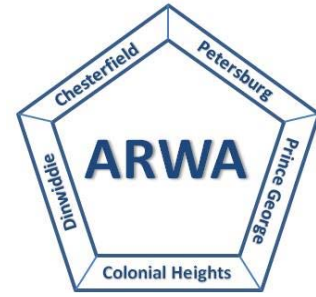


Appomattox River Water Authority



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

Appomattox River Water Authority Regular Meeting of the Board of Directors

DATE: October 18, 2018

TIME: 2:00 PM

LOCATION: South Central Wastewater Authority
Conference Room, Administration Building
900 Magazine Road
Petersburg, Virginia 23803

AGENDA

1. Call to Order/Roll Call
2. Approval of Minutes: Minutes of the Regular Board Meeting on August 16, 2018
3. Public Comment
4. Public Hearing on and Consideration of Proposed Amendments Related to the Direct Irrigation Withdrawal Policy
5. Executive Director's Report:
 - Reservoir Status Update for August/September 2018
 - Status Report: Ongoing Projects/Operations/Financials
 - Review of Raftelis Report: Preliminary Valuation of Water System Assets and Review of Governance & Ownership Alternatives
 - Review of 2012 & 2017 Bond Debt Service
 - Proposed 2019 Board Meeting Dates
6. Items from Counsel:
7. Other Items from Board Members/Staff Not on Agenda:
8. Closed Session
9. Adjourn

Cc: W. Dupler/George Hayes, Chesterfield
L. Lyons, Petersburg
W. Henley, Colonial Heights
F. Haltom, Prince George
R. Wilson, Dinwiddie Water Authority
A. Anderson, McGuire Woods

1. Call to Order/Roll Call

2. Approval of Minutes: Minutes of the Regular Board Meeting on August 16, 2018.

Following are the Minutes of the Regular Board Meeting on August 16, 2018.

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

BOARD OF DIRECTORS MEETING

Appomattox River Water Authority

August 16, 2018 at 2:00 p.m.

**Location: Appomattox River Water Authority
21300 Chesdin Road, South Chesterfield, Virginia 23803**

PRESENT:

Percy Ashcraft, Chairman (Prince George)
Joseph Casey, Vice Chairman (Chesterfield)
Douglas Smith, (Colonial Heights)
Robert B. Wilson, (Alternate, Dinwiddie)
Aretha Ferrell-Benavides, (Petersburg)
George Hayes, (Alternate, Chesterfield)
Frank Haltom, (Alternate, Prince George)
Lionel Lyons, (Alternate, Petersburg)

ABSENT:

Kevin Massengill, Secretary/Treasurer (Alternate, Dinwiddie)
William Henley, (Alternate, Colonial Heights)
William Dupler, (Alternate, Chesterfield)

STAFF:

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

OTHERS:

Keith Boswell, Virginia's Gateway Region
Jeff Mincks, Chesterfield
Mike Wooden, Arcadis
Michael Campbell, Prince George Journal/Dinwiddie Monitor
Jeff Franklin, Chesterfield
Denny Morris, Crater Region Planning Comm.

Mr. Ashcraft, Chairman, called the meeting to order at 2:02 p.m.

1. Call to Order/Roll Call.

The roll was called.

2. Approval of Minutes: Minutes of the Regular Meeting of the Board on June 14, 2018

Upon a motion made by Dr. Casey and seconded by Ms. Ferrell-Benavides the following resolution was adopted:

RESOLVED, that the minutes of the Regular Meeting of the Board on June 14, 2018 are hereby approved:

For: 5 Against: 0 Abstain: 0

3. Public Comment

There were no public comments.

4. Recognition of 50 Years of American Water Works Association Membership and Service to the Water Industry

Mr. Ashcraft presented a plaque to ARWA that was given by the American Water Works Association (AWWA) for recognition of 50 years of AWWA Membership and ARWA's Service to the Water Industry.

5. Executive Director's Report:

• Reservoir Status Update for July/August 2018

Dr. Wichser reported on the reservoir status update for July/August 2018. He stated that the excessive amount of rain entering our reservoir did impact water quality at times, particularly at the end of May going into June. He further stated due to the change related to the excess wet weather entering the reservoir, costs went up because of having to use more chemicals to treat the water.

