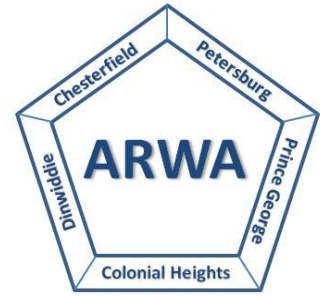


Appomattox River Water Authority



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

APPOMATTOX RIVER WATER AUTHORITY

Board of Directors Meeting

DATE: January 26, 2023

TIME: 2:00 pm

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

AGENDA

1. Call to Order/Roll Call
2. Approval of Minutes: Minutes of the Board Meeting held on November 17, 2022 (Exhibit A, Pages 2 to 6)
3. Public Comment (Exhibit B, Page 7)
4. Executive Director's Report:
 - FY23/24 Budget presentation (Exhibit C, Pages 8 to 41)
 - Award Legal Services Contract (Exhibit D, Page 42)
 - Award Construction Contract for Liquid Lime Project (Exhibit E, Pages 43 to 46)
 - Status Report (Exhibit F, Pages 47 to 51)
 - Financials (Exhibit G, Pages 52 to 57)
5. Items from Counsel
6. Closed Meeting
7. Other items from Board Members/Staff Not on Agenda
8. Adjourn

EXHIBIT A

BOARD OF DIRECTORS MEETING
Appomattox River Water Authority
November 17, 2022, at 2:00 p.m.
Location: South Central Wastewater Authority
900 Magazine Road, Petersburg, VA 23803

MEMBERS PRESENT:

Doug Smith, Chairman (Colonial Heights)
Kevin Massengill, Vice-Chairman (Dinwiddie)
Joseph Casey, (Chesterfield)
March Altman, (Petersburg)
Jeff Stoke, (Prince George)

ALTERNATES PRESENT:

Frank Haltom, Secretary/Treasurer (Alternate, Prince George)
George Hayes, (Alternate, Chesterfield)
Eddie Pearson, (Alternate, Dinwiddie)

ABSENT:

Matt Rembold, (Alternate, Chesterfield)
Tangela Innis, (Alternate, Petersburg)
Todd Flippin, (Alternate, Colonial Heights)

STAFF PRESENT:

Robert B. Wilson, Executive Director, (ARWA & SCWWA)
James C. Gordon, Asst. Executive Director (ARWA & SCWWA)
Arthur Anderson, (McGuireWoods)
Melissa Wilkins, Business Manager/FOIA (ARWA & SCWWA)
Kathy Summerson, Administrative Assistant (SCWWA)

OTHERS PRESENT:

Benjamin Packett, (Robinson, Farmer, Cox Associates)
Keith Boswell, (VA Gateway)
Nathan Scalla, (Clark Construction)
Chris Tabor, (Hazen & Sawyer)

The ARWA meeting was called to order by Mr. Smith, Chairman, at 2:07 p.m.

1. Call to Order/Roll Call

The roll was called:	Doug Smith	Present
	Kevin Massengill	Present
	Frank Haltom	Present
	George Hayes	Present
	March Altman	Present

Dr. Casey arrived and replaced George Hayes.

Mr. Smith welcomed Mr. Altman from the City of Petersburg, Jeff Stoke from Prince George County and Mr. Boswell from VA Gateway.

Mr. Massengill introduced Eddie Pearson, Executive Director of Dinwiddie County Water Authority, who is now the alternate on the Board for ARWA and SCWWA.

2. Approval of Minutes: Minutes of the Regular Meeting of the Board on August 18, 2022

Upon a motion by Mr. Haltom and seconded by Mr. Massengill the following resolution was adopted:

RESOLVED, that the Minutes of the Regular Meeting of the Board on August 18, 2022, are hereby approved:

For: 5 Against: 0 Abstain: 0

3. Public Comment

There were no Public Comments.

4. Executive Director's Report:

- FY22 Annual Audit Presentation**

Mr. Wilson introduced Benjamin Packett of Robinson, Farmer, Cox Associates, who provided a presentation on ARWA's Annual Financial Accounting Audit. He stated ARWA received a clean compliance report.

Mr. Wilson explained the Authority had a surplus this year. Attachment 1 illustrates the surplus amount and the three requests for appropriations for a portion of the surplus. The recommendation for the remaining surplus is a credit to each member's second quarter bill which is December 31, 2022. The amount of credit would be based on each member's actual portion of operating costs for FY22. Staff requested the Board accept findings of the FY22 audit as presented by Robinson, Farmer, Cox Associates; approve the appropriation request to purchase a Flo Cam for the laboratory

(\$200,000), add additional constructions funds (\$500,000), to the Liquid Lime Project, and add funds (\$500,000) to the Operating Reserve; and authorize distribution of the remaining FY22 surplus to members as recommended by staff.

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

RESOLVED, that the annual financial report is hereby approved as presented. The appropriations and transfer requests for the listed projects and reserve and the remaining distribution to the members is hereby approved as requested:

For: 5 Against: 0 Abstain: 0

Vote:

Doug Smith	Aye
Kevin Massengill	Aye
Frank Haltom	Aye
Joseph Casey	Aye
March Altman	Aye

Absent During Vote: None

- **Proposed 2023 Board Meeting Dates**

Mr. Wilson presented the proposed schedule for 2023 Board of Directors meetings. The meeting scheduled for January 19, 2023, was changed to January 26, 2023.

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

RESOLVED, that the Board approves the proposed schedule of regular meetings dates for 2023 with the date of January 19, 2023, changed to January 26, 2023 as presented:

For: 5 Against: 0 Abstain: 0

Vote:

Doug Smith	Aye
Kevin Massengill	Aye
Frank Haltom	Aye
Joseph Casey	Aye
March Altman	Aye

Absent During Vote: None

- **Status Report**

Mr. Wilson reported on the status report.

- **Financials**

Ms. Wilkins reported on the Financials.

5. Board Officer Elections

Mr. Smith stated that he, Mr. Massengill, and Mr. Haltom would be willing to remain as Chairman, Vice-Chairman and Secretary/Treasurer if the Board approves.

Upon a motion made by Mr. Altman and seconded by Dr. Casey, the following officers were elected for 2023-2024 starting January 1, 2023, for a term of two years:

Mr. Doug Smith	Chairman
Mr. Kevin Massengill	Vice-Chairman
Mr. Frank Haltom	Secretary/Treasurer

For: 5 Against: 0 Abstain: 0

6. Items from Counsel

Mr. Anderson reported on some additions to provisions that allow members to participate remotely. He stated one of the new items was, if your policies provide for it, you can participate if a medical condition of a family calls for a member to provide care. In 2014 the Board adopted a policy that met the requirements at that time. This item was not in there and he will update the Board at the next meeting. Ms. Wilkins will update the 2014 policy to include that. The advantage of this is it allows you to miss for this reason without it counting against your two meeting a year limit. The more important issue is this provision does allow this Board to have a totally remote meeting twice a year. Mr. Smith asked, under our current procedures, what is the number of members that must be attending in person versus remote to have the meeting. Mr. Anderson responded we must have a quorum present in person under our existing policy. There is more flexibility under the new provision, and he did not see a requirement that stated we had to have a quorum. Mr. Smith stated we should update our procedures to give us the maximum flexibility.

Mr. Anderson stated there was a recent Supreme Court case that allowed governing bodies to dispense with having to have the certification of the closed meeting read aloud and he wanted to hear if any of the members boards/councils had adopted this. Mr. Smith stated there was no change from Colonial Heights at this point. Mr. Anderson stated members would hear from either him or Ms. Wilkins on that.

7. Closed Session

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

Upon a motion made by Mr. Haltom and seconded by Mr. Altman the Board went into Closed Session at 2:49 p.m.

For: 5 Against: 0 Abstain: 0

Upon a motion made by Mr. Altman and seconded by Mr. Massengill the Board came out of Closed Session at 3:06 p.m.

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

Vote:

Doug Smith	Aye
Kevin Massengill	Aye
Frank Haltom	Aye
Joseph Casey	Aye
March Altman	Aye

Absent During Vote:

None

Mr. Smith stated to follow up on Mr. Wilson's performance evaluation, he asked for a motion to approve a six percent salary increase retroactive to July 1, 2022, and to provide a \$3,000 bonus.

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

RESOLVED, that the Board approve the six percent salary increase retroactive to July 1, 2022, and a \$3,000 bonus for Mr. Wilson for his performance evaluation:

Vote:

Doug Smith	Aye
Kevin Massengill	Aye
Frank Haltom	Aye
Joseph Casey	Aye
March Altman	Aye

Absent During Vote:

None

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

There were no other items from Board Members/Staff not on the agenda.

9. Adjourn

Mr. Smith stated, if there is no other business, and asked for motion to adjourn.

Upon a motion by Mr. Haltom and seconded by Dr. Casey the meeting was adjourned at 3:09 p.m.

MINUTES APPROVED BY:

Frank Haltom/Secretary/Treasurer

CLOSED MEETING RESOLUTION

APPOMATTOX RIVER WATER AUTHORITY

November 17, 2022

I move that we go into a closed meeting for discussion and consideration of the performance and salaries of specific public officers of the Authority, specifically regarding the Executive Director's annual review, as permitted by Section 2.2-3711A.1. of the Virginia Freedom of Information Act ("FOIA"):

MOTION: Haltom

SECOND: Altman

VOTE

Altman	Aye
Casey	Aye
Haltom	Aye
Massengill	Aye
Smith	Aye

ABSENT DURING VOTE: None.

ABSENT DURING CLOSED MEETING: None.

CERTIFICATION OF CLOSED MEETING

WHEREAS, the Board of the Appomattox River Water Authority (the “Authority”) convened a closed meeting on November 17, 2022, 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: Altman

SECOND: Massengill

VOTE

Altman	Aye
Casey	Aye
Haltom	Aye
Massengill	Aye
Smith	Aye

STATEMENTS OF DEPARTURE FROM REQUIREMENTS TO BE CERTIFIED: None.



APPOMATTOX RIVER WATER AUTHORITY
21300 Chesdin Road
Petersburg, VA 23803



SOUTH CENTRAL WASTEWATER AUTHORITY
900 Magazine Road
Petersburg, VA 23803

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.

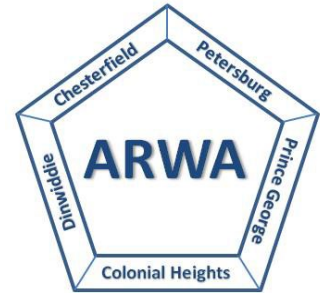
When two or more individuals are present from the same group, it is recommended that the group designate a spokesperson to present its comments to the Board and the designated speaker can ask other members of the group to be recognized by raising their hand or standing. Each spokesperson for a group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

Appomattox River Water Authority



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

EXHIBIT C

TO: Appomattox River Water Authority Board of Directors

FROM: Robert B. Wilson, Executive Director
James C. Gordon, Assistant Executive Director

DATE: January 26, 2023

SUBJECT: Proposed FY23/24 Budget

On December 28, 2022, we distributed, via email, the proposed FY23/24 budget narrative to the primary members, utility directors and financial representatives. On January 4, 2023, we presented the proposed budget to the utility directors in a meeting held at ARWA in the conference room.

The original budget narrative (black text) and the revisions from the meeting (blue text) are included as Attachment 1.

We will present the highlights from the Budget Narrative at the meeting. There are two issues that need to be considered for the meeting:

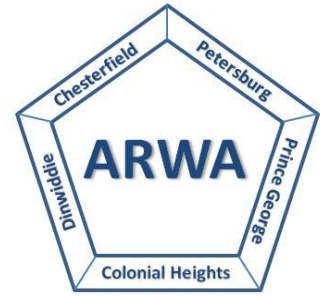
1. The proposed salary adjustment of 7.5%. We tied the requested salary adjustment to the CPI. In the Compensation and Classification Study, the recommendation was to tie the annual salary adjustments to the CPI. The supporting information from the Compensation and Classification Study and CPI is included in Attachment #1.
2. In the Budget Narrative we presented two budget scenarios, one without the elevated tank study and one with the tank study.

Staff's recommendation is to include the tank study in the budget. The proposed budget that includes the tank study is labeled Attachment 1a, pages 24 to 29 of the Board Package.

Board Action Requested:

Staff requests the Board provide direction on the requested salary adjustment, select a budget for advertisement and set a public hearing date for March 16, 2023, at 2:00 pm at the Appomattox River Water Authority.

Appomattox River Water Authority



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

TO: Appomattox River Water Authority Board Utility Directors

FROM: Robert B. Wilson, Executive Director
James C. Gordon, Assistant Executive Director

DATE: January 4, 2022

SUBJECT: Proposed FY23/24 Budget Narrative
Revision 001 – Comments from January 4th director's meeting

Meeting attendees:

George Hayes	Chesterfield County
Matt Rembold	Chesterfield County
Eddie Pearson	Dinwiddie County Water Authority
Tangela Innis	City of Petersburg
Randall Williams	City of Petersburg
Todd Flippen	City of Colonial Heights
Frank Haltom	Prince George County
Robert Wilson	ARWA/SCWWA
Jamie Gordon	ARWA/SCWWA
Melissa Wilkins	ARWA/SCWWA

The budget, Attachment #1, is divided into operating and maintenance costs, operating capital outlay, and debt service. Each participating jurisdiction is responsible for a pro rata share of the operating and maintenance costs and operating capital outlay costs. The pro rata share for O&M costs and operating capital outlay costs is calculated from the previous five-year running average for each participating jurisdiction.

The pro rata shares used to develop the O&M costs and operating capital outlay costs for FY23/24 are:

FY23/24

FY22/23

○ Chesterfield County	73.256%	72.790%
○ City of Colonial Heights	5.374%	5.493%
○ Dinwiddie County	3.821%	3.873%
○ City of Petersburg	15.089%	15.400%
○ Prince George County	2.460%	2.444%

The five-year data used for each member is included as Attachment #2. The five-year average is calculated from the annual total jurisdictional flow values.

The debt service for each participating jurisdiction is calculated as follows:

- 2012 Issuance – Each participating jurisdiction’s pro rata share is calculated by the previous five-year running average for water purchased from the plant. The last payment for the 2012 Issuance will be made 10/01/2027.
- 2017 Issuance – Each participating jurisdiction’s pro rata share is calculated by the previous five-year running average for water purchased from the plant. The last payment for the 2017 Issuance will be made 10/01/2032.
- 2019 Issuance – This issuance refinanced the 2010 Issuance. The 2019 Issuance debt service was broken down the same as the 2010 Issuance it replaced, 45.62% for expansion and 54.38% for operating. The expansion part of the annual debt service, 45.62%, is distributed between the participating jurisdictions as follows:
 - Chesterfield County – 7.87%. The reason that Chesterfield pays such a small percentage towards the expansion portion of this issuance is that they paid most of their portion in cash.
 - City of Colonial Heights – 5.76%.
 - Dinwiddie County – 57.58%. The reason for Dinwiddie’s high percentage is that they borrowed 100% of their portion of the expansion piece of the bond.
 - City of Petersburg – 0%. The city did not participate in the expansion piece of the bond.
 - Prince George County – 28.79%. Similarly, to Dinwiddie, Prince George financed their entire portion of the expansion piece.

The remaining portion of the 2019 issuance, 54.38%, is divided between the participating jurisdictions on a pro rata share based on their previous five-year running average. The last payment for the 2019 Issuance is 10/01/2031.

Both the 2012 Bond and the 2017 Bond financed solely capital maintenance projects to enhance the plant's reliability—not to expand the plant's capacity. In the authorizing resolutions for both the 2012 Bond and the 2017 Bond, the Board determined that the financed projects were for "improvement costs" within the meaning of the existing Water Service Agreements between the Authority and each of the participating jurisdictions (the "Existing Agreements"). Hence, under the Existing Agreements the debt service on both the 2012 Bond and the 2017 Bond is to be covered by

the Authority's annual budgeted "Base Rate." The Base Rate is a uniform rate applied equally to all water purchases by each participating jurisdiction, which rate is based annually upon the five year running average water usage for all participating jurisdictions for a given fiscal year such that funds generated from charging the Base Rate will be sufficient to pay for all of the costs associated with (a) the operation and maintenance of the Authority's water system, and (b) all improvement costs incurred by the Authority (including, for example, the debt service on the 2012 Bond and the 2017 Bond and any other bonds issued to finance improvement costs).

The 2019 issuance refinanced the 2010 issuance which refinanced 2002 (plant operations and maintenance). The 2002 issuance refinanced the 1982 issuance (plant operations and maintenance) and the 1983 issuance (expansion - \$20 million). The breakdown of 45.62% for expansion and 54.38% for operations and maintenance was established with the 2002 issuance. This was verified in the Appomattox River Water Authority Billing Special Report dated April 23, 2019, by Chesterfield County Internal Audit. At that time, the 2010 issuance breakdown was audited.

The main factor that has a direct influence on the five-year running average is rain. The higher the amount of rain, the lower the irrigation demand and the lower the consumption, water purchased. Conversely, the lower the amount of rain, the higher the irrigation demand and the higher the consumption. The next leading factor would be growth and economic development.

Specific highlights for the proposed FY24 operating budget include (address line items with larger changes):

- 41000 – Salary. Our salaries increased for a variety of reasons. We were successful in hiring an IT employee with SCADA programming capabilities in May 2022. This has allowed us to perform additional upgrades and improvements in house. We have also been successful in filling all open positions – two operator trainees and a maintenance mechanic. FY23/24 is also the first full year with our new Compensation and Classification adjustments. We are requesting a 7.5% COLA adjustment per our approved Compensation and Classification plan. The Consumer Price Index illustrates inflation at 7.5% and is attached for reference as Attachment #3.

Mr. Hayes stated Chesterfield County has gone to a calendar year basis for salary adjustments and is implementing a 2% increase this January. Mr. Flippen asked why the Authority chose an index for development of the COLA. Mr. Wilson stated the Compensation and Classification Study referenced the use of an Consumer Price Index (CPI) for annual salary adjustments. A copy of the executive summary from the Compensation and Classification Study and an excerpt from the March 17, 2022 minutes are included as Attachment #5. The Compensation and Classification Study brought employee salaries to the current market value. The CPI is used to keep pace with inflation. Mr. Flippen asked that we provide a chart illustrating the average percent increase by department implemented as a result of the Compensation and Classification Study.

The chart below illustrates the average percent salary increase by department:

ARWA Department	Percent Increase
Operations	19.31%
Maintenance	10.07%
Laboratory	20.32%
Inventory	12.72%

The group indicated they thought the 7.5% COLA request was optimistic.

Mr. Flippen also asked how we chose the other utilities and authorities we benchmarked against to develop the salary ranges. The chosen groups included utilities and authorities of similar size and responsibilities. There were not a whole lot of wholesale only facilities of similar size to compare to. Mr. Flippen asked if the utilities, say in northern Virginia, were adjusted for regional impacts. Attachment #6 is an email from the vendor, The Archer Company, that states they checked the median versus the average survey values and there was little difference. For a median calculation, all the high and low values were discarded and only the middle value (or the average of the two middle values for even sets) was used for each benchmark.

