

King George County Board of Directors
June 20, 2023

The regular meeting of the King George County Service Authority was called to order at 5:30 PM by Chairman, Chairman Allen Parker in the Board Room of the Revercomb Building, located at 10459 Courthouse Drive, King George, Virginia, 22485.

Members Present: Chairman, Allen Parker
Vice Chairman, Carrie Cleveland
Ann Cupka
Cathy Binder
James Morris

KGC Administrator: Christopher Miller, County Administrator

KGC Attorney: Kelly Lackey, County Attorney

0:00:00.0 Chairman Allen Parker: Regular meeting with the King George County Service Authority Board of Directors. I'll have a call to order, with an invocation by Mr. Morris, followed by The Pledge of Allegiance by Chris Miller. Please stand as you're able.

0:00:18.1 James Morris: Lord, be with us this evening as we conduct the business of the Service Authority. Guide us in our decision making to benefit our customers, our fellow citizens, and our community. In your name, we pray.

0:00:36.5 Chris Miller: I pledge allegiance to the Flag of the United States of America, and to the Republic for which it stands, one Nation under God, indivisible, with liberty and justice for all.

0:00:53.3 Chairman Allen Parker: Are there any amendments to the agenda, Mr. Miller?

0:00:53.7 Chris Miller: No, sir.

0:00:57.1 Chairman Allen Parker: Moving on, we'll go to public comment. Is there anybody in the audience that would like to make a comment tonight? All right. Comments will be limited to three minutes per person in order to afford everyone the opportunity to speak. If comments relate to a specific public hearing item, we ask that you offer those comments at the time of the public hearing. Please state your name, where you live and make your comment.

0:01:21.5 Brent Hunsinger: Great. Thank you. My name is Brent Hunsinger. I'm with Friends of the Rappahannock. First of all, I just want to say that I fully understand the situation that the county is in regarding water supply issues. I understand the challenges that are ahead and that you all are going to need water from somewhere. I wanted to

caveat my comments with that statement. I first gave a version of these statements of this comment at the Rappahannock River Basin Commission meeting two months ago. So, these are not new, but these are kind of amended to King George County. So, I just want to say that as new land uses and industries begin to expand in the Rappahannock watershed and populations grow, the River in King George County we're experiencing new opportunities and challenges. New industry and rising populations will require new and expanded water use and sources. With DEQ reducing the number of groundwater well permits allowed East of 95 localities are looking to surface water withdrawals as a source for water, including the Rappahannock River, particularly the Rappahannock River. In this area, these withdrawals can have profound effects on a river that is already under a threat from increased development in the Fredericksburg region and the impacts of climate change, sea level rise and increased riverine flooding and droughts for that matter, as we're seeing right now, we're on the verge of a drought. As new water withdrawal applications for municipal and industrial uses are submitted, King George County would benefit from conducting comprehensive and transparent public participation processes with residents and relevant stakeholders. And I will also say to that effect that in my time dealing with King George County with river things, I have experienced nothing but open and transparent processes and it's much appreciated. Thank you. New state regulations do not require DEQ to hold a public hearing on water withdrawal applications if they deem that they have addressed the public's concerns raised through the required public comment period. New regional water supply planning regulations currently out for public comment in the Virginia Town Hall will require increased cooperation among localities but will not address the need for a comprehensive river basin-wide planning to properly understand the effects that all water withdrawals both permitted and unpermitted have on a river system, for example, under those new draft regulations, Caroline and King George are considered a planning region. This is a state issue, and we will try and address this at the state level. So, I understand that's not something that you all control. As the Rappahannock River Watershed changes, there will be discussions on how best to balance the beneficial use of its resources. The beneficial uses include not only domestic and agricultural electric power generation, commercial industrial uses, but also the protection of fish and wildlife habitat, recreation, navigation, and cultural and aesthetic views. Thank you for the opportunity to speak to you all tonight, and we look forward to working with King George County to be good stewards of the resource we all love and need in the Rappahannock River. Thank you.

0:04:54.7 Chairman Allen Parker: Thank you. Is there anyone else that would like to make a comment this evening? Anyone online Chris Dines?

0:05:01.9 Chris Dines: No. Mr. Chairman.

0:05:04.3 **Chairman Allen Parker:** We will close public comment and we'll go to reports of members of the board. Ms. Binder?

0:05:10.0 **Cathy Binder:** Yes, I just want to briefly say that I got to be part of a ceremony with some of our staff and Mr. Collins at Fairview Beach, with FEMA in the Virginia Department of Emergency Management, concerning the Fairview Beach Stabilization project. They were filming a little documentary and they're going to do about how successful the project was. Thank you.

0:05:34.0 **Chairman Allen Parker:** Ms. Cleveland?

0:05:36.2 **Vice Chairman Carrie Cleveland:** No report.

0:05:37.5 **Chairman Allen Parker:** Ms. Cupka?

0:05:38.7 **Ann Cupka:** Thank you very much, Mr. Chair. I just want to thank our staff for the work. We had a couple of budget work sessions, the last one was last week. So thank you very much for your work on that.

0:05:50.5 **Chairman Allen Parker:** Mr. Morris?

0:05:53.1 **James Morris:** Thank you. I just want to thank the staff for their quick response Sunday morning to the water outage on the St. Paul's system. That seems to be handled in a timely manner. Thank you.

0:06:08.7 **Chairman Allen Parker:** And I just want to thank Mr. Hunsinger for coming up and speaking on behalf of the Rappahannock. We do know water use issues are going to be coming up rapidly, specifically for drinking water and whatnot. And we do realize it'll be kind of a... We hope it'll end up being guided by the state looking at regional... Kind of regional partnerships so that we minimize impacts, and we applaud efforts to work with the state to go that direction because it'd be beneficial. And then I do want to thank the staff for all their effort in getting the budgets together and whatnot. It was done, very quickly, under a time crunch. And we really do appreciate all the effort that went into it and all the review, at the long hours. So, it is very much appreciated. With that, we'll move on to the consent agenda.

