow being discharged to the leaching field from the effluent pump. We went from discharging every 90 min for 10 min, to every 60 min for 10 min. It roughly changed it from 5k gpd to 7.5k gpd.

Abby: We were getting a lot of high water alarms in the effluent pump station because of the high level of the river, as the duckbill was having trouble opening. So it would get enough head and eventually go, but we kept getting the alarms, and so increasing that discharge resolved this.

Jared: In February, we had RH White come out to do the physical cleaning of MBR 2 where they pulled up the membranes and ran the washer. They also inspected and cleaned the diffuser heads. The December cleaning had determined that the air piping had some sludge build up and that the air flow was not calibrated correctly. So we initially thought that was the reason behind the issues, especially since afterwards the chemical cleaning numbers looked good. However, once we pulled up the MBR2 cassettes there was a good amount of sludge buildup. Nowhere near as bad as MBR1, but not great. So we have been working with Tighe and Bond, Kubota, and Whitewater to figure out what is really going on. **Abby:** Meeting on Tuesday with Tighe and Bond and Kubota.

Mike: The membranes are operating better mainly because you are maintaining them more aggressively? **Jared:** Yes**. Mike**: The issues from the end of last year, the underlying cause, is still not understood? **Jared:** Correct. Mike: When do we have to return the washer? **Jared:** It was picked up recently. **Mike:** Can we do the minimal maintenance to avoid the declining performance without the washer? **Abby**: We hopefully wouldn't have to do that kind of cleaning again in the near future. We had Kubota and Whitewater come in to train on Kubota membranes, and we have been following all the Kubota instructions and doing all the Kubota cleanings. We have been pretty aggressive in the O&M of the membranes. **Mike:** Is it possible the solution is that it will need more aggressive maintenance more often? **Abby:** It appears that it is a larger issue which we are hoping to figure out with Tighe and Bond and Kubota.

Mike: You mentioned the minor things going on, does that impact the budget greatly? **Jared:** I don't believe so. **Abby:** It has all been able to come out of small capital.

Jared: We had a hot water supply pump in the basement cavitating really aggressively, Facilities repaired that. Hayes Pump finished the rebuild of permeate pump #2. Kubota picked up their washer.

Abby: We have also been working with LCS to try to get a contract to do the SCADA improvements.

Mike: Do you have the proper computer yet or a date of delivery? **Abby:** No. **Mike:** Do you have a loner. **Jared:** Yes. **Mike:** Are we running on the old SCADA or is it hybrid version? **Abby:** A hybrid band aid, but we are looking forward to implementing the new system. **Mike:** Can that run on the old computer **Abby:** No because of the operating system it needs the new one. **Tom:** We have a few different things going on with IT, the new computer we took delivery of, and then we determined that we are going to change directions and implement that new SCADA system. There is a public procurement process which we also need IT's help with. There has also been a concern about redundancy, so we will have two PC's located there, plus a laptop for Jared's use just to use for office related things. Its common practice not to mix the use of Microsoft Office tasks like email and excel with the system that you are actually operating the station with. Two mainframe computers, a laptop, a tablet, new SCADA. This is why it appears to be taking so long, it is due to all these moving parts. We are running and operating on a band aid unit, but it is not for lack of effort. **Abby:** We want to change to the system that the water treatment facility has. This includes the purchase of new licenses. **Mike:** The hardware can run on a variety of different types of SCADA software, so you are picking one to use in common across our infrastructure? **Abby:** Yes. All of it is in the small capital expenses. **Mike:** Can the second PC be based in the cloud? **Abby:** It does not give the isolation that IT would prefer. **Mike:** If the plant has power you want it running. **Abby:** Yes. People have also been known to break into treatment systems and change settings, so it will alleviate those concerns as well.

Mike: What is the flow? Jared: 10-11k gpd from Alta, and about 30k total. Not much change, Alta is still just under 90% capacity. **Darrin:** They are staying at that steady capacity.

Mike: Is there still a FOG issue that requires attention? **Jared:** Yes, but it is still not progressing past their pump station. We should get a vactor truck to pump it, if we can find one that handles grease, before it gets unmanageable. **Mike:** The pump station is ours to maintain though. Are we getting to point where, based on our regulations, they have to do something on their end and share costs? **Abby:** We are working with a consultant and were initially leaning towards a grease trap. Consultant is recommending that they just pay for it to be pumped out more often. **Darrin:** The good thing about the FOG resolution is that if they don't want to pay for it then it puts it on them to figure out what is happening. **Tom:** It is quite clear that they are the source because they are the only ones connected to that wet well. The burden is on them, but we are trying to work with them to make it less cumbersome.