- 42000 – Employee Benefits. This increase is a result of increased employee taxes, increased health care costs and increased life insurance. Our annual VRS contribution did go down.

Mr. Flippen asked why there was such a drastic change on line 42952 – Net Pension Adjustment. Ms. Wilkins advised that there have been employees that have retired, then passed away and not been able to take advantage of their pension. She went on to advise the pension fund is fully funded and this calculation is performed annually by a third-party vendor for VRS. Additionally, this calculation is derived by GASB Statement No.75 and its requirement with post-employment benefits.

- 43000 – Contractual Services
 - 43140 – Consulting Engineers – we reduced this line item with the amount of work anticipated.
 - 43150 – Legal Services – we increased the line item to account for new rates and if we begin discussions for additional raw water capacity.
 - 43156 – Admin and Maintenance Svc – SCWWA – we split services with an IT staff member. This reduction is a result of assigning this staff member to SCWWA permanently for the Nutrient Reduction Project.
 - 43180 – Potable Water Contract. This increase is for the carbon rental for the carbon caps on the thirty-two filters. This number was provided by the vendor.

- 43190 – Samples and Tests. This increase is for additional well sampling around the waste lagoons to support the assessment and correction actions for waste lagoons the VPDES permit. The estimate was provided by Peter Nash of WSP Earth & Environment formally Golder & Associates.
- 43500 – Printing and binding. This item was reduced based on history.
- 45000 – Other Charges
 - 45110 – Electricity – Pumping. This is the power for the raw water pump stations. The increase is based on history and increase in the unit cost for power.
 - 45111 – Electricity – Purification. This is the power for the plant. Since we flow gravity for a large part of the fall and winter months, it only increased slightly (not as much for pumping costs).
 - 45110 – Heating Fuel. This cost went up because the price of liquid propane increased.
 - 45220 – Freight. Decreased cost based on recent history.
 - 45308 – General Liability Insurance. Increased as a result of accidents and worker’s compensation for last year.
- 46000 – Materials and Supplies
 - 46004 – Laboratory Supplies. This increase is for consumables in the laboratory.
 - 46005 – Purification Chemicals. This increase is based on the increases that our various chemicals suppliers have advised for calendar year 2023. This is the third consecutive year with significant chemical cost increases. Chemical bids will be opened January 12th. At that time, we will input “as bid” numbers into the budget.
 - 46008 – Vehicle and Equipment Fuels. Increased fuel costs for both vehicles and generators.
 - 46010 – Equipment Parts and Small Equipment Purchases. With the recent plant upgrades a lot of equipment was replaced and we were able to reduce this line item.

The Operating Capital Outlay (58000 series) included the following changes for FY23/24:

- Since we now have the Operating Reserve and ERRF, we removed the ongoing line item titled “Emergency Miscellaneous Repairs” under Section 58010. In the event of an emergency, we would draw first from the Operating Reserve and then, if it is exhausted, the ERRF. If we draw out of either account, it will be replenished the following fiscal year. If that replenishment is a large amount as determined by the Board and creates a burden to members, then it would be paid back over time as established by the Board.
- Like the “Emergency Miscellaneous Repairs,” we removed the ongoing line item titled “Valve Replacement” under Section 58090. “Valve Replacement” emergencies (non-budgeted) would be treated the same as described for “Emergency Miscellaneous Repairs.”
- 58010 – Machinery and Motors – Process
 - \$32,500 is to purchase actuators (materials) to install on slide gates so that maintenance staff can access the flocculators for maintenance. Maintenance staff will install the actuators.
 - \$125,000 is to purchase a variable frequency drive (VFD) for backwash pump #19 in RWPS2. The current pump is constant speed and creates an issue on backwashing filters.

The motor will accommodate a VFD, and we will use maintenance staff and the Authority's contract electrician for installation.

- 58020 – Instrumentation
 - \$28,000 – to purchase the materials to replace the PLC's (programmable logic controller) for four (4) Cla-Vac's. Installation and programming by maintenance staff.
 - \$30,000 – Remote Terminal Unit (RTU) replacement for three PLC cabinets. Authority staff will perform all work.
 - \$10,000 – RTU Master Human Machine Interface (HMI) – will be installed by maintenance staff.
- 58040 – Computer Equipment
 - \$5,000 – scheduled local area network (LAN) replacement – black box.
- 58050 – Furniture and Fixtures
 - \$20,000 – complete painting filter gallery floor from Filter #19 to Filter #32. Staff tried before to install this three-part epoxy system and determined it is beyond our expertise. This is for a third-party painter to complete.
 - \$10,000 – renovate women's bathroom. This project updates the 1983 women's bathroom. In-house staff performing the work.
- 58090 – Construction
 - \$45,000 – replacing the HVAC systems (air conditioning) for Raw Water Pump Station 1 (RWPS1) and Raw Water Pump Station 2 (RWPS2). These HVAC units cool the MCC's rooms. The maintenance logs illustrate a significant amount spent on maintenance and repair for these units. They have exceeded their useful life.
 - \$70,000 – Buss Differential Relay Replacement. These are improvements on the main electrical switch gear. This was identified when the electrical contractor installed the generator bi-directional feed improvements. An electrical contractor will make these improvements.

Under the "Construction Fund" Section we identify the proposed debt service payments and proposed large capital projects that will require debt service borrowings. The large capital projects are highlighted in red. There are two placeholder projects in the Construction Fund Section:

1. Rebuild Filters 2-8 – This project rebuilds the plant filters including replacing the underdrains for filters 2-8. In FY23 we completed the emergency rebuild on Filter #1. There are indications that the beds have been disturbed over the years due to age and media (carbon) change outs. The estimated cost is \$5.5 million. The estimated annual debt service for this project would be \$404,633.
2. Lagoon Liners – This will be a regulatory driven project. We currently have a VPDES permit for the lagoon discharge to the Appomattox River below the dam. Our consultant, WSP Earth and Environmental, is developing a downstream groundwater monitoring plan that has been submitted to DEQ. We are hopeful that DEQ may allow additional monitoring and not require the relining or replacement of the lagoons. The sampling line item in the operating budget has been increased for this additional sampling. However, at this time, we do not have the data or decision by DEQ. The estimated cost for this project is \$8.0 million.

The remaining four projects showing appropriations, without detail in the CIP, are to build a fourth clear well or two elevated tanks and then replace and/or parallel four sections of the transmission system. From a planning perspective, these projects fall outside the five- and ten-year planning window. However, we wanted to keep them on the horizon and illustrate the magnitude of the proposed costs so that the participating jurisdictions can discuss these projects further.

Mr. Hayes discussed the merits of designing the two elevated tanks now and considering the construction of the elevated tanks in FY25 with the rebuild of the filters and lagoon project. Mr. Wilson stated the elevated tank concept is already under consideration and will be presented in the Annual Maintenance Inspection (AMI) that should be available in mid-February. Mr. Wilson will add \$200,000 to the operating capital outlay to study the elevated tank concept so the group can see the impact on the proposed budget.

For FY23 we suggested starting a Rate Stabilization Fund that would be funded annually to offset long term operating capital outlay future costs. The consensus of the utility directors was to borrow the funds at the time the projects are necessary and not appropriate funds on an annual basis for a Rate Stabilization Fund. Two of the members currently have a Rate Stabilization Fund for their utility.

The transmission system was originally constructed in 1969 which makes it fifty-four years old. Recent coupons from wet taps show that the transmission mains are in excellent shape. There are no signs of the concrete lining failing nor pitting of the ductile iron pipe walls. The existing transmission system should have a remaining useful life of another thirty to forty years. Paralleling of the transmission system will most likely be a result of increased demands and the need for additional capacity. As has been discussed in the past, the plant capacity is greater than the transmission capacity. Chesterfield County has shared preliminary plans where they may reduce the amount of water taken at the Swift Creek Meter. If that is the case, then the velocity goes down in the eastern leg and the useful life is extended. Mr. Hayes asked for clarification on the previous sentence. Mr. Wilson stated if Chesterfield reduces the amount of water they will be taking at the Swift Creek meter, there will be additional capacity available for future use and the wear and tear (reduced velocity on inside of pipe) on the transmission line will be reduced thereby increasing its useful life.

At the bottom of the budget, we have added a “Total Replacement and Construction Budget” section. This section totals the amount of operating capital outlay projects (capital) and debt service. The reason we added this section was to show this total for both operating capital outlay projects and debt service and highlight how we are trying to minimize increases.

To assist participating jurisdictions with determining the Authority’s impact on budgets and looking at their future rates we included a section on estimated rates for the next five years. For these future estimates, we increased the operating expenses annually by 3%, did not inflate the operating capital outlay costs, and used debt service values from the respective payment schedules. For the five-year projections, the most significant increase is slated for FY25/26. The two main influences for the FY25/26 budget increase are new projects that include rebuilding original filters and lining the waste lagoons.

Statistics for the proposed FY24 budget:

- There will be an increase of \$1,228,814 from FY23 to FY24 or 14.4% for operating expenses.
- The estimated increase cost for chemicals is \$825,589 or 67.2% of the FY24 increase.
- The estimated increased cost for chemicals and power is \$920,589 or 74.9% of the FY24 increase.
- The overall increase to the proposed FY24 budget is \$938,389 or 8.3%.

The cost per 1,000 gallons for past five years for each member is as follows:

			Colonial		Prince
	Chesterfield	Petersburg	Heights	Dinwiddie	George
FY20	\$ 0.9797	\$ 0.9760	\$1.0083	\$ 1.4522	\$1.3698
FY21	\$ 0.9980	\$ 0.9946	\$1.0254	\$ 1.4457	\$1.3537
FY22	\$ 0.9857	\$ 0.9833	\$1.0140	\$ 1.4240	\$1.3345
FY23 (current)	\$ 0.9905	\$ 0.9874	\$1.0179	\$ 1.4198	\$1.3300
FY24 (proposed)	\$ 1.0489	\$ 1.0459	\$1.0762	\$ 1.4724	\$1.3771

The change is cost per 1,000 gallons for each member for the past five years is as follows:

			Colonial		Prince
	Chesterfield	Petersburg	Heights	Dinwiddie	George
FY20	1.90%	1.76%	6.10%	-4.27%	-2.19%
FY21	1.87%	1.91%	1.70%	-0.45%	-1.18%
FY22	-1.23%	-1.14%	-1.11%	-1.50%	-1.42%
FY23 (current)	0.49%	0.42%	0.38%	-0.29%	-0.34%
FY24 (proposed)	5.90%	5.92%	5.73%	3.70%	3.54%

The capacity of the plant is governed by DEQ through the VWP permit and VDH through our operating Permit:

- VWP Permit #01-1719 (raw water)
 - A maximum daily withdrawal of 86.24 mgd.
 - A maximum monthly withdrawal of 2.289 BG.
 - A maximum annual withdrawal of 17.934 BG.
- VDH PWSID: 4041035 (finished water)
 - Six month rolling average for production cannot exceed 56 mgd.

The maximum daily withdrawal to date is 59.8 mgd; maximum monthly withdrawal to date is 1.425 BG; and the maximum annual withdrawal to date is 12.840 BG. The maximum six-month rolling average for production to date is 38.08 mgd.

This year we requested each member provide a forecast for demands through FY33/34. That information is included as Attachment #4. We will need discuss a peaking factor to determine the implications to the criteria above.

Members stated they would look at their summer peaks and advise the peaking factor for their particular system. Members will also look at their projections to see if they are industrial or residential and where peak factors are pertinent.

Members indicated that copies of the Budget Narrative were distributed to the appropriate financial representatives and there are not comments to date to address at this time from the financial representatives.

Additional updates from the meeting:

- Attachment 1 – added the percent change column from the present year to the proposed year budget as requested by Mr. Flippen.
- Attachment 1a is the proposed FY24 budget with the addition of the elevated tank study that includes the transmission system modeling and evaluation:
 - Includes new percent change column
 - Added \$200,000 to operating capital outlay for elevated tank study.
 - Updated Construction Fund beginning in FY25/26 to include the debt service for the two new elevated tanks. The estimated construction cost is \$12,000,000.
 - Updated ARWA Projected Annual Cost and proposed rates to reflect the future debt service for the elevated tanks construction.
- The cost per 1,000 gallons for past five years for each member is as follows with the inclusion of the Elevated Tank Study:

			Colonial		Prince
	Chesterfield	Petersburg	Heights	Dinwiddie	George
FY20	\$ 0.9797	\$ 0.9760	\$1.0083	\$ 1.4522	\$1.3698
FY21	\$ 0.9980	\$ 0.9946	\$1.0254	\$ 1.4457	\$1.3537
FY22	\$ 0.9857	\$ 0.9833	\$1.0140	\$ 1.4240	\$1.3345
FY23 (current)	\$ 0.9905	\$ 0.9874	\$1.0179	\$ 1.4198	\$1.3300
FY24 (proposed)	\$ 1.0489	\$ 1.0459	\$1.0762	\$ 1.4724	\$1.3771
FY24 (w/ tank design)	\$ 1.0666	\$ 1.0636	\$1.0939	\$ 1.4900	\$1.3947

- The change is cost per 1,000 gallons for each member for the past five years is as follows:

			Colonial		Prince
	Chesterfield	Petersburg	Heights	Dinwiddie	George
FY20	1.90%	1.76%	6.10%	-4.27%	-2.19%
FY21	1.87%	1.91%	1.70%	-0.45%	-1.18%
FY22	-1.23%	-1.14%	-1.11%	-1.50%	-1.42%
FY23 (current)	0.49%	0.42%	0.38%	-0.29%	-0.34%
FY24 (proposed)	5.90%	5.92%	5.73%	3.70%	3.54%
FY24 (w/ tank design)	7.68%	7.72%	7.47%	4.94%	4.86%

APPOMATTOX RIVER WATER AUTHORITY

Proposed: Janaury 26, 2023

Approved:

Revised:

Revision Approved:

PROPOSED OPERATION & MAINTENANCE BUDGET 2023/2024

	<u>FY2022/2023</u>	<u>FY2023/2024</u>	<u>FY22/23 to FY23/24</u>	
	Budget	Budget	\$ Change	% Change
<u>O&M EXPENSES</u>				
41000 · Salary	\$1,931,678	\$2,192,918	\$261,240	13.52%
42000 · Employee Benefits	\$801,994	\$869,778	\$67,784	8.45%
42100 · Employer FICA	\$147,773	\$167,758	\$19,985	13.52%
42200 · Virginia Retirement System	\$68,961	\$51,095	-\$17,866	-25.91%
42210 · Deferred Comp 457	\$0	\$0	\$0	0.00%
42300 · Hospitalization Insurance	\$544,275	\$606,440	\$62,165	11.42%
42400 · VRS Group Life Insurance	\$25,884	\$29,385	\$3,501	13.52%
42500 · Group Term Life	\$2,100	\$2,100	\$0	0.00%
42600 · Unemployment Insurance	\$1,000	\$1,000	\$0	0.00%
42800 · Employee Promotions	\$10,000	\$10,000	\$0	0.00%
42900 · Other Fringe Benefits - EAP	\$2,000	\$2,000	\$0	0.00%
42950 · OPEB Health Insurance Adj	\$0	\$0	\$0	
42952 · Net Pension Adjustment				
43000 · Contractual Services	\$1,152,600	\$1,218,289	\$65,689	5.70%
43121 · Auditing Services	\$13,000	\$13,000	\$0	0.00%
43122 · Accounting Services	\$16,000	\$16,000	\$0	0.00%
43124 · Part-Time Summer Interns	\$5,000	\$5,000	\$0	0.00%
43130 · Legal/Engineering and Reservoir Studies	\$50,000	\$50,000	\$0	0.00%
43140 · Consulting Engineers	\$85,000	\$75,000	-\$10,000	-11.76%
43150 · Legal Services	\$75,000	\$85,000	\$10,000	13.33%
43152 · Medical - Testing	\$5,000	\$5,000	\$0	0.00%
43155 · Other Consulting Services	\$0	\$0	\$0	0.00%
43156 · Admin and Maintenance Svc-SCWWA	\$8,000	\$0	-\$8,000	-100.00%
43160 · Trustee Services	\$12,000	\$12,000	\$0	0.00%
43162 · Bank Service Charges	\$2,000	\$2,100	\$100	5.00%

43170 · Research	\$17,500	\$17,500	\$0	0.00%
43180 · Potable Water Contract	\$520,000	\$585,589	\$65,589	12.61%
43190 · Samples and Tests	\$40,000	\$50,000	\$10,000	25.00%
43200 · Lake Patrol	\$4,000	\$4,000	\$0	0.00%
43201 · Reservoir Management - Invasive Control Program	\$25,000	\$25,000	\$0	0.00%
43210 · Software Support	\$50,000	\$50,000	\$0	0.00%
43220 · VPDES Permit Fee	\$15,000	\$15,000	\$0	0.00%
43310 · Repair Services	\$25,000	\$25,000	\$0	0.00%
43320 · Service Contracts	\$125,000	\$125,000	\$0	0.00%
43500 · Printing and Binding	\$3,000	\$1,000	-\$2,000	-66.67%
43600 · Grounds Maintenance	\$57,100	\$57,100	\$0	0.00%
45000 · Other Charges	\$1,098,000	\$1,197,100	\$99,100	9.03%
45110 · Electricity - Pumping	\$510,000	\$600,000	\$90,000	17.65%
45111 · Electricity - Purification	\$275,000	\$280,000	\$5,000	1.82%
45120 · Heating Fuel	\$60,000	\$65,000	\$5,000	8.33%
45130 · Trash Pickup	\$5,500	\$8,100	\$2,600	47.27%
45210 · Postal Services	\$2,500	\$1,500	-\$1,000	-40.00%
45220 · Freight	\$20,000	\$10,000	-\$10,000	-50.00%
45230 · Telecommunications	\$35,000	\$35,000	\$0	0.00%
45308 · General Liability Insurance	\$110,000	\$125,000	\$15,000	13.64%
45410 · Lease/Rent of Equipment	\$25,000	\$20,000	-\$5,000	-20.00%
45510 · Mileage Allowance			\$0	0.00%
45530 · Meals and Lodging	\$5,000	\$2,500	-\$2,500	-50.00%
45540 · Education and Training	\$25,000	\$25,000	\$0	0.00%
45550 · Safety Supplies	\$25,000	\$25,000	\$0	0.00%
46000 · Materials and Supplies	\$3,520,000	\$4,255,000	\$735,000	20.88%
46001 · Office Supplies	\$12,000	\$10,000	-\$2,000	-16.67%
46004 · Laboratory Supplies	\$83,000	\$85,000	\$2,000	2.41%
46005 · Purification Chemicals	\$2,990,000	\$3,750,000	\$760,000	25.42%
46006 · Purification Process and Janitorial Supplies	\$15,000	\$10,000	-\$5,000	-33.33%
46007 · Repair & Maint Supplies-Shop	\$210,000	\$210,000	\$0	0.00%
46008 · Vehicle and Equipment Fuels	\$25,000	\$40,000	\$15,000	60.00%
46009 · Vehicle and Equipment Supplies	\$20,000	\$15,000	-\$5,000	-25.00%
46010 · Equipment Parts and Small Equipment Purchases	\$55,000	\$25,000	-\$30,000	-54.55%
46011 · Uniforms	\$15,000	\$15,000	\$0	0.00%
46012 · Dues and Subscriptions	\$40,000	\$35,000	-\$5,000	-12.50%
46014 · Repair & Maint Supplies-IT	\$30,000	\$35,000	\$5,000	16.67%
46015 · Small Equipment Purchases	\$0	\$0	\$0	0.00%
46016 · Operations Supplies and Maintenance	\$25,000	\$25,000	\$0	0.00%