0:07:07.8 **Vice Chairman Carrie Cleveland:** I move to accept the consent agenda except for item number SA-06-05.3.

0:07:19.3 **Ann Cupka:** Second.

0:07:21.3 **Chairman Allen Parker:** We have a motion made and seconded. Any discussion?
All those in favor?

0:07:27.2 **Vice Chairman Carrie Cleveland:** Aye

0:07:27.2 **Ann Cupka:** Aye.

0:07:27.9 **Cathy Binder:** Aye.

0:07:27.9 **James Morris:** Aye

0:07:28.6 **Chairman Allen Parker:** Aye. Chair votes. Aye. Motion carries.

0:07:34.3 **Vice Chairman Carrie Cleveland:** I move to amend the minutes from June 6th, 2023 to reflect that the closing session and coming back from the closing session was read by Vice Chairman Carrie Cleveland and not by Annie Cupka.

0:07:52.8 **Ann Cupka:** Second.

0:07:54.8 **Chairman Allen Parker:** We have a motion made and seconded. Any discussion?

0:07:57.6 **Ann Cupka:** Okay, Mr. Chair, can I just point out, so staff knows directly where we're talking about? Because Ms. Cleveland and I spoke about this before the meeting briefly. We're looking at page 12 of the minutes of the transcription of the minutes, which is on page 21 of the board packet where the motion for closed session was read actually by Ms. Cleveland, not by myself. And then on the next page, on page 22 of the board packet, which is page 13 of the transcription at 59 minutes, 27 seconds, the return to open session motion occurred. And again, that was not read by me, that was read by Ms. Cleveland. Thank you.

0:08:42.5 **Chairman Allen Parker:** So, we have a motion made and seconded. Any discussion? All those in favor?

0:08:48.8 **Cathy Binder:** Aye.

0:08:49.3 **Vice Chairman Carrie Cleveland:** Aye

0:08:49.3 **Ann Cupka:** Aye.

0:08:50.4 **James Morris:** Aye.

0:08:50.4 Chairman Allen Parker: Chair votes. Aye. Motion carries. Report from the county attorney, Kelly Lackey.

0:08:58.4 Kelly Lackey: Good evening. The first matter that I wanted to discuss were the proposed amendments to section 27 of the service authority regulations. As you will recall there are some representatives of the Walnut Hill subdivision who have made requests at the May 2nd and then again at the last meeting on June 6th for a waiver of certain provisions of Section 27, which is the provision of the service authority regulations that governs cost reimbursement when a developer puts in more infrastructure, more water and sewer than is actually required for their development. And at the direction of the board, rather than consider entertaining that request for a waiver specific to their project, I drafted proposed amendments to section 27 of general applicability to any developer or other applicant seeking potential cost reimbursement for constructing greater water or sewer facilities than their development needs. Similar regulations were amended by the James City's County Service Authority in 2020 to allow for procurement by other than a public bid process, if the reimbursement costs that are billable to the public entity are consistent with local pricing, local material prices specifically. So the proposed amendments, that were included in your packet provide that cost reimbursement may be based on actual costs as demonstrated by a public procurement process, or the county attorney may approve use of a different method of reimbursement that's ultimately subject to approval of the board of directors by approval of a cost reimbursement agreement. So, the role of the county attorney would just be to make sure that there's any legalities that are followed with regard to the method of reimbursement. It states that possible reimbursement methods are by a credible cost estimate made as of the date of the agreement. And that's the method that Walnut Hill is proposing in its proposed agreement. And I should mention that I was in communication with the Walnut Hill folks, and they wanted to see how this discussion transpired before they went ahead and brought forward again, the agreement. If any action is tonight, it would just be on an amendment of the regulations and no specific approval as of yet of the existing Walnut Hill agreement which would have to be amended. The second, possible method of reimbursement that's included in the amended regulations is documented actual costs provided that unit items are consistent with local material and labor prices as of the date of construction. And that's the method that James City County uses. So those are two possible ways to make sure that you're getting a good price, you're not getting gouged for the costs of the cost reimbursement. An additional amendment is that engineering costs are excluded unless they are specifically stated in the cost reimbursement agreement, which is the case with Walnut Hill. There was a flat rate stated for engineering in the original cost reimbursement agreement. And then an additional amendment would be that if work is accepted in phases, the board of directors may set an end date for reimbursement tied to acceptance of the first phase accepted. So that just means that in a case such as Walnut Hill where they are asking that they can be reimbursed on an

incremental basis, then the service authority doesn't have a potential cost liability forever. It's only for a fixed period of time from when they accept the initial phase. And so, once again, we're not acting... There's no request that you act on the Walnut Hill Agreement, but I've used 12 years as kind of an outlier date, and that's consistent with statutory provisions that apply to local governments not authorities specifically but for basis of comparison in the Walnut Hill Agreement I've used 12 years from date of acceptance of the first phase. So, I'll pause there in case there's any questions.

0:13:10.5 Chairman Allen Parker: Does, does anyone have any questions for Kelly Lackey? Does anybody have anything they noted in the revisions that they want to point out? Okay. So, I guess the question is, do we want a motion to accept these?

0:13:40.0 Vice Chairman Carrie Cleveland: I move to accept the proposed amendments to section 27 of the service authority regulations as outlined in our package.

0:13:53.5 Cathy Binder: Second.

0:13:55.6 Chairman Allen Parker: We have a motion made and seconded. Is there any discussion? All those in favor?

0:14:02.9 Cathy Binder: Aye.