• Irrigation Withdrawal License Agreements

Dr. Wichser reported on the Irrigation Withdrawal License Agreements. He stated that starting back in 2008 the ARWA Board of Directors adopted a Resolution addressing withdrawal of water from the Chesdin Reservoir related to irrigation, which is included in the Board package. He further stated, in 2008 the Authority set the irrigation License Agreements based on five-year recurring renewals at the option of the ARWA Board. Dr. Wichser stated he wanted to remind this Board that no new irrigation systems installed after January 20, 2009 are permitted based on the Board's continuation of a moratorium. Dr. Wichser stated he has received phone calls from citizens on both sides of the reservoir asking if they can install irrigation systems, and the Authority's response is that a present moratorium on

the installation of irrigation withdrawals is still in effect. He further stated that at the end of December the present License Agreements end, and what we are requesting is approval by the Board for us to move forward in renewing the existing irrigation licenses for another five years. He stated we currently have a total of 57 presently active on the Chesterfield side and 39 on the Dinwiddie side.

Dr. Wichser stated Mr. Anderson alluded to the fact that we should schedule a public hearing before we move forward to update and invoice with the individuals holding existing irrigation licenses. He further stated we could schedule and advertise the public hearing to occur at the September Board meeting. He stated staff requests Board of Directors approval for ARWA to enter into the next five year "Additional Term" January 1, 2019 until January 1, 2024 related to the irrigation withdrawal License Agreements with the homeowners holding existing License Agreements, requesting a renewal fee of \$343.92 for each transaction.

Mr. Ashcraft asked Mr. Anderson about the public hearing, and Mr. Anderson replied that he thought it was appropriate for the Board to authorize the Executive Director to contact license owners and see if there is any interest in renewing them. He commented that if there is interest, then you would have a public hearing probably in November. He stated what we really want to know now is that the Board will extend this term another five years, and we can get the documentation in place and a public hearing. Mr. Ashcraft asked what we were voting on at the conclusion of the public hearing, and Mr. Anderson answered that it would be the extension and the fees, which were negotiated back in 2008. He stated what we are asking is that the Board just continue with the fee as it's laid out in this Policy. He further stated as we will be getting a lot of requests to renew it for another five years, we will need a public hearing and finalize the vote. Dr. Casey stated he had no intention of pivoting from an Agreement that appears to be working. Mr. Wilson asked if there was a sunset clause and Mr. Anderson stated we have to revisit it every five years because of concerns with the reservoir level. The Board wished to retain the discretion to revisit this and staff has recommended that it continue. Dr. Casey referred to the implementation of conservation measures when there is a notice, and asked if the irrigation people get the notice first. Dr. Wichser stated that historically he doesn't have any information if that occurred in the past. He further stated that ARWA had entered voluntary conservation in 2012, but the Authority over the past six years had not needed to request and enter into mandatory conservation. Dr. Wichser stated if mandatory conservation was issued, he believes it would be an excellent idea to issue a letter to each of these irrigation systems withdrawing from Chesdin Reservoir to remind them that they must comply with the issued conservation stage as stated in their License Agreement. Dr. Casey stated when we enter mandatory we are all entering into it together, but are they mandatory first in the first line of defense, and Mr. Anderson stated they would abide by the same rules as everyone else.

Ms. Ferrell-Benavides left at 2:20 p.m. and Mr. Lyons, Alternate for Petersburg, took her place.

Mr. Ashcraft asked if someone calls and has a new home, what happens if they request to install a new irrigation system, and Dr. Wichser replied that last year he did receive a call from a citizen who built a new home and asked if an irrigation system could be installed, and he replied at this time the irrigation system could not be approved by the Authority due to the ongoing moratorium. Dr. Casey asked if there was a draft letter to please share it before it goes out.

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

RESOLVED, that the Board approves for Staff to enter into the next five year "Additional Term" January 1, 2019 until January 1, 2024 related to the irrigation withdrawal License Agreements with the homeowners holding existing License Agreements is hereby approved:

For: 5 Against: 0 Abstain: 0

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

RESOLVED, that the Board approves for ARWA to notify the homeowners of the proposal that is before us and to properly advertise a public hearing on this document for September 13, 2018 Board meeting:

For: 5 Against: 0 Abstain: 0

- **Failure of ARWA Filter Number 28**

Dr. Wichser reported on the failure of ARWA Filter Number 28. He stated that ARWA has 32 filters, which takes the settled water and filters it. He further stated with the failure of Filter No. 28 there has been no impact on the quality of water or amount of water treated. Dr. Wichser stated the failure of the filter occurred on the night of June 11, 2018. He reported there was an uplifting of a large section of the underdrains. He stated that we are investigating why it occurred and what caused it. He further stated we immediately made contact for someone to undertake emergency repairs, with our Trust Engineer, WW Associates assisting us. He stated we contacted contractors on July 2, 2018 and there would be five companies working on the filter repair. He further stated that the repair costs presently total about