Total Operating Expenses	\$8,504,272	\$9,733,086	\$1,228,814	14.45%
58000 · Operating Capital Outlay	\$674,000	\$385,500	-\$288,500	-42.80%
Debt - 2010 Issue (Refunded as 2019 series)	\$0	\$0	\$0	0.00%
Debt - 2012 Issue	\$302,322	\$302,293	-\$29	-0.01%
Debt - 2017 Issue	\$1,080,795	\$1,080,648	-\$147	-0.01%
Debt - 2019 Issue (2010 Refunded)	\$704,760	\$703,011	-\$1,749	-0.25%
Total Debt	\$2,087,876	\$2,085,952	-\$1,925	-0.09%
Reserve Policy	\$0	\$0	\$0	0.00%
Total Expenses	\$11,266,148	\$12,204,537	\$938,389	8.33%

FY Budget Year		Revenues					
2023/2024		Appomattox River Water Authority					
Proposed		Jan. 26, 2023		Adopted		Revised	
		Revision Adopted					
		Chesterfield	Colonial Heights	Dinwiddie	Petersburg	Prince George	Total
1) Operations and Maintenance Base Rate							
O&M Rate							
	\$/1000 gallons	\$ 1.0459	\$ 1.0459	\$ 1.0459	\$ 1.0459	\$ 1.0459	\$ 1.0459
Estimated (\$/quarter)	\$	2,170,901	\$ 159,269.72	\$ 113,224	\$ 447,164	\$ 72,897	\$ 2,963,455.87
Total annual allocation	\$	8,683,605	\$ 637,079	\$ 452,895	\$ 1,788,655	\$ 291,590	\$ 11,853,823
% of flows		73.256%	5.374%	3.821%	15.089%	2.460%	100.000%
Estimated (mgd)		22.746	1.669	1.186	4.685	0.764	31.051
Calc. annual usage (bg)		8.302	0.609	0.433	1.710	0.279	11.334
O&M =	\$ 9,733,086	Op. Cap. Outlay	\$ 385,500	54.38% 2019 Debt (maintenance)	\$ 382,297		
Int./Misc. Income	\$ 30,000	100% 2012 Debt	\$ 302,293	100% 2017 Debt	\$ 1,080,648	Reserve Policy	\$0
BASE RATE	\$/1000gals	\$ 1.0459	\$ 1.0459	\$ 1.0459	\$ 1.0459	\$ 1.0459	
2) Expansion Rate							
Bonds	% Financed						
Rate (cents/1000 gals)		\$ 0.0030	\$ 0.0303	\$ 0.4265	\$ -	\$ 0.3312	
2019 expansion (\$/year)	45.62%	\$ 25,240	\$ 18,473	\$ 184,667	\$ -	\$ 92,333	\$ 320,714
% allocation	7.87%		5.76%	57.58%	0.00%	28.79%	100.00%
FY22/23 Bond Payments	2019 refunding =	\$ 703,011					
TOTAL DEBT SERVICE RATE	\$/1000 gals	\$ 0.0030	\$ 0.0303	\$ 0.4265	\$ -	\$ 0.3312	
	\$/year	\$ 25,240	\$ 18,473	\$ 184,667	\$ -	\$ 92,333	\$ 320,714
3) Total Rate							
TOTAL RATE (BASE + EXPANSION)	\$/1000gals	\$ 1.0489	1.0762	1.4724	1.0459	1.3771	\$ 1.2041
Estimated annual charges	\$/year	\$ 8,708,845	\$ 655,552	\$ 637,562	\$ 1,788,655	\$ 383,923	\$ 12,174,537
4) Budget Comparison (see note 1)							
FY23/24 Total Rate	\$/1000 gals	\$ 1.0489	\$ 1.0762	\$ 1.4724	\$ 1.0459	\$ 1.3771	\$ 1.2041
FY22/23 Total Rate	\$/1000 gals	\$ 0.9905	\$ 1.0179	\$ 1.4198	\$ 0.9874	\$ 1.3300	\$ 1.1491
Total Rate Difference	\$/1000 gals	\$ 0.0584	\$ 0.0584	\$ 0.0526	\$ 0.0585	\$ 0.0471	\$ 0.0550
Total Rate Difference	%	5.90%	5.73%	3.71%	5.93%	3.54%	4.79%
FY23/24 Revenues	\$/year	\$ 8,708,845	\$ 655,552	\$ 637,562	\$ 1,788,655	\$ 383,923	\$ 12,174,537
FY22/23 Revenues	\$/year	\$ 7,970,116	\$ 618,033	\$ 607,881	\$ 1,680,806	\$ 359,312	\$ 11,236,148
Annual Cash Difference	\$/year	\$ 738,729	\$ 37,519	\$ 29,681	\$ 107,849	\$ 24,611	\$ 938,389
FY23/24 Expenses	\$ 12,204,537	FY 23/24 Income Revenue	\$ 12,204,537				

NOTES:

Reserve Policy: Appomattox River Water Authority FY23/24
Reserve Policy Calculation

ARWA O&M Budget	Reserves as of 6/30/2021	Revenue for FY2021/2022	Total expected reserves on 6/30/2022	Recommended 50% O&M Reserves	Annual Charge to achieve 50% Reserves
\$9,733,086	\$6,403,336	\$0	\$6,403,336	\$4,866,543	\$0

APPOMATTOX RIVER WATER AUTHORITY
Operating Capital Outlay - 58000
FY23/24

Acct#	Current Budget 22/23	Proposed Budget 23/24	INFORMATIONAL & PLANNING									
			24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	
58010 - Machinery and Motors-Process	\$ 124,000	\$ 157,500	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	
58020 - Instrumentation	\$ 100,000	\$ 68,000	\$ 58,000	\$ 30,000	\$ 115,000	\$ 35,000	\$ 35,000	\$ 25,000	\$ -	\$ -	\$ -	
58030 - SCADA	\$ -	\$ -	\$ -	\$ 15,750	\$ -	\$ -	\$ 10,000	\$ -	\$ 20,500	\$ -	\$ -	
58040 - Computer Equipmment	\$ -	\$ 15,000	\$ 20,250	\$ 5,500	\$ 25,800	\$ 11,000	\$ 6,400	\$ 51,720	\$ 7,000	\$ 7,300	\$ 13,900	
58050 - Furniture and Fixtures	\$ -	\$ 30,000	\$ -	\$ 130,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
58060 - Motor Vehicles	\$ -	\$ -	\$ 12,000	\$ 46,667	\$ 80,000	\$ 40,000	\$ 35,000	\$ -	\$ 110,000	\$ -	\$ -	
58065 - Maintenance Equipment	\$ -	\$ -	\$ -	\$ 115,000	\$ 35,000	\$ -	\$ 15,000	\$ -	\$ -	\$ -	\$ -	
58090 - Construction	\$ 450,000	\$ 115,000	\$ 400,000	\$ 350,000	\$ 300,000	\$ 250,000	\$ -	\$ -	\$ 75,000	\$ -	\$ -	
TOTALS:	\$ 674,000	\$ 385,500	\$ 590,250	\$ 792,917	\$ 655,800	\$ 436,000	\$ 101,400	\$ 76,720	\$ 212,500	\$ 7,300	\$ 13,900	

NOTE: FY 21/22 OPERATING CAPITAL OUTLAY BUDGET TO BE APPROVED WITH BUDGET

Construction Fund (Capital Projects)
FY23/24

<div>Project Cost Estimate</div>	Budget	Proposed Budget	INFORMATIONAL & PLANNING								
ITEM	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33
2012 Bond	\$ 302,322	\$ 302,293	\$ 302,016	\$ 302,475	\$ 301,671	\$ 301,604	\$ -	\$ -	\$ -	.	.
2017 Bond	\$ 1,080,795	\$ 1,080,648	\$ 1,079,973	\$ 1,080,744	\$ 1,080,936	\$ 1,080,550	\$ 1,080,572	\$ 1,079,991	\$ 1,080,781	\$ 1,079,929	\$ 1,080,423
2019 Bond (2010 Rebonding)	\$ 704,760	\$ 703,011	\$ 705,495	\$ 706,888	\$ 712,224	\$ 701,702	\$ 705,204	\$ 702,762	\$ 699,439	\$ 700,021	\$ -
Rebuild Filters 1-8 \$ 5,500,000				\$ 404,633	\$ 404,633	\$ 404,633	\$ 404,633	\$ 404,633	\$ 404,633	\$ 404,633	\$ 404,633
Lagoon Liners \$ 8,000,000				\$ 588,558	\$ 588,558	\$ 588,558	\$ 588,558	\$ 588,558	\$ 588,558	\$ 588,558	\$ 588,558
Clearwell #4											
Transmission Main - Chesdin Rd. to Pickett Rd											
Transmission Main - Pickett Ave. to Matoaca Tank											
Transmission Main - Matoaca Tank to Branders Bridge											
Transmission Main - Branders Bridge to Lakeview											
Totals	\$ 2,087,876	\$ 2,085,952	\$ 2,087,483	\$ 3,083,297	\$ 3,088,022	\$ 3,077,046	\$ 2,778,968	\$ 2,775,944	\$ 2,773,411	\$ 2,773,141	\$ 2,073,614

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 Projects. Debt Service was estimated at 3% for 20 years

Total Operating Capital Outlay and Construction Budget										
22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33
\$ 2,761,876	\$ 2,471,452	\$ 2,677,733	\$ 3,876,214	\$ 3,743,822	\$ 3,513,046	\$ 2,880,368	\$ 2,852,664	\$ 2,985,911	\$ 2,780,441	\$ 2,087,514

ARWA Budget comparisons

Year	O&M Expenses	Operating Capital Outlay	Debt Service 2010 issue	Debt Service 2012 issue	Debt Service 2017 issue	See Note (1) Debt Service 2019 issue	See Note (2) Debt Service 2026 issue	Reserve Policy	Total	Difference	% change	Comments
22/23	\$ 8,504,272	\$ 674,000		\$ 302,322	\$ 1,080,795	\$ 704,760		\$ -	\$ 11,266,148			
23/24	\$ 9,733,086	\$ 385,500		\$ 302,293	\$ 1,080,648	\$ 703,011		\$ -	\$ 12,204,537	\$ 938,389	8%	Reserve Fund is 50% of O&M
24/25	\$ 10,025,078	\$ 590,250		\$ 302,016	\$ 1,079,973	\$ 705,495		\$ -	\$ 12,702,811	\$ 498,274	4%	
25/26	\$ 10,325,831	\$ 792,917		\$ 302,475	\$ 1,080,744	\$ 706,888	\$ 993,191	\$ -	\$ 14,202,045	\$ 1,499,233	12%	
26/27	\$ 10,635,605	\$ 655,800		\$ 301,671	\$ 1,080,936	\$ 712,224	\$ 993,191	\$ -	\$ 14,379,428	\$ 177,383	1%	
27/28	\$ 10,954,674	\$ 436,000		\$ 301,604	\$ 1,080,550	\$ 701,702	\$ 993,191	\$ -	\$ 14,467,720	\$ 88,292	1%	

Notes:

(1) The 2010 issue was refinanced with the 2019 issue.

(2) The debt service service shown in 2026 represents:

Rebuild filters \$ 404,633.00 replace filters 1-8, end of life - \$5.5M

Lagoon Liner \$ 588,558.00 regulatory driven by DEQ based on groundwater monitoring program - \$8.0M

ARWA Projected Annual Cost

5 year projections - O&M, Operating Capital Outlay, Reserve Policy, 54.38% 2019 Series, 2012 Series, 2017

Series, and estimated 2026 Series

	Chesterfield	Colonial Heights	Dinwiddie	Petersburg	Prince George	total
	73.256%	5.374%	3.821%	15.089%	2.460%	100.000%
FY 23/24	\$ 8,705,582	\$ 638,691	\$ 454,041	\$ 1,793,182	\$ 292,328	\$ 11,883,823
FY 24/25	\$ 9,069,766	\$ 665,410	\$ 473,035	\$ 1,868,197	\$ 304,557	\$ 12,380,964
FY 25/26	\$ 10,167,575	\$ 745,951	\$ 530,291	\$ 2,094,324	\$ 341,421	\$ 13,879,562
FY 26/27	\$ 10,295,735	\$ 755,354	\$ 536,976	\$ 2,120,722	\$ 345,724	\$ 14,054,511
FY 27/28	\$ 10,363,931	\$ 760,357	\$ 540,532	\$ 2,134,769	\$ 348,014	\$ 14,147,604

Note: Budget % based on five year average flow consumption (FY17/18 to FY21/22)

5 year projections -2019 Series Debt Service (45.62%)

	Chesterfield	Colonial Heights	Dinwiddie	Petersburg	Prince George	total
Capacity	7.870%	5.760%	57.580%	0.000%	28.790%	100.000%
FY 23/24	\$ 25,240	\$ 18,473	\$ 184,667	\$ -	\$ 92,333	\$ 320,714
FY 24/25	\$ 25,329	\$ 18,538	\$ 185,319	\$ -	\$ 92,660	\$ 321,847
FY 25/26	\$ 25,379	\$ 18,575	\$ 185,685	\$ -	\$ 92,843	\$ 322,482
FY 26/27	\$ 25,571	\$ 18,715	\$ 187,087	\$ -	\$ 93,543	\$ 324,917
FY 27/28	\$ 25,193	\$ 18,439	\$ 184,323	\$ -	\$ 92,161	\$ 320,116

5 year projections - \$/year

	Chesterfield	Colonial Heights	Dinwiddie	Petersburg	Prince George	TOTAL
FY 23/24	\$ 8,730,822	\$ 657,164	\$ 638,708	\$ 1,793,182	\$ 384,661	\$ 12,204,537
FY 24/25	\$ 9,095,096	\$ 683,948	\$ 658,354	\$ 1,868,197	\$ 397,217	\$ 12,702,811
FY 25/26	\$ 10,192,955	\$ 764,526	\$ 715,977	\$ 2,094,324	\$ 434,263	\$ 14,202,045
FY 26/27	\$ 10,321,306	\$ 774,069	\$ 724,063	\$ 2,120,722	\$ 439,268	\$ 14,379,428
FY 27/28	\$ 10,389,124	\$ 778,796	\$ 724,855	\$ 2,134,769	\$ 440,175	\$ 14,467,720

5 year projections - \$/1000 gallons

	Chesterfield	Colonial Heights	Dinwiddie	Petersburg	Prince George	Average
Annual consumptions (1000 gallons)						
				11,333,539		
Five year average flows (FY17/18 to FY21/22)	73.256%	5.374%	3.821%	15.089%	2.460%	100.000%
FY 23/24	\$ 1.0516	\$ 1.0789	\$ 1.4750	\$ 1.0486	\$ 1.3797	\$ 1.2068
FY 24/25	\$ 1.0955	\$ 1.1229	\$ 1.5204	\$ 1.0924	\$ 1.4248	\$ 1.2512
FY 25/26	\$ 1.2277	\$ 1.2551	\$ 1.6535	\$ 1.2246	\$ 1.5577	\$ 1.3837
FY 26/27	\$ 1.2432	\$ 1.2708	\$ 1.6721	\$ 1.2401	\$ 1.5756	\$ 1.4004
FY 27/28	\$ 1.2513	\$ 1.2786	\$ 1.6740	\$ 1.2483	\$ 1.5789	\$ 1.4062

See Note (1) below

Notes:

(1) The FY25/26 figures include the proposed debt service for a 2026 Issuance. The projects for the issuance are still under consideration and the funding distribution has not been approved. These figures are subject to change.