Design Flow/ Estimated Actual Flow Review

Abby: (Shared on screen). The spreadsheet that we have had over the years was a compilation of the current flows and the predicted connected flows. It was very confusing, particularly with regards to future development and flows. Title 5 estimated flow is 24k gpd, so our estimated average flow is this 62k gpd. When we talk about available flow, we talk about some extra flow we had returned from Alta and the remainder of the 10k that was previously released. That is the 6,500 number. So it is confusing to me that there is this 62k gpd allowable and this 65k gpd accepted design flow that we have. The difference is this available to be released. I would like to release the difference and then just make our estimated potential flow up to the design flow of the 65k gpd. Then the total released would now be 12k gpd. Our actual design flow is here at 30k gpd and then I would like to do a design assessment with Tighe and Bond to assess the actual unit processes. Based on what we are seeing at the plant, we don't know what would happen if we actually got up to that 65k. Theoretical, we should be able to get there, but it does not seem feasible based on what we are seeing currently.

We also have the NPDES permitted flow total of 89k gpd, and the Town Hall proposed groundwater disposal of 17k gpd. So a theoretical available discharge of 41k gpd, but that would mean someone would have to develop the Town Hall disposal. Previous recommendations were that we review the plant at 52k gpd, but it is recommended now that we decrease that to 35k gpd, based on the membrane issues. So we look at current operational issues, actual flows, potentials for upgrades, and assessment of our collection system. We would then know that if we were to connect in another Alta, we would have a list of potential upgrades or alternatives for actually getting to that flow. We did have a 2021 capacity analysis that was completed. That analysis only looked at the original design, not the actual wastewater treatment plant and the actual operations and equipment that we had. It is probably what we wanted so that we would be able to just quickly show that we could connect Alta. That report did that but we would like a more in depth assessment of what we actually have.

In summary, we currently have a potential actual flow of the 62k gpd and I am proposing to release the 5,819 gpd and then we would be right at our 65k gpd for our design flow. It would simplify our available flow to the 12,367 gpd and be able to show more clearly what is currently available. Would also like to update the privilege and connection requirements so that while flow is released, we would have specific increments reaching to the level of a large development request requiring them to pay for a review of the infrastructure and treatment processes needed and potentially pay for a peer reviewer to look at what a potential upgrade would be. We can take little additions to the flow, it's the larger ones that will impact our unit processes. Any connection greater than 2k gpd would need to include an assessment of the plant, including requirements for upgrades to infrastructure treatment processes such as pretreatment. And potentially a greater one like 5k gpd which will need to include an assessment of the plant, upgrades or expansion of infrastructure and/or the plant. We would also add requirements for peer review. Similar to what Concom and the Planning Board have right now. They engage qualified peer reviewers, including, but not limited to civil engineers, architects, and attorneys to review connection applications. Finally, our theoretical expansion, including the Town Hall disposal is the 89k gpd. Would require a minimum of a hydrogeological study permitting an effluent disposal infrastructure and requires a major upgrade and expansion of the wastewater treatment plant. The theoretical available discharge then would be about 40k gpd.

