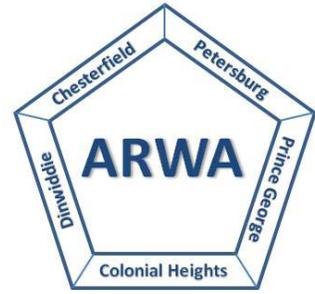


Appomattox
River
Water
Authority



21300 Chesdin Rd. - S. Chesterfield, VA 23803 - Phone (804) 590-1145 - Fax (804) 590-9285

Appomattox River Water Authority Board of Directors Meeting

DATE: May 18, 2017

TIME: 2:00 PM

LOCATION: Appomattox River Water Authority
Board Room, Administration Building
21300 Chesdin Road
South Chesterfield, Virginia 23803

AGENDA

1. Call to Order/Roll Call
2. Approval of Minutes: Minutes of the Special Board Meeting on February 23rd and Regular Board Meeting on March 16th, 2017
3. Public Comment
4. Executive Director's Report:
 - Reservoir Status Update for April/May 2017
 - Seasonal Chesdin Water Wise Conservation Measures
 - Award of Annual Financial Audit Services for 2018-2021
 - Approval on Award of "In-Plant" Project Engineering Services
 - Discussion on Potential Brasfield Dam Raise Project
 - Davenport Presentation: Scope of Work - Future of the Authority
 - Status Report: Ongoing Projects/Operational/Financial
5. Approval of Proposed Fiscal Year 2017-2018 Budget
6. Items from Counsel: Amendment to 1964 Water Service Agreement
7. Closed Session
8. Other Items from Board Members/Staff Not on Agenda: July 3rd-Request for 8 hours additional holiday time for all employees
9. Adjourn

Cc: W. Dupler/George Hayes, Chesterfield
D. Harrison, Petersburg Public Works
W. Henley, Colonial Heights
R. Wilson, Dinwiddie Water Authority
A. Anderson, McGuire Woods

1. Call to Order/Roll Call

2. Approval of Minutes: Minutes of the Special Board Meeting on February 23rd and Regular Board Meeting on March 16th, 2017

Following are the minutes of the Special Board Meeting of the Appomattox River Water Authority Board of Directors on February 23, 2017 and the minutes of the Regular Board Meeting on March 16, 2017.

Absent any corrections or revisions, we recommend approval of the minutes as submitted.

BOARD OF DIRECTORS SPECIAL MEETING

Appomattox River Water Authority

February 23, 2017 at 3:00 p.m.

**Location: Appomattox River Water Authority
21300 Chesdin Road, S. Chesterfield, Virginia**

PRESENT:

Percy Ashcraft, Chairman (Prince George)
Joseph Casey, Vice-Chairman (Chesterfield)
Kevin Massengill, Secretary (Dinwiddie)
William Henley, (Colonial Heights)
Tom Tyrrell, (Petersburg)
Charles England, (Alternate, Prince George)
Robert B. Wilson (Alternate, Dinwiddie)
George Hayes, (Alternate, Chesterfield)
William Dupler, (Alternate, Chesterfield)
Mike Fisher, (Alternate, Colonial Heights)

ABSENT:

Daniel Harrison (Alternate, Petersburg)

STAFF:

Robert C. Wichser, Executive Director, (ARWA & SCWWA)
James C. Gordon, Asst. Executive Director (ARWA & SCWWA)
Arthur Anderson, (McGuire Woods)
Melissa Wilkins, (Accounting/Office Manager (ARWA & SCWWA)
Kathy Summerson, Administrative Assistant (SCWWA)
Cindy Nester, Administrative Assistant (ARWA)

OTHERS:

Chris Tabor (Hazen & Sawyer)
Jack Berry, (Petersburg)
Ted Cole, (Davenport)
Jerry Byerly, (City of Petersburg)
Jeff Franklin, (Chesterfield)
Mike Wooden, (Arcadis)

Mr. Ashcraft, Chairman, called the meeting to order at 3:00 p.m.

1. Call to Order/Roll Call.

The roll was called.

2. Items for Discussion:

- **Report given by staff regarding Potential Dam Raise Matching Grant**

Dr. Wichser reported on the January Board request to avoid forfeiture of the \$5 million matching grant funding. He stated at the January Board meeting staff was directed to move forward with development of a physical and operational plan called Phase 1 or Phase 2 to also include budget impacts. This was to be a \$10 million plan with \$5 million being from the matching grant. Dr. Wichser discussed Phase 1, Step 1 which is where the VA-DEQ Water Protection Permit would be opened and modifications made by both the VA-DEQ and U.S. Army Corps of Engineers. Dr. Wichser stated that he estimated a cost of \$150,000 for the Stage 1 needed work effort. He further stated that we would be analyzing the Corps of Engineers and DEQ modifications required towards the WPP permit. If these modifications were deemed acceptable to the Board, we would move to Step 2, which is when the Federal Energy Regulatory Commission (FERC) in Washington and Atlanta requirements and technical studies are addressed. He stated \$450,000 was placed in as an estimate for the modeling and engineering studies related to Step 2 and most likely this Step would also include a federally required Alternatives Analysis to determine various raw water increase alternatives benefits and overall environmental impacts. If the FERC requirements and modifications were deemed acceptable, then we could move to Step 3. Step 3 would include completion of additional studies needed or required by federal and/or state regulatory agencies. The Preliminary Engineering Report on raising the dam would most likely be required by DEQ at this Step. The total estimated cost of Phase 1 (Step 1, 2 and 3) is \$10 million with five million dollars expected from the matching grant. There would also need to be developed a matching grant contract between DEQ and the Authority spelling out specifics to be completed by the Authority in order to receive grant payouts. In Phase 2, the Authority would purchase the remainder of the required environmental (stream & wetlands) credits. Total cost of Phase 2 is \$12.2 million to \$15.9 million dollars. The total estimated project cost including the dam raise is \$24.4 million to \$28.5 million with the addition of a ten percent contingency. Dr. Wichser stated that the Authority used 2013/2014 cost estimates from the Authority's outside experts since these were the most recent construction estimates available. With the Commonwealth's grant applied, we estimate project costs at \$19.4 million to \$23.5 million cost to ARWA. Dr. Wichser had Schnabel Engineering review the proposed regulatory phasing, and they concurred that in Phase 1, Step 1 & 2, that the state permit and federal FERC license have to be addressed first.

- **Report given by Dr. Joseph Casey, Chesterfield County, and Mr. Kevin Massengill, Dinwiddie County, regarding Potential Dam Raise**

Mr. Massengill reported that Dr. Casey, George Hayes, Maryanne Kirkland and himself met with Delegate Kirk Cox. He stated most of the conversation centered on the bridge replacement projects as well as the overall dam raising

aspects. Delegate Cox stated most of the political capital on this has been spent. If Delegate Cox was able to get an extension then this Board of Directors needed to work expeditiously to determine if they were going to move forward with the project and what the phasing, if any is going to look like. During this meeting Mr. Hayes presented to Delegate Cox a project report with Chesterfield County's proposed phasing schedule associated with the dam raising. Mr. Massengill stated that Delegate Cox recognizes the thought process behind phasing. Based on efforts by McGuire Woods at the request of the Authority, Mr. Massengill stated that the Commonwealth's matching grant has now been extended by the General Assembly until June 30, 2018. Delegate Cox stated that a decision had to be made by the Board as the clock is ticking.

Dr. Casey reported that it was a very productive meeting and Delegate Cox looks out for this whole region and would like closure to this topic (raising the dam) and would prefer not to extend it. He felt if we couldn't figure it out and get it done with the extension, that some credibility would be lost between ARWA and himself, and between the localities and him. Delegate Cox has been in touch with the Department of Environmental Quality throughout the 2017 General Assembly session. Dr. Casey stated that this issue is not just a dam raising project; it is 2 billion gallons of water.

Mr. Hayes reported he put together a projected phasing schedule that was pretty close to what Dr. Wichser presented. The only difference is that the length the project would go from 2018-2028 as the water permit expires in 2028. Mr. Hayes stated Phase 1 would be a \$10 million project. He further stated the project is now estimated to be a \$33 million project. He stated that there are additional costs in mitigation credits, bridge design, and additional costs from 2012 estimates to today's costs and contingencies for some of the design services. The Chesterfield County schedule for Phase 1 goes out for 7 years. Phase 2 is 2.7 years and Phase 3 is 1.8 years which would take us out to the year 2028. Mr. Hayes stated that in 2018 we would start with a feasibility study, which would address key issues.

Mr. Ashcraft asked Dr. Casey where he saw us going with this and Dr. Casey replied that everyone needed to review it. He would prefer to adopt a \$10 million budget recognizing the \$5 million state matching funding source. From Chesterfield County's position he wants to be able to tell Delegate Cox that we have approved a budget of \$10 million and would like to do this by the end of the next Board meeting. Mr. Ashcraft asked Dr. Wichser if there were a feasibility study in the first step and Dr. Wichser replied it would depend on if the regulatory agencies would ask for that. He further stated the Authority had done various raw water alternatives/feasibility studies since 2004.

Mr. Ashcraft asked Board members if they were comfortable with waiting for the next Board meeting in March to be an action meeting and have staff prepare a \$10 million budget. Mr. Henley said he had other information that would modify this proposal. Mr. Henley stated that they took the topic up with their City Council and the response ranged from not wanting to be engaged financially to outright opposition to the project. Colonial Heights City Council does not want to participate in this project but would have no objection to the Board taking it on as long as one or more other members provided the financial resources. Dr. Wichser stated that the proposed budget has already been public noticed. Since we have already public noticed the proposed budget, if the Board voted on a budget change of this magnitude, we expect we would again have to public notice the changed budget. Mr. Ashcraft asked if this would be a modification to FY17s budget and was told it would be an amendment.

Dr. Wichser said from his discussions with DEQ, that the Authority needs to be prepared to spend out of reserves the \$600,000. DEQ would not likely provide grant funds to be used in the initial review and modifications to the state permit and federal FERC license. Mr. Massengill said that this part was a full ARWA expense. Dr. Casey said Delegate Cox is willing to work with us but right now we have been indecisive to him. Mr. Tyrell stated they would be leaving at the end of March and the Council he is dealing with is reluctant to do a lot. Mr. Tyrell stated that they are here for moral support.

Mr. Ashcraft asked Mr. Anderson if it took the majority of this Board to approve the project and Mr. Anderson replied yes. Mr. Ashcraft stated the big hurdle would be the bulk of the project and Mr. Anderson replied yes. He referred to what he called the Chesterfield model with five years of no other member spending any money. Dr. Casey stated that if a bond were floated for this project, it would really only be \$2.5 million and Chesterfield would pay \$3.5 million in cash.

Mr. Ashcraft asked if we needed a motion to recommend the staff put together a \$10 million budget for this project to be considered at the March 16, 2017 Board meeting to be given to the members as far in advance as possible so it can be reviewed by their Councils and discussed as a primary agenda. Mr. Massengill reminded the Board about the meeting where we had many citizens here from Chesterfield and Dinwiddie at which time the Chairman indicated that before any actions were taken on raising the dam there would be public participation involved in the process. He suggested when we got to the point where staff would be presenting the plan that such a plan and proposal would be publicly shared with the citizens. He thinks we should make an effort to get public participation. Mr. Ashcraft stated for us to make a point and get in touch with the individuals and invite them to the next meeting. Dr. Wichser said he didn't think this year's budget would be impacted by the Phase 1, Step 1 cost. He stated that since we have already public noticed the FY18 budget in the newspapers, that's the one that will be impacted.

Mr. Henley said he is concerned with what Mr. Massengill said about the sensitivity of this with regard to public involvement. He thinks about a project of this magnitude and the impact it would have on residents and the stakeholders. He further stated something needs to be done before this Board makes the decision to approve this project. He is concerned about the reaction that is going to arise from this. We need a plan with stakeholder involvement even in budget development. Dr. Casey asked Mr. Anderson about amending the budget and Mr. Anderson replied that if this had an impact on the FY18 budget it would then have to be re-advertised. At that time we would have more of a public hearing on the project itself. Mr. Massengill stated two concerns for Dinwiddie would be: 1) putting the marina out of business if the bridges are not addressed as it is the only gas station on the lake, and 2) the thought of what happens with an eighteen inch raise of the dam to the peoples' assets. Dr. Casey stated he read where at least 200 docks could be impacted by this project.

Mr. Massengill suggested the process should be having somewhat of a consensus of what this Board sees the project as and how it would be implemented. Chesterfield and Dinwiddie's component is to have some focus group meetings before an action is made. Mr. Massengill said we needed to get citizen input on this and let them be part of the process and then come back for a vote. It needs to come back from Staff and the Board that this is a viable project. Mr. Ashcraft said the decision to move forward is likely to be divided. Mr. Massengill stated one discussion the Board needs to have is about a feasibility study and does it need to be funded. The other issue is who is going to actually participate in the actual project. We know Colonial Heights is adverse to that.

Upon a motion made by Dr. Casey and seconded by Mr. Tyrrell the following resolution was adopted:

RESOLVED, that the Board authorizes Staff to work on a proposal in the amount up to \$10 million that would define the project, which this Board would review and ultimately consider at the next meeting:

Mr. Henley stated he would like to make clear that the proposal that's going to be developed by Staff should define the scope of the project but perhaps not go much further than that at this point. The scope of the project determines what the expenditures are and revenue needed to pay for it.

For: 5 Against: 0 Abstain: 0

3. Discussion with Ted Cole of Davenport (ARWA's Financial Advisor) on in-Plant Capital Project Bond Financing

Mr. Ted Cole of Davenport gave a presentation on the in-Plant Capital Project Bond Financing. There are four parts to the In-Plant Capital Projects (Raw Water Pump Station No. 1, Finished Water Pump Station No. 1, Finished Water Pump Station No. 1 Electrical Power Supply Upgrade and Emergency Electric Generator Replacement). ARWA published an RFP for engineering services on February 12, 2017 with responses due by March 10, 2017. It is planned that the recommendation to award the Engineering Service contract for this project would be brought to the Board meeting on May 18, 2017. Mr. Cole presented the following options to fund the identified project: Cash contributions from Member Jurisdictions, Direct Bank Loan financing, VRA Spring, Summer and/or Fall Pool financing (2017 Spring Pool application was submitted on February 2, 2017), and Virginia Department of Health SRF financing. He further stated ARWA could consider utilizing reserves to fund Petersburg's share of the Project. Under this scenario Petersburg would have an obligation to ARWA to repay the equivalent share at an agreed upon term and interest rate. Alternatively, for any of these funding options, Petersburg could consider pledging and/or selling all or a portion of its excess capacity back to ARWA in order to fund its respective share of the Project. This potential option would require further legal and financial due diligence. ARWA anticipates completing design/engineering for the Project in December 2017, advertising for constructions bids in January-February 2018 and awarding the construction contract in March 2018. Construction is expected to take between 14 and 16 months. He further stated securing all or a portion of the Project funding now would insulate ARWA from any upward interest rate movements between now and funding completion.