0:14:02.9 Vice Chairman Carrie Cleveland: Aye.

0:14:03.4 Ann Cupka: Aye.

0:14:03.9 James Morris: Aye.

0:14:04.7 Chairman Allen Parker: Chair votes. Aye. Motion carries. We've amended Section 27.

0:14:10.3 Kelly Lackey: The other item I have stated on the agenda is the Consent Order with the Department of Environmental Quality for wastewater treatment facilities. This is just an informational item. As you'll recall, the board acted after closed meeting coming back into open meeting and authorizing the county of the interim general manager to sign the DEQ Consent Order, proposed Consent Order. So that item is included in the agenda packet for any member of the public who's interested in seeing what the exact language of that proposed Consent Order is. DEQ will be initiating a 30-day public comment period. I don't have a specific start date, but that information will be posted on DEQ website when they're... The open public comment period begins. And so that Consent Order, even if it's ultimately agreed to by DEQ, would not take effect until at least 30 days from when that

public notice goes out. And an item that I did not have specifically mentioned in the agenda, but I wanted to raise, was that there are changes to the Freedom of Information Act that take effect on July 1st. One of those changes is that public bodies, which include authorities, must have a written policy that explains how they assess charges and how the current fees are charged, if any such charges are made. So, my operating understanding has been that this board follows what practices the Board of Supervisors has for costs associated with FOIA, but that does not necessarily need to be the case. There are also some jurisdictions that are just adopting, very simple statements such as the following. The policy on charges for accessing or searching requested records is not based on a fixed charge. There are some locations that set up an hourly rate, and they just use that regardless of who the person is fulfilling the rate. But you don't have to charge for accessing or searching. The requested records are based on the hourly rate of the person searching for the records in question to keep costs down. An attempt is made to use the lowest paid staff member capable of retrieving the request and responding to the request. However, the rate charge will be based on the hourly rate of the person fulfilling the request. So, it could be as simple as a two or three sentence statement or it could be as complex as the cost policy that's stated in the supervisor's agenda for this evening, which is like... The portion that has to do with cost is about two and a half pages long. So, I just wanted to raise that, in case this board wanted to take any formal action to follow what the Board of Supervisors does, or if you would like for me to draft, just the kind of the minimal statement that just says that cost will be based on the hourly rates of the people fulfilling the request and any copying charges. If any. A lot of requests these days are fulfilled electronically, so there's no copying charge, but in the event that there's an actual cost for mailing or copying, those are generally costs that are billed as part of a FOIA response.

0:17:24.4 Chairman Allen Parker: So, I guess I'll ask the question. What's the feeling of the board? Do you want to follow what the Board of Supervisors does, or would you just prefer that Kelly Lackey draft a simple statement for this entity?

0:17:41.0 Vice Chairman Carrie Cleveland: So, my comments on this are, I'm not really sure what the supervisors look like so I'd like to read that before we would take any action on it. But I would imagine that we would follow what they would do, but I just don't know what it says.

0:17:55.8 Ann Cupka: Mr. Chair. So, I agree. Obviously, Ms. Binder and I are privy to what is going to come up in the next meeting. We have seen it already, but I think that the best practice would be for us to be consistent with the Board of Supervisors. So perhaps we could have Kelly Lackey bring that back to the next meeting so all of us have a chance to take a look at it. I think having just a short two or three sentence statement for a policy is a little bit flimsy in my opinion, not a best practice. Thank you.

0:18:34.4 Chairman Allen Parker: So, if, say if there's an agreement, I... Let's ask Kelly Lackey to bring it to that next meeting so we could take a look at it or present it before the next meeting so we can take a look at it.

0:18:47.0 Kelly Lackey: I'm happy to do that. I have nothing further.

0:18:51.8 Chairman Allen Parker: Any other questions for Kelly Lackey? All right, moving on to presentations and reports. Ms. Hahn.

0:19:09.3 Donna Hahn: Good evening, Mr. Chair. Members of the board included in your board packet this evening were the financial reports through the end of May. Through May the total revenues for year to date for fiscal year '23 is \$6,777,962. And under the operating expenses 1.6 million for the water department, 2.8 for sewer department and 1.2 in the transfers that go to pay reserves and debt service for a total of \$5,810,325. So, at the end of May there was a reserve between the revenue and the operating expenses of \$967,637. And also, there was the backup included in your packet for the different line items.

0:20:20.6 Donna Hahn: Are there any questions?

0:20:26.9 Chairman Allen Parker: Thank you, Ms. Hahn. Now up is Inboden.

0:20:35.4 Mark Inboden: Good evening, members of the board. Thank you. So, everyone should have the report for the month of May. And what I'm planning to do is just go through the overview sections for water and also for wastewater. Then I'll deal with any questions from you all, if there are any. So, looking at water. Just an overview of operations of last month. We're continuing to make adjustments to optimize the operations of all of the water systems throughout the county. This includes chemical feed rates, mixed ratios, et cetera. Much of what was presented in the last report, this is still an ongoing effort. As groundwater chemistry has potential to change, chlorine demands have potential to change, our operators are monitoring that and making adjustments as needed. The Greensand system at Fairview Beach is scheduled soon to have its media replaced. And actually, we have an update for that today. I know one sand filter was being replaced, the media was being replaced today. So, shout out to the King George maintenance staff. They're very prompt and very efficient in what they do. And so, we were working with them today to remove the media from one of the filters while we kept the other filter online and replacing the media there. So hopefully that will aid the reliability of that system and its effectiveness of removing iron and manganese from the water. And it'll better the water quality and also enhance the smell that some people are getting with the chlorine so that we understand that's an issue and we're paying attention to that.