Mike: Does that provision on bringing in a third party apply to all levels? **Abby:** It's open ended for us to decide. **Mike:** The number of typical connections are under 500 gpd. **Abby:** A typical small connection could occur without a review. A development would trigger a more intense review due to the potential impact. Maybe an equalization tank needs to be bigger to even out flows over time. It's the larger connections that throw things off. Asked Tighe and Bond for a Scope of Work and cost estimate for reviews. **Darrin:** So at 35k gpd we would trigger a study we would do on our own. Or if an applicant is over 2k gpd they would trigger the need for a study. **Mike:** This is the threshold that we previously set at 52k gpd a year and a half ago. But the performance of the system has not met expectations with a 10-15% increase in flow, where you are doing more than 10-15% more O&M. It's been almost 2 years since we released that 10k gpd, and only 5k gpd in takers. We can still accommodate the small user without a major impact. Most new use is from people already connected seeking an increase in capacity. **Darrin:** That was our goal. **Mike:** It is still first come first serve, no project is favored over the other. **Darrin:** Agrees with the thresholds. **Mike:** Is there typically a bottom threshold where the review request would not be put on the applicant? **Abby:** With Concom it's more judgmental, everyone pays a lower level fee, but depending on the project, subjectively more could be added to that. **Mike:** I just don't want to put an undue burden on the small customer. It seems that if a bunch of small applicants push us over the threshold of 35k gpd, we would be responsible for the review, but if a larger (over 2k gpd) applicant comes forth first, they would have be responsible for the review. We should be prepared in the relatively near future to do a more rigorous review of the system. **Mike:** Out of the 125k gpd that we have allocated, how much is not utilized. **Abby:** We have people that are unconnected, and some that are underutilized. That deign flow total is 13k of the 124k gpd. **Mike:** If some of these folks started to connect or utilize their existing connection, it could push us up to the 35k gpd as well. **Abby:** The available flows I showed earlier, take into account those underutilized and unconnected. The Council on Aging (COA)will be connecting soon, and anyone who paid a betterment is already accounted for.

Darrin: The membranes are driving this need, and do we know if it was the product or the installation that is the issue? **Abby:** It could be a lot of different things, but the driver is those membranes. **Mike:** how old is the infrastructure. **Abby:** About 10 years. **Mike:** do we need to act on anything today? **Abby:** First, we need a more consistent small capital fund, so that annually we can use that for things like the VFD's, fans, floats, and things that come along in terms of the maintenance of an older plant. **Tom:** We would essentially be looking for the Board to support an amendment to the privilege fee policy because it will really spell all of these changes out. We can convert Abby's recommendations to a red lined privilege fee policy, and ask for a vote at the April Meeting. **Mike:** Darrin and I like the concept. **Darrin:** My only request is that we look some of the data at what 75% of our connections use for DF is and set that 500 gpd threshold accordingly. **Mike:** I am wondering if the delta between the 2k gpd and 5k gpd threshold is large enough.

FY25 Operating Budget Update

Tom: We have transformed what you remember as an annual small capital list to a five year asset management program. Our plant that is twelve years old, has a five year equipment replacement program, which equates to about $100k annually. The Finance Department's recommendation is that we place that cost in the FY25 operating budget. However, for FY26-FY29 we bundle that into a capital borrow, and pay debt service, rather than place that burden on the operating budget.

Sarah: Screen being shared (via Abby's PC). To fund something like an asset management plan there are three options: raising the rates, taking from retained earnings, or borrowing. To balance the budget while including that $105k for the small capital items, we would be looking to take about $200k from retained earnings, which is similar to what we are doing in the year we are in now, which is about $182k. Retained Earnings is certified at $1,159,499, most of that being made up of privilege fees, betterments, and potentially years earlier where we may have come in under budget and made money on user charges. We could use a little bit of that each year, but we would run out in a few years, hence the borrowing option. We had to adjust our numbers in revenue to match our increase in our expenses due to that $105k. In doing so there is a little increase in the user charges at a potential of 3% to get us to user charges of $482k. The rate study last done had a planned 5% each year going forward so this is not too off Target. We will have more to talk about on the rate study at the next meeting since it is currently in progress. In summary, a 3% increase in rates plus $200k taken from retained earnings to balance off the need for small capital. The OPEB and Indirects were also updated here. These are the only three changes in the expenses since you voted on this budget. The $200k from retained earnings is how we traditionally cover the gap between debt service and betterment revenue, and to pay for small capital. All other expenses are covered by user charges.

Darrin: Would like to see us borrowing less from retained earnings. What would that rate increase need to be to cover that additional $100k. We looked at a few different models last year, one using retained earnings and keeping user charges the same. We all agreed last year that we needed to increase rates because the year before we did no increases, and we want to stop pulling from retained earnings. It looked like about a 5% increase this year. Small capital was supposed to be funded only if privilege fees came in, but now we can see that due to the age of the plant, and the experience with the membranes, that we should be putting in in $100k in maintenance each year regardless of what fees come in. **Tom:** We had thought we would have so much more capacity to sell initially and we know that is no longer the case. **Darrin:** Hopefully the $100k in improvements makes it so that we can safely handle the 35k gpd at the plant.