Mr. Anderson stated he wanted to make clear that we would be bringing a resolution to the Board in March, if we continue on this path of borrowing now. Mr. Cole stated that the application is holding our spot and action would be needed to be taken before the end of March to make the spring pool. He further stated we may have a few weeks after that where we have to say we are in or out. Mr. Anderson stated that VRA is likely to want moral obligations from all jurisdictions and this item would have to be taken to their Boards by the middle of April. He further stated if people start dropping out of the mix, VRA may say no. Mr. Ashcraft asked Mr. Cole if a jurisdiction paid with cash how would that affect the VRA model and Mr. Cole answered it would be a smaller borrowing and VRA would require a special moral obligation from whomever was left. Mr. Cole said he talked with VRA today and that moral obligation pledge needed to cover Petersburg's share. What we are trying to get them to consider is that the moral obligation pledge would be used to cover a shortfall derived from Petersburg.

Mr. Tyrrell asked if this were a majority vote and Mr. Ashcraft replied that was correct. Mr. Tyrrell gave an update on Petersburg. He stated they are on track to pay all of their vendor arrearage by the end of June. He further stated their second amendment to their current budget was submitted and approved. They feel good about the future and nothing right now is off track. Mr. Massengill said one of the options that Mr. Cole reported was looking at ARWA reserves to cover Petersburg's

portion and wanted to know if that was even an option and Mr. Anderson said the Service Agreement allows you to front cash, whereas, the Authority would agree the reserves could be used to pay Petersburg's share of the project. He further stated Petersburg would enter into a note to repay the Authority. Dr. Casey said he wanted it communicated to VRA that this is ARWA they are dealing with. Dr. Casey asked if they paid cash would it remove them from moral obligation and Mr. Cole answered that needs to be clarified. Mr. Massengill said another option is to allow Petersburg to get in a better financial position and keep these things until next spring.

Mr. Ashcraft stated this would be an agenda item at the next Board meeting of March 16, 2017. Dr. Wichser reminded the Board that the flushing program is scheduled to start next week. Dr. Casey informed everyone that the site for the new Matoaca Elementary School had been approved.

6. Closed Session

Mr. Anderson read the Resolution to go into Closed Session (attached).

Upon a motion made by Mr. Massengill and seconded by Mr. Tyrrell the Board went into Closed Session at 4:35 p.m.

For: 5 Against: 0 Abstain: 0

Upon a motion made by Mr. Massengill and seconded by Dr. Casey the Board came out of Closed Session at 5:20 p.m.

For: 5 Against: 0 Abstain: 0

Mr. Anderson read the Certification regarding the Closed Session and, upon a motion made by Mr. Massengill and seconded by Dr. Casey, it was approved by a unanimous roll call vote (attached).

8. Adjourn

Upon a motion made by Mr. Massengill and seconded by Mr. Henley the meeting was adjourned at 5:21 p.m.

The next regularly scheduled Board meeting is Thursday, March 16, 2017 at 2:00 p.m. at the South Central Wastewater Authority.

MINUTES APPROVED BY:

Kevin Massengill
Secretary/Treasurer

CLOSED MEETING RESOLUTION

APPOMATTOX RIVER WATER AUTHORITY

February 23, 2017

I move that we go into a closed meeting for discussion and consideration of the acquisition by the Appomattox River Water Authority (the "Authority") of real property for a public purpose, or the disposition of publicly-held real property, related to the proposed Amended and Restated Water Service Agreement, where discussion in an open meeting would adversely affect the Authority's bargaining position and negotiating strategy as permitted by Section 2.2-3711A.3 of the Virginia Freedom of Information Act:

MOTION: Massengill

SECOND: Tyrell

VOTE

Ashcraft	Aye
Casey	Aye
Massengill	Aye
Henley	Aye
Tyrell	Aye

ABSENT DURING VOTE: None.

ABSENT DURING CLOSED MEETING: None.

SESSION DATE: February 23, 2017

CERTIFICATION OF CLOSED MEETING

WHEREAS, the Board of the Appomattox River Water Authority (the "Authority") convened a closed meeting on February 23, 2017, pursuant to an affirmative recorded vote and in accordance with the provisions of the Virginia Freedom of Information Act; and

WHEREAS, Section 2.2-3712 of the Code of Virginia requires a certification by this Board that such closed meeting was conducted in conformity with Virginia law;

NOW THEREFORE, BE IT RESOLVED that the Board of the Authority hereby certifies that, to the best of each member's knowledge, (i) only public business matters lawfully exempted from open meeting requirements by the Virginia Freedom of Information Act were discussed in the closed meeting to which this certification resolution applies, and (ii) only such public business matters as were identified in the motion convening the closed meeting were heard, discussed or considered by the Board.

MOTION: Massengill

SECOND: Casey

VOTE

Ashcraft	Aye
Casey	Aye
Massengill	Aye
Henley	Aye
Tyrell	Aye

ABSENT DURING VOTE: None.

ABSENT DURING CLOSED MEETING: None.

BOARD OF DIRECTORS MEETING

Appomattox River Water Authority

March 16, 2017 at 2:00 p.m.

**Location: South Central Wastewater Authority
900 Magazine Road, Petersburg, Virginia**

PRESENT:

Percy Ashcraft, Chairman (Prince George)
Joseph Casey, Vice-Chairman (Colonial Heights)
Kevin Massengill, Secretary (Dinwiddie)
William Henley, (Colonial Heights)
Tom Tyrrell, (Petersburg)
George Hayes, (Alternate, Chesterfield)
Robert B. Wilson (Alternate, Dinwiddie)
Charles England, (Alternate, Prince George)
William Dupler, (Alternate, Chesterfield)
William Johnson, (Alternate, Colonial Heights)

ABSENT:

Daniel Harrison (Alternate, Petersburg)

STAFF:

Robert C. Wichser, Executive Director, (ARWA & SCWWA)
James C. Gordon, Asst. Executive Director (ARWA & SCWWA)
Dale Mullen, (McGuire Woods)
Arthur Anderson, (McGuire Woods) via conference call
Melissa Wilkins, Accounting/Office Manager (ARWA & SCWWA)
Kathy Summerson, Administrative Assistant (SCWWA)
Cindy Nester, Administrative Assistant (ARWA)

OTHERS:

Chris Tabor (Hazen & Sawyer)
Mike Wooden, (Arcadis)
Barry Woods (AECOM Technology)
Steven Micas, (Prince George)
Ted Cole, (Davenport)
Jack Berry, (Petersburg)

Mr. Ashcraft, Chairman, called the meeting to order at 2:27 p.m.

3. Call to Order/Roll Call.

Mr. Anderson was put on conference call at 2:27 p.m.

The roll was called.

4. Approval of Agenda (Section 3.6 of Bylaws)

Mr. Ashcraft asked that Agenda Item #5, Closed Session, be replaced with an Agenda item called Discussion of Study on the Future of the Authority.

Upon a motion made by Mr. Massengill and seconded by Dr. Casey the following resolution was adopted:

RESOLVED, that the Agenda Item Closed Session be replaced with a Discussion and Study on the Future of the Authority:

For: 5 Against: 0 Abstain: 0

3. Approval of Minutes: Minutes of the Regular Board Meeting on January 19, 2017:

Upon a motion made by Mr. Massengill and seconded by Dr. Casey the following resolution was adopted:

RESOLVED, that the minutes of the Regular Meeting of the Board on January 19, 2017 are hereby approved:

For: 5 Against: 0 Abstain: 0

4. Public Comment and Public Hearing on Proposed FY2017/18 Operating Budget

There were no public comments. Mr. Ashcraft opened the proposed 2018 budget Public Hearing at 2:32 p.m. and there being no comments the Public Hearing was closed at 2:33 p.m. Mr. Ashcraft stated adoption of the proposed 2018 budget will be held at the May 18, 2017 Board meeting.

5. Discussion and Study on the Future of the Authority

The Closed Session Item was amended with a Discussion of a Study on the Future of the Authority. Mr. Ashcraft stated it was important that the members know who and what the Authority is and what it owns. Mr. Henley asked about the definition of the scope of the proposed study and if it were a financial or operational study or both. Mr. Ashcraft replied it could be several things as some have been shared publicly with other localities that could change even the membership of this Authority. Those entities need to know what the Authority is totally all about. He further stated he didn't think the information would be

difficult to come up with. Mr. Henley stated he had the impression that the goal of introspection for the Authority had as much to do with how to operate more efficiently and effectively as well as better governance and Mr. Ashcraft agreed. Mr. Henley stated we would want to define the goals and objectives of the Study as a group first before we look at an analysis. Mr. Ashcraft stated in the end he is going to ask for a request of a motion and approval for staff to engage with Davenport to develop that scope and then bring it back to the May meeting for approval. He further stated to let staff and Davenport do the analysis and then we would review and discuss the information meeting by meeting. Mr. Henley said the scope of the study should include things like how to have more effective governance, how the Authority could operate more efficiently and effectively and how we could have better relational decisions amongst the members.

Dr. Casey stated that Chesterfield welcomes this. He further stated that part of the confusion is we have more questions than answers. There could be alternatives to things we are not thinking about. Davenport is a reputable firm and they have national resources. There should be constant communications between the Executive Director, the Chairman and Davenport to be sure it's in the best interest of ARWA.

Mr. Massengill stated he didn't disagree with developing the scope and coming back to the Board. If he were a citizen of one of the localities not knowing what the Authority was doing and reading in the paper about the privatization and retail efforts of Petersburg he would be concerned about ARWA's efforts to somehow be connected with the privatization and retail efforts of Petersburg. That's not what we are talking about here. Mr. Ashcraft stated the information that could be contained in a document could add value to any effort that would involve privatization or any involvement with the Authority. Mr. Massengill stated he wanted to clarify that it's not the intent to do that.

Mr. Tyrrell stated there is confusion on what Petersburg is doing. There are eight alternatives that they are considering and privatization is the last resort. He further stated that no matter what they do, there will be a body of people interpreting it the way they want to.

Mr. Cole stated there is going to be financial disciplines, legal disciplines and engineering disciplines that are all going to come together to establish the status quo. He further stated it is going to be a combination of financial, legal and engineering related work to move that option analysis forward. Mr. Henley stated the issue he sees is with management involving policy and strategy. He further stated that the finances of the Authority are sound and that's not an issue. He stated he would trust Davenport to define what they know of this entity. Mr. Massengill stated when they say Management they are not talking about the Executive Director, specifically they are talking about governance. Dr. Casey stated we should be looking to modernize the 1964 idea of the Authority.

Upon a motion made by Mr. Ashcraft and seconded by Dr. Casey the following resolution was adopted:

RESOLVED, that the Staff be authorized to engage in discussions with our financial advisor, Davenport, to develop a scope of work regarding an eventual definition of the Authority's governance, operations, responsibilities and assets:

For: 5 Against: 0 Abstain: 0

Mr. Cole stated he would come back with a scope for discussion at the May Board meeting.

6. Executive Director's Report

- **Reservoir Status Update for February/March 2017**

Dr. Wichser reported on the Status of the Reservoir. He reported the Reservoir has been full and the dam is overflowing. According to the NOAA long range prediction model, weather conditions (precipitation and temperature) will be normal to above normal for April, May and June. He further stated that before Memorial Day we would be issuing our annual voluntary conservation press release. This annual press release will be presented at the next Board meeting to be voted on.

- **Discussion of Financing Options for In-Plant Project-Davenport**

Dr. Wichser reported that the In-Plant Projects address Raw Water Pump Station No.1 and the electrical substation that supports this pump station, Finished Water Pump Station No.1 and the electrical apparatuses and motor control centers that support this pump station, along with replacing a thirty-three year old emergency generator. This proposed project was brought before the Board last May in the budget and was approved to move forward. He further stated financing has not yet been approved to-date by this Board. Dr. Wichser stated that on Friday, March 10, 2017 we closed on our RFP's for engineering services related to this project. The Authority received four proposals for the Evaluation Team (Mr. Wilson, Mr. England, Scott Morris from Chesterfield, Mr. Gordon and Dr. Wichser) to review and make a recommendation. They hope to have the proposals reviewed, interviews completed, and selections made. The team should have a recommendation for the Board at the May 18, 2017 meeting. Dr. Wichser introduced Ted Cole with Davenport. Mr. Cole stated based on last year's budget and current budget, funding is in place for the project's design and engineering work through the bid date which is expected to be around February 2018. That portion of the project is funded and the dollars are there to do that. At the February meeting we discussed there is not an urgency to finance this

project on a long term basis at this time although you could consider moving forward with the financing. He further stated the last time we spoke we were awaiting the funding commitment or proposal from the VRA and everyone now has received a copy of that. VRA has approved moving forward with the caveat that any combination of financing by members is going to require that the member jurisdictions excluding Petersburg are going to need to provide a moral obligation commitment to cover Petersburg's share of this borrowing. He further stated that the bond indenture is written where you can't carve out any member jurisdiction. VRA would not move off of that position. He further stated based on the borrowings that are being discussed, the annual debt service that Petersburg's share would be is somewhere between \$130,000 and \$180,000 per year depending on the amortization schedule that would ultimately be selected. Some combination of the other four member jurisdictions would need to cover Petersburg's share through moral obligation pledges if you were to move forward now with VRA's current proposal. He stated that an option is to set this aside and take it up at a later date or go outside for private financing proposals.

Dr. Casey asked if VRA gave a certain time duration that needed to be reached in the future to remove the moral obligation clause and Mr. Cole stated it's nothing specific other than an acceptable long term solution to some of Petersburg's financial situation that would give them comfort of moving forward on just the revenue pledge of the Authority. Mr. Anderson stated that VRA has done things like that before where they allow moral obligations to burn off if certain financial goals are passed. Mr. Henley stated the moral obligation in VRA's offer is a deal killer for Colonial Heights and he would like someone to address other options for financing. Mr. Cole stated VRA would then require a moral obligation support agreement from the remaining three or some combination thereof. They will take any and all combinations at this time.