So, this is part of that endeavor. So happy to report that. The shaft well is still obviously offline. We have received the PO, the parts have been ordered, we're just waiting for that. And I'm certain that once the Wells company gets all of the materials ready, that will be scheduled as quickly as possible. So going over, we have all of the training data, all of the water analysis data and operational notes for all of the water systems. So, feel free to take a look at that and ask any questions if you have. Or feel free to reach out to us if you have any questions about the report in those sections. Moving on down to wastewater. All of the systems operated well and met the sanitation demand. And the treatment processes, we're continuing to modify those and make those as efficient as possible. That could be chemical feed rates, that could be recycle return rates. It just depends on the system and its type, but we are monitoring those. Also, the annual PCB, pollution minimization plan, the PMP, that report was due to DEQ. That has been submitted to DEQ and we have confirmation that they have received it. That is an annual report going forward. Our firm is going to be taking that on as part of our responsibilities. And we'll be submitting that on the due date in February of each year going forward. We have also performed the first round of sampling under that plan. And the results came back non-detect for PCB. And that was during a high flow event. So, we have some additional monitoring that we've told DEQ that we're going to do. And that will be ongoing. So, I'm going through this report. We have a lot of trending data that you can review and look at. It's very helpful in understanding just the processes at each plant, how they're performing, how they're behaving. And there's a lot of additional information in there. And I'd be happy to answer any questions if you have any. Not only about this report, but also about the report from last month, the report on April's operations.

0:25:09.5 Cathy Binder: Thank you. I have a quick question. When you go back, could you go back to Dahlgren?

0:25:15.1 Mark Inboden: Sure.

0:25:16.7 Cathy Binder: Let me find it. Right there, an error from subcontract laboratory. Is that going to cause any kind of penalty? Because I can see it there was the subcontractor.

0:25:25.5 Mark Inboden: Yes, that was a subcontracted lab. They failed to collect the sample or pick up the sample that we had collected. And we notified the lab, and we modified our sampling schedule. Instead of Memorial Day, we shifted everything from Tuesday to Saturday, because it's a five-day-a-week monitoring requirement. The sub-laboratory picked up all five samples. And at their laboratory, they dropped one of the samples. So, they said, you have a choice between fecal coliform or E. Coli. And so, we chose one, and they analyzed that one. And we also told them that we needed a letter from them to provide the DEQ about their error. So, we provided a letter of explanation. Our sub-laboratory provided a letter of explanation to us, and we sent that on to DEQ as

well. It's still unknown what's going to come of that. But there were only four when we needed five on that week.

0:26:23.9 Cathy Binder: Okay. Thank you.

0:26:24.4 Mark Inboden: Sure. Certainly.

0:26:28.3 Chairman Allen Parker: Are there any other questions?

0:26:30.3 Ann Cupka: Yes, thank you, Mr. Chair, thank you for coming out this evening. Sir, can you tell me when you do your sampling, it says routine bacteriological sample results, how do you go about choosing which residents or business you pull the sample from?

0:26:46.9 Mark Inboden: That's an excellent question. So currently, the way that VDH guidelines work, there is a Bacteriological Sample Site Plan. In short, in the industry, we call it a BSSP. That BSSP was designed and implemented, I'm not sure how many years ago, but that was all spelled out for us when we came. And so, we had a FOIA request in the VDH prior to our contract start and we requested all of the BSSPs, the lead and copper sampling plans, the cross-connection control plans. We also request the engineering description sheets of all the systems to get acquainted with those before contract startup. And so, we were made aware of the sampling schedules, the sampling plans prior to contracts start date. And those plans dictate depending on size, depending on treatment, the frequency and how many samples we are required to pull. So you see that some samples have several or some systems have several, some systems may just have one or two. So, it depends on the size, the complexity of treatment and the distribution system as well.

0:28:03.9 Ann Cupka: Thank you very much.

0:28:07.2 Chairman Allen Parker: Are there any other questions?

0:28:09.4 Chris Miller: Mark, could you elaborate a little bit more on the Fairview Beach, the wells, and what you're talking about, the Greensand and the media. And I think we have obviously, Ms. Cleveland has addressed concerns that she's had, obviously, as a customer in the area. And I know there's a lot of folks in Fairview Beach that do call in about the fluctuations and the smell and things like that, so.

0:28:39.9 Mark Inboden: So, the way a Greensand filter works, it removes iron and manganese, and it does so from a simple filtration process. But the media that's inside of these filters, it's a sand media, it's anthracite sand. And it has an affinity, if you will, for iron and manganese, it draws manganese and iron. But it has to come out of solution first for

the filter to be effective. And the way that we do that or the way that was... The mode that it was being precipitated out of solution ahead of the filters, we were using a pre-oxidizer. And that pre-oxidizer was simply chlorine. There are other oxidizers that we could use, but there's negative side effects to those as well, one being it can make purple water in the distribution system. That's a whole another issue. And so, we have tried to get sustainable pre-oxidation chlorine levels ahead of the filters at our combined entry point into these filters. The variability of the demand for chlorine, so when chlorine gets all used up in the water, that's what we call the demand for chlorine, once that gets used up, there's still iron that's in solution, so we have to increase that chlorine feed. But then if water quality characteristics change slightly, we're feeding too much chlorine. And so we were, we were really hitting a moving target. And the other reason why we found it needful to replace the media is because even though we were meeting the amount of oxidization that we needed to have to precipitate the iron and manganese before the filter, it wasn't simple... It wasn't enough for the filters to become effective. And so rather than adding more oxidizer, more chlorine ahead of the filter really causing additional problems, the chlorine smell and all the other issues downstream, we did an investigation into the filters themselves. So, we popped the man ways on both of the filters, we did a core analysis of the media that's there, and we found that the media was not what... It had lost its effectiveness. And the reason why we know that is really two reasons, one is the apparent color. Greensand is just that it should be green, has a tint of green kind of like a brown-ish green. If it is ready or needs to have a backwash, it's going to have a brown or a black color. And we had just gone through a backwash, multiple backwashes, and we're still seeing that brown-black color, sticky color. So that means it's just completely saturated with iron and manganese, and there's just really no way to overcome that, and that media needs to be replaced. A second telltale sign that has really told us that this media, it was time for replacement is in today's events, when we were removing that media, we found that the media was not what we call being fluidized during the backwash process. And what that means is when it goes into a backwash process, it reverses flow, so water instead of going from a top-down in the filter is going from the bottom up. And it also adds air like a scour to loosen things up, to push things aside. In the sand, we have multiple courses of different sands in aggregate that are packed into this filter, and when you have a high rate of backwash flow in that air scour, it will fluidize all of those layers of sand and media. And it will recombine itself in that media, reorient itself based upon its specific gravity. So, you'll have heavier weighted items at the bottom and lighter particles at the top. And when we crack the hatch and were removing all the sand, we found that it was not doing that, and we had to kind of unconventionally backwash that filter with just some of the aggregate media to kind of loosen everything and get everything situated correctly before we repack the media into the filter and put the sand back into the media. So that's... Sorry if that was a long drawing out process. But that's kind of how we got to know and where we are right now. So, we have extremely