APPOMATTOX RIVER WATER AUTHORITY

Proposed: Janaury 26, 2023

Approved:

Revised:

Revision Approved:

PROPOSED OPERATION & MAINTENANCE BUDGET 2023/2024

	<u>FY2022/2023</u>	<u>FY2023/2024</u>	<u>FY22/23 to FY23/24</u>	
	Budget	Budget	\$ Change	% Change
O&M EXPENSES				
41000 · Salary	\$1,931,678	\$2,192,918	\$261,240	13.52%
42000 · Employee Benefits	\$801,994	\$869,778	\$67,784	8.45%
42100 · Employer FICA	\$147,773	\$167,758	\$19,985	13.52%
42200 · Virginia Retirement System	\$68,961	\$51,095	-\$17,866	-25.91%
42210 · Deferred Comp 457	\$0	\$0	\$0	0.00%
42300 · Hospitalization Insurance	\$544,275	\$606,440	\$62,165	11.42%
42400 · VRS Group Life Insurance	\$25,884	\$29,385	\$3,501	13.52%
42500 · Group Term Life	\$2,100	\$2,100	\$0	0.00%
42600 · Unemployment Insurance	\$1,000	\$1,000	\$0	0.00%
42800 · Employee Promotions	\$10,000	\$10,000	\$0	0.00%
42900 · Other Fringe Benefits - EAP	\$2,000	\$2,000	\$0	0.00%
42950 · OPEB Health Insurance Adj	\$0	\$0	\$0	
42952 · Net Pension Adjustment				
43000 · Contractual Services	\$1,152,600	\$1,218,289	\$65,689	5.70%
43121 · Auditing Services	\$13,000	\$13,000	\$0	0.00%
43122 · Accounting Services	\$16,000	\$16,000	\$0	0.00%
43124 · Part-Time Summer Interns	\$5,000	\$5,000	\$0	0.00%
43130 · Legal/Engineering and Reservoir Studies	\$50,000	\$50,000	\$0	0.00%
43140 · Consulting Engineers	\$85,000	\$75,000	-\$10,000	-11.76%
43150 · Legal Services	\$75,000	\$85,000	\$10,000	13.33%
43152 · Medical - Testing	\$5,000	\$5,000	\$0	0.00%
43155 · Other Consulting Services	\$0	\$0	\$0	0.00%
43156 · Admin and Maintenance Svc-SCWWA	\$8,000	\$0	-\$8,000	-100.00%
43160 · Trustee Services	\$12,000	\$12,000	\$0	0.00%

43162 - Bank Service Charges	\$2,000	\$2,100	\$100	5.00%
43170 - Research	\$17,500	\$17,500	\$0	0.00%
43180 - Potable Water Contract	\$520,000	\$585,589	\$65,589	12.61%
43190 - Samples and Tests	\$40,000	\$50,000	\$10,000	25.00%
43200 - Lake Patrol	\$4,000	\$4,000	\$0	0.00%
43201 - Reservoir Management - Invasive Control Program	\$25,000	\$25,000	\$0	0.00%
43210 - Software Support	\$50,000	\$50,000	\$0	0.00%
43220 - VPDES Permit Fee	\$15,000	\$15,000	\$0	0.00%
43310 - Repair Services	\$25,000	\$25,000	\$0	0.00%
43320 - Service Contracts	\$125,000	\$125,000	\$0	0.00%
43500 - Printing and Binding	\$3,000	\$1,000	-\$2,000	-66.67%
43600 - Grounds Maintenance	\$57,100	\$57,100	\$0	0.00%
45000 - Other Charges	\$1,098,000	\$1,197,100	\$99,100	9.03%
45110 - Electricity - Pumping	\$510,000	\$600,000	\$90,000	17.65%
45111 - Electricity - Purification	\$275,000	\$280,000	\$5,000	1.82%
45120 - Heating Fuel	\$60,000	\$65,000	\$5,000	8.33%
45130 - Trash Pickup	\$5,500	\$8,100	\$2,600	47.27%
45210 - Postal Services	\$2,500	\$1,500	-\$1,000	-40.00%
45220 - Freight	\$20,000	\$10,000	-\$10,000	-50.00%
45230 - Telecommunications	\$35,000	\$35,000	\$0	0.00%
45308 - General Liability Insurance	\$110,000	\$125,000	\$15,000	13.64%
45410 - Lease/Rent of Equipment	\$25,000	\$20,000	-\$5,000	-20.00%
45510 - Mileage Allowance			\$0	0.00%
45530 - Meals and Lodging	\$5,000	\$2,500	-\$2,500	-50.00%
45540 - Education and Training	\$25,000	\$25,000	\$0	0.00%
45550 - Safety Supplies	\$25,000	\$25,000	\$0	0.00%
46000 - Materials and Supplies	\$3,520,000	\$4,255,000	\$735,000	20.88%
46001 - Office Supplies	\$12,000	\$10,000	-\$2,000	-16.67%
46004 - Laboratory Supplies	\$83,000	\$85,000	\$2,000	2.41%
46005 - Purification Chemicals	\$2,990,000	\$3,750,000	\$760,000	25.42%
46006 - Purification Process and Janitorial Supplies	\$15,000	\$10,000	-\$5,000	-33.33%
46007 - Repair & Maint Supplies-Shop	\$210,000	\$210,000	\$0	0.00%
46008 - Vehicle and Equipment Fuels	\$25,000	\$40,000	\$15,000	60.00%
46009 - Vehicle and Equipment Supplies	\$20,000	\$15,000	-\$5,000	-25.00%
46010 - Equipment Parts and Small Equipment Purchases	\$55,000	\$25,000	-\$30,000	-54.55%
46011 - Uniforms	\$15,000	\$15,000	\$0	0.00%
46012 - Dues and Subscriptions	\$40,000	\$35,000	-\$5,000	-12.50%
46014 - Repair & Maint Supplies-IT	\$30,000	\$35,000	\$5,000	16.67%

46015 · Small Equipment Purchases	\$0	\$0	\$0	0.00%
46016 · Operations Supplies and Maintenance	\$25,000	\$25,000	\$0	0.00%
Total Operating Expenses	\$8,504,272	\$9,733,086	\$1,228,814	14.45%
58000 · Operating Capital Outlay	\$674,000	\$585,500	-\$88,500	-13.13%
Debt - 2010 Issue (Refunded as 2019 series)	\$0	\$0	\$0	0.00%
Debt - 2012 Issue	\$302,322	\$302,293	-\$29	-0.01%
Debt - 2017 Issue	\$1,080,795	\$1,080,648	-\$147	-0.01%
Debt - 2019 Issue (2010 Refunded)	\$704,760	\$703,011	-\$1,749	-0.25%
Total Debt	\$2,087,876	\$2,085,952	-\$1,925	-0.09%
Reserve Policy	\$0	\$0	\$0	0.00%
Total Expenses	\$11,266,148	\$12,404,537	\$1,138,389	10.10%

FY Budget Year		Revenues					
2023/2024		Appomattox River Water Authority					
Proposed		Jan. 26, 2023		Adopted		Revised	
		Revision Adopted					
		Chesterfield	Colonial Heights	Dinwiddie	Petersburg	Prince George	Total
1) Operations and Maintenance Base Rate							
O&M Rate							
	\$/1000 gallons	\$ 1.0636	\$ 1.0636	\$ 1.0636	\$ 1.0636	\$ 1.0636	\$ 1.0636
Estimated (\$/quarter)	\$	2,207,529	\$ 161,956.95	\$ 115,134	\$ 454,708	\$ 74,127	\$ 3,013,455.87
Total annual allocation	\$	8,830,117	\$ 647,828	\$ 460,536	\$ 1,818,833	\$ 296,510	\$ 12,053,823
% of flows		73.256%	5.374%	3.821%	15.089%	2.460%	100.000%
Estimated (mgd)		22.746	1.669	1.186	4.685	0.764	31.051
Calc. annual usage (bg)		8.302	0.609	0.433	1.710	0.279	11.334
O&M =	\$ 9,733,086	Op. Cap. Outlay	\$ 585,500	54.38% 2019 Debt (maintenance)	\$ 382,297		
Int./Misc. Income	\$ 30,000	100% 2012 Debt	\$ 302,293	100% 2017 Debt	\$ 1,080,648	Reserve Policy	\$0
BASE RATE	\$/1000gals	\$ 1.0636	\$ 1.0636	\$ 1.0636	\$ 1.0636	\$ 1.0636	
2) Expansion Rate							
Bonds	% Financed						
Rate (cents/1000 gals)		\$ 0.0030	\$ 0.0303	\$ 0.4265	\$ -	\$ 0.3312	
2019 expansion (\$/year)	45.62%	\$ 25,240	\$ 18,473	\$ 184,667	\$ -	\$ 92,333	\$ 320,714
% allocation	7.87%		5.76%	57.58%	0.00%	28.79%	100.00%
FY22/23 Bond Payments	2019 refunding =	\$ 703,011					
TOTAL DEBT SERVICE RATE	\$/1000 gals	\$ 0.0030	\$ 0.0303	\$ 0.4265	\$ -	\$ 0.3312	
	\$/year	\$ 25,240	\$ 18,473	\$ 184,667	\$ -	\$ 92,333	\$ 320,714
3) Total Rate							
TOTAL RATE (BASE + EXPANSION)	\$/1000gals	\$ 1.0666	1.0939	1.4900	1.0636	1.3947	\$ 1.2218
Estimated annual charges	\$/year	\$ 8,855,357	\$ 666,301	\$ 645,203	\$ 1,818,833	\$ 388,843	\$ 12,374,537
4) Budget Comparison (see note 1)							
FY23/24 Total Rate	\$/1000 gals	\$ 1.0666	\$ 1.0939	\$ 1.4900	\$ 1.0636	\$ 1.3947	\$ 1.2218
FY22/23 Total Rate	\$/1000 gals	\$ 0.9905	\$ 1.0179	\$ 1.4198	\$ 0.9874	\$ 1.3300	\$ 1.1491
Total Rate Difference	\$/1000 gals	\$ 0.0761	\$ 0.0760	\$ 0.0703	\$ 0.0762	\$ 0.0647	\$ 0.0727
Total Rate Difference	%	7.68%	7.47%	4.95%	7.71%	4.87%	6.32%
FY23/24 Revenues	\$/year	\$ 8,855,357	\$ 666,301	\$ 645,203	\$ 1,818,833	\$ 388,843	\$ 12,374,537
FY22/23 Revenues	\$/year	\$ 7,970,116	\$ 618,033	\$ 607,881	\$ 1,680,806	\$ 359,312	\$ 11,236,148
Annual Cash Difference	\$/year	\$ 885,241	\$ 48,268	\$ 37,322	\$ 138,027	\$ 29,531	\$ 1,138,389
FY23/24 Expenses	\$ 12,404,537	FY 23/24 Income Revenue	\$ 12,404,537				

NOTES:

Reserve Policy: Appomattox River Water Authority FY23/24
Reserve Policy Calculation

ARWA O&M Budget	Reserves as of 6/30/2021	Revenue for FY2021/2022	Total expected reserves on 6/30/2022	Recommended 50% O&M Reserves	Annual Charge to achieve 50% Reserves
\$9,733,086	\$6,403,336	\$0	\$6,403,336	\$4,866,543	\$0

APPOMATTOX RIVER WATER AUTHORITY
Operating Capital Outlay - 58000
FY23/24

Acct#	Current Budget 22/23	Proposed Budget 23/24	INFORMATIONAL & PLANNING									
			24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	
58010 - Machinery and Motors-Process	\$ 124,000	\$ 157,500	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	
58020 - Instrumentation	\$ 100,000	\$ 68,000	\$ 58,000	\$ 30,000	\$ 115,000	\$ 35,000	\$ 35,000	\$ 25,000	\$ -	\$ -	\$ -	
58030 - SCADA	\$ -	\$ -	\$ -	\$ 15,750	\$ -	\$ -	\$ 10,000	\$ -	\$ 20,500	\$ -	\$ -	
58040 - Computer Equipmment	\$ -	\$ 15,000	\$ 20,250	\$ 5,500	\$ 25,800	\$ 11,000	\$ 6,400	\$ 51,720	\$ 7,000	\$ 7,300	\$ 13,900	
58050 - Furniture and Fixtures	\$ -	\$ 30,000	\$ -	\$ 130,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
58060 - Motor Vehicles	\$ -	\$ -	\$ 12,000	\$ 46,667	\$ 80,000	\$ 40,000	\$ 35,000	\$ -	\$ 110,000	\$ -	\$ -	
58065 - Maintenance Equipment	\$ -	\$ -	\$ -	\$ 115,000	\$ 35,000	\$ -	\$ 15,000	\$ -	\$ -	\$ -	\$ -	
58090 - Construction	\$ 450,000	\$ 315,000	\$ 400,000	\$ 350,000	\$ 300,000	\$ 250,000	\$ -	\$ -	\$ 75,000	\$ -	\$ -	
TOTALS:	\$ 674,000	\$ 585,500	\$ 590,250	\$ 792,917	\$ 655,800	\$ 436,000	\$ 101,400	\$ 76,720	\$ 212,500	\$ 7,300	\$ 13,900	

NOTE: FY 21/22 OPERATING CAPITAL OUTLAY BUDGET TO BE APPROVED WITH BUDGET

Construction Fund (Capital Projects)
FY23/24

<div>Project Cost Estimate</div>	Budget	Proposed Budget	INFORMATIONAL & PLANNING								
ITEM	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33
2012 Bond	\$ 302,322	\$ 302,293	\$ 302,016	\$ 302,475	\$ 301,671	\$ 301,604	\$ -	\$ -	\$ -	.	.
2017 Bond	\$ 1,080,795	\$ 1,080,648	\$ 1,079,973	\$ 1,080,744	\$ 1,080,936	\$ 1,080,550	\$ 1,080,572	\$ 1,079,991	\$ 1,080,781	\$ 1,079,929	\$ 1,080,423
2019 Bond (2010 Rebonding)	\$ 704,760	\$ 703,011	\$ 705,495	\$ 706,888	\$ 712,224	\$ 701,702	\$ 705,204	\$ 702,762	\$ 699,439	\$ 700,021	\$ -
Rebuild Filters 1-8 \$ 5,500,000				\$ 404,633	\$ 404,633	\$ 404,633	\$ 404,633	\$ 404,633	\$ 404,633	\$ 404,633	\$ 404,633
Lagoon Liners \$ 8,000,000				\$ 588,558	\$ 588,558	\$ 588,558	\$ 588,558	\$ 588,558	\$ 588,558	\$ 588,558	\$ 588,558
Elevated Tank Storage \$ 12,000,000				\$ 1,052,107	\$ 1,052,107	\$ 1,052,107	\$ 1,052,107	\$ 1,052,107	\$ 1,052,107	\$ 1,052,107	\$ 1,052,107
Clearwell #4											
Transmission Main - Chesdin Rd. to Pickett Rd											
Transmission Main - Pickett Ave. to Matoaca Tank											
Transmission Main - Matoaca Tank to Branders Bridge											
Transmission Main - Branders Bridge to Lakeview											
Totals	\$ 2,087,876	\$ 2,085,952	\$ 2,087,483	\$ 4,135,404	\$ 4,140,129	\$ 4,129,153	\$ 3,831,075	\$ 3,828,051	\$ 3,825,518	\$ 3,825,248	\$ 3,125,721

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 Projects. Debt Service was estimated at 3% for 20 years

Total Operating Capital Outlay and Construction Budget										
22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33
\$ 2,761,876	\$ 2,671,452	\$ 2,677,733	\$ 4,928,321	\$ 4,795,929	\$ 4,565,153	\$ 3,932,475	\$ 3,904,771	\$ 4,038,018	\$ 3,832,548	\$ 3,139,621

ARWA Budget comparisons

Year	O&M Expenses	Operating Capital Outlay	Debt Service 2010 issue	Debt Service 2012 issue	Debt Service 2017 issue	See Note (1) Debt Service 2019 issue	See Note (2) Debt Service 2026 issue	Reserve Policy	Total	Difference	% change	Comments
22/23	\$ 8,504,272	\$ 674,000		\$ 302,322	\$ 1,080,795	\$ 704,760		\$ -	\$ 11,266,148			
23/24	\$ 9,733,086	\$ 585,500		\$ 302,293	\$ 1,080,648	\$ 703,011		\$ -	\$ 12,404,537	\$ 1,138,389	10%	Reserve Fund is 50% of O&M
24/25	\$ 10,025,078	\$ 590,250		\$ 302,016	\$ 1,079,973	\$ 705,495		\$ -	\$ 12,702,811	\$ 298,274	2%	
25/26	\$ 10,325,831	\$ 792,917		\$ 302,475	\$ 1,080,744	\$ 706,888	\$ 2,045,298	\$ -	\$ 15,254,152	\$ 2,551,340	20%	
26/27	\$ 10,635,605	\$ 655,800		\$ 301,671	\$ 1,080,936	\$ 712,224	\$ 2,045,298	\$ -	\$ 15,431,535	\$ 177,383	1%	
27/28	\$ 10,954,674	\$ 436,000		\$ 301,604	\$ 1,080,550	\$ 701,702	\$ 2,045,298	\$ -	\$ 15,519,827	\$ 88,292	1%	

Notes:

(1) The 2010 issue was refinanced with the 2019 issue.

(2) The debt service service shown in 2026 represents:

Rebuild filters \$ 404,633.00 replace filters 1-8, end of life - \$5.5M

Lagoon Liner \$ 588,558.00 regulatory driven by DEQ based on groundwater monitoring program - \$8.0M

ARWA Projected Annual Cost

5 year projections - O&M, Operating Capital Outlay, Reserve Policy, 54.38% 2019 Series, 2012 Series, 2017

Series, and estimated 2026 Series

	Chesterfield	Colonial Heights	Dinwiddie	Petersburg	Prince George	total
	73.256%	5.374%	3.821%	15.089%	2.460%	100.000%
FY 23/24	\$ 8,852,093	\$ 649,440	\$ 461,682	\$ 1,823,360	\$ 297,247	\$ 12,083,823
FY 24/25	\$ 9,069,766	\$ 665,410	\$ 473,035	\$ 1,868,197	\$ 304,557	\$ 12,380,964
FY 25/26	\$ 10,938,304	\$ 802,496	\$ 570,489	\$ 2,253,079	\$ 367,301	\$ 14,931,669
FY 26/27	\$ 11,066,464	\$ 811,899	\$ 577,173	\$ 2,279,478	\$ 371,605	\$ 15,106,618
FY 27/28	\$ 11,134,659	\$ 816,902	\$ 580,730	\$ 2,293,525	\$ 373,895	\$ 15,199,711

Note: Budget % based on five year average flow consumption (FY17/18 to FY21/22)

5 year projections -2019 Series Debt Service (45.62%)

	Chesterfield	Colonial Heights	Dinwiddie	Petersburg	Prince George	total
Capacity	7.870%	5.760%	57.580%	0.000%	28.790%	100.000%
FY 23/24	\$ 25,240	\$ 18,473	\$ 184,667	\$ -	\$ 92,333	\$ 320,714
FY 24/25	\$ 25,329	\$ 18,538	\$ 185,319	\$ -	\$ 92,660	\$ 321,847
FY 25/26	\$ 25,379	\$ 18,575	\$ 185,685	\$ -	\$ 92,843	\$ 322,482
FY 26/27	\$ 25,571	\$ 18,715	\$ 187,087	\$ -	\$ 93,543	\$ 324,917
FY 27/28	\$ 25,193	\$ 18,439	\$ 184,323	\$ -	\$ 92,161	\$ 320,116

5 year projections - \$/year

	Chesterfield	Colonial Heights	Dinwiddie	Petersburg	Prince George	TOTAL
FY 23/24	\$ 8,877,334	\$ 667,913	\$ 646,349	\$ 1,823,360	\$ 389,581	\$ 12,404,537
FY 24/25	\$ 9,095,096	\$ 683,948	\$ 658,354	\$ 1,868,197	\$ 397,217	\$ 12,702,811
FY 25/26	\$ 10,963,683	\$ 821,071	\$ 756,174	\$ 2,253,079	\$ 460,144	\$ 15,254,152
FY 26/27	\$ 11,092,035	\$ 830,614	\$ 764,260	\$ 2,279,478	\$ 465,148	\$ 15,431,535
FY 27/28	\$ 11,159,852	\$ 835,341	\$ 765,053	\$ 2,293,525	\$ 466,056	\$ 15,519,827

5 year projections - \$/1000 gallons

	Chesterfield	Colonial Heights	Dinwiddie	Petersburg	Prince George	Average
Annual consumptions (1000 gallons)						
						11,333,539
Five year average flows (FY17/18 to FY21/22)	73.256%	5.374%	3.821%	15.089%	2.460%	100.000%
FY 23/24	\$ 1.0692	\$ 1.0965	\$ 1.4927	\$ 1.0662	\$ 1.3974	\$ 1.2244
FY 24/25	\$ 1.0955	\$ 1.1229	\$ 1.5204	\$ 1.0924	\$ 1.4248	\$ 1.2512
FY 25/26	\$ 1.3205	\$ 1.3480	\$ 1.7463	\$ 1.3175	\$ 1.6505	\$ 1.4766
FY 26/27	\$ 1.3360	\$ 1.3636	\$ 1.7650	\$ 1.3329	\$ 1.6684	\$ 1.4932
FY 27/28	\$ 1.3442	\$ 1.3714	\$ 1.7668	\$ 1.3411	\$ 1.6717	\$ 1.4990

See Note (1) below

Notes:

(1) The FY25/26 figures include the proposed debt service for a 2026 Issuance. The projects for the issuance are still under consideration and the funding distribution has not been approved. These figures are subject to change.