\$156,000 with total cost expected to be in the \$175,000 area. He stated that we filed an insurance claim with VML on August 8, 2018, on August 10, 2018 the claims adjuster stopped by. Dr. Wichser stated that on August 13, 2018 the insurance company's engineering consulting firm started their investigation and this week we have started preliminary repairs. He further stated the repair is not expected to be complete until mid to end of September. He stated Filter Number 28 was constructed in 2007 and the same failure occurred to a section of this same filter in 2010. He further stated the contractor who installed the parts came in and repaired it at that time at no cost. He stated again this time, the contractor from 2007 has been put on notice that there was another failure.

Mr. Ashcraft asked if a claim had been filed on the previous one, and Dr. Wichser replied it was repaired under warranty. Mr. Lyons asked if the insurance claim was covering all the costs talked about, and Dr. Wichser replied that he doesn't expect it would, as we are going back with an upgraded newer design. He further replied that the adjuster stated if they agree with it, that they would pay for it to be repaired to the extent that it was originally installed. He stated the difference would be expected to be about \$25,000. Mr. Wilson asked how many filters were done at the same time and Dr. Wichser replied sixteen. Mr. Wilson asked why this is the only filter having problems and Dr. Wichser stated Filter No. 28 to date, was the only filter with grout failure. Mr. Gordon stated the 2010 failure was the back half and they repaired that, and this failure was the front half. Mr. Wilson asked if there was any indication to worry about the other fifteen, and Dr. Wichser stated that to-date nothing has failed in the others.

- **Status Reports: Ongoing Projects/Financials**

Mr. Gordon reported on the Status Reports of Ongoing Projects/Operational/Financials.

6. Items from Counsel

- **Resolution Authorizing the Executive Director to Provide Emergency Services to Non-Participating Jurisdictions in the Event of a Local Water Emergency**

Mr. Anderson reported on the revised Resolution that was considered at the last Board meeting relating to provision of emergency water services. He stated he received some comments that were generally acceptable to everyone. Dr. Casey stated if this is approved, make sure we send it to Hopewell or others if it's applicable. Mr. Smith asked once the emergency goes into effect, and if we are providing assistance, will we go until the next meeting of the Board as there is not a specific time frame on this, and Mr. Anderson answered it would be the next scheduled regular meeting, but there is a provision in the By-Laws about special meetings, where the chairman and two members can call a meeting. Mr. Ashcraft asked if there was ever a time the Authority would be called upon to assist a private entity, and Dr. Wichser stated this present case was the catalyst as Virginia American Water is a private investor owned entity that provides one-hundred percent of the water to the City of Hopewell.

Upon a motion made by Mr. Wilson and seconded by Mr. Lyons the following resolution was adopted:

RESOLVED, that the Board approves the Resolution authorizing the Executive Director to provide emergency services to non-participating jurisdictions in the event of a local water emergency:

For: 5 Against: 0 Abstain: 0

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

Dr. Wichser stated he just wanted to remind the Board that he has moved forward and scheduled Ted Cole of Davenport and Raftelis for the September 13, 2018 Board meeting for final review and questions related to their report. Mr. Smith thanked Dr. Wichser and Mr. Gordon for taking him on a tour of the ARWA and SCWWA facilities.

8. Closed Session

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

Upon a motion made by Dr. Casey and seconded by Mr. Lyons, the Board went into Closed Session at 2:41 p.m.

For: 5 Against: 0 Abstain: 0

Upon a motion made by Mr. Lyons and seconded by Mr. Wilson, the Board came out of Closed Session at 4:06 p.m.

For: 5 Against: 0 Abstain: 0

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

9. Adjourn

Upon a motion made by Mr. Lyons and seconded by Mr. Wilson the meeting was adjourned at 4:07 p.m.

The next Regular Meeting is scheduled for Thursday, September 13, 2018 at 2:00 p.m. at the South Central Wastewater Authority.