high hopes, and we think this is going to be a golden ticket to get us better quality, more reliable quality of water.

0:33:26.9 Chairman Allen Parker: Are there any other questions?

0:33:30.6 Ann Cupka: Yes, Mr. Chair. Thank you. So, I'm not sure when our staff receives this report, but is there any way if you just send it to them today, can we get it before we sit down at the meeting?

0:33:47.3 Mark Inboden: Absolutely.

0:33:47.5 Ann Cupka: Because there is a lot to digest here. So, I have a question on page 16 with regard to the Hopyard Wastewater Treatment Plant. Says, "The wastewater treatment facility operated well and maintained compliance with all permits required sampling. And operations miscommunication resulted in a discharge at the facility on Memorial Day. E. Coli samples were unable to be collected due to subcontract laboratories denial to receive samples on holidays." So, is this the same subcontract laboratory?

0:34:18.2 Mark Inboden: Correct.

0:34:19.0 Ann Cupka: Can you explain the operations miscommunication to me please?

0:34:22.7 Mark Inboden: So, our compliance team had notified operators for facilities that had a requirement to, for a monthly sample or a daily sample analysis, specifically E. Coli, really because it has a short hold time. It only has a, I think it's a six hour hold time before it has to be set up at the laboratory. And so, it was advised to our onsite operator, no need to discharge on this date because if you do, samples will need to be pulled. Well, there's bench sheets, daily checks that our operations team goes through. And one of those is collecting final pH, temperature and DO at the outfall. Well, it, there was an oversight and there was a discharge made to collect the pH, the DO, and the temperature. That pH, DO and temperature did not need to be collected because if we did not have a discharge, no monitoring requirements are stipulated. We don't have to monitor a non-discharge. And so that was kind of an error on our operator's part. And what's going to happen there is Hopyard has historically had a great compliance history and so there will more than likely be a warning letter potentially. And so, we'll just have to see what happens with DEQ. But there was a letter of explanation provided to DEQ stating the cause and effect of that process.

0:35:53.2 Ann Cupka: Thank you. And then likewise on page 19 with regard to the Oakland Park Wastewater Treatment Plant, there were issues with the Bio-Carb feed system combined with electrical issues.

0:36:06.2 Mark Inboden: Yes. Now that is something that is outside of our control. There was... The facilities that we're operating, yeah, we will operate the facilities in the best regard that we can. If there is something that's outside of our control, we will do everything that is within our capability to restore it to compliance or maintain compliance. But it just so happened, the mixers faulting out did cause that issue with a high TKN. So we notified maintenance as soon as we found the issue. It's unfortunate that these compliance samples happened on those same days, around those same days but that is a result of equipment malfunction and not operator derelict of duty or operator oversight. That's an equipment issue.

0:37:03.4 Ann Cupka: Thank you very much. So, I wondered if there might be consensus of the board to request that we be notified anytime via email, anytime these types of issues occur, because I frankly don't like hearing about it like a month later in this report that just got put here. So, I'm not saying that that's on you. I just want to know if my colleagues would like to direct our staff to notify us in a timely fashion when they are made aware of issues that come up from Inboden.

0:37:42.3 Cathy Binder: I would like to add on to that. Besides that, I would like this report, you know going back to your first one in April, to be put on the service authority website and also that we receive a PDF copy of this ahead of time through our email so we could digest it. Thank you.

0:37:55.8 Mark Inboden: Would it be possible to receive everyone's email addresses? Because I don't believe I have anyone's email addresses.

0:38:01.5 Chris Miller: I think you can get it through me or, and Ms. Fish, and then we'll make sure that that gets to the board. And we will, so this is on us and my staff in terms of getting you this report. Mark Inboden does a great job of getting this together. We just need to tell him to back it up a little bit, get it, when you guys get your packet. And so that's just means coordinating things a little earlier than usual. So we'll get with you and try to set a little earlier date when we get it, so thank you.

0:38:37.0 Vice Chairman Carrie Cleveland: I have a question. So, I'm looking at these wastewater treatment plants, these trending data that you provided. And I'm just curious because they have TSS, TKN, total nitrogen, total phosphorus on the Dahlgren Wastewater Treatment Plant, but they don't, it's like not the same measurements on all of them. Is there a reason for that or?

0:39:07.2 **Mark Inboden:** When you say not the same measurements...