Mr. Tyrrell stated he wanted to give a sense of timing. They are going to submit a structurally balanced budget next week and will end the fiscal year with a balanced budget. Right now they are negative \$6 million and feel by the end of the second quarter of 2018 they will have three or four quarters of steady budget to actual performance. He further stated they will be inviting the ratings agencies out to see them and hopefully that will be a positive outlook. Their financial advisors are saying they are two years away from the rating they would like to see. He stated the best case scenario before Petersburg improves their rating is probably twenty-four to thirty-six months out. That is presuming responsible performance over that time.

Mr. Massengill stated he has had a conversation with his Board on this and if it came down to moral obligation they have a close stance to Colonial Heights. He sees this as a very complicated process for their body to be able to go back and do this.

Dr. Casey asked in reference to the cash that has been set aside for debt service, how much can be used on the projects over the next year. Mr. Cole stated he thought a reimbursement resolution would give you that flexibility to outlay some cash ahead of time to reimburse yourselves. He further stated there are other options besides VRA that we have explored in the past. It's safe to assume that whomever the lender may be some additional clarity on the Petersburg situation would more than likely be desired.

Mr. Ashcraft asked Dr. Wichser what he could get done with what he had in house and Dr. Wichser replied that the Authority feels comfortable entering into the design phase portion of the project. He stated it depends on the fees from the engineering firm and what they finally come in at. The bid stage would put us at January/February, 2018. He further stated he wouldn't want to go into construction with a contractor without having the construction funds approved. However, he stated that he feels comfortable moving forward and holding off with VRA until fall to secure the project's construction funds.

Mr. Ashcraft asked for comments from members. Mr. Henley stated to pay cash for engineering and hold off on the borrowing. Mr. Ashcraft directed Dr. Wichser to go as far as he can in house. Dr. Casey stated to see if there was a need for reimbursement resolution. Mr. Ashcraft asked Mr. Cole if there was a chance that interest rates would be going up and Mr. Cole replied rates have gone up since the election. Most of the increases are with the short term loans. Rates are currently still at the low side for borrowing. With VRA being on hold for the time being, he would suggest that he get with Dr. Wichser, Mr. Anderson and Mr. Gordon and they would be able to come back to the Board about another lender. He stated this would give the Board a chance to think about this. Dr. Casey stated we should invite VRA to future funding discussions. Mr. Ashcraft asked Mr. Cole about Petersburg's portion being between \$130,000 and \$180,000 and if it would kick in in FY18 and Mr. Cole said if we were to participate in a VRA program there would be a partial payment in FY18. The total debt service for the Authority would be about \$580,000 in FY18. It's about \$100,000 for Petersburg in FY18 and depending on amortization it settles between \$130,000 and \$180,000 per year. Mr. Ashcraft stated it would eliminate the moral obligation possibility and strengthen the confidence level among localities that are having trouble coming to grips with it.

Mr. Ashcraft stated that we would hold off on any VRA involvement until the end of the year. We will entertain any other lender possibilities. Mr. Cole stated he would coordinate with Staff and Bond Council in coming back to the Board at the next meeting with some ideas of alternative funding mechanisms. Mr. Ashcraft stated staff could move forward with in house funding up through the engineering stage based on what the engineering fees end up being. Mr. Ashcraft asked

through FY18 if the budget included the project's debt service increases that the other localities would be paying, and Dr. Wichser replied correct.

- **Presentation of Proposed Amendment to 1964 Water Service Agreement**

Dr. Wichser and Mr. Anderson presented the Proposed Amendment to the 1964 Water Service Agreement. Dr. Wichser stated we were asked in 2013 to update the existing Water Service Agreement. One concern related to the current Water Service Agreement is that it does not provide ownership of the treatment plant capacity to what the membership thinks they bought into and the ability to buy or sell Allocation of Total Capacity to another Participating Jurisdiction. Mr. Anderson stated what they tried to do with this Amendment was to focus on two things: 1) To convert the notion of an allocation of total capacity which is the basis under which the expansion rates are allocated in the existing Agreement and also the base rates. To convert those rates from simply a rate base function to creating an ownership, a property right for each of the localities in that allocation of total capacity, and 2) Allowing that property right to be freely traded on either a permanent or temporary basis. The most critical need that the Authority and the members have is to allow the purchase and sale of excess capacity. The Commonwealth, including VRA, would like to see the Authority enable this if possible so that a sale of Petersburg's excess capacity could happen. He further stated that we sent this out for members' consideration. He heard comments from members after they received the Board package and has incorporated those comments into the document. Dr. Casey asked if Chesterfield could agree to this Amendment would that warrant the immediate removal of the throttling valve. Dr. Wichser told Dr. Casey the throttling valve was a transmission line design flow control/hydraulic element and is something totally separate from this issue. Mr. Anderson stated he did agree with that. Dr. Casey said he respectfully disagrees. Mr. Ashcraft said if three fifths of this Board wanted the throttling valve to be eliminated it would be done. He further stated entering into this Agreement does not solve the problem of delivery for Prince George. Mr. Henley stated Colonial Heights had a discussion over this and they can support it but he would do so with remorse. He further stated it has been three years now, countless hours of staff and expensive legal bills and he feels this should have been done early on. Mr. Tyrrell stated the comments reflect why it has been three years to get the Service Agreement done. He feels it's an ownership issue. Mr. Ashcraft stated he and Dr. Casey agree it's the right thing to do but without the Resolution of other issues. Dr. Casey asked how total capacity is defined and Dr. Wichser said his understanding is this is in reference to treatment plant production capacity. Mr. Massengill asked if this included the raw water of the reservoir itself and Dr. Wichser replied yes, once it enters ARWA's raw water intake pipes. Mr. Massengill stated anything we can do to help Petersburg be in a better position both with the Commonwealth of Virginia and VRA we should focus on that, but at the same time we have to work for what is best for us individually. Mr. Tyrrell stated you need to include the potential for Petersburg to revert to a township at some point. He asked how you work with a City who is unable to pull out of its own bankruptcy and what the impact would be on the surrounding Counties and jurisdictions.

Dr. Wichser asked the Board to look over the Amendment and stated this item would be brought back at the May 18, 2017 Board meeting. Dr. Casey stated he would like to know all the ways in which an engineer could trump a legal agreement. They can't buy the water they need because of the throttling valve. Dr. Wichser replied there have been numerous reports on this issue that defines why it's necessary. Mr. Tyrrell stated if at any point we want him to talk to anybody about the state of Petersburg he would.

- **Brasfield Dam Raise Project Proposed 2018 Budget Impacts**

Dr. Wichser reported on Phase 1 of the Brasfield Dam Raise Project. The estimated cost of Phase 1 is \$10 million minus the \$5 million matching state grant. Mr. Gordon reported on the potential rate impacts from the project. Dr. Casey asked the issuance date of the \$5 million and Mr. Cole answered it would be spring with an interest payment only in the FY18. Mr. Massengill asked if Colonial Heights didn't participate who was going to pay for it and Mr. Henley stated they continue to have discussions with City Council about this and will continue to do so. Mr. Tyrrell stated Petersburg couldn't participate in this project. Mr. Henley stated that Colonial Heights needs more time and would like to hold off on this issue for several weeks. Mr. Henley asked if the Authority had the cash balance to start into Phase 1 or is it totally dependent on the borrowing and Dr. Wichser replied if you are looking at Phase 1, Step 1, the Virginia Water Protection Permit opening and modification estimated at \$150,000, the Authority has \$150,000 available. Dr. Wichser stated through Phase 1, Step 2, we are looking at \$600,000 potentially expended. Dr. Casey stated with respect to Delegate Cox we need to see that DEQ acceptable grant lines are confirmed. Mr. Ashcraft stated this would be revisited at the May Board meeting.

- **Status Report: Ongoing Projects/Operational/Financial**

Mr. Gordon reported on the Status Report of Ongoing Projects/Operational/Financial.

7. Items from Counsel

There were no Items from Counsel.

8. Other Items from Board Members/Staff Not on Agenda

Mr. Tyrrell stated staff needed to look at truck traffic on Pocahontas Island and how to resolve the issue of hours and quantity of the vehicles coming through. Dr. Wichser replied that South Central Wastewater Authority had a City of Petersburg policeman visit the plant and based on the conversation with the officer, we immediately requested Mr. Burpoe, our Operations Manager, to contact the trucking firms and instruct them not to park on the Island and not show up before the set time. Mr. Tyrrell asked how many are permitted each day and Dr. Wichser replied 18 landfill related trucks are permitted and there presently is no other way to get them to discharge into SCWWA. Mr. Tyrrell asked Dr. Wichser to send him a time line report on that and Dr. Wichser stated he would.

Dr. Casey suggested a sign be put on the bridge so that citizens would know how to get to SCWWA.

Mr. Hayes presented an update on Chesterfield's system. In accordance with ARWA's Trust Engineer's recommendation, Chesterfield County Utilities has installed one VFD at their Enon Pump Station. This change will allow Chesterfield Utilities to pull at lower flows and potentially reduce their hourly peak flows. Additionally, Mr. Hayes stated that it has been budgeted in the FY18 Budget for the other two pumps to receive VFD's. This action should help address peak hour's flows on that specific transmission line.

Mr. Henley stated he would like to see some consideration given to what is the right level of transparency for the Authority in terms of information that we provide to the public and through which channels. He feels there is insufficient information being put out on the web.

Mr. Henley further stated he would like to see budgets and minutes of the meeting on the website and Dr. Wichser replied they are already presented and continuously updated on both ARWA's and SCWWA's websites. Dr. Wichser stated both Authorities have modernized their websites and are posting technical studies, financial reports, Board packages, budgets and offer complete clarity to the public.

Mr. Ashcraft asked if the Authority was doing flushing and Dr. Wichser replied flushing was completed last week with no issues noted.

9. Adjourn

Upon a motion made by Mr. Massengill and seconded by Mr. Tyrrell the meeting was adjourned at 4:18 p.m.

The next regularly scheduled Board meeting is Thursday, May 18, 2017 at 2:00 p.m. at the Appomattox River Water Authority.

MINUTES APPROVED BY:

Kevin Massengill
Secretary/Treasurer

3. Public Comment

The Guidelines for Public Comment are:

GUIDELINES FOR PUBLIC COMMENT AT SCWWA/ARWA BOARD OF DIRECTORS MEETINGS

If you wish to address the SCWWA/ARWA Board of Directors during the time allocated for public comment, please raise your hand or stand when the Chairman asks for public comments.

Members of the public requesting to speak will be recognized during the specific time designated on the meeting agenda for "Public Comment Period." Each person will be allowed to speak for up to three minutes.

When two or more individuals are present from the same group, it is recommended that the group designate a spokesperson to present its comments to the Board and the designated speaker can ask other members of the group to be recognized by raising their hand or standing. Each spokesperson for a group will be allowed to speak for up to five minutes.

During the Public Comment Period, the Board will attempt to hear all members of the public who wish to speak on a subject, but it must be recognized that on rare occasion presentations may have to be limited because of time constraints. If a previous speaker has articulated your position, it is recommended that you not fully repeat the comments and instead advise the Board of your agreement. The time allocated for speakers at public hearings are the same as for regular Board meeting, although the Board can allow exceptions at its discretion.

Speakers should keep in mind that Board of Directors meetings are formal proceedings and all comments are recorded on tape. For that reason, speakers are requested to speak from the podium and wait to be recognized by the Chairman. In order to give all speakers proper respect and courtesy, the Board requests that speakers follow the following guidelines:

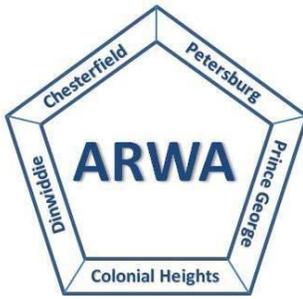
- Wait at your seat until recognized by the Chairman;
- Come forward and state your full name and address. If speaking for a group, state your organizational affiliation;
- Address your comments to the Board as a whole;
- State your position clearly and succinctly and give facts and data to support your position;
- Summarize your key points and provide the Board with a written statement or supporting rationale, when possible;
- If you represent a group, you may ask others at the meeting to be recognized by raising their hand or standing;
- Be respectful and civil in all interactions at Board meetings;
- The Board may ask speakers questions or seek clarification, but recognize that Board meetings are not a forum for public debate; Board Members will not recognize comments made from the audience and ask that members of the audience not interrupt the comments of speakers and remain silent while others are speaking so that other members in the audience can hear the speaker;
- The Board will have the opportunity to address public comments after the Public Comment Period has been closed;
- At the request of the Chairman, the Executive Director may address public comments after the session has been closed as well; and
- As appropriate, staff will research questions by the public and respond through a report back to the Board at the next regular meeting of the full Board. It is suggested that citizens who have questions for the Board or staff submit those questions in advance of the meeting to permit the opportunity for some research before the meeting.

4. Executive Director's Report:

- **Reservoir Status Update for April/May 2017**

- **Seasonal Chesdin Water Wise Conservation Measures**

Following for your review is the Appomattox River Water Authority's Seasonal Chesdin Water Wise Conservation Release.



FOR IMMEDIATE RELEASE

May 26, 2017

For more information contact:
Bob Wichser, Executive Director
(804) 590-1145

ARWA Encourages Seasonal Chesdin Water Wise Conservation Measures Starting May 29

The Appomattox River Water Authority (ARWA) issued a reminder today that the *Seasonal Chesdin Water Wise Conservation Measures* will be in effect throughout the summer - from Memorial Day through Labor Day. ARWA encourages its customers to embrace *voluntary* water conservation measures to promote sustainability of Chesdin Reservoir and its aquatic attributes.

“The preservation of this essential natural resource is an effort that requires support from all ARWA customers,” said Prince George County Administrator and ARWA Board Chairman Percy Ashcraft. “It is important that we all remain mindful that our water supply is not unlimited; and we ask all citizens to do what they can to voluntarily limit nonessential water use.”

Under the *Seasonal Chesdin Water Wise Conservation Measures*, customers are encouraged to reduce and conserve water by following these Water Wise measures:

- Limit filling of decorative fountains and swimming pools only when necessary
- Limit washing of paved areas to two days per week unless for health or safety concerns
- Limit automatic sprinkler system irrigation to two (2) days per week
- Watering with hose-end sprinklers and automatic sprinkler systems should be restricted between the hours of 11:00AM and 6:00PM
- Irrigation with hand-held bucket, hand-held hose, soaker hose and drip irrigation systems is acceptable on any day and at any time
- Irrigation of vegetable gardens is acceptable on any day and at any time
- Watering of new landscaping is acceptable for the first ten days after planting
- Vehicle washing and charity car washes are acceptable on any day and at any time, but should be done using a hand-held bucket or a hand-held hose equipped with a positive shutoff device.