Tom: You will be seeing Matt Abrahams, who is doing the rate setting process, about three times prior to the rate hearing. We will introduce a financial model in April, with a plan put forth in May, and the intention of having a rate hearing in June. **Darrin:** Wants to be sure we are using the forecast numbers.

Sarah: It is possible to use some retained earnings at some point, because Abrahams recommends that you retain only 10-25% of your operating budget. It depends on what you feel comfortable with, given the issues at the treatment facility, we maybe need more.

Tom: You did vote the initial budget, and as these are moving forward, it would be helpful to have you vote on this revised one. **Mike:** Did the last iteration have some of that small capital expense? **Tom:** Yes it did. It had 90k, 75k from privilege fee revenue and 15k from user revenue. **Darrin:** Small Capital is no longer a variable expense.

Mike: Maybe some of the underutilized and unconnected users will start sending in more flow and generate more revenue. That may buffer some of the rate increases needed.

1:16pm Darrin: Motion to approve the revised Fiscal Year 25 Budget on March 18, 2024, for a new budget of $936,725. Mike second. Approved 2-0.

Monthly Financial Report

Sarah: The MFR goes through to the end of Feb putting us at 67% of the year complete. The areas in green are lines where we can fund the membrane project, with the expenses being charged against the contingency line. Overall cost of the membrane emergency is shown here as $82k, however a bill has recently come in higher than expected and so that number is more like $90k now. There is still one more RH White bill to come in. That will be it for expected costs for that project. We should be able to cover this and not overspend our budget. In Revenues, everything is on target. User charges are right at 75% which is exact since we have had 3 of 4 total billings. I use a 92% collection rate to forecast revenue based on billed amounts. The next and final billing will be going out in a day or so. We have not seen any lien revenue come in yet, and I am trying to find out why, since Q3 taxes have come due and liens are billed on both Q3 and Q4 tax bills. I am not sure if payments that come in are being applied to wastewater correctly. **Darrin:** How do payments on a bill with multiple charges get distributed? **Sarah:** There is some order of accounting, and I don't think it should be that any one charge gets paid off first. I believe it's a percentage to each so that it is fair. I have asked Finance to look into it for me. **Darrin:** We need to tighten our belt on these other categories so that we can use any available funds to pay for the unfortunate membrane issue. **Sarah:** The $90k does include both the December and February membrane cleaning invoices. **Tom:** It is a significant expense and a huge burden, because you've got to take the covers off those tanks, to hoist those membranes out of the flow, and then each piece has to come off the rack. It's a huge mess.

Requests for Service

Mike: Any new requests for service. **Sarah:** Just the COA but they are accounted for in our summary of flows in the unconnected group. They have a reserve capacity that they pay the base charge on. The town made a big payment (PILOB) to cover the Town Hall, the Library and the COA a while back. **Mike:** Did the COA renegotiate their reserved flow? **Sarah:** No, they asked for their permit, and I sent it back to them with their reserved design flow of 3k gpd, and have not heard anything back yet.

Approve Minutes for January 10, 2024

1:25pm Mike: Motion to approve the January 10, 2024 minutes. Darrin second. Approved 2-0.

Darrin's Term on the Board

Tom: Does your term expire this year? **Darrin:** It may be up, and I am close to having a third member. **Mike:** He is a Select Board appointee. We all are. **Darrin:** I will reach out to the Select Board through the Town Managers office with the intent to renew.

Topics not reasonably anticipated by Chair 48 hours in advance of meeting

None

Calendar: Upcoming meetings, events and hearings

Mike: Do we have to place a public ad for the rate hearing. **Sarah:** Yes. **Tom:** It will be part of the June meeting. There are very specific rate hearing posting regulations we will adhere to.

Mike: Is May 13th the town Meeting and does anything impact us? **Tom:** Just the one Wastewater article for the budget. If you wanted to meet beforehand you could, but I don't see any reason you would need to.

Mike: MBTA Zoning is in an article correct? **Tom:** Yes Mike: but it does not really affect us in the short term.

Mike: Next meeting is Monday, April 8. **Sarah:** Is the May 20 meeting ok as well? All confirmed.

2:35 Mike: Motion to adjourn. Darrin second. Approved 2-0.

Attachments
February 2024 Monthly Financial Report
January 10, 2024 Minutes
FY25 Operating Budget
Summary of Flows