0:39:08.8 **Vice Chairman Carrie Cleveland:** Like for example, the Dahlgren one has a lot more trending data than the Oakland Park or... I was looking at the Fairview Beach one and it has three measures. It has BOD-5, TSS and ammonia, but then... You look at the Oakland Park trending data and doesn't have the same measurements, I'm just curious of why it would not have the same.

0:39:40.0 **Mark Inboden:** The difference there is the permit requirements, the monitoring requirements, and so if we try to put on the report items that are sampled, or monitored for three times or more per week that will tell the trend of... Yeah, it will give you a good trend rather than, there's some analysis that we only do twice a month or once a month, like a hardness or a copper. One or two data points are not really going to show a good trend, if you will, in the facilities' performance. So, we try to put on their monitoring that has three times per week or more.

0:40:15.6 **Vice Chairman Carrie Cleveland:** So, the ones that have more monitoring or you're doing it more, at those plants?

0:40:20.6 **Mark Inboden:** That's correct.

0:40:21.5 **Vice Chairman Carrie Cleveland:** Okay. Can you tell me what TSS means?

0:40:24.2 **Mark Inboden:** Total suspended solids.

0:40:25.6 **Vice Chairman Carrie Cleveland:** Okay. And then the BOD five.

0:40:28.7 **Mark Inboden:** Biochemical oxygen demand. That's...

0:40:32.1 **Vice Chairman Carrie Cleveland:** Thank you.

0:40:34.0 **Mark Inboden:** Yeah. It measures organic content.

0:40:38.5 **Vice Chairman Carrie Cleveland:** Okay. Thank you.

0:40:42.1 **Mark Inboden:** Certainly. Maybe I should put a definition section in these reports as well.

0:40:48.1 **Cathy Binder:** I was just going to ask that.

0:40:48.9 Mark Inboden: Don't mind, I'll do that.

0:40:50.2 Cathy Binder: Thank you.

0:40:55.3 Chairman Allen Parker: Are there any other questions, comments? So, I guess if everybody agrees we'll have staff one, make us aware of any of these issues as they crop up, as you're made aware of them, and to get this report at least probably the Friday, at least before the meeting so that we can look through it.

0:41:15.5 Mark Inboden: Certainly.

0:41:19.8 Cathy Binder: Plus making sure we put it on the website for the public to be able to read it.

0:41:23.8 Chairman Allen Parker: Yeah, we should put these on the website.

0:41:27.2 Chairman Allen Parker: Thank you.

0:41:28.1 Mark Inboden: Thank you.

0:41:31.4 Chairman Allen Parker: On to action items. Donna Hahn, you're back up.

0:41:42.4 Donna Hahn: Good evening once again Mr. Chair, members of the board. In your packet, you have a monetary assessment for 2022 performance under the WQIF, which is Water Quality Improvement Fund grant agreement number 440-S-14-04. King George County Service Authority, The Auburn Wastewater Treatment Plant Nutrient reduction projects, states that the service authority is in breach of agreement for phosphorus and nitrogen discharge. Due to the excess amounts under the agreement VDEQ has sent a monetary assessment in the amount of \$42,204. I ask that you authorize the interim General manager to transfer \$42,204 from the sewer contingency line to sewer miscellaneous to pay the monetary assessment as presented.

0:42:43.0 Chairman Allen Parker: Is there any questions on this? I'll take a motion then.

0:42:49.2 Vice Chairman Carrie Cleveland: I move to authorize the interim General manager to transfer \$42,204 from the contingency to pay the monetary assessment for the 2022 performance of the Water Quality Improvement Fund agreements number 440-S-14-04.

0:43:13.5 Cathy Binder: Second.

0:43:14.9 Chairman Allen Parker: Have a motion made and seconded. Is there any discussion? All those in favor?

0:43:19.8 Cathy Binder: Aye.

0:43:19.8 Vice Chairman Carrie Cleveland: Aye

0:43:20.2 Ann Cupka: Aye.

0:43:20.5 James Morris: Aye.

0:43:20.9 Chairman Allen Parker: Chair votes. Aye. Motion carries.

0:43:23.3 Vice Chairman Carrie Cleveland: Thank you.

0:43:26.4 Chairman Allen Parker: Moving on to discussion items. Interim General Manager's report. Before I get started, I think it would be a good segue if I can ask the Inboden team to come up and tell you a little bit about that WQIF and what the challenges were when this organization took that on back so many years ago, and I think that we've had, we've talked to you all in enclosed about that in terms of where we are and what the Inboden team had kind of assessed from the outset of their coming in, that this was going to be a challenge. And I think that we're working towards not having to deal with this every year, but there are some reasons or some good explanations, and I think I'd just ask Mark Inboden to provide a general overview of why the county is kind of be in a challenging situation going forward with this grant.

0:44:32.2 Mark Inboden: Certainly. So, WQIF is a grant process that was set up through state legislation through DEQ. DEQ is a purveyor, a manager of the WQIF program. It stands for Water Quality Infrastructure Funds. And it was designed around providing grants and fundings for utilities to meet the Chesapeake Bay TMDL action plan in regard to nutrient reduction for nitrogen and phosphorus. The Dahlgren facility essentially has three permits attached to it. One is the NPDES permit, and that is the main permit I would say. That guides a lot of our treatment processes at the facility, that guides a lot of our monitoring requirements and allows us to have a discharge to that receiving stream. The second permit is the General Nutrient Permit, and the general nutrient permit is designed around the Chesapeake Bay TMDL action plan, and allows us in a loading form, not a concentration form, but in a loading form in pounds per day of total nitrogen and phosphorus. For the... As far as nutrients are concerned, the General permit and NPDES permit the total nitrogen and phosphorus, they were met. All of those permit conditions