MINUTES APPROVED BY:

Kevin Massengill
Secretary/Treasurer

CLOSED MEETING RESOLUTION
(Land Disposition)

APPOMATTOX RIVER WATER AUTHORITY

August 16, 2018

I move that we go into a closed meeting for discussion and consideration of the disposition by the Appomattox River Water Authority of publicly-held real property for a public purpose, specifically all of the real property of the Authority, where discussion in an open meeting would adversely affect the Authority's bargaining position and negotiating strategy as permitted by Section 2.2-3711A.3 of the Virginia Freedom of Information Act:

MOTION: Casey

SECOND: Lyons

VOTE

Ashcraft	Aye
Casey	Aye
Lyons	Aye
Smith	Aye
Wilson	Aye

ABSENT DURING VOTE: None.

ABSENT DURING CLOSED MEETING: None.

SESSION DATE: August 16, 2018

CERTIFICATION OF CLOSED MEETING

WHEREAS, the Board of the Appomattox River Water Authority (the "Authority") convened a closed meeting on August 16, 2018, 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: Lyons

SECOND: Wilson

VOTE

Ashcraft	Aye
Casey	Aye
Lyons	Aye
Smith	Aye
Wilson	Aye

ABSENT DURING VOTE: None.

ABSENT DURING CLOSED MEETING: None.

3. Public Comment

The Guidelines for Public Comment are:

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

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

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

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

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

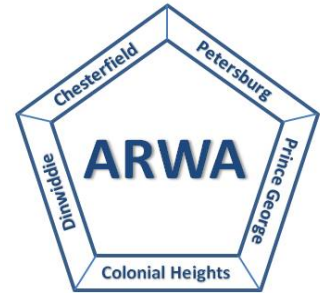
Speakers should keep in mind that Board of Directors meetings are formal proceedings and all comments are recorded on tape. For that reason, speakers are requested to speak from the podium and wait to be recognized by the Chairman. In order to give all speakers proper respect and courtesy, the Board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

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

4. Public Hearing on and Consideration of Proposed Amendments Related to the Direct Irrigation Withdrawal Policy

- Following is the Amended and Restated Policy pertaining to Direct Irrigation Withdrawals from Lake Chesdin

Appomattox River Water Authority



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

APPOMATTOX RIVER WATER AUTHORITY

- RESOLUTION -

AMENDED AND RESTATED POLICY PERTAINING TO DIRECT IRRIGATION WITHDRAWALS FROM LAKE CHESDIN

Originally Adopted: November 20, 2008
First Amended and Restated: June 23, 2011
Second Amended and Restated: October 18, 2018

WHEREAS, the Appomattox River Water Authority ("ARWA") is the owner and manager of Lake Chesdin, a 3,100-acre reservoir located on the Appomattox River on the Chesterfield County and Dinwiddie County line that provides a drinking water supply to the Cities of Colonial Heights and Petersburg and the Counties of Chesterfield, Dinwiddie, and Prince George (the "Participating Jurisdictions");

WHEREAS, ARWA faces significant increases in demand for drinking water for all purposes throughout ARWA's service area;

WHEREAS, the Lake Chesdin area experienced extended droughts between 2001 and 2002 and in 2007 and 2010, which resulted in low lake levels and the imposition of mandatory water use restrictions for the first times in ARWA's history;

WHEREAS, lawn and garden irrigation may use thousands of gallons of water each day on just one landowner's property;

WHEREAS, in 2007 ARWA noted that a number of persons residing near Lake Chesdin had installed pumps, intake devices, and other equipment and taken other measures for the purpose of withdrawing water directly from Lake Chesdin for the purpose of lawn and garden irrigation ("Direct Irrigation Withdrawals"), and the potential existed for others to do the same as growth occurs around Lake Chesdin;

WHEREAS, none of the Direct Irrigation Withdrawals or pumps, intake devices, or other equipment for making Direct Irrigation Withdrawals ("Systems") had been approved previously by ARWA's Board of Directors (the "Board"), and, on November 2, 2007, the Board appointed a committee to review the issue of Direct Irrigation Withdrawals and to make recommendations pertaining to such activity (the "Committee");

WHEREAS, the Committee met and reported its recommendations to the Board at the Board's regular meeting on December 20, 2007, which the Board adopted by resolution on December 20, 2007;

WHEREAS, the Board authorized and directed the Committee to (1) draft an appropriate permit or license document in furtherance of its recommendations; (2) develop policies and procedures for application for, and issuance of, such documents and for the collection and administration of the recommended fees;

WHEREAS, ARWA held a public hearing on the adoption of a proposed policy pertaining to Direct Irrigation Withdrawals on August 11, 2008, after notice of the public hearing was published once in a newspaper of general circulation in ARWA's service area;