Jurisdiction flows - Billed

	Chesterfield	Colonial Heights	Dinwiddie	Petersburg	Prince George	Total
FY2010	7,033,700,610	719,490,000	476,943,000	1,749,660,000	248,493,000	10,228,286,610
FY2011	6,846,975,000	688,308,000	488,614,000	1,730,680,000	248,016,000	10,002,593,000
FY2012	7,449,052,000	637,396,000	526,015,000	1,785,988,000	233,873,000	10,632,324,000
FY2013	6,524,488,000	625,837,000	498,544,000	1,734,797,000	221,989,000	9,605,655,000
FY2014	7,628,121,000	636,163,500	433,792,000	1,595,147,000	230,726,000	10,523,949,500
FY2015	7,785,489,000	618,103,000	407,641,000	1,752,198,000	250,836,000	10,814,267,000
FY2016	6,863,655,000	614,345,000	395,104,000	1,793,956,000	254,139,000	9,921,199,000
FY2017	7,248,528,000	610,200,000	412,835,610	1,718,782,000	260,034,000	10,250,379,610
FY2018	7,602,808,000	608,760,000	444,544,000	1,796,973,000	270,429,000	10,723,514,000
FY2019	7,949,658,140	579,252,000	402,737,000	1,737,450,000	260,573,000	10,929,670,140
FY2020	8,006,663,160	605,954,000	448,649,000	1,604,773,000	274,786,000	10,940,825,160
FY2021	9,424,198,330	631,720,000	432,028,000	1,653,480,000	284,972,000	12,426,398,330
FY2022	8,529,007,820	619,896,000	437,124,000	1,758,063,000	303,197,000	11,647,287,820

Jurisdiction averages (annual usage)

	Chesterfield	Colonial Heights	Dinwiddie	Petersburg	Prince George	Total
FY11 - 1 yr avg	7,033,700,610	719,490,000	476,943,000	1,749,660,000	248,493,000	10,228,286,610
FY12 - 1 yr avg	6,846,975,000	688,308,000	488,614,000	1,730,680,000	248,016,000	10,002,593,000
FY13 - 2yr avg	6,986,770,000	631,616,500	512,279,500	1,760,392,500	227,931,000	10,118,989,500
FY14 - 3yr avg	7,200,553,667	633,132,167	486,117,000	1,705,310,667	228,862,667	10,253,976,167
FY15 - 4yr avg	7,346,787,500	629,374,875	466,498,000	1,717,032,500	234,356,000	10,394,048,875
FY16 - 5yr avg	7,250,161,000	626,368,900	452,219,200	1,732,417,200	238,312,600	10,299,478,900
FY17 - 5yr avg	7,210,056,200	620,929,700	429,583,322	1,718,976,000	243,544,800	10,223,090,022
FY18 - 5yr avg	7,425,720,200	617,514,300	418,783,322	1,731,411,200	253,232,800	10,446,661,822
FY19 - 5yr avg	7,490,027,628	606,132,000	412,572,322	1,759,871,800	259,202,200	10,527,805,950
FY20 - 5yr avg	7,534,262,460	603,702,200	420,773,922	1,730,386,800	263,992,200	10,553,117,582
FY21 - 5yr avg	8,046,371,126	607,177,200	428,158,722	1,702,291,600	270,158,800	11,054,157,448
FY22 - 5yr avg	8,302,467,090	609,116,400	433,016,400	1,710,147,800	278,791,400	11,333,539,090

Jurisdiction percentages based of averages

	Chesterfield	Colonial Heights	Dinwiddie	Petersburg	Prince George	Total
FY2011 - 1 yr avg	68.767%	7.034%	4.663%	17.106%	2.429%	100.000%
FY2012 - 1 yr avg	68.452%	6.881%	4.885%	17.302%	2.480%	100.000%
FY2013 - 2yr avg	69.046%	6.242%	5.063%	17.397%	2.253%	100.000%
FY2014 - 3yr avg	70.222%	6.175%	4.741%	16.631%	2.232%	100.000%
FY2015 - 4yr avg	70.683%	6.055%	4.488%	16.519%	2.255%	100.000%
FY16 - 5yr avg	70.393%	6.082%	4.391%	16.820%	2.314%	100.000%
FY17 - 5yr avg	70.527%	6.074%	4.202%	16.815%	2.382%	100.000%
FY18 - 5 yr avg	71.082%	5.911%	4.009%	16.574%	2.424%	100.000%
FY19 - 5 yr avg	71.145%	5.757%	3.919%	16.716%	2.462%	100.000%
FY20 - 5 yr avg	71.394%	5.721%	3.987%	16.397%	2.502%	100.000%
FY21 - 5 yr avg	72.790%	5.493%	3.873%	15.400%	2.444%	100.000%
FY22 - 5 yr avg	73.256%	5.374%	3.821%	15.089%	2.460%	100.000%

Jurisdiction averages (mgd)

	Chesterfield	Colonial Heights	Dinwiddie	Petersburg	Prince George	Total
FY2011 - 1 yr avg	19.270	1.971	1.307	4.794	0.681	28.023
FY2012 - 1 yr avg	18.759	1.886	1.339	4.742	0.679	27.404
FY2013 - 2yr avg	19.142	1.730	1.404	4.823	0.624	27.723
FY2014 - 3yr avg	19.728	1.735	1.332	4.672	0.627	28.093
FY2015 - 4 yr avg	20.128	1.724	1.278	4.704	0.642	28.477
FY16 - 5yr avg	19.863	1.716	1.239	4.746	0.653	28.218
FY17 - 5yr avg	19.754	1.701	1.177	4.710	0.667	28.008
FY18 - 5yr avg	20.344	1.692	1.147	4.744	0.694	28.621
FY19 - 5 yr avg	20.521	1.661	1.130	4.822	0.710	28.843
FY20 - 5 yr avg	20.642	1.654	1.153	4.741	0.723	28.913
FY21 - 5 yr avg	22.045	1.663	1.173	4.664	0.740	30.285
FY22 - 5 yr avg	22.746	1.669	1.186	4.685	0.764	31.051



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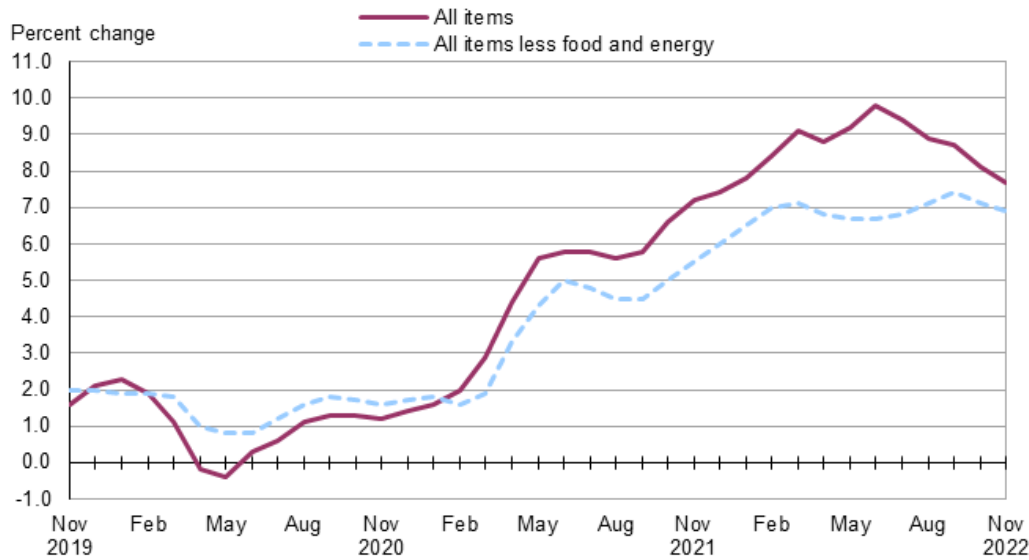
Consumer Price Index, South Region — November 2022

Prices in the South up 0.1 percent over the month and 7.7 percent over the past year

The Consumer Price Index for All Urban Consumers (CPI-U) for the South increased 0.1 percent in November, the U.S. Bureau of Labor Statistics reported today. The index for all items less food and energy rose 0.2 percent over the month. The energy index declined 1.7 percent in November, while the food index edged up 0.2 percent. (Data in this report are not seasonally adjusted. Accordingly, month-to-month changes reflect the impact of seasonal influences.)

The all items CPI-U for the South advanced 7.7 percent for the 12 months ending in November, after increasing 8.1 percent for the 12-month period ending in October. The index for all items less food and energy rose 6.9 percent over the past year. The food index and the energy index also increased over the last 12 months, up 11.1 percent and 10.2 percent, respectively. (See [chart 1](#) and [table 1](#).)

Chart 1. Over-the-year percent change in CPI-U, South region, November 2019–November 2022



Source: U.S. Bureau of Labor Statistics.

[View Chart Data](#)

Food

The food index rose 0.2 percent in November, reflecting a 0.6-percent increase in the food away from home index. In contrast, the food at home index inched down 0.1 percent over the month, as declines were noted for the fruits and vegetables (-0.9 percent) and meats, poultry, fish, and eggs (-0.4 percent) food groups.

The food index advanced 11.1 percent for the 12 months ending in November. The food at home index rose 12.7 percent over the past year as all six major grocery store food group indexes increased. The food away from home index rose 8.6 percent over the past year.

Energy

The energy index declined 1.7 percent in November, led by decreases in the gasoline (-1.8 percent) and electricity (-1.7 percent) indexes. The index for natural gas also declined in November, down 3.1 percent.

The energy index rose 10.2 percent for the 12 months ending in November. Increases were noted for electricity (+16.2 percent), gasoline (+4.2 percent) and natural gas (+15.8 percent).

All items less food and energy

The index for all items less food and energy rose 0.2 percent in November, primarily reflecting a 0.8-percent increase in the shelter index. Within shelter, owners’ equivalent rent rose 0.9 percent over the month and rent of primary residence rose 1.1 percent. Several indexes declined in November, most notable include used cars and trucks (-2.8 percent) and medical care services (-0.9 percent).

The index for all items less food and energy advanced 6.9 percent for the 12 months ending in November, after increasing 7.1 percent over the 12-month period ending in October. Several components contributed to the 12-month increase, most notably, shelter (+9.1 percent). Within shelter, owner’s equivalent rent increased 8.9 percent over the past year and rent of primary residence rose 10.9 percent.

Geographic divisions

Additional price indexes are now available for the three divisions of the South. In November, the all items index rose 0.3 percent in the South Atlantic division. The all items index declined 0.4 percent in the West South Central division and 0.1 percent in the East South Central division in November.

Over the year, the all items index advanced 8.1 percent in the South Atlantic division, 7.4 percent in the West South Central division, and 6.3 percent in the East South Central division.

Table A. South region CPI-U 1-month and 12-month percent changes, all items index, not seasonally adjusted

Month	2018		2019		2020		2021		2022	
	1-month	12-month	1-month	12-month	1-month	12-month	1-month	12-month	1-month	12-month
January	0.5	1.8	0.2	1.2	0.3	2.3	0.5	1.6	0.9	7.8
February	0.6	2.1	0.5	1.1	0.2	1.9	0.5	2.0	1.1	8.4

News Release Information

22-1345-ATL
Tuesday, December 13, 2022

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Related Links

[CPI chart package](#)

Month	2018		2019		2020		2021		2022	
	1-month	12-month	1-month	12-month	1-month	12-month	1-month	12-month	1-month	12-month
March	0.2	2.3	0.7	1.6	-0.1	1.1	0.8	2.9	1.4	9.1
April	0.4	2.4	0.5	1.8	-0.8	-0.2	0.7	4.4	0.5	8.8
May	0.3	2.7	-0.1	1.4	-0.2	-0.4	0.8	5.6	1.2	9.2
June	0.2	2.7	-0.1	1.1	0.6	0.3	0.9	5.8	1.5	9.8
July	0.0	2.9	0.3	1.4	0.6	0.6	0.5	5.8	0.1	9.4
August	-0.1	2.4	-0.1	1.4	0.4	1.1	0.3	5.6	-0.2	8.9
September	0.0	1.7	0.0	1.3	0.2	1.3	0.3	5.8	0.2	8.7
October	0.2	2.1	0.2	1.3	0.1	1.3	1.0	6.6	0.4	8.1
November	-0.3	1.9	0.0	1.6	-0.1	1.2	0.4	7.2	0.1	7.7
December	-0.5	1.5	0.0	2.1	0.2	1.4	0.3	7.4		

The Consumer Price Index for December 2022 is scheduled to be released on Thursday, January 12 at 8:30 a.m. (ET).

Technical Note

The Consumer Price Index (CPI) is a measure of the average change in prices over time in a fixed market basket of goods and services. The Bureau of Labor Statistics publishes CPIs for two population groups: (1) a CPI for All Urban Consumers (CPI-U) which covers approximately 93 percent of the total U.S. population and (2) a CPI for Urban Wage Earners and Clerical Workers (CPI-W) which covers approximately 29 percent of the total U.S. population. The CPI-U includes, in addition to wage earners and clerical workers, groups such as professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, and retirees and others not in the labor force.

The CPI is based on prices of food, clothing, shelter, and fuels, transportation fares, charges for doctors' and dentists' services, drugs, and the other goods and services that people buy for day-to-day living. Each month, prices are collected in 75 urban areas across the country from about 6,000 housing units and approximately 22,000 retail establishments—department stores, supermarkets, hospitals, filling stations, and other types of stores and service establishments. All taxes directly associated with the purchase and use of items are included in the index.

The index measures price changes from a designated reference date; for most of the CPI-U the reference base is 1982-84 equals 100. An increase of 7 percent from the reference base, for example, is shown as 107.000. Alternatively, that relationship can also be expressed as the price of a base period market basket of goods and services rising from \$100 to \$107. For further details see the CPI home page on the Internet at www.bls.gov/cpi and the CPI section of the BLS Handbook of Methods available on the internet at www.bls.gov/opub/hom/cpi/.

In calculating the index, price changes for the various items in each location are averaged together with weights that represent their importance in the spending of the appropriate population group. Local data are then combined to obtain a U.S. city average. Because the sample size of a local area is smaller, the local area index is subject to substantially more sampling and other measurement error than the national index. In addition, local indexes are not adjusted for seasonal influences. As a result, local area indexes show greater volatility than the national index, although their long-term trends are quite similar. **NOTE: Area indexes do not measure differences in the level of prices between cities; they only measure the average change in prices for each area since the base period.**

The **South region** is comprised of Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: (202) 691-5200; Telecommunications Relay Service: 7-1-1.

Table 1. Consumer Price Index for All Urban Consumers (CPI-U): Indexes and percent changes for selected periods
South (1982-84=100 unless otherwise noted)

Item and Group	Indexes			Percent change from-		
	Sep. 2022	Oct. 2022	Nov. 2022	Nov. 2021	Sep. 2022	Oct. 2022
Expenditure category						
All Items	287.656	288.836	288.991	7.7	0.5	0.1
All items (December 1977=100)	466.619	468.533	468.784	-	-	-
Food and beverages	305.543	307.885	308.552	10.7	1.0	0.2
Food	309.105	311.524	312.103	11.1	1.0	0.2
Food at home	294.198	296.644	296.475	12.7	0.8	-0.1
Cereal and bakery products	349.113	348.943	351.167	16.2	0.6	0.6
Meats, poultry, fish, and eggs	312.602	314.999	313.744	7.5	0.4	-0.4
Dairy and related products	270.267	270.634	272.000	17.1	0.6	0.5
Fruits and vegetables	327.368	331.867	328.955	9.1	0.5	-0.9
Nonalcoholic beverages and beverage materials	204.004	207.179	207.394	15.9	1.7	0.1
Footnotes						
(1) Indexes on a December 1982=100 base.						
(2) Indexes on a December 1997=100 base.						
(3) Special index based on a substantially smaller sample.						
(4) Indexes on a December 1993=100 base.						
(5) Indexes on a December 1977=100 base.						
- Data not available.						
Regions defined as the four Census regions. South includes Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.						
NOTE: Index applies to a month as a whole, not to any specific date. Data not seasonally adjusted.						

Item and Group	Indexes			Percent change from-		
	Sep. 2022	Oct. 2022	Nov. 2022	Nov. 2021	Sep. 2022	Oct. 2022
Other food at home	261.125	263.482	263.844	15.2	1.0	0.1
Food away from home	332.769	335.110	337.045	8.6	1.3	0.6
Alcoholic beverages	256.052	257.323	259.209	4.6	1.2	0.7
Housing	285.527	287.255	288.299	9.6	1.0	0.4
Shelter	326.358	328.859	331.346	9.1	1.5	0.8
Rent of primary residence	346.963	350.275	354.198	10.9	2.1	1.1
Owners' equiv. rent of residences(1)	328.026	330.657	333.504	8.9	1.7	0.9
Owners' equiv. rent of primary residence(1)	328.026	330.655	333.502	8.9	1.7	0.9
Fuels and utilities	298.740	297.757	294.137	13.4	-1.5	-1.2
Household energy	248.888	247.374	242.953	16.4	-2.4	-1.8
Energy services	248.485	246.776	241.976	16.2	-2.6	-1.9
Electricity	239.843	237.971	233.860	16.2	-2.5	-1.7
Utility (piped) gas service	285.328	284.825	275.896	15.8	-3.3	-3.1
Household furnishings and operations	146.275	147.092	146.301	8.7	0.0	-0.5
Apparel	139.289	139.069	136.937	4.0	-1.7	-1.5
Transportation	265.348	266.021	264.141	6.8	-0.5	-0.7
Private transportation	266.854	267.237	265.426	6.0	-0.5	-0.7
New and used motor vehicles(2)	132.058	130.888	129.407	2.6	-2.0	-1.1
New vehicles	183.582	184.452	184.487	8.2	0.5	0.0
New cars and trucks(2)(3)	-	-	-	-	-	-
New cars(3)	183.490	183.754	183.637	8.9	0.1	-0.1
Used cars and trucks	204.436	199.567	193.923	-3.7	-5.1	-2.8
Motor fuel	295.417	298.069	293.137	4.9	-0.8	-1.7
Gasoline (all types)	292.146	294.628	289.427	4.2	-0.9	-1.8
Unleaded regular(3)	285.463	288.047	282.884	4.0	-0.9	-1.8
Unleaded midgrade(3)(4)	326.336	327.675	322.168	4.8	-1.3	-1.7
Unleaded premium(3)	316.790	318.166	313.261	5.0	-1.1	-1.5
Medical care	526.044	524.379	520.021	3.6	-1.1	-0.8
Medical care commodities	368.203	368.319	366.460	3.5	-0.5	-0.5
Medical care services	579.512	577.223	572.000	3.6	-1.3	-0.9
Professional services	393.719	394.829	393.899	2.1	0.0	-0.2
Recreation(2)	131.706	132.171	133.642	5.9	1.5	1.1
Education and communication(2)	138.724	138.796	139.614	0.1	0.6	0.6
Tuition, other school fees, and child care(5)	1,435.473	1,438.622	1,441.796	3.1	0.4	0.2
Other goods and services	490.976	492.794	498.593	7.6	1.6	1.2
Commodity and service group						
All Items	287.656	288.836	288.991	7.7	0.5	0.1
Commodities	220.461	220.976	219.757	6.4	-0.3	-0.6
Commodities less food and beverages	180.881	180.774	179.006	4.2	-1.0	-1.0
Nondurables less food and beverages	231.697	232.992	231.117	6.3	-0.3	-0.8
Nondurables less food, beverages, and apparel	287.411	289.515	287.690	6.9	0.1	-0.6
Durables	132.538	131.715	130.217	2.4	-1.8	-1.1
Services	354.916	356.783	358.390	8.5	1.0	0.5
Rent of shelter(1)	335.914	338.502	341.089	9.2	1.5	0.8
Transportation services	416.857	423.338	426.943	15.9	2.4	0.9
Other services	374.447	375.427	380.883	4.0	1.7	1.5
Footnotes						
(1) Indexes on a December 1982=100 base.						
(2) Indexes on a December 1997=100 base.						
(3) Special index based on a substantially smaller sample.						
(4) Indexes on a December 1993=100 base.						
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- Data not available.						
Regions defined as the four Census regions. South includes Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.						
NOTE: Index applies to a month as a whole, not to any specific date. Data not seasonally adjusted.						