All businesses are encouraged to limit their water consumption wherever possible under the *Seasonal Chesdin Water Wise Conservation Measures*. Water conservation by any other means is highly encouraged and should be practiced daily.

The Appomattox River Water Authority (ARWA) is the owner and manager of the Lake Chesdin Reservoir (a 3,100 acre public water supply reservoir located on the Appomattox River on the Chesterfield County and Dinwiddie County line) that provides drinking water on a wholesale basis to five member jurisdictions: the cities of Colonial Heights and Petersburg, and the Counties of Chesterfield, Dinwiddie and Prince George.

ARWA is committed to the effective management of the Chesdin Reservoir through the preservation and enhancement of a reliable source of high-quality treated water to meet the needs of its members; and the protection of the environmental health of the Chesdin Reservoir. The *Seasonal Chesdin Water Wise Conservation Measures* clearly support these objectives.

“Promoting water conservation is an important component of ARWA’s commitment to ensure reliable drinking water for future generations”, said ARWA Executive Director Bob Wichser. “The *Seasonal Chesdin Water Wise Conservation Measures* aim to provide our customers education and information resulting in more efficient use of our water resource.”

ARWA is mindful that a successful **voluntary** water conservation campaign is the best way to avoid or delay the implementation of mandatory water use restrictions in the future. Meeting long- term human and environmental water needs can be accomplished most effectively by all ARWA water users working together, particularly during the warmer months of the year when rainfall may be scarce.

ARWA customers who would like more information or have any questions about the *Seasonal Chesdin Water Wise Conservation Measures* are encouraged to visit the ARWA website at www.arwava.org or contact their local water service provider directly.

* * *

About ARWA

The Appomattox River Water Authority (ARWA) provides safe, clean water to customers in Chesterfield, Dinwiddie and Prince George Counties, and the Cities of Colonial Heights and Petersburg, from facilities located next to the Brasfield Dam, at Chesdin Reservoir, in south-central Virginia. For more information about ARWA, please visit <http://arwava.org/>

- **Award of Annual Financial Audit Services for 2018-2021**

Following is a memorandum concerning the Award of the Annual Financial Auditing Services for the Authorities for 2017-2021.

MEMORANDUM

TO: APPOMATTOX RIVER WATER AUTHORITY & SOUTH CENTRAL
WASTEWATER AUTHORITY BOARD OF DIRECTORS

FROM: MELISSA WILKINS, ACCOUNTING/OFFICE MANAGER

REVIEWED BY: ROBERT C. WICHSER, EXECUTIVE DIRECTOR

SUBJECT: ARWA/SCWWA AWARD OF ANNUAL PROFESSIONAL FINANCIAL
AUDIT SERVICES

DATE: MAY 18, 2017

On April 7, 2017 the Appomattox River Water Authority and South Central Wastewater Authority issued a request for proposal related to annual financial auditing services. Both Authorities are required to annually prepare a Comprehensive Annual Financial Report (CAFR) that is audited by an independent outside CPA firm, with this final report then presented in public session to each Board. The annual report is prepared to meet the Generally Accepted Accounting Principles which is a full accrual basis of reporting.

Three outside accounting firms submitted professional services proposals, including:

Brown Edwards, Lynchburg, Virginia
Robinson, Farmer, Cox Associates, Charlottesville, Virginia
Dixon Hughes Goodman LLP, Chester, Virginia

Interviews were conducted during the period from April 27 to May 4th and each firm submitted their proposed fees (nonbinding cost estimate) that would cover the potential contract period of 2018 through 2021. Based on the submittals, interviews and fee estimates associated with this work, the ARWA/SCWWA internal selection committee makes the following recommendation.

BOARD ACTION REQUESTED:

Staff requests that the Board of Directors of both the Appomattox River Water Authority and South Central Wastewater Authority authorize the Executive Director to execute a Professional Financial Audit Services Agreement with Robinson, Farmer, Cox Associates, Charlottesville, Virginia for the period of 2018-2021.

- **Approval on Award of “In-Plant” Project Engineering Services**

Following is a memorandum concerning the selection committee’s recommendation for the Award of Engineering Services for the “In-Plant” Projects.

MEMORANDUM

**TO: APPOMATTOX RIVER WATER AUTHORITY
BOARD OF DIRECTORS**

**FROM: ROBERT C. WICHSER, EXECUTIVE DIRECTOR
JAMES C. GORDON, ASSISTANT EXECUTIVE DIRECTOR**

**SUBJECT: AWARD OF ENGINEERING SERVICES FOR “IN-PLANT” IMPROVEMENT
PROJECT**

DATE: MAY 18, 2017

On February 12, 2017 ARWA advertised for proposals related to engineering services towards project permitting, design, bidding assistance, construction administration and inspection services on the “In-Plant” project. The project consists of upgrades of Finish Water Pump Station No. 1 and associated electrical supply/communication equipment; upgrade of Raw Water Pump Station No. 1 and associated electrical supply/communication equipment; and an electrical emergency generator replacement and associated electrical control/communication equipment. This project was Board approved in May 2016 with the acceptance of the FY2016-2017 ARWA Construction Fund budget.

Four engineering firm proposals were received. Those firms are:

- Woodard & Curran
- Whitman, Requardt & Associates, LLP
- Arcadis
- Hazen & Sawyer/WW Associates

A review and ranking selection committee meeting was held on April 12th to determine which firms would be short-listed interviewed. The committee made up of representatives from Chesterfield County, Dinwiddie Water, Prince George County and ARWA determined that the following firms would be interviewed on April 25th:

- Whitman, Requardt & Associates, LLP
- Arcadis
- Hazen & Sawyer/WW Associates

On April 25, 2017 interviews were conducted and a selection was made for presentation to the ARWA Board. This selection was made based on the following criteria: firm’s experience with similar projects; communication ability of the assigned Project Manager; ability of the Project Manager to respond to the project site within twenty-four hours, depth of experience of the firm’s project team, and finally the non-binding fee estimate submitted by the firm for the engineering services on the project.

The selection committee interviews and non-binding cost estimates determined that the joint engineering firms of Hazen & Sawyer/WW Associates was the chosen candidate based on the firm’s

professional qualifications and being deemed the most meritorious. The total Lump Sum Not-To-Exceed project engineering service fee submitted by Hazen & Sawyer/WW Associates was \$915,000 and was \$474,648 less than the next engineering firm's engineering service fee estimate.

BOARD ACTION REQUESTED:

Staff requests that the Board of Directors authorize the Executive Director to execute an Engineering Services Agreement for the "In-Plant" Upgrade Project with Hazen & Sawyer/WW Associates for a lump sum not to exceed total engineering service fee of \$915,000 to be funded out of the In-Plant Upgrade Project budget as approved by the Board of Directors in May 2016. Staff also requests authorization for a 10% contingency for this work, to be used at the discretion of the Executive Director only if he considers it necessary for the project and authorizes in writing any increase of the original contract amount.

- **Discussion on Potential Brasfield Dam Raise Project**

Following is a memorandum, phasing schedule, and cost impacts concerning the Potential Brasfield Dam Raise Project.

MEMORANDUM

**TO: APPOMATTOX RIVER WATER AUTHORITY
BOARD OF DIRECTORS**

FROM: ROBERT C. WICHSER, EXECUTIVE DIRECTOR

SUBJECT: RAISING THE BRASFIELD DAM

DATE: MAY 18, 2017

Based on the Board of Directors request, the Authority contacted the Virginia Department of Environmental Quality (DEQ) Water Protection Permit and Financing Assistance Program Managers to clarify if DEQ would accept and convey matching grant funds towards our planning level project phasing approach. Both sections of DEQ were contacted by e-mail on Friday March 17, 2017 with the following correspondence occurring over a few days.

From: Robert Wichser [<mailto:rwichser@arwava.org>]

Sent: Friday, March 17, 2017 11:16 AM

To: Gills, Walter (DEQ); Kudlas, Scott (DEQ)

Cc: James Gordon

Subject: Review and Comment on Phasing Schedule to be Incorporated Into the Matching Grant Contract for Raising the Brasfield Dam

Walter/Scott: The Appomattox River Water Authority Board of Directors requested that I send to you for your review and comment a Phase 1 and Phase 2 Planning Level Phasing Schedule related to raising the ARWA dam. The attached phasing schedule and cost estimates were developed at the request of the ARWA Board to enable them to better understand how this project might be approached and the cost potentially related to this project. I would appreciate if you both working together would comment back by e-mail to me letting me know if you have suggestions that would make the phasing more acceptable to VA-DEQ and if the proposed phasing would be acceptable as the backbone of the matching grant agreement. For example, could matching grant funds be used in Phase 1, Step 1 and Step 2 during the State and Federal Agency permit and license review and amendments? Could matching grant funds in Phase 1, Step 3 be used towards the two VDOT bridge replacements one to two years before the actual dam construction would begin? Could matching grant funds be used to purchase wetland and stream offset credits? We appreciate your time and input on this matter and we look forward to receiving your comments on our proposed phasing elements of the dam raise project since our Board will be discussing in detail this item at the May 18th ARWA Board Meeting.

From: Gills, Walter (DEQ) [<mailto:Walter.Gills@deq.virginia.gov>]

Sent: Monday, March 20, 2017 12:58 PM

To: Robert Wichser; Kudlas, Scott (DEQ)

Cc: James Gordon

Subject: RE: Review and Comment on Phasing Schedule to be Incorporated Into the Matching Grant Contract for Raising the Brasfield Dam

Bob, Consistent with other WQIF grants administered by DEQ, we can award the WQIF grant once you have received the environmental permits and completed the Preliminary Engineering Report. The WQIF grant is a 50% cost share grant. We would want to include (50% of) the actual engineering/construction costs associated with raising the dam (currently estimated at \$4.5 million) as the primary component for the grant. Once 50% of those costs are covered, and to the extent grant funds are still available for other costs, other project components required of the project, such as the VDOT bridge replacements and the purchase of offset credits, could be funded with the remaining grant funds.

From: Robert Wichser

Sent: Monday, March 20, 2017 1:49 PM

To: 'Gills, Walter (DEQ)'

Subject: RE: Review and Comment on Phasing Schedule to be Incorporated Into the Matching Grant Contract for Raising the Brasfield Dam

Thanks Walter for this quick response. Just to ensure I fully understand, we could expect the dam raise design and construction to use \$2.25M grant funds and \$2.25M ARWA matching funds, leaving \$2.75M of grant funds potentially towards the remaining \$18.0M to be covered by the ARWA to complete the project (VDOT bridge replacement, wetland & stream credits, etc.). So, it appears the receipt of grant funds based on ARWA's planning level project schedule would not occur until Phase 2, Year 5-7 of the overall project when the actual dam design/construction would occur and ARWA would need to come up with approximately \$18M within two-three years of the project start to cover bridge replacement and environmental credits. Once the dam raise is complete, any remaining grant funds up to \$2.7M might be considered towards reimbursing the ARWA for other project expenses. I would not expect to begin raising the dam without already completing raising the two bridges and having the environmental credits in hand. Does this sequence of events agree with your expected release of the matching grant funds?

From: Gills, Walter (DEQ) [<mailto:Walter.Gills@deq.virginia.gov>]

Sent: Monday, March 20, 2017 2:20 PM

To: Robert Wichser <rwichser@arwava.org>

Subject: RE: Review and Comment on Phasing Schedule to be Incorporated Into the Matching Grant Contract for Raising the Brasfield Dam

Bob, Given the information and cost estimates currently at hand I concur with your review. I think a lot more information will be available once you get the permit(s) and complete the PER and some of this could be revisited and more clearly defined at that time.

Upon Authority receipt of the above information an e-mail was sent to the ARWA Chairman containing the following information:

From: Robert Wichser

Sent: Monday, March 20, 2017 3:08 PM

To: Percy Ashcraft

Cc: Anderson, Arthur E. II; Jamie Gordon (jgordon@scwwa.org)

Subject: FW: Review and Comment on Phasing Schedule to be Incorporated Into the Matching Grant Contract for Raising the Brasfield Dam

Percy: Based on the ARWA's Board's request that we send on to the Virginia Department of Environmental Quality for their review and comment ARWA's planning level schedule and cost estimates to raise the Chesdin Reservoir Dam, I have received the following information (see e-mails below) from DEQ's Financing Program Manager. Based on what I have received from Walter Gills, DEQ's Financing Program Manager, the following information is now clearer on how DEQ sees the matching grant funds to be expended towards this project.

To summarize the e-mails below, the DEQ would release grant funds towards the project as follows. Permitting and permit related costs (DEQ & FERC studies) would not be matching grant fund eligible nor would the two VDOT bridge replacements and environmental credits. Only the dam design and construction elements of the project would be eligible meaning that in the project's early years (2017-2019), the two VDOT bridge replacements and the needed environmental credits cost would need to be 100% funded by the ARWA, which at a minimum is expected to cost \$18M. The matching grant funds would kick-in approximately year five to seven of the project, when the dam design and construction would occur. Any remaining matching grant funds left over at the end of the project (potentially \$2.7M) not used in dam design and construction potentially could be applied for by ARWA to DEQ for rebating back from the grant. There is no guarantee that the \$2.7M would still be available to rebate ARWA at the end of the project. So, the takeaway is that ARWA needs to be ready to directly fund approximately \$20-21M during the project time-line in order to complete this project. Hopefully the information provides a better understanding on funds needed to undertake this project and the fact that it appears that the matching grant funds would not be eligible and available for ARWA's Phase 1 of this project.

Over the past three years the Authority has provided the Board of Directors recommendations that were based on sound science and engineering analysis. These recommendations related to raising the Brasfield Dam hold validity today and as a reminder to the Board are again provided.

The technical and financial information that was furnished was key to making the Authority's recommendations to the Board. The critical information that was ultimately used in our decision making included the following:

- The water release changes granted by the November 2013 Water Protection Permit
- The state-of-the-art water resource modeling that was completed, and the predicted results related to drought impacts and reservoir pool drawdown
- The development and approval of the first reservoir Drought Management Plan that now guides our management of the reservoir during drought periods using the best water resource modeling technology available
- The total opinion of probable project cost of \$25,486,560 or \$20,486,560 (with the \$5M Commonwealth matching grant)
- The environmental impacts on 144 acres of wetlands and 17,149 linear feet of streams with the potential for \$10.75M - \$14.33M in mitigation costs
- The cost of replacing two bridges in Dinwiddie County (\$6M)
- The modeling results that clearly show there is no need for additional raw water until 2035
- The ARWA CIP (2017-2023) with expected infrastructure upgrade and replacement needs estimated at \$50M

- The lack of purpose and need for this project in the 2013-2028 existing Water Protection Permit time period

The Board of Directors at a minimum will need to consider the following if this project progresses:

1. Who will fund this entire project?
2. Are all ARWA Members willing to accept potential repercussions from opening the existing Virginia Water Protection Permit?
3. Are all ARWA Members willing to accept any negative media fall out due to the project's environmental impacts?
4. Have the ARWA Members decided how to divide any additional raw water that would be made available from the project?