WHEREAS, as agreed during the public hearing, the Committee met with a self-selected group of interested citizens on September 15, 2008 (the "Committee-Citizen Meeting");

WHEREAS, during the Board's September 18, 2008 regular meeting, the Board discussed the public hearing and the Committee-Citizen Meeting;

WHEREAS, the Board determined to schedule a second public hearing on a proposed policy pertaining to Direct Irrigation Withdrawals and held such public hearing on November 20, 2008, after notice of the public hearing was published twice in several newspapers of general circulation in ARWA's service area, and following the public hearing adopted a policy and guidance (the "Original Policy") for the approval of Direct Irrigation Withdrawal licenses ("Licenses");

WHEREAS, on June 23, 2011, ARWA's Executive Director recommended making certain minor changes to the Original Policy and the Board adopted the first amendment and restatement of the Original Policy (the "First Amended Policy");

WHEREAS, the term of the current Licenses for Direct Irrigation Withdrawals expires on December 31, 2018, and ARWA staff and counsel have recommended allowing the Licenses to be renewed for an additional five years, setting the license fee for the renewal term pursuant to the formula provided in the First Amended Policy (which was not changed from the Original Policy) and making certain conforming changes to the First Amended Policy; and

WHEREAS, the Board held a public hearing regarding the above-described recommendations on October 18, 2018, of which notice was published twice in several newspapers of general circulation in ARWA's service area;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF THE APPOMATTOX RIVER WATER AUTHORITY THAT:

Protection of Lake Chesdin for Public Drinking Water Supply. The Board hereby finds and determines that this second amended and restated policy (the "Second Amended Policy") will further the public purposes for which ARWA was created, including without limitation the purposes of conserving, protecting and beneficially utilizing the surface water in Lake Chesdin to ensure the public welfare, safety, and health of the inhabitants of the Participating Jurisdictions who rely upon Lake Chesdin as a source of drinking water and enabling ARWA to obtain permits for additional water sources reasonably required to serve such inhabitants.

License Required for Continued Direct Irrigation Withdrawals. No Direct Irrigation Withdrawal shall occur except as authorized by the terms of a License Agreement, recommended by ARWA's Executive Director, approved by the Board, and executed by the Licensee (the "License Agreement"). The License Agreement shall be substantially in the form presented at this meeting, with such insertions, deletions, or other changes not inconsistent with this Second Amended Policy as may be approved by the Executive Director in his discretion.

Applications for Licenses for Renewal Term. Each Licensee existing as of October 18, 2018, who desires to renew his or her License shall submit an application to the Executive Director (the "Application"). The Application shall be substantially in the form presented at this meeting, with such insertions, deletions, or other changes as may be approved by the Executive Director in his discretion and not inconsistent with this Second Amended Policy. Applications must be received by the Executive Director by June 30, 2019.

Renewal Term. Regardless of when an application for a renewed License is received, the License, if granted, shall be for a term of five (5) years, commencing on January 1, 2019 and ending on December 31, 2024 (the "Renewal Term"), unless sooner terminated in accordance with the License Agreement.

License Fee. The fee for a License for the Renewal Term shall be three hundred forty-three dollars and ninety-two cents (\$343.92), which was determined by adjusting the initial license fee of \$300 set by the Original Policy for inflation based on the All Items Consumer Price Index for All Urban Consumers for the U.S. City Average (Current Series) for the period ended on September 1, 2018. The License Fee is payable immediately upon the issuance of a License for the Renewal Term.

Conservation. Each Licensee must agree to abide by irrigation and other water use restrictions imposed by the Participating Jurisdiction in which they live.

Health, Environmental, or Other Restrictions Required by Law or Governmental Entity. Each Licensee must agree to abide by all local, state, and federal laws and regulations now or hereafter in effect and applicable to his Direct Irrigation Withdrawal or System and that ARWA may, as Licenser, impose upon him or her, as Licensee, any health, environmental, or other restrictions required under local, state, or federal law or as may be required by any local, state, or federal governmental entities that regulate or provide assistance to ARWA, including restrictions imposed as a requirement to obtaining permits to construct improvements or enlargements of ARWA's water treatment and/or storage capacity. Each Licensee shall agree to not cause or permit the use, generation, storage, release, or disposal in, on, or about Lake Chesdin of any substances, materials, or wastes in violation of local, state, or federal law.