Item and Group	Indexes			Percent change from-		
	Sep. 2022	Oct. 2022	Nov. 2022	Nov. 2021	Sep. 2022	Oct. 2022
Special aggregate indexes						
All items less medical care	274.523	275.842	276.223	8.1	0.6	0.1
All items less food	284.157	285.161	285.256	7.2	0.4	0.0
All items less shelter	273.764	274.428	273.664	7.0	0.0	-0.3
Commodities less food	183.324	183.246	181.549	4.2	-1.0	-0.9
Nondurables	266.562	268.349	267.660	8.7	0.4	-0.3
Nondurables less food	232.730	234.022	232.358	6.2	-0.2	-0.7
Nondurables less food and apparel	283.226	285.250	283.741	6.7	0.2	-0.5
Services less rent of shelter ⁽¹⁾	390.004	391.011	391.418	7.7	0.4	0.1
Services less medical care services	334.577	336.753	338.880	9.2	1.3	0.6
Energy	265.148	265.570	261.005	10.2	-1.6	-1.7
All items less energy	291.577	292.840	293.470	7.5	0.6	0.2
All items less food and energy	289.147	290.228	290.867	6.9	0.6	0.2
Commodities less food and energy commodities	170.180	169.777	168.405	4.0	-1.0	-0.8
Energy commodities	300.948	303.767	299.166	5.3	-0.6	-1.5
Services less energy services	366.233	368.475	370.754	8.0	1.2	0.6
Footnotes (1) Indexes on a December 1982=100 base. (2) Indexes on a December 1997=100 base. (3) Special index based on a substantially smaller sample. (4) Indexes on a December 1993=100 base. (5) Indexes on a December 1977=100 base.						
- Data not available. Regions defined as the four Census regions. South includes Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. NOTE: Index applies to a month as a whole, not to any specific date. Data not seasonally adjusted.						

Last Modified Date: Tuesday, December 13, 2022

U.S. BUREAU OF LABOR STATISTICS Southeast Information Office Suite 7T50 61 Forsyth St., S.W. Atlanta, GA 30303
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Attachment #4

Fiscal Year	Chesterfield County			Prince George County			City of Colonial Heights			City of Petersburg			0.5%	Dinwiddie			0.5%	Total Usage (BG)	Average Day (mgd)
	Usage (BG)	Average Day (mgd)	Percent Change	Usage (BG)	Average Day (mgd)	Percent Change	Usage (BG)	Average Day (mgd)	Percent Change	Usage (BG)	Average Day (mgd)	Percent Change		Usage (BG)	Average Day (mgd)	Percent Change			
FY12/13	6,524,488,000	17.88		221,989,000	0.61		625,837,000	1.71		1,730,846,000	4.74			498,544,000	1.37			9,601,704,000	26.31
FY13/14	7,628,121,000	20.90	16.92%	230,726,000	0.63	3.94%	636,163,500	1.74	1.65%	1,595,147,000	4.37	-7.84%		433,792,000	1.19	-12.99%		10,523,949,500	28.83
FY14/15	7,785,489,000	21.33	2.06%	250,836,000	0.69	8.72%	618,103,000	1.69	-2.84%	1,752,198,000	4.80	9.85%		407,641,000	1.12	-6.03%		10,814,267,000	29.63
FY15/16	6,863,655,000	18.80	-11.84%	254,139,000	0.70	1.32%	614,345,000	1.68	-0.61%	1,793,956,000	4.91	2.38%		395,104,000	1.08	-3.08%		9,921,199,000	27.18
FY16/17	7,248,528,000	19.86	5.61%	260,034,000	0.71	2.32%	610,200,000	1.67	-0.67%	1,718,782,000	4.71	-4.19%		412,835,610	1.13	4.49%		10,250,379,610	28.08
FY17/18	7,602,808,000	20.83	4.89%	270,429,000	0.74	4.00%	608,760,000	1.67	-0.24%	1,796,973,000	4.92	4.55%		444,544,000	1.22	7.68%		10,723,514,000	29.38
FY18/19	7,949,658,140	21.78	4.56%	260,573,000	0.71	-3.64%	579,252,000	1.59	-4.85%	1,737,450,000	4.76	-3.31%		402,737,000	1.10	-9.40%		10,929,670,140	29.94
FY19/20	8,006,663,160	21.94	0.72%	274,786,000	0.75	5.45%	605,954,000	1.66	4.61%	1,604,773,000	4.40	-7.64%		448,649,000	1.23	11.40%		10,940,825,160	29.97
FY20/21	9,424,198,330	25.82	17.70%	284,972,000	0.78	3.71%	631,720,000	1.73	4.25%	1,653,480,000	4.53	3.04%		432,028,000	1.18	-3.70%		12,426,398,330	34.04
FY21/22	8,529,007,820	23.37	-9.50%	303,197,000	0.83	6.40%	619,896,000	1.70	-1.87%	1,758,063,000	4.82	6.33%		437,124,000	1.20	1.18%		11,647,287,820	31.91
FY22/23	8,046,371,126	22.04	-5.66%	270,158,800	0.74	-10.90%	599,564,000	1.64	-3.28%	1,680,806,000	4.60	-4.39%		422,755,000	1.16	-3.29%		11,019,654,926	30.19
FY23/24	8,146,651,195	22.32	1.25%	511,614,358	1.40	89.38%	615,023,050	1.68	2.58%	1,689,210,030	4.60	0.50%		424,868,775	1.16	0.50%		11,387,367,408	31.18
FY24/25	11,831,920,531	32.42	45.24%	566,520,861	1.55	10.73%	615,023,050	1.68	0.00%	1,697,656,080	4.63	0.50%		426,993,119	1.17	0.50%		15,138,113,640	41.45
FY25/26	11,867,189,866	32.51	0.30%	666,349,091	1.83	17.62%	615,023,050	1.68	0.00%	1,706,144,361	4.65	0.50%		429,128,084	1.18	0.50%		15,283,834,452	41.85
FY26/27	11,902,459,201	32.61	0.30%	719,671,309	1.97	8.00%	615,023,050	1.68	0.00%	1,714,675,082	4.67	0.50%		431,273,725	1.18	0.50%		15,383,102,367	42.12
FY27/28	11,937,728,536	32.71	0.30%	744,859,805	2.04	3.50%	615,023,050	1.68	0.00%	1,723,248,458	4.70	0.50%		433,430,094	1.19	0.50%		15,454,289,942	42.32
FY28/29	11,972,997,872	32.80	0.30%	770,929,898	2.11	3.50%	615,023,050	1.68	0.00%	1,731,864,700	4.72	0.50%		435,597,244	1.19	0.50%		15,526,412,763	42.51
FY29/30	12,008,267,207	32.90	0.29%	797,912,444	2.19	3.50%	615,023,050	1.68	0.00%	1,740,524,024	4.74	0.50%		437,775,230	1.20	0.50%		15,599,501,955	42.71
FY30/31	12,043,536,542	33.00	0.29%	825,839,380	2.26	3.50%	615,023,050	1.68	0.00%	1,749,226,644	4.77	0.50%		439,964,106	1.21	0.50%		15,673,589,722	42.92
FY31/32	12,078,805,877	33.09	0.29%	854,743,758	2.34	3.50%	615,023,050	1.68	0.00%	1,757,972,777	4.79	0.50%		442,163,927	1.21	0.50%		15,748,709,389	43.12
FY32/33	12,114,075,213	33.19	0.29%	884,659,790	2.42	3.50%	615,023,050	1.68	0.00%	1,766,762,641	4.82	0.50%		444,374,747	1.22	0.50%		15,824,895,439	43.33
FY33/34	12,149,344,548	33.29	0.29%	915,622,882	2.51	3.50%	615,023,050	1.68	0.00%	1,775,596,454	4.84	0.50%		446,596,620	1.22	0.50%		15,902,183,554	43.54

EXECUTIVE SUMMARY

COMPENSATION & CLASSIFICATION STUDY

The purpose of the wage and salary survey and the subsequent analysis was designed to determine the competitive worth of each job in ARWA & SCWWA for the purpose of establishing an equitable, comparable, and competitive *pay range* for each of the jobs in the Authorities and to determine whether the Authorities were keeping pace with the market organizations with respect to employee compensation. The survey comparables included counties of Chesterfield, Fairfax, Hampton Roads, Hanover, Harrisonburg/Rockingham, Henrico, Hopewell, Loudon, Portsmouth, Prince George, Prince William, City of Richmond, and Rivanna Authorities.

Market survey average pay rates were statistically correlated with job evaluation point values for the Authorities' pay grades (*Exhibit 4 graph*) to determine a market pay line. We checked the median versus the average survey values and there was little difference. For a median calculation, all the high and low values are discarded and only the middle value (or the average of the two middle values for even sets) is used for each benchmark. The market survey "line-of-best-fit" became the basis for the recommended pay structure and pay plan with a spread of 50% for the ARWA & SCWWA's pay ranges. The pay schedules (*Exhibit 6*) are based on a fixed dollar increase from one grade to the next. This fixed-dollar progression, rather than a percentage increase progression, provides for more consistency and fairness in the structure because there is a direct correlation between job value and market data. The fixed dollar amount between grades is tied to the slope of the market regression "line-of-best-fit."

The acceptance of the findings and recommendations of the Archer Company's study by the Boards of Directors will be the concluding step in the study and report process.

RECOMMENDATIONS: It is recommended that each employee be brought into the pay range for his or her grade as quickly as is economically feasible.

Five-year Goal for new hires: To provide for each employee's salary to approach the **market rate** within five (5) years of hiring. Candidates who meet the minimum requirements at hiring may start at the minimum of the pay range, while those candidates who have more experience may start further into the pay range. Employees who meet performance appraisal expectations should expect to be paid at the midpoint (near the market) by the five-year point. Pay increases of 5% per year meet the goal to have those employees who "meet expectations" to reach the salary range **midpoint** at the 5-year point. The five percent (5%) per year pay raise is calculated by dividing the lower percentage spread (25%) by 5 years.

Yearly Maintenance of the Pay Structure:

- Increase **salaries** and **salary ranges** annually with Cost of Living Adjustments (COLAs) based the Consumer Price Index (CPI) from the Bureau of Labor Statistics.
- Annual employee performance appraisals with the opportunity to earn pay increases based on performance with a goal to have those employees who "meet expectations" to reach the salary range **midpoint** by the 5-year point. Pay increases of 5% per year meet this goal.

BOARD OF DIRECTORS MEETING
Appomattox River Water Authority
March 17, 2022, at 2:00 p.m.
Location: Appomattox River Water Authority
21300 Chesdin Road, Petersburg, VA 23803

MEMBERS PRESENT:

Doug Smith, Chairman (Colonial Heights)
Kevin Massengill, Vice-Chairman (Dinwiddie)
Joseph Casey, (Chesterfield)

ALTERNATES PRESENT:

Frank Haltom, Secretary/Treasurer (Alternate, Prince George)
George Hayes, (Alternate, Chesterfield)

ABSENT:

Jeffrey Stoke, (Prince George)
Stuart Turille, (Petersburg)
Scott Morris, (Alternate, Chesterfield)
Tangela Innis, (Alternate, Petersburg)
Todd Flippen, (Alternate, Colonial Heights)

STAFF PRESENT:

Robert B. Wilson, Executive Director, (ARWA & SCWWA)
James C. Gordon, Asst. Executive Director (ARWA & SCWWA)
Arthur Anderson, (McGuire Woods)
Melissa Wilkins, Business Manager/FOIA (ARWA & SCWWA)
Kathy Summerson, Administrative Assistant (SCWWA)

OTHERS PRESENT:

Rita Archer, (Archer Company LLC)	Andrew Barnes, (Petersburg)
Kelly and Pamela Harrell, (ARWA)	Ray Burpoe, (SCWWA) (remote)
Pam Tavel, (SCWWA) (remote)	William Simms, (SCWWA) (remote)
Clinton Popp, (SCWWA) (remote)	Scott Farrar, (SCWWA) (remote)
Walter Richters, (SCWWA) (remote)	Patrick McBride, (SCWWA) (remote)
Chad Creech, (SCWWA) (remote)	Brian Field, (SCWWA) (remote)
Mike Gauldin, (SCWWA) (remote)	Charlie Prier, (SCWWA) (remote)
Drew Williams, (SCWWA) (remote)	Kendric Robinson, (SCWWA) (remote)
Eric Salamon, (ARWA) (remote)	Mike Callen, (ARWA) (remote)
Anya Hiatt, (ARWA) (remote)	Heather Chancellor, (ARWA) (remote)

The ARWA meeting was called to order by Mr. Smith, Chairman, at 2:05 p.m.

1. Call to Order/Roll Call

The roll was called:	Doug Smith	Present
	Kevin Massengill	Present
	Joseph Casey	Present
	Frank Haltom	Present

2. Approval of Minutes: Minutes of the Regular Meeting of the Board on January 20, 2022

Upon a motion by Mr. Massengill and seconded by Mr. Haltom the following resolution was adopted:

RESOLVED, that the Minutes of the Regular Meeting of the Board on January 20, 2022, are hereby approved:

For: 4 Against: 0 Abstain: 0

3. Public Comment

There were no Public Comments.

4. Executive Director's Report:

• **Classification and Compensation Study Presentation**

Mr. Wilson stated that the Authority's most important and valued asset is staff. To maintain and sustain our employees, the Authority selected Archer Company to perform our classification and compensation study. This study benchmarked us with our peers and developed a fair market-based system to ensure we are paying a fair wage for the level of responsibility.

Mr. Wilson introduced Ms. Rita Archer of Archer Company LLC who gave a presentation on the Classification and Compensation Study. Ms. Archer stated they met with all the employees and had them complete a formal Comprehensive Position Questionnaire. These questionnaires were used to determine an employee's importance to the organization. To compare against other jurisdictions, job descriptions, not job titles, were sent to ensure the proper level of importance and responsibility were being compared to the other organizations. Ms. Archer provided a list of the other utilities and authorities that responded.

Ms. Archer stated that the U.S. Bureau of Labor Statistics COLA should be 7.5%. The overall implementation costs with the parameters that they recommend is 15% which includes the COLA and salary adjustment. She stated that their study is to attract and retain good employees.

Mr. Wilson stated that the current hierarchy gets the 7.5% COLA. The 7.5% salary adjustment is based on your current salary and then recommended adjustment towards midpoint in the new salary range is added.

Mr. Wilson asked if he got pressed and had key people come to the table, is there any discretion to put something on the table to hold them until July 1, 2022. Mr. Smith stated he thought whatever is in the salary study you should be able to use it for retention.

Mr. Wilson thanked the Board for their support for the study and investing in the Authority's staff.

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

RESOLVED, that the Board authorizes a 5% COLA increase effective April 1, 2022, and authorizes the implementation of the Salary Study on July 1, 2022, and that includes the differential of 2.5% for the higher COLA. The Board will also consider earlier implementation at the May 19th meeting after Chesterfield County has reviewed and approved their compensation package so that the Authority's package does not compete, but for now being July 1, 2022:

For: 4 Against: 0 Abstain: 0

Vote:

Doug Smith	Aye
Kevin Massengill	Aye
Joseph Casey	Aye
Frank Haltom	Aye

- **FY23 Budget Presentation**

Mr. Wilson reported on the FY23 budget. He stated we are asking the Board to set the public hearing date for May 19, 2022, which is the next scheduled Board meeting.

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

RESOLVED, that the Board approves the Resolution of the Appomattox River Water providing preliminary approval of the Budget for Fiscal Year 2022/2023 and the proposed water rates and set a public hearing date of May 19, 2022, p.m. at the Appomattox River Water Authority:

Vote:

Doug Smith	Aye
Kevin Massengill	Aye
Joseph Casey	Aye
Frank Haltom	Aye

- **Status Report**

Mr. Wilson reported on the status report. He stated the annual flushing is scheduled for March 22, 2022, through March 24, 2022.

There were no specific questions on the status report that required additional discussion.

- **Financials**

Ms. Wilkins reported on the Financials. Mr. Wilson stated where the accounts are broken down in the LGIP for the surplus funds approved at the March 17th meeting. Dr. Casey stated one of the things they are considering with these different pay studies to avoid salary compression is they might be putting monies into a bank account reserved for future step increases. In case of recession or constraints for a year or two we may want to have a bank account to set up for the same reason. The Authority maintains an Operating Reserve account that includes a minimum of six months of reserve.

5. Items from Counsel

There were no items from Counsel.

6. Closed Session

There was no Closed Session.

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

The Executive Director's review to take place during the Board of Director's meeting on May 19, 2022. Mr. Wilson stated being as he is under contract his position was not include in the salary study.

8. Adjourn

Mr. Smith stated, if there is no other business, and asked for motion to adjourn.

Upon a motion by Mr. Massengill and seconded by Dr. Casey the meeting was adjourned at 3:14 p.m.

MINUTES APPROVED BY:

 5/19/22
Frank Haltom
Secretary/Treasurer

From: [Melissa Wilkins](#)
To: [Robert Wilson](#); [James Gordon](#)
Subject: FW: Regional Salary Impact Adjustments
Date: Wednesday, February 23, 2022 7:40:24 AM

From: Rita Archer <rita.k.archer@archercompany.com>
Sent: Tuesday, February 22, 2022 4:33 PM
To: [Melissa Wilkins](#) <mwilkins@arwava.org>
Subject: RE: Regional Salary Impact Adjustments

Hi Melissa,

No, we did not adjust.