The Authority stands ready and willing to assist (including implementing this project) based on the direction given by the Board.

Estimated Phasing Schedule Raising the Brasfield Dam PHASE 1

YEAR 1-5
for Phase 1
of
PROJECT:
STEP 1

- Year 2017-2018
- Virginia Water Protection Permit Opening & Modification with CORPS/DEQ : Estimated cost: \$150,000
- ONLY PROCEED TO STEP 2 IF PERMIT CHANGES ARE DEEMED ACCEPTABLE**

STEP 2

- Year 2018-2020
- Submit federal application for approval to the Federal Energy Regulatory Commission
- Complete technical studies required by FERC: Estimated cost: \$450,000
- If FERC approval deemed acceptable then proceed to STEP 3 only after DEQ Matching Grant Terms acceptable**
- Concurrent with FERC required work, hold Local Public Meetings (2) introducing project and proposed schedule
- Concurrent with FERC required work - Complete Grant Contract with VA-DEQ
- If VA-DEQ Matching Grant Terms are Acceptable, then proceed to STEP 3**

STEP 3

- Year 2019-2020
- Completion of Additional Studies/Purchase of Environmental Credits
- Potential impacts on landowners/marinas (Only if needed): Estimated cost: \$200,000
- Bridge replacement permitting and approvals: Estimated Cost: \$50,000
- Preliminary Engineering Report on Dam Raise: Estimated Cost: \$150,000

STEP 3
continued

- Year 2020-2023
- Initial Purchase of Environmental Credits: \$3,000,000 (2014 estimates)
- Construction: Bridge Replacements (2): \$6,000,000 (2014 estimates)
- Assume no cost impacts from landowners/marinas*

• **TOTAL ESTIMATED COST OF PHASE 1: \$10,000,000**

Projected Rates with Dam Raise Debt Service

	Chesterfield	Colonial Heights	Prince George	Dinwiddie	Petersburg	Total
Plant and O&M Allocation - based on current allocation and 5 year averages						
% allocation	69.31%	4.39%	2.86%	6.75%	16.69%	100.00%
Estimated Flows (BG/Y)	7.250	0.626	0.238	0.452	1.732	10.298
% estimated flow	70.40%	6.08%	2.31%	4.39%	16.82%	100.00%
FY2018						
FY2018 Debt Service - Dam Raise ⁽¹⁾	\$311,895.00	\$19,755.00	\$12,870.00	\$30,375.00	\$75,105.00	\$450,000.00
Debt Service ⁽²⁾	\$590,167.42	\$55,731.70	\$123,634.61	\$255,631.64	\$135,503.77	\$1,160,669.15
Proposed O&M ⁽³⁾	\$5,970,596.06	\$508,225.81	\$217,512.05	\$431,199.79	\$1,361,530.01	\$8,489,063.72
Total	\$6,872,658.48	\$583,712.52	\$354,016.65	\$717,206.43	\$1,572,138.78	\$10,099,732.87
Total Rate - W/ Dam Raise	\$0.9480	\$0.9324	\$1.4875	\$1.5867	\$0.9077	\$0.9807
Rate increase related to Dam raise	\$0.0430	\$0.0316	\$0.0541	\$0.0672	\$0.0434	\$0.0437
FY2019						
FY2019 Debt Service - Dam Raise ⁽¹⁾	\$1,050,618.31	\$66,544.72	\$43,352.60	\$102,318.19	\$252,991.19	\$1,515,825.01
Debt Service ⁽²⁾	\$818,811.96	\$70,099.42	\$132,450.92	\$276,664.64	\$190,603.05	\$1,488,630.00
Estimated O&M ⁽³⁾	\$6,026,127.04	\$520,324.90	\$197,823.20	\$375,697.85	\$1,439,620.97	\$8,559,593.97
Total	\$7,895,557.31	\$656,969.04	\$373,626.72	\$754,680.68	\$1,883,215.22	\$11,564,048.98
Total Rate - W/ Dam Raise	\$1.0890	\$1.0495	\$1.5699	\$1.6696	\$1.0873	\$1.1229
Rate increase related to Dam raise	\$0.1449	\$0.1063	\$0.1822	\$0.2264	\$0.1461	\$0.1472

Notes

- (1) Debt Service-Dam Raise payments are based on a \$20,000,000 VRA loan at 4.5% for 20 years.
- (2) Current debt service payment includes 45.62% of the 2010 debt service payment, 2012 debt service, and estimated Debt Service payment for the In Plant Projects
- (3) Proposed and Estimated O&M includes expected O&M expenses, Replacement costs, Reserve Policy, 54.38% of the 2010 Debt Service payment, and estimated miscellaneous revenue

	Chesterfield	Colonial Heights	Prince George	Dinwiddie	Petersburg	Total
TOTAL COST OF ESTIMATED DEBT SERVICE FOR \$20 MILLION OVER 20 YEARS AT 4.5%	\$21,334,224.46	\$1,351,280.41	\$880,333.03	\$2,077,709.06	\$5,137,328.04	\$30,780,875.00

Projected Rates with Dam Raise Debt Service - Option 1

Payment Allocation redistributed without Colonial Heights and Petersburg

	Chesterfield	Colonial Heights	Prince George	Dinwiddie	Petersburg	Total
Plant and O&M Allocation - based on current allocation and 5 year averages						
% allocation	69.31%	4.39%	2.86%	6.75%	16.69%	100.00%
Dam Raise Debt % Allocation ⁽¹⁾	87.82%		3.62%	8.55%		100.00%
Estimated Flows (BG/Y)	7.250	0.626	0.238	0.452	1.732	10.298
% estimated flow	70.40%	6.08%	2.31%	4.39%	16.82%	100.00%
FY2018						
FY2018 Debt Service - Dam Raise ⁽²⁾	\$395,204.00	\$0.00	\$16,307.65	\$38,488.34	\$0.00	\$450,000.00
Debt Service ⁽³⁾	\$590,167.42	\$55,731.70	\$123,634.61	\$255,631.64	\$135,503.77	\$1,160,669.15
Proposed O&M ⁽⁴⁾	\$5,970,596.06	\$508,225.81	\$217,512.05	\$431,199.79	\$1,361,530.01	\$8,489,063.72
Total	\$6,955,967.48	\$563,957.52	\$357,454.31	\$725,319.78	\$1,497,033.78	\$10,099,732.87
Total Rate - W/ Dam Raise	\$0.9594	\$0.9009	\$1.5019	\$1.6047	\$0.8643	\$0.9807
Rate increase related to Dam raise	\$0.0545	\$0.0000	\$0.0685	\$0.0852	\$0.0000	\$0.0437
FY2019						
FY2019 Debt Service - Dam Raise ⁽²⁾	\$1,331,244.70	\$0.00	\$54,932.33	\$129,647.98	\$0.00	\$1,515,825.01
Debt Service ⁽³⁾	\$818,811.96	\$70,099.42	\$132,450.92	\$276,664.64	\$190,603.05	\$1,488,630.00
Estimated O&M ⁽⁴⁾	\$6,026,127.04	\$520,324.90	\$197,823.20	\$375,697.85	\$1,439,620.97	\$8,559,593.97
Total	\$8,176,183.70	\$590,424.32	\$385,206.45	\$782,010.47	\$1,630,224.03	\$11,564,048.98
Total Rate - W/ Dam Raise	\$1.1277	\$0.9432	\$1.6185	\$1.7301	\$0.9412	\$1.1229
Rate increase related to Dam raise	\$0.1836	\$0.0000	\$0.2308	\$0.2868	\$0.0000	\$0.1472

Notes

- (1) Dam Raise Debt % Allocation is a redistribution of the Debt Service based on the participating members % Plant Allocation.
- (2) Debt Service-Dam Raise payments are based on a \$20,000,000 VRA loan at 4.5% for 20 years.
- (3) Current debt service payment includes 45.62% of the 2010 debt service payment, 2012 debt service, and estimated Debt Service payment for the In Plant Projects
- (4) Proposed and Estimated O&M includes expected O&M expenses, Replacement costs, Reserve Policy, 54.38% of the 2010 Debt Service payment, and estimated miscellaneous revenue

	Chesterfield	Colonial Heights	Prince George	Dinwiddie	Petersburg	Total
TOTAL COST OF ESTIMATED DEBT SERVICE FOR \$20 MILLION OVER 20 YEARS AT 4.5%	\$27,032,722.33	\$0.00	\$1,115,475.20	\$2,632,677.47	\$0.00	\$30,780,875.00

Projected Rates with Dam Raise Debt Service - Option 2

Payment Allocation redistributed without Petersburg

	Chesterfield	Colonial Heights	Prince George	Dinwiddie	Petersburg	Total
Plant and O&M Allocation - based on current allocation and 5 year averages						
% allocation	69.31%	4.39%	2.86%	6.75%	16.69%	100.00%
Dam Raise Debt % Allocation ⁽¹⁾	83.20%	5.27%	3.43%	8.10%		100.00%
Estimated Flows (BG/Y)	7.250	0.626	0.238	0.452	1.732	10.298
% estimated flow	70.40%	6.08%	2.31%	4.39%	16.82%	100.00%
FY2018						
FY2018 Debt Service - Dam Raise ⁽²⁾	\$374,378.83	\$23,712.64	\$15,448.33	\$36,460.21	\$0.00	\$450,000.00
Debt Service ⁽³⁾	\$590,167.42	\$55,731.70	\$123,634.61	\$255,631.64	\$135,503.77	\$1,160,669.15
Proposed O&M ⁽⁴⁾	\$5,970,596.06	\$508,225.81	\$217,512.05	\$431,199.79	\$1,361,530.01	\$8,489,063.72
Total	\$6,935,142.31	\$587,670.16	\$356,594.98	\$723,291.64	\$1,497,033.78	\$10,099,732.87
Total Rate - W/ Dam Raise	\$0.9566	\$0.9388	\$1.4983	\$1.6002	\$0.8643	\$0.9807
Rate increase related to Dam raise	\$0.0516	\$0.0379	\$0.0649	\$0.0807	\$0.0000	\$0.0437
FY2019						
FY2019 Debt Service - Dam Raise ⁽²⁾	\$1,261,095.08	\$79,876.03	\$52,037.68	\$122,816.21	\$0.00	\$1,515,825.01
Debt Service ⁽³⁾	\$818,811.96	\$70,099.42	\$132,450.92	\$276,664.64	\$190,603.05	\$1,488,630.00
Estimated O&M ⁽⁴⁾	\$6,026,127.04	\$520,324.90	\$197,823.20	\$375,697.85	\$1,439,620.97	\$8,559,593.97
Total	\$8,106,034.09	\$670,300.35	\$382,311.81	\$775,178.71	\$1,630,224.03	\$11,564,048.98
Total Rate - W/ Dam Raise	\$1.1181	\$1.0708	\$1.6064	\$1.7150	\$0.9412	\$1.1229
Rate increase related to Dam raise	\$0.1739	\$0.1276	\$0.2186	\$0.2717	\$0.0000	\$0.1472

Notes

- (1) Dam Raise Debt % Allocation is a redistribution of the Debt Service based on the participating members % Plant Allocation.
- (2) Debt Service-Dam Raise payments are based on a \$20,000,000 VRA loan at 4.5% for 20 years.
- (3) Current debt service payment includes 45.62% of the 2010 debt service payment, 2012 debt service, and estimated Debt Service payment for the In Plant Projects
- (4) Proposed and Estimated O&M includes expected O&M expenses, Replacement costs, Reserve Policy, 54.38% of the 2010 Debt Service payment, and estimated miscellaneous revenue

	Chesterfield	Colonial Heights	Prince George	Dinwiddie	Petersburg	Total
TOTAL COST OF ESTIMATED DEBT SERVICE FOR \$20 MILLION OVER 20 YEARS AT 4.5%	\$25,608,239.66	\$1,621,990.65	\$1,056,695.50	\$2,493,949.18	\$0.00	\$30,780,875.00

Dam Raise Rate Impact Summary

	FY18 Rate Impact (\$/1000 gal)	FY18 Total Rate % from Dam Raise Debt	FY18 Total \$ Impact	FY19 Rate Impact (\$/1000 gal)	FY19 Total Rate % from Dam Raise Debt	FY19 Total \$ Impact	Total \$ for life of Debt
Chesterfield							
Full Allocation Split	\$0.0430	4.54%	\$311,895.00	\$0.1449	13.31%	\$1,050,618.31	\$21,334,224.46
Allocation Split - Opt 1	\$0.0545	5.68%	\$395,204.00	\$0.1836	16.28%	\$1,331,244.70	\$27,032,722.33
Allocation Split - Opt 2	\$0.0516	5.40%	\$374,378.83	\$0.1739	15.56%	\$1,261,095.08	\$25,608,239.66
Colonial Heights							
Full Allocation Split	\$0.0316	3.38%	\$19,755.00	\$0.1063	10.13%	\$66,544.72	\$1,351,280.41
Allocation Split - Opt 1	\$0.0000	0.00%	\$0.00	\$0.0000	0.00%	\$0.00	\$0.00
Allocation Split - Opt 2	\$0.0379	4.04%	\$23,712.64	\$0.1276	11.92%	\$79,876.03	\$1,621,990.65
Prince George							
Full Allocation Split	\$0.0541	3.64%	\$12,870.00	\$0.1822	11.60%	\$43,352.60	\$880,333.03
Allocation Split - Opt 1	\$0.0685	4.56%	\$16,307.65	\$0.2308	14.26%	\$54,932.33	\$1,115,475.20
Allocation Split - Opt 2	\$0.0649	4.33%	\$15,448.33	\$0.2186	13.61%	\$52,037.68	\$1,056,695.50
Dinwiddie							
Full Allocation Split	\$0.0672	4.24%	\$30,375.00	\$0.2264	13.56%	\$102,318.19	\$2,077,709.06
Allocation Split - Opt 1	\$0.0852	5.31%	\$38,488.34	\$0.2868	16.58%	\$129,647.98	\$2,632,677.47
Allocation Split - Opt 2	\$0.0807	5.04%	\$36,460.21	\$0.2717	15.84%	\$122,816.21	\$2,493,949.18
Petersburg							
Full Allocation Split	\$0.0434	4.78%	\$75,105.00	\$0.1461	13.43%	\$252,991.19	\$5,137,328.04
Allocation Split - Opt 1	\$0.0000	0.00%	\$0.00	\$0.0000	0.00%	\$0.00	\$0.00
Allocation Split - Opt 2	\$0.0000	0.00%	\$0.00	\$0.0000	0.00%	\$0.00	\$0.00

Note:

Opt 1: No Participation from Colonial Heights and Petersburgs

Opt 2: No Participation from Petersburg

- **Davenport Presentation: Scope of Work - Future of the Authority**

Following is a memorandum from Davenport concerning a potential Scope of Work related to the Future of the Authority.