were met in the year 2022. The WQIF, however, is a contract more or less. With that the King George County Service Authority took under with DEQ and DEQ provided in contrast a sum of money. I'm not sure of the total amount Chris. I think it was somewhere around 900 some thousand. And these funds were designed to provide the county with the ability to make the necessary upgrades at the wastewater treatment plant to reliably meet the Chesapeake Bay limits. But in contrast with the other permits the WQIF is not a loading-based permit. And loading just means it takes into account your flow how much flow you have going through the treatment plant and also takes into account a concentration. And there's a calculation that you do with your flow and your concentration to come to a loading rate. Well, King George County the Dahlgren Wastewater Treatment Plant is about its flowing about a quarter of its capacity. Right now. It's around a million gallon per day oxidation ditch and we're flowing around 200 to 300000 gallons per day. So, our loads are always going to be very low. But the concentrations however the WQIF stipulates that we have to have a total nitrogen concentration of four milligrams per liter and a phosphorus concentration of 0.3 milligrams per liter. And if the permittee or the grantee does not meet those concentration limits, not the loading limits, the concentration limits there are fines assessed for every 10th. You are over that those marks the four and the 0.3 for nitrogen and phosphorus respectively. And so that the rub that's the hard part is making those concentrations. We provided a report to the county for reasons that we felt that in 2022 the county was unable to meet those limits. And it had to do with, you know, inadequate recycling returns. It had to do with a lot of the automated processes that were put in place by the WQIF grant funds. Those funds were used for those automated processes. None of those automated processes are functioning. We've had to work around those. And then also installed at what we cleaned in late 2022 we oversaw the cleaning of the IFAS media in the pre-anoxic zone of that system which is designed in large part for nitrogen removal. And so, with a lot of changes that we've made especially after April 1st there's a laundry list of changes that we've made including you know reconfiguring or redesigning an airlift pump from the center ring of the oxidation ditch that recycles wastewater flow to the head of the plant which is our pre-anoxic zone that is designed for nutrient removal. That was not flowing at the rate that it should be. So, when we came up with a retrofit that allowed us to recycle the amount that we needed. Other issues that we've had to face is there's equipment failures throughout the plant, most notably blowers or not meeting the CFM ratings that we need them to make. We've met we've had to kind of reconfigure some of the valuing on the air process systems. Additionally, mixers throughout the plant were down or non-operable or off for some reason. We've moved mixers around, repaired mixers and ordered new mixers the Bio-Carb feed system that has been a troublesome nuisance as well. And we've had to put in an SOP for our operators to monitor that on a more frequent basis than what they had been doing prior to April 1st. And that has seemingly helped in the nutrient removal and their nutrient reduction. And so, if you see from the April 1st prior to April 1st and from April 1st on there's a steady trend down in nitrogen removal. Phosphorus is a kind of a chemical

precipitation so not much biological process going on there. That one's more of an easier one to hit but the nitrogen one that's a very difficult limit to hit. And so that's kind of the overview of what happened and why there is this fine from DEQ it's to repay essentially grant money that was afforded to the county to pay for those upgrades to the system. We had a call with his name is escaping me, Chris.

0:51:06.0 Chris Miller: Mr. Crocker.

0:51:06.6 Mark Inboden: Mr. Crocker from DEQ who oversees the WQIF grant program. And it was my observation that the upgrades that were put in place with these funds were inadequate. And that we try to make a case to say that it was an inadequate upgrade. So not sure if they're going to take that excuse or not. But that is what we have seen from a professional operations judgment. So be happy to ask any questions if you have them.

0:51:40.6 Cathy Binder: In conversations I've had with DEQ on the other side of the aisle and this has always been brought up on some state committees I'm on these funds were kind of like a trap because a lot of smaller localities that needed the money and wanted to do good took these funds but really the limitations were quite hard to meet. Was that kind of an accurate and it's kind of now all these localities are now paying these fines kind of an unrealistic.

0:52:05.5 Mark Inboden: Yes. You guys certainly aren't the only ones. But I think it is attainable. We've shown some pretty good history of meeting these limits. But it is not without its challenges. There still needs to be a significant investment in the plant to make it more reliable. One being the automated processes that were put in place using these grant dollars that need to be put back online. A lot of the SCADA system that kind of flies the plant it's a fly-by-wire plant. But it's not now we have some telemetry but not much. We have to do everything manually. So, all those processes need to be brought back online. And I can't tell you when those processes failed. It's they have not been operational for several years. There's other considerations that we need to make, blower cycles the rotors in the treatment plants, which is a heartbeat of wastewater treatment plant that needs to be repaired or replaced there's several recommendations that we are putting into a report that we're going to provide the board, to give guidance on what would need to happen to make the systems that are designed around nutrient removal more reliable. So, you... And you are correct in your statement there. It is. I actually advise my clients not to enter into WQIF agreements. There's other funding sources out there.

0:53:37.1 Cathy Binder: Thank you.

0:53:39.4 Chairman Allen Parker: Are there any other questions?

0:53:40.7 Vice Chairman Carrie Cleveland: Chairman I have a question. So, I'm curious, because you said that in your opinion the upgrade that was put in place was inadequate because, and the limitations that... The limitations that they placed on that plant were hard to meet.

0:53:56.7 Mark Inboden: Yes.

0:53:56.8 Vice Chairman Carrie Cleveland: I think we know that. And based on the historical operations of that plant, it probably wasn't a good decision, whoever made that to, to put that to agree to that grant. But at the same time, I'm just wondering like if we have any legal backing there to be able to prove that it wasn't the best advice that we got from was it DEQ that said that we should get it and if we can, do we have any way that we can try to, I guess negotiate with them some of these fees that we're getting?