We checked the median vs the average survey values and there was little difference. For a median calculation, all the high and low values are discarded and only the middle value (or the average of the two middle values for even sets) is used for each benchmark.

Best,
Rita

Sent from [Mail](#) for Windows

From: [Melissa Wilkins](#)
Sent: Tuesday, February 22, 2022 3:28 PM
To: [Rita Archer](#)
Subject: Regional Salary Impact Adjustments

Hi Rita,

Just need to confirm that within your calculations you are adjusting for regional salary impacts.

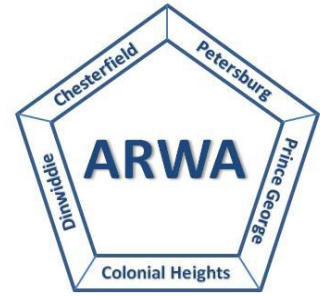
Thanks,

Melissa

*Melissa B. Wilkins
Business Manager/FOIA Officer
Appomattox River Water Authority
South Central Wastewater Authority
[21300 Chesdin Road](#)
S. Chesterfield, VA 23803*

(804) 590-1145 ARWA Office
(804) 861-0111 SCWWA Office
(804) 720-4470 Mobile
mwilkins@arwava.org
mwilkins@scwwa.org

Appomattox River Water Authority



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

EXHIBIT D

TO: Appomattox River Water Authority Board of Directors

FROM: Robert B. Wilson, Executive Director
James C. Gordon, Assistant Executive Director

DATE: January 26, 2023

SUBJECT: Award for Legal Services

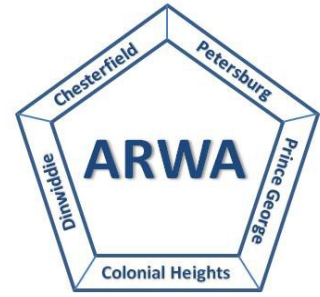
On November 7, 2022, the Authority advertised the request for proposals for Legal Services. Responses were due to the Authority on December 12, 2022. The Authority received one response from McGuireWoods. There were inquiries from other firms, but those chose not to submit.

McGuireWoods has provided legal counsel to the Authority for the last forty years. The contract term is for two years with the opportunity to extend for an additional three years.

Board Action Requested:

Staff requests the Board award the Legal Services contract to McGuireWoods and authorize the executive director to execute the necessary contract documents.

Appomattox River Water Authority



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

EXHIBIT E

TO: Appomattox River Water Authority Board of Directors

FROM: Robert B. Wilson, Executive Director
James C. Gordon, Assistant Executive Director

DATE: January 26, 2023

SUBJECT: Award for Liquid Lime System

On November 7, 2022, the Authority advertised the Liquid Lime System Project. This project included the installation of two vertical 15,000 gallon lime slurry tanks with integral mixers and baffles and supporting pumps and appurtenances to provide a new liquid lime injection point at the Rapid Mix Building. A well-attended pre-bid conference was held on December 14, 2022.

Bids were received on January 11, 2023. The Authority received five bids:

• MEB Contractors	\$2,354,000.00
• Waco Inc.	\$2,399,500.00
• Clark Construction	\$2,448,000.00
• American Contracting	\$2,479,000.00
• R. J. Smith	\$3,113,000.00

Our consultant, W|W Associates, has reviewed the bids for conformance with the contract documents and recommends award to MEB Contractors in the amount of \$2,354,000.00. Staff is in agreement with the consultant's recommendation.

The bids exceed available funds. The original estimate was \$1,500,000 and increased to \$2,000,000 with market conditions.

Low Bid:	\$2,354,000.00
5% contingency:	<u>\$ 117,700.00</u>
Sub Total:	\$2,471,700.00
Appropriation:	<u>\$1,500,000.00</u>
Subtotal:	\$ 971,700.00

Subtotal (carried forward)	\$ 971,700.00
2017 In-plant remaining funds	<u>\$ 183,726.79</u>
Operating Reserve Transfer	\$ 787,973.21 use \$790,000.00

The Liquid Lime Project was budgeted for separately. Counsel was consulted and the remaining funds from the 2017 In-plant projects could be used toward this project.

The Operating Reserve has a balance of \$6,551,232.00. To cover the short fall, \$790,000.00, a transfer is required from the Operating Reserve. After this transfer from the Operating Reserve there will still be a balance of eight months of operating expenses. The minimum balance to be maintained in the Operating Reserve annually is six months.

The bid tabulation and engineer's letter of recommendation is included as Attachment #1 and Attachment #2 respectively.

Board Action Requested:

Staff requests the Board award the Liquid Lime System Project to the low bidder, MEB Contractors, in the amount of \$2,354,000.00 and authorize the executive director to execute the necessary contract documents. Staff also requests the Board authorize the use of the remaining funds in the 2017 In-plant bond issuance towards the project and authorize the transfer of \$790,000.00 from the Operating Reserve to this project to fund the shortfall and provide a 5% contingency.

Attachment #1
Bid Tabulation

Client: ARWA

Project Name: Prechemical Lime Feed Improvements

WW Associates Project No. 222002.01A

Bid Opening Date: Wednesday, January 11, 2023 at 2:00 p.m.



#	Contractor	Contractor License No.	Bid Bond	12/20/2022	1/3/2023	1/5/2023	1/6/2023	Base Bid
				Addendum No. 1	Addendum No. 2	Addendum No. 3	Addendum No. 4	
1.	CLARK Construction	2705085523	✓	✓	✓	✓	✓	\$2,448,000
2.	WACO INC.	2701007061A	✓	✓	✓	✓	✓	\$2,399,500
3.	R3 Smith	2705067764	✓	✓	✓	✓	✓	\$3,113,000
4.	MEB Contractors	2701022064	✓	✓	✓	✓	✓	\$2,354,000
5.	American Contracting	2705087606	✓	✓	✓	✓	✓	\$2,479,000
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								



January 14, 2023

Mr. Robert B. Wilson, P.E.
Executive Director
Appomattox River Water Authority
21300 Chesdin Road
Petersburg, VA 23803

Re: ARWA Prechemical Lime Feed Improvements
WWA Project No. 222002.00

Dear Mr. Wilson,

We opened five bids on January 11, 2023 at 2:00 pm for the referenced project. A copy of the bid tabulation is enclosed for your records. MEB General Contractors was the low bidder with a base bid in the amount of \$2,354,000.00. We recommend the construction contract for the ARWA Prechemical Lime Feed Improvements be awarded to MEB General Contractors, Inc, in the amount of \$2,354,000.00, contingent upon funding availability.

Please feel free to contact us should you have any questions.

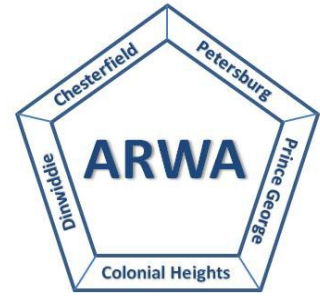
Sincerely,

WW Associates, Inc.

Herbert F. White III, P.E.
President

Enclosures

Appomattox River Water Authority



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

EXHIBIT F

TO: Appomattox River Authority Board of Directors

FROM: Robert B. Wilson, P.E., Executive Director
James C. Gordon, Assistant Executive Director

DATE: January 26, 2023

SUBJECT: Ongoing Projects\Operations

Operating Status Report

This report hits the highlights and does not cover the day to day operations, maintenance or preventive maintenance summaries.

➤ General

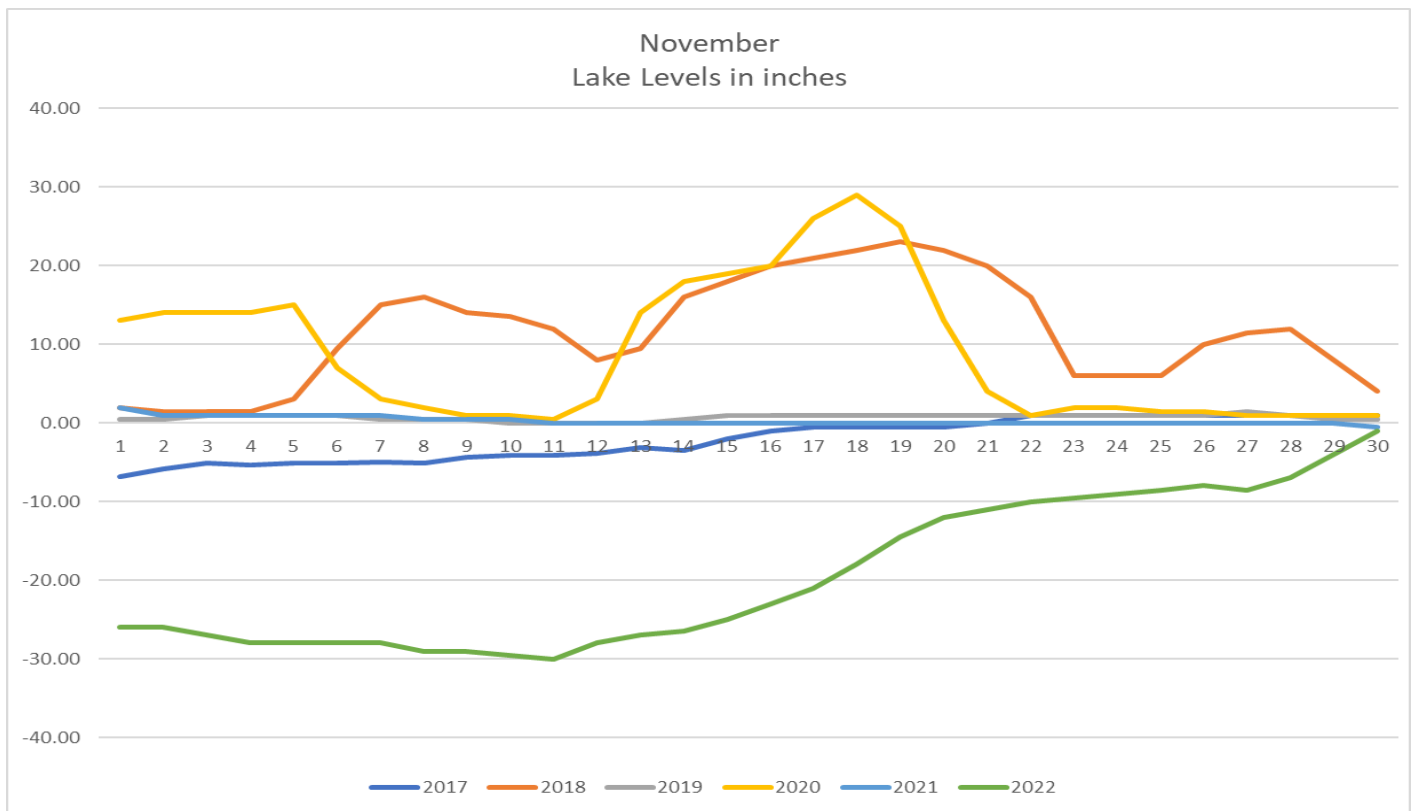
- The next scheduled Board of Directors Meeting is Thursday, March 16, 2022 at the Appomattox River Water Authority at 2:00 pm.
- Additional tours for Chesterfield County officials.
- We have contracted with the consultant to perform lake modeling. Last modeling completed in 2018.
- Received chemical bids for calendar year 2023. Highlights include the following:
 - Blended phosphate (lead and copper rule) increased 59%.
 - Sodium Hydroxide (caustic – pH adjustment) increased 30%.
 - Aluminum Sulfate (alum – coagulant – use a lot) decreased (26%)
 - Sodium Hypochlorite (liquid chlorine) increased 115%
- Proposed Flushing dates for 2023:
 - Tuesday, March 21st – South Leg
 - Wednesday, March 22nd – North Leg
 - Thursday, March 23rd – Lakeview to Swift Creek

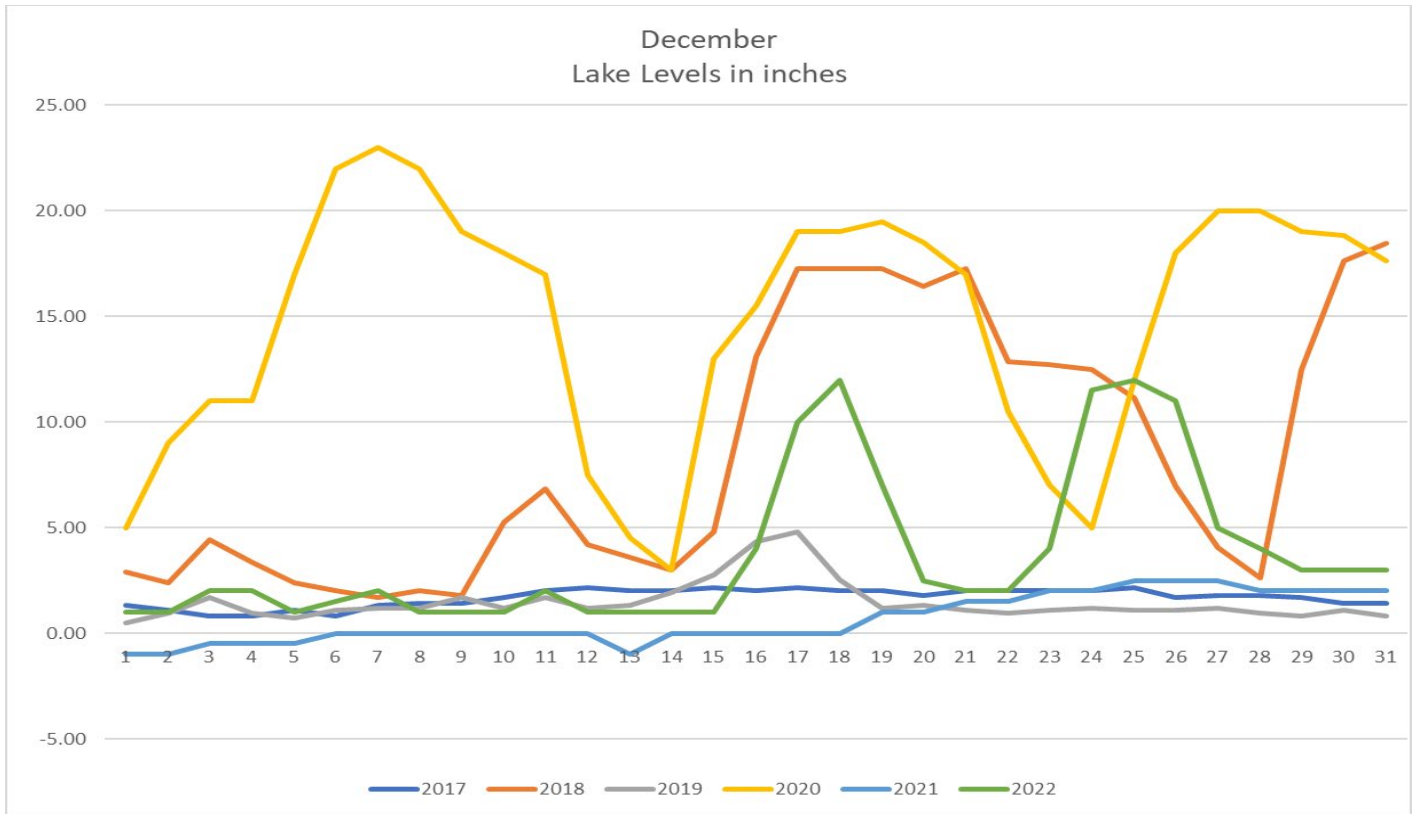
➤ September 17th Boating Accident on Lake

- Requested an update from First Sergeant Woodruff with the DWR. At the time of agenda preparation we do not have an update.

➤ Lake Level Update

- The weather has been gracious and the lake is overflowing. The current year is the green line.





Month	Stage 1 – Drought Watch			Stage 2 – Drought Warning			Stage 3 – Drought Emergency		
	Percent Usable Storage (%)	NAVD88 Elevation (ft msl)	NGVD29 Elevation (ft msl)	Percent Usable Storage (%)	NAVD88 Elevation (ft msl)	NGVD29 Elevation (ft msl)	Percent Usable Storage (%)	NAVD88 Elevation (ft msl)	NGVD29 Elevation (ft msl)
<i>Full Pool</i>	<i>100</i>	<i>157.2</i>	<i>158</i>	<i>100</i>	<i>157.2</i>	<i>158</i>	<i>100</i>	<i>157.2</i>	<i>158</i>
Jan	75	154	154.8	60	151.5	152.3	40	147.3	148.1
Feb	80	154.8	155.6	65	152.3	153.1	42.5	147.9	148.7
Mar	82.5	155.2	156	70	153.2	154	45	148.5	149.3
Apr	85	155.5	156.3	70	153.2	154	45	148.5	149.3
May	85	155.5	156.3	70	153.2	154	45	148.5	149.3
Jun	82.5	155.2	156	67.5	152.7	153.5	45	148.5	149.3
Jul	80	154.8	155.6	65	152.3	153.1	42.5	147.9	148.7
Aug	75	154	154.8	60	151.5	152.3	40	147.3	148.1
Sep	70	153.2	154	55	150.7	151.5	40	147.3	148.1
Oct	65	152.3	153.1	50	149.7	150.5	35	146	146.8
Nov	70	153.2	154	52.5	150.2	151	35	146	146.8
Dec	75	154	154.8	55	150.7	151.5	37.5	146.6	147.4

➤ Operations

- Performed drop test on filters 1-32 to verify effluent rate of flow controllers.
- Dropped water level in the east lagoon for toe drain installation by a contractor.
- Began adding lime for alkalinity adjustment (seasonal). Numerous issues with dry lime system.
- Began adding polymer due to increased turbidity and lower raw water temperatures.
- Completed annual safety training.
- Hired two new operator trainees.
- Two operators successfully achieved their class 3 waterworks certification.
- All operators completed yearly demonstration of capability for laboratory certification.
- Finished water met all permit requirements for November and December.
- The average daily finished water consumption for November was 31.75 mgd and the total withdrawn from the lake was 1.090 BG. The average daily finished water consumption for December was 26.00 mgd and the total withdrawn was 1.057 BG.

The maximum VWP permit criteria is:

- Daily maximum withdrawal is 86.24 mgd.
 - Monthly maximum withdrawal is 2.289 billion gallons.
 - Maximum annual withdrawal is 17.934 billion gallons (49.1 mgd average)
- The November 1st lake level was -26.40” and the December 31st lake level was +2.76”.

➤ Maintenance

- Designed and installed framework and aluminum (scrap) sheeting to prevent birds from nesting at post chemical door.
- Installed new four-inch air release and vacuum valve on P-19 in FWPS2 per backwash study recommendation.
- Installed four-inch air release and vacuum valve on 20” pipe under ceiling at filter #32 per backwash study recommendation.
- Completed 348 work orders and preventative maintenance orders.
- Repaired post filtered sample line at meter #1 that froze and burst.
- Rebuilt backwash surge anticipators for P-11 and P-19.
- Employees completed annual safety training.
- Ongoing mentoring and training for new mechanics.
- Maintenance and changed oil for series 600 actuators throughout plant.