To The Appomattox River Water Authority Board of Directors
From Davenport Public Finance
Date May 18, 2017
Subject Proposed Engagement to Identify and Analyze Options Related to Governance and Ownership Changes of the Appomattox River Water Authority

Background:

At the request of the Appomattox River Water Authority (“ARWA”) Board of Directors, Davenport & Company LLC (“Davenport”), serving as ARWA’s Financial Advisor, will coordinate an Evaluation Project to review potential changes or enhancements to the governance and ownership of ARWA. Davenport, with the assistance of ARWA staff, ARWA members, McGuireWoods as ARWA counsel, Hazen and Sawyer as ARWA Trust Engineer, and additional outside consultants, as needed and subcontracted by Davenport (e.g., utility valuation) will implement the Evaluation Project.

Davenport has developed the preliminary Scope of Services below for review with the ARWA Board and an organizational chart of potential professional services to be used. Due to the number and complexity of potential outcomes and scenarios, Davenport expects other areas of review to arise during the evaluation process. All potential outcomes and scenarios will be based upon a common goal of what is in the best interest of ARWA and all of its members.

Preliminary Scope of Services:

Preliminarily, Davenport has identified two primary approaches/areas of review to be analyzed as part of this engagement:

1. **Governance-** Evaluation and review of ARWA’s governance structure, including among other areas, the following:
 - a. Amendments to the Service Agreement
 - b. Dissolution or Reconstitution
 - c. Alterations to the Governing Structure
 - d. Alterations to Board Representation

Of note related to this option, Davenport is aware that there has already been significant work performed by ARWA staff, ARWA members and McGuireWoods to explore and implement changes to the Service Agreement. Before initiating any new work or analyses, Davenport will work with ARWA staff and McGuireWoods to completely catalog all relevant work, communications and decisions/opinions related to this option.

May 18, 2017

2. **Ownership/Valuation-** Evaluation and review of potential changes to ownership of ARWA, including, among other areas, the following:
 - a. Sale of system assets
 - b. Sale of capacity rights
 - c. Valuation of the ARWA system
 - d. Impact to future rating setting
 - e. Legal/regulatory issues

Preliminary Work Performed:

Since the March Board meeting, Davenport has conducted a series of preliminary due diligence efforts including:

- Internal due diligence discussions to develop a more complete understanding of the proposed engagement and a preliminary Scope of Work.
- Meetings/calls with ARWA staff, consultants and Authority member representatives to discuss the proposed engagement and our preliminary approach as summarized above.
- Discussions with a number of potential sub-contractors that might be engaged to assist in the implementation of the Scope of Work.

Next Steps:

With ARWA Board approval today, Davenport will develop a formal proposal for the proposed engagement including a more detailed Scope of Work, engagement schedule, and pricing/fee information. We will present this information to the ARWA Board at the July Board meeting.

As it relates to developing this proposal, guidance from the Authority Board is requested today related to the use and approval of any sub-contractors. As the Project Manager, Davenport will utilize one or more sub-contractors to assist with various elements of the engagement. Direction is requested as to whether the Authority Board would like to provide the formal approval of any recommended sub-contractors or if the Board would like to provide Davenport discretion to select the firm(s) to be used. From our perspective, either approach is workable. Specific direction is requested, as it will have a bearing on the nature and specificity of the Engagement Proposal that we will develop for the July meeting.

Appomattox River Water Authority

McGuireWoods LLP
Authority Counsel /
Bond Counsel

Davenport & Company LLC
Financial Advisor
Project Oversight

Hazen and Sawyer
Trust Engineer

Sub-Consultants As Needed
Expertise As Required – Financial
Feasibility, Legal, Engineering,
Valuation, Policy Matters

Governance

- Service Agreement Amendment
- Dissolution/Reconstitution
- Governance Structure
- Board Representation

Ownership/Valuation

- Valuation of System
- Sale of Assets
- Sale of Capacity Rights
- Future Rate Setting
- Legal/Regulatory Issues

Municipal Advisor Disclosure

The U.S. Securities and Exchange Commission (the “SEC”) has clarified that a broker, dealer or municipal securities dealer engaging in municipal advisory activities outside the scope of underwriting a particular issuance of municipal securities should be subject to municipal advisor registration. Davenport & Company LLC (“Davenport”) has registered as a municipal advisor with the SEC. As a registered municipal advisor Davenport may provide advice to a municipal entity or obligated person. An obligated person is an entity other than a municipal entity, such as a not for profit corporation, that has commenced an application or negotiation with an entity to issue municipal securities on its behalf and for which it will provide support. If and when an issuer engages Davenport to provide financial advisory or consultant services with respect to the issuance of municipal securities, Davenport is obligated to evidence such a financial advisory relationship with a written agreement.

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- **Status Report: Ongoing Projects/Operational/Financial**

Following are status reports concerning the Ongoing Projects, Operations, and Financials for the ARWA.

MEMORANDUM

TO: APPOMATTOX RIVER WATER AUTHORITY BOARD OF DIRECTORS

FROM: ROBERT C. WICHSER, EXECUTIVE DIRECTOR
JAMES C. GORDON, ASSISTANT EXECUTIVE DIRECTOR

SUBJECT: STATUS REPORT – ON-GOING PROJECTS

DATE: MAY 18, 2017

The following projects are underway. This report includes sections on Capital projects and large replacement projects.

Lime Silo Improvements

- Project is contractually complete. The final payment has been approved and being processed.
- The rotary valve on the bulk lime silo was defective and has been successfully replaced.
- Handrail was installed last week

MEMORANDUM

TO: APPOMATTOX RIVER WATER AUTHORITY BOARD OF DIRECTORS

**FROM: ROBERT C. WICHSER, EXECUTIVE DIRECTOR
JAMES C. GORDON, ASST. EXECUTIVE DIRECTOR**

SUBJECT: OPERATING AND FINANCIAL STATUS REPORT

DATE: MAY 18, 2017

Operating Status Report

General:

- The next scheduled Board of Directors Meeting is Thursday June 15, 2017 at the Appomattox River Water Authority at 2:00 pm.
- Staff interviewed three auditing firms who responded to our RFP. Staff recommendation is included.
- The ARWA In-Plant Project Engineering Selection Committee met on April 12th to review proposals and met again on April 25th to interview and discuss potential engineering firms for this project.
- The ARWA's VPDES permit application and Data has been submitted. Staff is awaiting the draft permit.

Operations:

- Finished water met all permit requirements for the month of March and April. Copies of the VDH monitoring reports are available if anyone would like to see them.
- Staff is cleaning the Sedimentation Basins in preparation for the summer. Once the Basins are complete they will clean the common flume.
- Testing a new Alum feed pump. The current pumps are having issues with the elements and the feed line needs to be upgraded.
- Staff noticed a minor leak on the Fluoride piping and have informed Maintenance of the issue. A notice was distributed to Utility managers and VDH informing them that our Fluoride feed was turned off until the leak is repaired.

Maintenance:

- Staff has completed the installation of and plumbed in the new Phosphate storage tank. This will give our operators more flexibility for storing and ordering this chemical.
- Working with contractors to repair P24.
- Investigating the option to contract our Ms. Utility obligations.
- Planning the installation of the new Fluoride feed line to address the leak discovered by operations.
- Staff is testing the facility backflow devices.

Instrumentation/IT:

- Successfully coordinated and completed the new Authority Phone system and gate controls.
- Coordinated the successful completion of the SCP-A "Big Blue" PLC
- Worked with our new IT Service contractor to implement the new security enterprise software.
- Completed the installation of the trial Alum pump VFD and flow meter.
- Completed the calibration of the member billing flow meter verification/calibration as required every 2 years per the Service Agreement.

Laboratory:

- Staff is working on the quarterly THM and HAA analysis
- Annual PTs are being analyzed and submitted to maintain Lab certification.
- Staff has started performing their seasonal Lake Study.
- A draft CCR was distributed to each member utility.

Financial Status Report:

Following is the Executive Summary of the Monthly Financial Statement that includes the YTD Budget Performance and the Financial Statement for April 2017.

Appomattox River Water Authority
Monthly Financial Statements-April 2017

Water Rate Center

Revenues and Expenses Summary

<i>Budget</i>	<i>Budget</i>	<i>Actual</i>	<i>Budget</i>	<i>Variance</i>
<i>FY 16/17</i>	<i>Year-to-Date</i>	<i>Year-to-Date</i>	<i>vs. Actual</i>	<i>Percentage</i>

Operating Budget vs. Actual

Revenues

Water Sales	\$ 10,178,754	\$ 7,634,065	\$ 7,336,654	\$ (297,411)	-3.90%
Rent Income	\$ 80,000	\$ 66,667	\$ 44,502	\$ (22,164)	-33.25%
Misc. Revenue	\$ -	\$ -	\$ 105,887	\$ 105,887	#DIV/0!
Total Operating Revenues	\$ 10,258,754	\$ 7,700,732	\$ 7,487,044	\$ (213,688)	-2.77%

Expenses

Personnel Cost	\$ 2,233,400	\$ 1,861,167	\$ 1,812,356	\$ (48,811)	-2.62%
Contractual/Professional Services	\$ 806,000	\$ 671,667	\$ 708,664	\$ 36,997	5.51%
Utilities	\$ 803,000	\$ 669,167	\$ 681,159	\$ 11,992	1.79%
Communication	\$ 29,500	\$ 24,583	\$ 38,342	\$ 13,759	55.97%
Office/Lab/Purification Supplies	\$ 94,500	\$ 78,750	\$ 80,894	\$ 2,144	2.72%
Insurance	\$ 90,000	\$ 75,000	\$ 91,150	\$ 16,150	21.53%
Lease/Rental Equipment	\$ 7,500	\$ 6,250	\$ 33,505	\$ 27,255	436.08%
Travel/Training/Dues	\$ 46,400	\$ 38,667	\$ 30,481	\$ (8,186)	-21.17%
Safety/Uniforms	\$ 22,000	\$ 18,333	\$ 22,785	\$ 4,451	24.28%
Chemicals	\$ 2,200,000	\$ 1,833,333	\$ 1,643,325	\$ (190,009)	-10.36%
Repair/Maintenance Parts & Supplies	\$ 230,000	\$ 191,667	\$ 148,324	\$ (43,343)	-22.61%
Total Operating Expenses	\$ 6,562,300	\$ 5,468,583	\$ 5,290,984	\$ (177,599)	-3.25%
Operating Suplus/(Deficit)	\$ 3,696,454	\$ 2,232,148	\$ 2,196,060	\$ (36,088)	-1.62%

Replacement Outlay Budget vs. Actual

Machinery & Motors	\$ 285,000	\$ 237,500	\$ 233,979	\$ (3,521)	-1.48%
Instrumentation	\$ -	\$ -	\$ 19,572	\$ 19,572	#DIV/0!
SCADA	\$ 175,000	\$ 145,834	\$ 97,266	\$ (48,568)	-33.30%
Computer Equipment	\$ 20,000	\$ 16,666	\$ 10,453	\$ (6,213)	-37.28%
Motor Vehicles	\$ 25,000	\$ 20,832	\$ 5,957	\$ (14,875)	-71.40%
Flocculation Basins	\$ 50,000	\$ 41,666	\$ 28,775	\$ (12,891)	-30.94%
Valve Replacement	\$ 100,000	\$ 83,333	\$ 69,363	\$ (13,970)	-16.76%
Warehouse Racks & Shelving	\$ 50,000	\$ 41,667	\$ 31,443	\$ (10,223)	-24.54%
Concrete	\$ 50,000	\$ 41,667	\$ -	\$ (41,667)	-100.00%
Pre-Chem Boiler	\$ 40,000	\$ 33,333	\$ 27,500	\$ (5,833)	-17.50%
Off-Site Reservoir	\$ 300,000	\$ 250,000	\$ 21,812	\$ (228,188)	-91.28%
Reservoir Storage	\$ 200,000	\$ 166,667	\$ -	\$ (166,667)	-100.00%
Lime Feed Improvements	\$ 457,415	\$ 381,179	\$ 415,694	\$ 34,515	9.05%
Phone System	\$ -	\$ -	\$ 12,533	\$ 12,533	#DIV/0!
Replacement-Other	\$ -	\$ -	\$ 33,319	\$ 33,319	#DIV/0!
Total Capital Outlay	\$ 1,752,415	\$ 1,460,344	\$ 1,007,666	\$ (452,678)	-31.00%

Debt Service Budget vs. Actual

Interest Income	\$ -	\$ -	\$ 49,843	\$ 49,843	#DIV/0!
Interest Jurisdictions (Income)	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Interest Expense	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Principal Payments	\$ 2,037,240	\$ 2,037,240	\$ 501,364	\$ (1,535,876)	-75.39%

Appomattox River Water Authority-Balance Sheet

For Month Ending April 30, 2017

Assets

Current Assets

Petty Cash	\$	400
SunTrust Operating Fund	\$	770,536
SunTrust Replacement Fund	\$	-
Total Unrestricted Cash	\$	770,936

Water Revenue	\$	5,621,308
Reserve Account	\$	1,739,699
Replacement Account	\$	174,738
Debt Service Reserve	\$	1,548,960
Bond Principal/Interest	\$	305,464
Total Restricted Cash	\$	9,390,169

Total Checking/Savings **\$ 10,161,105**

Accounts Receivable	\$	8,191
Other Current Assets	\$	856
Inventory	\$	358,541

Total Current Assets **\$ 10,528,693**

Fixed Assets

Land and Land Rights	\$	1,044,167
Water System	\$	84,179,582
Equipment	\$	1,055,242
Hydro	\$	34,873
Construction in Progress	\$	64,940
Accumulated Amortization	\$	(31,386)
Accumulated Depreciation	\$	(41,906,838)
Total Fixed Assets	\$	44,440,579

Other Assets

Pension	\$	295,870
---------	----	---------

Total Assets **\$ 55,265,142**

Liabilities & Equity

Current Liabilities

Accounts Payable	\$	36,941
Retainage Payable	\$	1,721
Accrued Interest Payable	\$	130,308
Total Current Liabilities	\$	168,970

Long Term Liabilities

Pension	\$	238,787
Bonds Payable-2010	\$	8,209,985
Bonds Payable-2012	\$	2,815,000
Accrued Leave Payable	\$	156,919
Post Employment Benefit	\$	65,000
Total Long-Term Liabilities	\$	11,485,690

Total Liabilities **\$ 11,654,660**

Equity

Retained Earnings	\$	(3,968,954)
Reserve for Operations	\$	3,273,180
Reserve for Water Revenue	\$	6,780,931
Reserve for Replacements	\$	500,000
Reserve for Bond Interest	\$	130,308
Reserve for Debt Service	\$	1,532,664
Reserve for Bond Principal	\$	1,031,300
Reserve for Reserve	\$	1,209,895
Fixed Assets, Net of Debt	\$	32,384,295

Net Income	\$	736,863
Total Equity	\$	43,610,482

Total Liabilities & Equity **\$ 55,265,142**

5. Approval of Proposed Fiscal Year 2017-2018 Budget

Following is a memorandum concerning and a copy of the Proposed Fiscal Year 2017-2018 Budget.