0:54:34.5 Kelly Lackey: Mr. Ramon mentioned, we spoke with Mr. Crocker from DEQ. He raised the issue that the treatment improvements that were made did not do what they were supposed to do. And his recommendation was to seek recourse, if any, from your engineer who designed the treatment. I believe at this point in time that there's, it's probably been too long to recover, these systems are inoperable right now, so it's hard to even say whether or not they were designed to do what they were supposed to do. But I can take another look at it. If that's the direction the board would like me to take a look at that.

0:55:14.8 Mark Inboden: And, to clarify in my statement about we, it's our professional opinion that the upgrades that were put in place were not adequate to reliably meet nutrient reduction that has to do with the diameter of the airlift pump pipe. It's a 16 inch, I believe it's a 16-inch diameter pipe and it has a I think a two-inch airline feeding that airlift pump. Well conventional engineering theory is if you have anything that's outside of a 10-inch pipe, you're going to have to have an airline that's at least three inches, if not greater to meet the CFM or the amount of airflow that's required to make that airlift pump actually operable. And that's why we went from a 16 inch, is it a 16 inch? Am I saying that right? 16-inch air or airlift pump pipe. It's a pipe that is submerged down into the center ring of the clarifier that pulls from air suction, pools mixed liquor back to the head of the plant. We cut that size in half, we put an eight-inch pipe in there, and we have seen triple the amount of flow being introduced back to the head of the plant and significantly, increasing our nutrient removals. So, it's just that the design, the conceptual design's just, it did not make sense just from an operator's opinion.

0:56:45.5 Chairman Allen Parker: Are there any other questions still your, it's, do you have anything else for your report?

0:56:55.6 Chris Miller: I just, yeah, I'll be very brief. I would also say that Inboden and Sean Eisenbeis and his team, and Ms. Norris Barker, the, it is all working very well. They are doing our staff that is still there working very effectively. I know that we call it the John and John team, the John Simmons from Inboden and John Eisenbeis from our team, and they're very closely working together, and Ms. Norris Barker and Ms. Proctor working well with our folks as well. So, it's a good team effort. And I think we have, we're in good hands from the water and wastewater side of it. I'm going to go ahead and just remind you all that on the 28th at 5:30 PM in the boardroom, we have the public hearing on the budget and then we also, as a reminder, you'll have one meeting on in July unless you schedule a special one. But the meeting is the July 11th at 5:30 PM So that's it.

0:58:12.5 Chairman Allen Parker: Thank you, Mr. Miller.

0:58:13.5 Chris Miller: Oh, one more. I guess I would just like to just point out that you do have a memo that we've got from Bryce and Bryce Young and also Megan Pitts about the \$12,000 savings that, Bryce and Dean Hoagland and the contractor Johnston were able to come up with on the sludge pond down in Dahlgren. So, my kudos to the team and also to the contractor for that. I think that was excellent. And also, thanks to the folks on Sunday dealing with the St. Paul's water outage. That's it.

0:59:01.7 Chairman Allen Parker: Thank you Mr. Miller. I'm looking for a motion.

0:59:05.6 Vice Chairman Carrie Cleveland: I move that the King George County Service Authority Board of Directors convene to close session to discuss possible acquisition of surface water and a potential site for a water treatment plant where discussion in an open meeting would adversely affect the bargaining position or negotiating strategy of the public body pursuant to Virginia Code Sections 2.2-3711 A3 and A8, where discussions of potential acquisition of real property and negotiating concerning a source of raw water in an open meeting would adversely affect the bargaining position or negotiating strategy of the public body and specific legal matters requiring the provision of legal advice of counsel. I invite the county administrator, county attorney, assistant county attorney, and principal engineer because they are deemed necessary and, or their presence will reasonably aid the board in its consideration of the topics to be discussed. Pursuit to Virginia Code Section 2.2-3712F.

1:00:08.1 Cathy Binder: Second.

1:00:08.8 Chairman Allen Parker: We have a motion made and seconded, is there any discussion? All those in favor?

1:00:14.8 Cathy Binder: Aye.

1:00:14.9 Vice Chairman Carrie Cleveland: Aye

1:00:14.9 Ann Cupka: Aye.

1:00:17.0 James Morris: Aye.

1:00:17.0 Chairman Allen Parker: Chair votes. Aye. We are in closed session.

1:42:14.0 Vice Chairman Carrie Cleveland: A County Service authority board of directors return to public meeting and certified by vote that only public business matters lawfully exempted from open meeting requirements by Virginia law, and only such public business matters as were identified in the motion convening the closed meeting were heard, discussed or considered during the closed meeting...

1:42:32.7 Cathy Binder: Second.

1:42:35.1 Chairman Allen Parker: Motion made and seconded, is there any discussion? I'll call a vote. Ms. Binder.

1:42:39.9 Cathy Binder: So certify.

1:42:40.9 Chairman Allen Parker: Ms. Cleveland.

1:42:41.6 Vice Chairman Carrie Cleveland: So certify.

1:42:43.2 Chairman Allen Parker: Ms. Cupka.

1:42:44.9 Ann Cupka: So certify.

1:42:45.0 Chairman Allen Parker: Mr. Morris.

1:42:45.1 James Morris: James Morris, so certify.

1:42:46.1 Chairman Allen Parker: And the chair so certifies. We're back in open session.

1:42:55.8 Vice Chairman Carrie Cleveland: I move that we adjourn to June 28, 2023 at 5:30 in the boardroom.

1:43:04.0 Cathy Binder: Second.

1:43:05.8 Chairman Allen Parker: Motion made and seconded, is there any discussion? All those in favor?

1:43:10.6 Vice Chairman Carrie Cleveland: Aye

1:43:10.6 Cathy Binder: Aye.

1:43:10.6 Ann Cupka: Aye.

1:43:11.6 James Morris: Aye.

1:43:12.2 Chairman Allen Parker: Chair votes. Aye, we adjourn to June 28th at 5:30 PM here in the boardroom.

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