➤ Instrumentation

- Installation of SOPHOS security for servers.
- Working with vendor to install IFIX upgrade for SCADA system.

➤ Laboratory

- Monthly eDMR submittals to DEQ for November and December.
- Monthly Compliance Monitoring Data Portal (CMDP – bacti and chemistry) submitted to VDH.
- Monthly Water Quality Reports submitted industry.
- Whole Effluent Toxicity (WET) testing performed – no toxicity
- Updated two spectrometers
- Received new FLOWCAM. Installation and training scheduled for February 1st and 2nd.
- Continue to work with Hazen on updating Lake Chesdin and Plant Management for Taste and Odor Plan.

•

➤ 30” Transmission Fortification

- New purchase order cut with Southern Construction to perform this work.
- Contractor is scheduling work.
- No change from last report

➤ Liquid Lime System

- Separate agenda item to award construction contract.

➤ Hydrilla

- No additional comments from November report.
- Emphasis will begin back in Spring.

➤ Docks

- No knew dock permits.
- Still waiting on contractor to build Authority dock behind RWPS2. Scheduled to drop off materials on January 20th.

➤ Bathymetric Study

- Ocean Surveys is scheduled to perform the bathymetric study in April 2023 for \$130K.
- Notified stakeholders around lake of Oceans Surveys work beginning January 16th.
- Contractor on site January 17th beginning survey.

EXHIBIT G**Appomattox River Water Authority-Balance Sheet**

For Month Ending December 31, 2022

Assets**Current Assets**

Petty Cash	\$	400
SunTrust Operating Fund	\$	2,013,013
SunTrust Replacement Fund	\$	-
Total Unrestricted Cash	\$	2,013,413

Water Revenue	\$	3,171,826
LGIP-O&M Reserve	\$	6,599,457
LGIP-Revenue Surplus	\$	3,035,369
ERRF (Equipment Repair/Replacement)	\$	2,557,759
Debt Service Reserve	\$	2,105,803
Bond Principal/Interest	\$	11,230
Bond Construction	\$	183,727
Total Restricted Cash	\$	17,665,171

Total Checking/Savings	\$	19,678,584
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Accounts Receivable	\$	2,507,035
Other Current Assets	\$	6,421
Inventory	\$	884,594

Total Current Assets	\$	23,076,633
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Fixed Assets

Right to Use Lease Assets	\$	21,869
Accum amort-right of use lease	\$	(5,921)
Land and Land Rights	\$	1,044,167
Water System	\$	85,932,231
Equipment	\$	1,960,167
Hydro	\$	34,873
Construction in Progress	\$	13,378,702
Accumulated Amortization	\$	(34,873)
Accumulated Depreciation	\$	(55,226,860)

Total Fixed Assets	\$	47,104,355
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Other Assets

Def Outflow-OPEB GLI	\$	-
Def Out Res-Post ER Pension Costs	\$	36,260
Deferred Outflow-OPEB GLI	\$	23,546
Def Out Res-Net Dif Pension Inv	\$	-
Def Out Res-OPEB Experience	\$	36,839
Def Out Res-OPEB Assumptions	\$	4,592
Def Out Res-OPEB Subsequent	\$	13,173

Total Other Assets	\$	114,410
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Total Assets	\$	70,295,397
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Appomattox River Water Authority-Balance Sheet

For Month Ending December 31, 2022

Liabilities & Equity

Current Liabilities

Accounts Payable	\$	92,604
Retainage Payable	\$	15,468
Accrued Interest Payable	\$	116,996
Accrued Interest-GASB 87	\$	36
Lease Liability-current portion	\$	5,850

Total Current Liabilities

\$ 230,955

Long Term Liabilities

Def Inf Res-Net Dif Pension Inv	\$	325,532
Def Inf Res-Pen Chg Assumptions	\$	(134,527)
Def Inf Res-Pens Dif Proj/Act E	\$	808,579
Net Pension Liability	\$	(1,687,965)
Def Infl-OPEB Chg of Assumptions	\$	158
Deferred Inflow-OPEB GLI	\$	42,737
Deferred Inflow-Expect & Actual	\$	5,992
Bonds Payable-2010	\$	-
Bonds Payable-2012	\$	1,654,000
Bonds Payable-2017	\$	9,553,000
Bonds Payable-2019 Refunding Bond Payment	\$	5,630,000
Bonds Payable-2019 Def Amt on Refunding	\$	(83,288)
Lease Liability-non-current	\$	10,275
Accrued Leave Payable	\$	204,282
Post Employment Benefit	\$	129,956
OPEB Liability-GLI	\$	81,499

Total Long-Term Liabilities

\$ 16,540,230

Total Liabilities

\$ 16,771,185

Equity

Retained Earnings	\$	2,704,641
Reserve for Water Revenue	\$	5,129,019
Reserve for Operations	\$	3,059,424
Reserve for Suplus	\$	2,529,242
Reserve for Replacements	\$	2,500,000
Reserve for Bond Interest	\$	116,996
Reserve for Debt Service	\$	2,094,831
Reserve for Bond Principal	\$	1,640,000
Reserve for Reserve	\$	4,252,136
Fixed Assets, Net of Debt	\$	29,144,730

Net Income \$ 353,193

Total Equity \$ 53,524,213

Total Liabilities & Equity

\$ 70,295,397

\$ -

Appomattox River Water Authority
YTD Income Statement for the period ending December 31, 2022

Water Rate Center

Revenues and Expenses Summary

Operating Budget vs. Actual

Revenues

Water Sales	\$ 11,236,148	\$ 5,618,074	\$ 6,087,548	\$ 469,474	8.36%
Rent/Misc. Income	\$ 30,000	\$ 15,000	\$ 4,834	\$ (10,166)	-67.77%
Total Operating Revenues	\$ 11,266,148	\$ 5,633,074	\$ 6,092,382	\$ 459,308	8.15%

Expenses

Personnel Cost	\$ 2,733,672	\$ 1,366,836	\$ 1,324,440	\$ (42,396)	-3.10%
Contractual/Professional Services	\$ 1,152,600	\$ 576,300	\$ 452,146	\$ (124,154)	-21.54%
Utilities	\$ 850,500	\$ 425,250	\$ 551,226	\$ 125,976	29.62%
Communication/Postal/Freight	\$ 57,500	\$ 28,750	\$ 21,423	\$ (7,327)	-25.48%
Office/Lab/Janitorial Supplies	\$ 110,000	\$ 55,000	\$ 55,014	\$ 14	0.03%
Insurance	\$ 110,000	\$ 110,000	\$ 124,847	\$ 14,847	13.50%
Lease/Rental Equipment	\$ 25,000	\$ 12,500	\$ 8,455	\$ (4,045)	-32.36%
Travel/Training/Dues	\$ 70,000	\$ 35,000	\$ 34,714	\$ (286)	-0.82%
Safety/Uniforms	\$ 40,000	\$ 20,000	\$ 10,324	\$ (9,676)	-48.38%
Chemicals	\$ 2,990,000	\$ 1,495,000	\$ 1,689,705	\$ 194,705	13.02%
Repair/Maintenance Parts & Supplies	\$ 312,000	\$ 156,000	\$ 215,145	\$ 59,145	37.91%
Total Operating Expenses	\$ 8,451,272	\$ 4,280,636	\$ 4,487,440	\$ 206,804	4.83%
Operating Results Suplus/(Deficit)	\$ 2,814,876	\$ 1,352,438	\$ 1,604,942	\$ 252,504	18.67%

Replacement Outlay Budget vs. Actual

Machinery & Motors-Process	\$ 124,000	\$ 62,000	\$ 90,549	\$ 28,549	46.05%
Instrumentation	\$ 100,000	\$ 50,000	\$ 193,353	\$ 143,353	286.71%
IFIX Upgrade	\$ -	\$ -	\$ 12,526	\$ 12,526	#DIV/0!
SCADA	\$ -	\$ -	\$ 28,200	\$ 28,200	#DIV/0!
Furniture/Fixtures	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Maintenance Equipment	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Valve Replacement	\$ 75,000	\$ 37,500	\$ 37,981	\$ 481	1.28%
Stop Logs at RWPS1	\$ 250,000	\$ 125,000	\$ 4,636	\$ (120,364)	-96.29%
Security Infrastructure Upgrade	\$ -	\$ -	\$ 7,103	\$ 7,103	#DIV/0!
Dock Improvements	\$ 25,000	\$ 12,500	\$ -	\$ (12,500)	-100.00%
Lagoon Splitter Box Access	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Sedimentation Basin Improvements	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Single Pane Windows	\$ 100,000	\$ 50,000	\$ 87,750	\$ 37,750	75.50%
Filter #1 Replacement	\$ -	\$ -	\$ 209,409	\$ 209,409	#DIV/0!
Carport-Slab-Fence	\$ 53,000	\$ 53,000	\$ 53,654	\$ 654	1.23%
Total Capital Outlay	\$ 727,000	\$ 390,000	\$ 725,161	\$ 125,098	32.08%

Construction Outlay Budget vs. Actual

In-Plant Capital Upgrade	\$ -	\$ -	\$ 29,232	\$ 29,232	#DIV/0!
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BOD Designated Surplus Fund

Liquid Lime System	\$ -	\$ -	\$ 46,000	\$ 46,000	#DIV/0!
Firewall Upgrade	\$ -	\$ -	\$ 10,196	\$ 10,196	#DIV/0!
Replacement Doors	\$ -	\$ -	\$ 17,536	\$ 17,536	#DIV/0!
VWP Permit	\$ -	\$ -	\$ 23,161	\$ 23,161	#DIV/0!
FlowCam	\$ -	\$ -	\$ 122,257	\$ 122,257	#DIV/0!

Debt Service Budget vs. Actual

Interest Income	\$ -	\$ -	\$ 240,542	\$ 240,542	#DIV/0!
Other (Income)	\$ -	\$ -	\$ 4	\$ 4	#DIV/0!

Sell of Asset	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Interest Expense	\$ 447,876	\$ 447,876	\$ 233,993	\$ (213,883)	-47.75%
Int on Purchase of US Treas	\$ -	\$ -	\$ 29,760	\$ 29,760	#DIV/0!
Bond Issuance Cost	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Principal Payments	\$ 1,640,000	\$ 1,640,000	\$ 255,000	\$ (1,385,000)	-84.45%

Other Income/Other Expense

Alum Litigation Proceeds-Received YTD	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Alum Litigation Proceeds-Credited to Members YTD	\$ -	\$ -	\$ -	\$ -	#DIV/0!

**Appomattox River Water Authority
Executive Review
Cash And Debt Highlights
As of December
31, 2022**

Highlights: ARWA Cash Positions		30-Jun-22		31-Dec-22	Change	Explanation
Unrestricted Cash & Investments:						
Petty Cash	\$	400.00	\$	400.00	\$ -	see explanation (a) below
SunTrust Operating Account	\$	1,962,064.46	\$	2,013,012.94	\$ 50,948.48	see explanation (b) below
SunTrust Replacement Fund	\$	-	\$	-	\$ -	see explanation (c) below
Restricted Cash and Investments:						
Water Revenue	\$	3,041,305.97	\$	3,171,826.41	\$ 130,520.44	see explanation (d) below
LGIP-O&M Reserve	\$	6,008,559.41	\$	6,599,456.68	\$ 590,897.27	see explanation (e) below
LGIP-Revenue Surplus	\$	2,529,241.78	\$	3,035,369.31	\$ 506,127.53	see explanation (f) below
ERRF (Equipment Repair/Replacement)	\$	2,500,000.00	\$	2,557,758.70	\$ 57,758.70	see explanation (g) below
Debt Service Reserve	\$	2,094,831.09	\$	2,105,802.88	\$ 10,971.79	see explanation (h) below
2012 Bond Principal/Interest	\$	280,741.56	\$	1,689.20	\$ (279,052.36)	
2017 Bond Principal/Interest	\$	960,986.29	\$	5,792.50	\$ (955,193.79)	
2019 Bond Principal/Interest	\$	632,913.93	\$	3,748.29	\$ (629,165.64)	
2017 Construction	\$	210,679.88	\$	183,726.79	\$ (26,953.09)	
Total Cash and Investments	\$	20,221,724.37	\$	19,678,583.70	\$ (543,140.67)	

Highlights: ARWA Outstanding Bonds		30-Jun-22		31-Dec-22	Change
2012 Bond	\$	1,654,000.00	\$	1,654,000.00	\$ -
2017 Bond	\$	10,383,000.00	\$	9,553,000.00	\$ (830,000.00)
2019 Bond	\$	6,185,000.00	\$	5,630,000.00	\$ (555,000.00)
2019 Bond-Def Amt on Refund	\$	(83,288.25)	\$	(83,288.25)	\$ -
Total Bonds Outstanding	\$	18,138,711.75	\$	16,753,711.75	\$ (1,385,000.00)

Explanation of Unrestricted and Restricted Cash positions:

- a. On-Hand Petty Cash for incidental expenses
- b. Financial Policy: Based on next four months of O&M expense
- c. Pass-through account: From US Bank to SunTrust Bank for Replacement Fund Requisitions
- d. Financial Policy: Held by Trustee for all operating water revenues
- e. Financial Policy: 50% of current FY O&M Budget
- f. Board Approval: Surplus Revenue approved for specific projects.
- g. Financial Policy: Must maintain a minimum of \$2.5M
- h. Financial Policy: Held by Trustee, funded at such amount as may be necessary.

2012	Principal	Interest	Total	2017	Principal	Interest	Total	2019	Principal	Interest	Total
Year Ended June 30				Year Ended June 30				Year Ended June 30			
2013	\$ -	\$ 93,906.15	\$ 93,906.15								
2014	\$ 193,000.00	\$ 109,321.50	\$ 302,321.50								
2015	\$ 199,000.00	\$ 103,245.50	\$ 302,245.50								
2016	\$ 205,000.00	\$ 96,983.50	\$ 301,983.50								
2017	\$ 211,000.00	\$ 90,535.50	\$ 301,535.50								
2018	\$ 218,000.00	\$ 83,886.00	\$ 301,886.00	2018		\$ 94,350.00	\$ 94,350.00				
2019	\$ 225,000.00	\$ 77,019.50	\$ 302,019.50	2019	\$ 750,000.00	\$ 330,225.00	\$ 1,080,225.00				
2020	\$ 232,000.00	\$ 69,936.00	\$ 301,936.00	2020	\$ 769,000.00	\$ 311,115.98	\$ 1,080,115.98	2020	\$ -	\$ 75,205.83	\$ 75,205.83
2021	\$ 239,000.00	\$ 62,635.50	\$ 301,635.50	2021	\$ 789,000.00	\$ 291,516.34	\$ 1,080,516.34	2021	\$ 90,000.00	\$ 167,283.25	\$ 257,283.25
2022	\$ 247,000.00	\$ 55,102.50	\$ 302,102.50	2022	\$ 809,000.00	\$ 271,413.50	\$ 1,080,413.50	2022	\$ 545,000.00	\$ 160,940.03	\$ 705,940.03
2023	\$ 255,000.00	\$ 47,321.50	\$ 302,321.50	2023	\$ 830,000.00	\$ 250,794.88	\$ 1,080,794.88	2023	\$ 555,000.00	\$ 149,759.83	\$ 704,759.83
2024	\$ 263,000.00	\$ 39,292.50	\$ 302,292.50	2024	\$ 851,000.00	\$ 229,647.90	\$ 1,080,647.90	2024	\$ 565,000.00	\$ 138,011.18	\$ 703,011.18
2025	\$ 271,000.00	\$ 31,015.50	\$ 302,015.50	2025	\$ 872,000.00	\$ 207,972.56	\$ 1,079,972.56	2025	\$ 580,000.00	\$ 125,495.06	\$ 705,495.06
2026	\$ 280,000.00	\$ 22,475.00	\$ 302,475.00	2026	\$ 895,000.00	\$ 185,743.70	\$ 1,080,743.70	2026	\$ 595,000.00	\$ 111,887.68	\$ 706,887.68
2027	\$ 288,000.00	\$ 13,671.00	\$ 301,671.00	2027	\$ 918,000.00	\$ 162,936.16	\$ 1,080,936.16	2027	\$ 615,000.00	\$ 97,223.93	\$ 712,223.93
2028	\$ 297,000.00	\$ 4,603.50	\$ 301,603.50	2028	\$ 941,000.00	\$ 139,549.94	\$ 1,080,549.94	2028	\$ 620,000.00	\$ 81,701.76	\$ 701,701.76
				2029	\$ 965,000.00	\$ 115,572.46	\$ 1,080,572.46	2029	\$ 640,000.00	\$ 65,204.26	\$ 705,204.26
	\$ 3,623,000.00	\$ 1,000,950.65	\$ 4,623,950.65	2030	\$ 989,000.00	\$ 90,991.14	\$ 1,079,991.14	2030	\$ 655,000.00	\$ 47,762.13	\$ 702,762.13
Maintenance Projects				2031	\$ 1,015,000.00	\$ 65,780.82	\$ 1,080,780.82	2031	\$ 670,000.00	\$ 29,438.75	\$ 699,438.75
charged to members based on Allocations				2032	\$ 1,040,000.00	\$ 39,928.92	\$ 1,079,928.92	2032	\$ 690,000.00	\$ 10,021.25	\$ 700,021.25
				2033	\$ 1,067,000.00	\$ 13,422.86	\$ 1,080,422.86				
	\$ 13,500,000.00	\$ 2,800,962.16	\$ 16,300,962.16					\$ 6,820,000.00	\$ 1,259,934.94	\$ 8,079,934.94	
Maintenance Projects				***This was both an expansion and maintenance project***							
charged to members based on Allocations				***Charged as follows: (45.62%-expansion, 54.38%-allocation)***							

2022	\$	1,601,000.00	\$	487,456.03	\$	2,088,456.03
2023	\$	1,640,000.00	\$	447,876.21	\$	2,087,876.21
2024	\$	1,679,000.00	\$	406,951.58	\$	2,085,951.58
2025	\$	1,723,000.00	\$	364,483.12	\$	2,087,483.12
2026	\$	1,770,000.00	\$	320,106.38	\$	2,090,106.38
2027	\$	1,821,000.00	\$	273,831.09	\$	2,094,831.09
2028	\$	1,858,000.00	\$	225,855.20	\$	2,083,855.20
2029	\$	1,605,000.00	\$	180,776.72	\$	1,785,776.72
2030	\$	1,644,000.00	\$	138,753.27	\$	1,782,753.27
2031	\$	1,685,000.00	\$	95,219.57	\$	1,780,219.57
2032	\$	1,730,000.00	\$	49,950.17	\$	1,779,950.17
2033	\$	1,067,000.00	\$	13,422.86	\$	1,080,422.86