MEMORANDUM

**TO: APPOMATTOX RIVER WATER AUTHORITY
BOARD OF DIRECTORS**

**FROM: ROBERT C. WICHSER, EXECUTIVE DIRECTOR
JAMES C. GORDON, ASSISTANT EXECUTIVE DIRECTOR**

SUBJECT: APPROVAL OF FISCAL YEAR 2018 BUDGET

DATE: MAY 18, 2017

At the January 19, 2017 Board Meeting, the proposed budget was presented and discussed in detail. The budget has been twice publicly advertised and the budget’s public meeting was held during the March 16, 2017 Board of Directors meeting.

We are now ready to move forward with your approval on the proposal fiscal year budget item.

As a recap, the annual budget revenues for FY 2017/2018 (\$9,682,223) are decreasing from FY 2016/2017 (\$10,258,754) in the budget mainly due to decreases in debt service. Funds requested for the Replacement Fund are also decreasing from \$1.22M to \$851,000.

On Sunday February 19th & 26th 2017, the Appomattox River Water Authority advertised in numerous local newspapers as follows:

**APPOMATTOX RIVER WATER AUTHORITY PROPOSED BUDGET AND ESTIMATED RATES
FOR THE FISCAL YEAR ENDING JUNE 30, 2018**

Notice is hereby given that the Board of the Appomattox River Water Authority (the "Authority") will hold a public hearing for informative and fiscal planning purposes to consider the following proposed budget and the estimated rates for the fiscal year ending June 30, 2018 (“FY2018”). The public hearing allows the public to question and comment on the proposed budget and estimated rates.

The meeting, which may be continued or adjourned, will be held at 2:00 o'clock p.m. on March 16, 2017, before the Board, in the South Central Wastewater Authority Board Room, at 900 Magazine Road, in Petersburg, Virginia. Any person interested may appear at the meeting and present their views. Information regarding the proposed budget and estimated rates is on file and is open for inspection at the Appomattox River Water Authority's office at 21300 Chesdin Road, Chesterfield, Virginia, during business hours.

PROPOSED BUDGET

REVENUES

Chesterfield County	\$6,560,763
City of Colonial Heights	563,958

Dinwiddie County	639,577
City of Petersburg	1,562,781
Prince George County	322,654
<u>Interest & Miscellaneous Income</u>	<u>32,490</u>
TOTAL REVENUES	\$9,682,223

EXPENSES

Operating and Maintenance Expenses

Salaries	\$1,610,000
Employee Benefits	630,100
Contractual Services.....	809,200
Other Charges (Utilities, Insurance, Fuel, Training).....	977,600
Materials & Supplies.....	2,752,500
Debt Service	1,576,426
Reserve Policy.....	475,397
<u>Replacement.....</u>	<u>851,000</u>
TOTAL EXPENSES	\$9,682,223

Pursuant to the water service agreement in effect between the Authority and each of its five participating jurisdictions, the proposed budget as set forth above will result in an estimated rate per 1000 gallons of finished water purchased during FY2018 by each of the participating jurisdictions as set forth below:

	RATES (\$/1,000 gallons)		
	FY2017	FY2018	% Difference
Chesterfield County	0.9595	0.9049	-5.69%
City of Colonial Heights	0.8992	0.9004	0.13%
Dinwiddie County	1.4953	1.4143	-5.42%
City of Petersburg	0.9017	0.9021	0.04%
Prince George County	1.3570	1.3539	-0.23%

The rates are subject to change in accordance with the water service agreement based on, among other things, the amount of water actually purchased by each participating jurisdiction and the amounts of revenues received and expenses incurred by the Authority during FY2018.

- NOTE: 1. The budget included additional revenue of \$32,490 from interest and miscellaneous income.
2. The budget included revenues to build reserves to 50% O&M by 2020.

Board Action Requested:

Staff respectfully recommends that the Board of Directors adopt the advertised budget setting forth rates and charges for Fiscal Year 2018.

APPOMATTOX RIVER WATER AUTHORITY

January 19, 2017

PROPOSED OPERATION & MAINTENANCE BUDGET 2017/2018

	2016/2017 Budget	2017/2018 Budget	Change	
			Increase/ (Decrease) FY16/17 to FY17/18	Reason for Changes
<u>O&M EXPENSES</u>				
41000 · Personal Services	\$1,610,000	\$1,610,000	\$0	Budget includes up to a 3.0% pay for performance increase.
42000 · Employee Benefits	\$623,400	\$630,100	\$6,700	Budget includes two previously unbudgeted line items. One being an Employee Assistance Program (EAP), started last year, and another being the OPEB Health Insurance Adjustment.
42100 · Employer FICA	\$123,000	\$123,000		
42200 · Virginia Retirement System	\$96,000	\$96,000		
42210 · Deferred Comp 457	\$5,000	\$6,300		
42300 · Hospitalization Insurance	\$370,000	\$370,000		
42400 · VRS Group Life Insurance	\$21,300	\$21,300		
42500 · Group Term Life	\$1,500	\$2,000		
42600 · Unemployment Insurance	\$1,500	\$1,500		
42800 · Employee Promotions	\$5,100	\$3,500		
42900 · Other Fringe Benefits - EAP		\$2,000		
42950 · OPEB Health Insurance Adj		\$4,500		
43000 · Contractual Services	\$806,000	\$809,200	\$3,200	Budget includes four previously unbudgeted line items; Medical - Testing, Admin and Maintenance Services, VPDES Permit Fee, and Repair Services.
43121 · Auditing Services	\$10,000	\$10,000		
43122 · Accounting Services	\$12,000	\$7,500		
43140 · Consulting Engineers	\$75,000	\$75,000		
43150 · Legal Services	\$75,000	\$75,000		
43152 · Medical - Testing		\$2,000		
43155 · Other Consulting Services		\$0		
43156 · Admin and Maintenance Svc-SCWWA		\$1,700		
43160 · Trustee Services	\$10,000	\$10,000		
43162 · Bank Service Charges	\$1,500	\$1,500		
43170 · Research	\$15,000	\$15,000		
43180 · Potable Water Contract	\$500,000	\$500,000		
43190 · Samples and Tests	\$25,000	\$25,000		
43200 · Lake Patrol	\$4,000	\$4,000		
43210 · Software Support	\$20,000	\$15,000		
43220 · VPDES Permit Fee		\$500		
43310 · Repair Services		\$6,000		
43320 · Service Contracts	\$25,000	\$25,000		

APPOMATTOX RIVER WATER AUTHORITY

January 19, 2017

PROPOSED OPERATION & MAINTENANCE BUDGET 2017/2018

	2016/2017 Budget	2017/2018 Budget	Change	
			Increase/ (Decrease) FY16/17 to FY17/18	Reason for Changes
43500 · Printing and Binding	\$1,500	\$1,000		
43600 · Grounds Maintenance	\$32,000	\$35,000		
45000 · Other Charges	\$967,400	\$977,600	\$10,200	Increase due to a new line item for freight and increased expenses for the leasing and renting of equipment.
45110 · Electricity - Pumping	\$450,000	\$450,000		
45111 · Electricity - Purification	\$270,000	\$270,000		
45120 · Heating Fuel	\$75,000	\$75,000		
45130 · Trash Pickup	\$8,000	\$3,000		
45210 · Postal Services	\$2,000	\$2,200		
45220 · Freight		\$5,000		
45230 · Telecommunications	\$27,500	\$25,000		
45308 · General Liability Insurance	\$90,000	\$90,000		
45410 · Lease/Rent of Equipment	\$7,500	\$20,000		
45530 · Meals and Lodging	\$5,000	\$5,000		
45540 · Education and Training	\$16,400	\$16,400		
45550 · Safety Supplies	\$16,000	\$16,000		
45810 · Miscellaneous				
46000 · Materials and Supplies	\$2,555,500	\$2,752,500	\$197,000	
46001 · Office Supplies	\$12,000	\$12,000		
46004 · Laboratory Supplies	\$72,000	\$74,000		
46005 · Purification Chemicals	\$2,200,000	\$2,200,000		
46006 · Purification Process and Janitorial Supplies	\$10,500	\$10,500		
46007 · Repair & Maint Supplies-Shop	\$100,000	\$220,000		
46008 · Vehicle and Equipment Fuels	\$35,000	\$35,000		
46009 · Vehicle and Equipment Supplies		\$10,000		
46010 · Purification Equipment Parts	\$75,000	\$75,000		
46011 · Uniforms	\$6,000	\$6,000		
46012 · Dues and Subscriptions	\$25,000	\$25,000		
46014 · Repair & Maint Supplies-IT		\$65,000		
46015 · Small Equipment Purchases	\$10,000	\$10,000		
46016 · Purification Building Maint	\$10,000	\$10,000		
46000 · Materials and Supplies - Other				

APPOMATTOX RIVER WATER AUTHORITY

January 19, 2017

PROPOSED OPERATION & MAINTENANCE BUDGET 2017/2018

	2016/2017 Budget	2017/2018 Budget	Change	
			Increase/ (Decrease) FY16/17 to FY17/18	Reason for Changes
Total Operating Expenses	\$6,562,300	\$6,779,400	\$217,100	
58000 - Equipment Replacement	\$1,220,000	\$851,000	(\$369,000)	
Debt - 2007 Issue (retired in FY17)	\$474,071	\$0		2007 Issue retired in FY2017
Debt - 2010 Issue	\$757,058	\$764,540		
Debt - 2012 Issue	\$301,536	\$301,886		
Debt - 2017 Issue	\$504,575	\$510,000		In-Fence Upgrades only
Total Debt	\$2,037,240	\$1,576,426	(\$460,814)	
Reserve Fund	\$439,214	\$475,397	\$36,183	Adjusted to factor increased O&M
Total Expenses	\$10,258,754	\$9,682,223	(\$576,531)	

APPOMATTOX RIVER WATER AUTHORITY
Replacement Fund Budget - 58000

Acct#	Proposed FY ITEM	Budget 16/17	FY17/18				Totals	
			Proposed Budget 17/18	INFORMATIONAL & PLANNING				
				18/19	19/20	20/21	21/22	
58010 - Machinery and Motors	Emergency/ Miscellaneous Repairs	\$ 285,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 785,000
	Exterior Actuators		\$ 25,000	\$ 8,000				\$ 33,000
58020 - Instrumentation	Conversion of ModBus+ to TCP (ethernet) - 4 segments		\$ 36,000					\$ 36,000
	Laboratory AA		\$ 25,000					\$ 25,000
	Benchtop TOC Analyzer		\$ 25,000					\$ 25,000
58030 - SCADA	Replacement of '83 vintage SCADA equipment	\$ 100,000						\$ 100,000
	MDT Autosave Revision control software		\$ 30,000					\$ 30,000
	Upgrade Filter Tables to HMIs with redundant PLCs		\$ 200,000	\$ 200,000				\$ 400,000
58040 - Computer Equipment	Plant GIS	\$ 10,000						\$ 10,000
	Replacement Computers	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 60,000
58050 - Furniture and Fixtures								\$ -
58060 - Motor Vehicles	Reservoir Sampling work boat	\$ 25,000						\$ 25,000
	Laboratory Truck			\$ 30,000				\$ 30,000
	Operations Truck				\$ 30,000			\$ 30,000
58070 - Special Studies								\$ -
58090 - Construction	Valve Replacement	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 600,000
	Warehouse Racks and Shelving	\$ 50,000						\$ 50,000
	General Concrete Repairs	\$ 50,000	\$ 50,000	\$ 50,000				\$ 150,000
	Pre-Chem Boiler Replacement	\$ 40,000						\$ 40,000
	Safety Update to Flocculation Basins	\$ 50,000						\$ 50,000
	Off-Site Reservoir Legal &/or Engineering	\$ 300,000	\$ 250,000					\$ 550,000
	Permit Req. Development of Reservoir Storage Management Plan	\$ 200,000						\$ 200,000
TOTALS:		\$ 1,220,000	\$ 851,000	\$ 498,000	\$ 240,000	\$ 210,000	\$ 210,000	\$ 3,229,000

NOTE: FY 17/18 TO BE APPROVED WITH BUDGET

Construction Fund (Capital Projects)
FY17/18

ITEM	Budget 16/17	Proposed Budget 17/18	INFORMATIONAL & PLANNING							Totals	<10 years
			18/19	19/20	20/21	21/22	22/23	23/24	24/25		
Finished Water Pump Stations No. 1 Upgrade - see note 2		\$ 150,000	\$ 1,785,000	\$ 1,785,000						\$ 3,720,000	
Electrical Improvements - see note 2		\$ 150,000	\$ 1,175,000	\$ 1,175,000						\$ 2,500,000	
Emergency Generator Replacement - see note 2		\$ 150,000	\$ 925,000	\$ 925,000						\$ 2,000,000	
Raw Water Pump Station No. 1 Upgrade - see note 2		\$ 150,000	\$ 1,850,000	\$ 1,850,000						\$ 3,850,000	
Clearwell #4										\$ -	\$ 8,750,000
PAC Feed System							\$ 2,500,000			\$ 2,500,000	
Transmission Main - Chesdin Rd. to Pickett Rd					\$ 400,000	\$ 9,969,000				\$ 10,369,000	
Transmission Main - Pickett Ave. to Matoaca Tank					\$ 400,000	\$ 9,969,000				\$ 10,369,000	
Transmission Main - Matoaca Tank to Branders Bridge					\$ 500,000	\$ 11,446,000				\$ 11,946,000	
Transmission Main - Branders Bridge to Lakeview					\$ 200,000	\$ 3,326,000				\$ 3,526,000	
Transmission Main - Wye Connection w/ 24" & 36" to Swift Creek Meter Vault (with Swift Creek Meter Cault										\$ -	
Totals	\$ -	\$ 600,000	\$ 5,735,000	\$ 5,735,000	\$ 1,500,000	\$ 34,710,000	\$ 2,500,000	\$ -	\$ -	\$ 50,780,000	

NOTE:

- 1) The above items for information only. Approval required from BOD at time of project award.
- 2) Bond Funding will be required for these Proposed Capital Project.

Revenues

Appomattox River Water Authority

FY Budget Year

2017/2018

Proposed

Jan. 19, 2017

Adopted

Revised

		<u>Chesterfield</u>	<u>Colonial Heights</u>	<u>Dinwiddie</u>	<u>Petersburg</u>	<u>Prince George</u>	<u>Total</u>
1) Operations and Maintenance Base Rate							
O&M Rate							
	\$/1000 gallons	\$ 0.7781	\$ 0.7781	\$ 0.7781	\$ 0.7781	\$ 0.7781	\$ 0.7781
Estimated (\$/quarter)		\$ 1,410,275	\$ 121,839	\$ 87,964	\$ 336,983	\$ 46,356	\$ 2,003,416.71
Total annual allocation		\$ 5,641,098	\$ 487,356	\$ 351,856	\$ 1,347,934	\$ 185,423	\$ 8,013,667
% of flows		70.39%	6.08%	4.39%	16.82%	2.31%	100.00%
Estimated (mgd)		19.86	1.72	1.24	4.75	0.65	28.218
Calc. annual usage (bg)		7,250	0,626	0,452	1,732	0,238	10,299
O&M =	\$ 6,779,400	Replacement =	\$ 851,000	54.38% 2010 Debt (maintenance) =	\$ 415,757		
Int./Misc. Income	\$ 32,490						
Reserve Policy Rate							
Allocation	%	69.31%	4.39%	6.75%	16.69%	2.86%	100%
Annual Charge	\$/year	\$ 329,498	\$ 20,870	\$ 32,089	\$ 79,344	\$ 13,596	\$ 475,397
Quarter Charge	\$/Quarter	\$ 82,374	\$ 5,217	\$ 8,022	\$ 19,836	\$ 3,399	\$ 118,849
Reserve Policy Rate	\$/1000gals	\$ 0.0454	\$ 0.0333	\$ 0.0710	\$ 0.0458	\$ 0.0571	
FY 16/17 Reserve Policy Charge	\$475,397						
BASE RATE	\$/1000gals	\$ 0.8235	\$ 0.8114	\$ 0.8490	\$ 0.8239	\$ 0.8351	
3) Debt Service							
Bonds	% Financed						
Rate (cents/1000 gals)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2007 expansion (\$/year)	100.00%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
% allocation		89.36%		10.64%			100.00%
Rate (cents/1000 gals)		\$ 0.0038	\$ 0.0321	\$ 0.4441	\$ -	\$ 0.4214	
2010 expansion (\$/year)	45.62%	\$ 27,449	\$ 20,090	\$ 200,829	\$ -	\$ 100,415	\$ 348,783
% allocation		7.87%	5.76%	57.58%	0.00%	28.79%	100.00%
Rate (cents/1000 gals)		\$ 0.0289	\$ 0.0212	\$ 0.0451	\$ 0.0291	\$ 0.0362	
2012 Maintenance (\$/year)	100.00%	\$ 209,237	\$ 13,253	\$ 20,377	\$ 50,385	\$ 8,634	\$ 301,886
% allocation		69.31%	4.39%	6.75%	16.69%	2.86%	100.00%
Rate (cents/1000 gals)		\$ 0.0488	\$ 0.0357	\$ 0.0761	\$ 0.0491	\$ 0.0612	
(1) 2017 In-Fence Upgrades (\$/year)	100.00%	\$ 353,481	\$ 22,389	\$ 34,425	\$ 85,119	\$ 14,586	\$ 510,000
% allocation		69.31%	4.39%	6.75%	16.69%	2.86%	100.00%
FY16/17 Bond Payments	2007 =	\$ -	2010 =	\$ 764,540	2012 =	\$ 301,886	
	2017 =	\$ 510,000					
EXPANSION RATE	\$/1000 gals	\$ 0.0814	\$ 0.0890	\$ 0.5653	\$ 0.0782	\$ 0.5188	
	\$/year	\$ 590,167	\$ 55,732	\$ 255,632	\$ 135,504	\$ 123,635	\$ 1,160,669
3) Total Rate							
TOTAL RATE (BASE + EXPANSION)	\$/1000gals	\$ 0.9049	\$ 0.9004	\$ 1.4143	\$ 0.9021	\$ 1.3539	\$ 1.0951
Estimated annual charges	\$/year	\$ 6,560,763	\$ 563,958	\$ 639,577	\$ 1,562,781	\$ 322,654	\$ 9,649,733
4) Budget Comparison							
Proposed FY17/18 Total Rate	\$/1000 gals	\$ 0.9049	\$ 0.9004	\$ 1.4143	\$ 0.9021	\$ 1.3539	\$ 1.0951
Approved FY 16/17 Total Rate	\$/1000 gals	\$ 0.9595	\$ 0.8992	\$ 1.4953	\$ 0.9017	\$ 1.3570	\$ 1.1225
Total Rate Difference	\$/1000 gals	(0.0546)	0.0012	(0.0810)	0.0004	(0.0031)	(0.0274)
Total Rate Difference	%	-5.69%	0.13%	-5.42%	0.04%	-0.23%	-2.44%
Proposed FY17/18 Revenues	\$/year	\$ 6,560,763	\$ 563,958	\$ 639,577	\$ 1,562,781	\$ 322,654	\$ 9,649,733
Total FY16/17 Approved Budget	\$/year	\$ 7,049,251	\$ 565,802	\$ 697,511	\$ 1,548,208	\$ 317,981	\$ 10,178,754
Annual Cash Difference	\$/year	\$ (488,488)	\$ (1,844)	\$ (57,934)	\$ 14,573	\$ 4,673	\$ (529,021)
Annual Revenue Difference	%	-6.93%	-0.33%	-8.31%	0.94%	1.47%	-5.20%
FY 17/18 Expenses	\$ 9,682,223	FY 17/18 Income Revenue	\$ 9,682,223				

NOTES:

1) These are estimated debt service payments.

Reserve Policy: Appomattox River Water Authority FY17/18

Reserve Fund Calculation (year 3 of 5)

ARWA O&M Budget	Reserves as of 6/30/2016	Revenue for FY2016/2017	Total expected reserves on 6/30/2017	Recommended 50% O&M Reserves	Charges required to achieve 50% reserves	Annual Charge spread over 3 years (adjusted annually)
\$6,779,400	\$1,524,296	\$439,214	\$1,963,509	\$3,389,700	\$1,426,191	\$475,396.87

6. Items from Counsel: Amendment to 1964 Water Service Agreements

Attached for your review is a draft of a 4th Amendment to the 1964 Water Service Agreements

FOURTH AMENDMENT TO
1964 ~~Service Agreements~~ SERVICE AGREEMENTS

between

Appomattox River Water Authority

and

Participating Jurisdictions of

County of Chesterfield

City of Colonial Heights

County of Dinwiddie

City of Petersburg

County of Prince George

THIS FOURTH AMENDMENT to the WATER SERVICE AGREEMENT (this "Agreement") is made and entered into as of _____, 2017, by and between the **APPOMATTOX RIVER WATER AUTHORITY ("ARWA")**, the **COUNTY OF CHESTERFIELD, VIRGINIA ("Chesterfield")**, the **CITY OF COLONIAL HEIGHTS, VIRGINIA ("Colonial Heights")**, the **COUNTY OF DINWIDDIE, VIRGINIA ("Dinwiddie")**, the **CITY OF PETERSBURG, VIRGINIA ("Petersburg")** and the **COUNTY OF PRINCE GEORGE, VIRGINIA ("Prince George")**.

RECITALS:

WHEREAS, ARWA is a public body politic and corporate created in 1960 by agreement of the governing bodies of Chesterfield, Colonial Heights, Dinwiddie, Petersburg and Prince George (collectively, the "Participating Jurisdictions" and each a "Participating Jurisdiction"), and in accordance with the Virginia Water and Waste Authorities Act, Virginia Code § 15.2-5100, et seq. (the "Act"), for the purpose of serving the water needs of the Participating Jurisdictions; and

WHEREAS, it was intended that ARWA would wholesale finished water to the Participating Jurisdictions and each Participating Jurisdiction would in turn retail the finished water to the individual service connections served by such Participating Jurisdiction; and

WHEREAS, ARWA and the Participating Jurisdictions entered into Service Agreements dated August 28, 1964, between ARWA and Petersburg, September 8, 1964, between ARWA and Prince George, September 9, 1964, between ARWA and Chesterfield, September 9, 1964, between ARWA and Dinwiddie, and September 15, 1964, between ARWA and Colonial Heights, all as collectively amended by ARWA and the Participating Jurisdictions pursuant to the Amendment to 1964 Service Agreements, dated December 20, 1982, the Modification Agreement, dated as of September 1, 1983, the Second Amendment to 1964 Service Agreements, dated August 15, 1986, and the Third Amendment to 1964 Service Agreements, dated August 22, 2001 (collectively, the "Original Service Agreements"); and

WHEREAS, the Original Service Agreements did not provide for, among other things, the sale and ownership of finished water allocations between the Participating Jurisdictions,

WHEREAS, the Board of Directors of ARWA (the "ARWA Board") and the governing bodies of the Participating Jurisdictions have determined to amend the Original Service Agreements to (i) facilitate planning for the economic development of each Participating Jurisdiction and (ii) allow each Participating Jurisdiction to realize the full benefit of the capacity for which it has paid and will continue to pay by, among other things, enabling the Participating Jurisdiction to have capacity rights that may be transferred, either permanently or temporarily, to other Participating Jurisdictions; and

NOW, THEREFORE, the parties hereto agree as follows:

1. ARWA and each of the Participating Jurisdictions agree that from the date hereof (i) the Allocations of Total Capacity determined pursuant to the Original Service Agreements are fixed and constitute property rights owned by the respective Participating Jurisdictions and (ii) no increase in any Participating Jurisdiction's Capacity Demand may cause an increase in the Participating Jurisdiction's Allocation of Total Capacity. ARWA shall use its best efforts to protect each Participating Jurisdiction's Allocation of Total Capacity and enforce the restriction on increases in Capacity Demand. Each Participating Jurisdiction shall have all rights and remedies permitted under law to protect its Allocation of Total Capacity and enforce the restriction on any increase in Capacity Demand by any other Participating Jurisdiction.

2. On the date hereof, the Allocations of Total Capacity are as follows:

Chesterfield County	69.31%
Colonial Heights	4.39
Dinwiddie County	6.75
City of Petersburg	16.69
Prince George County	<u>2.86</u>
	100%

3. Nothing in the Original Service Agreements or herein shall prevent or restrict any one or more of the Participating Jurisdictions from entering into separate agreements with any one or more of the other Participating Jurisdictions to buy or sell, on a permanent or temporary basis, portions of the Allocations of Total Capacity; **provided that no Participating Jurisdiction may on a permanent or temporary basis increase its Allocation of Total Capacity by more than five (5) percentage points during any single Measurement Period. A "Measurement Period" means a five-year period, with the first Measurement Period commencing on the date hereof and ending on the fifth anniversary of the date hereof, and subsequent Measurement Periods ending on the fifth anniversary of the end of the previous Measurement Period.** The Participating Jurisdictions entering into such **purchase and sale** agreements shall give ARWA written notice thereof and ARWA shall note in its records any permanent or temporary transfer of an Allocation of Total Capacity and ARWA shall note in its books and records the changes in each Participating Jurisdiction's Allocation of Total Capacity and set rates and otherwise administer the Original Service Agreements in accordance with the revised Allocations of Total Capacity.

IN WITNESS WHEREOF, ARWA and each Participating Jurisdiction has caused their respective corporate seals to be hereunto affixed and attested, and these presents to be signed by their respective officers thereunto as of the date and year first above written.

APPOMATTOX RIVER WATER AUTHORITY

By: _____

Chairman

ATTEST:

Secretary

CITY OF PETERSBURG, VIRGINIA

By: _____

Mayor

ATTEST:

Secretary

COUNTY OF CHESTERFIELD, VIRGINIA

By: _____

Chair, Board of Supervisors

ATTEST:

Secretary

CITY OF COLONIAL HEIGHTS, VIRGINIA

By: _____

Mayor

ATTEST:

Secretary

COUNTY OF DINWIDDIE, VIRGINIA

By: _____

Chair, Board of Supervisors

ATTEST:

Secretary

COUNTY OF PRINCE GEORGE, VIRGINIA

By: _____

Chair, Board of Supervisors

ATTEST:

Secretary

7. Closed Session

8. Other Items from Board Members/Staff Not on Agenda: July 3rd-Request for 8 hours additional holiday time for all employees

Following is a memorandum concerning a request for an additional Employee Holiday for Monday, July 3, 2017.

MEMORANDUM

TO: APPOMATTOX RIVER WATER AUTHORITY & SOUTH CENTRAL WASTEWATER AUTHORITY, BOARD OF DIRECTORS

**FROM: ROBERT C. WICHSER, EXECUTIVE DIRECTOR
JAMES G. GORDON, ASSISTANT EXECUTIVE DIRECTOR**

SUBJECT: REQUESTED ADDITIONAL EMPLOYEE HOLIDAY TIME ON JULY 3, 2017

DATE: MAY 18, 2017

The ARWA/SCWWA Authorities provide an employee holiday on Tuesday, July 4th. Monday, July 3rd, is not a recognized employee holiday.

The Authorities have received information regarding the Commonwealth of Virginia July 4th holiday schedule and Authority members July 4th holiday schedule as follows:

Dinwiddie County Water Authority: July 3rd & July 4th: Employee Holiday

Dinwiddie County: July 3rd & July 4th: Employee Holiday

Prince George County: July 3rd & July 4th: Employee Holiday

Commonwealth of Virginia: Monday July 3-Additional 8 hours holiday time granted; July 4th Employee Holiday

BOARD ACTION REQUESTED:

It is respectfully requested that the Board of Directors grant an additional ARWA/SCWWA employee additional 8 hours holiday time on Monday, July 3rd, 2017.

9. Adjourn