Current Parcel Ownership Required; Limitation on Number and Transferability of Licenses. A License for the Renewal Term may be granted only to a current Licensee as of October 18, 2018, who is also a current owner of a parcel of land fronting Lake Chesdin shown on the map attached as Exhibit A hereto and made a part hereof (each a "Parcel"). Licenses shall be limited to one per Parcel, regardless of whether a Parcel owner subdivides or intends to subdivide his Parcel. Each Licensee may, with the prior written consent of ARWA, transfer his License to a single successor owner of his or her Parcel, but may not transfer, assign, divide, allocate, or distribute duplicates of his or her License among the successor owners of any subdivided portions of his or her Parcel, and any attempt on the part of a Licensee to do so may result in the immediate termination of the License by the Board, acting in its sole discretion.

System Limitations. Each Licensee's System shall originate from a single withdrawal point from Lake Chesdin, which has been identified by Licensee as part of his or her Application, and use a single pump or other intake device. Systems shall not: (i) have a pump capacity greater than 20 gallons per minute, (ii) have pumps or other intake devices located beyond the end of the Licensee's dock, pier, or bulkhead, or, in the absence of a dock, pier, or bulkhead, thirty (30) feet from the normal pool limit, and (iii) be used to pump or intake water for storage (i.e., all water removed from Lake Chesdin by Systems must be immediately applied to irrigation). Each Licensee may replace failing equipment that is part of his or her System with functioning equipment that is the same or, if the same equipment is not available, the functional equivalent of the failing equipment, but may not extend, expand, or otherwise improve his or her System or increase its ability to make Direct Irrigation Withdrawals.

Right to Enter, Inspect, and Remediate. Each Licensee shall grant ARWA and any of its duly authorized agents or representatives the rights (i) to enter, at reasonable times and under reasonable circumstances, his or her Parcel for the purposes of obtaining information about or conducting a survey or inspection of his or her System and its operation to ensure compliance with any laws, regulations, rules, permits, standards, or policies of ARWA and any applicable local, state, or federal government or governmental entity and (ii) to the extent permitted by law, to remove, dismantle, or otherwise remediate a noncompliant System or portion thereof after written notice of noncompliance has been given by ARWA to the Licensee, unless the Licensee has caused the System to become compliant, as determined by ARWA, within thirty (30) days after the notice was given.

Indemnity. Each Licensee shall defend, indemnify, and save harmless ARWA and its agents, employees, contractors, representatives, affiliates, and other related entities (the "Indemnitees" or an "Indemnatee") from and against any loss, claims, expenses (including reasonable attorney's fees), or damage incurred or suffered by an Indemnatee, by reasons directly or indirectly arising out of, caused (in whole or in part) by, or in any way connected with the Licensee's Direct Irrigation Withdrawal. ARWA shall have no responsibility, liability, or obligation with respect to any property of the Licensee at, in, or on Lake Chesdin, it being acknowledged and understood by the Licensee that the safety, security, and effects of any such property are the sole responsibility and risk of the Licensee.

Licensee Shall Have No Other Privileges or Any Right or Interest in ARWA Property. Each Licensee must agree that (i) the License shall be only a license to make Direct Irrigation Withdrawals in accordance with this Second Amended Policy and the terms of the License Agreement, and shall not be construed as granting any other privileges or any right or interest in Lake Chesdin or other ARWA property, (ii) he or she does not have and shall not claim at any time any right or interest of any kind or nature whatsoever in Lake Chesdin or other ARWA property by virtue of the License Agreement or the License, and (iii) the License is personal to the Licensee, and except as may be provided pursuant to paragraph 8 of this Second Amended Policy, the privileges appurtenant thereto shall not inure to the successors and/or assigns of the Licensee.

Amendment of Second Amended Policy and Termination of License. (a) Each Licensee shall agree that the Board may, in its sole discretion, at any time or from time to time, unilaterally amend this Second Amended Policy and, as a result, the License, to the extent it is inconsistent with the amendments. Before the adoption of any amendment to this Second Amended Policy, the Board shall hold a public hearing regarding the proposed amendment, of which notice shall be published twice in one or more newspapers of general circulation in ARWA's service area. In addition, ARWA shall provide written notice of any amendment to this Second Amended Policy and the License to each Licensee within thirty (30) days of its adoption by the Board. Any notice to a Licensee pursuant to this Second Amended Policy shall be sent by first class U.S. mail to the address provided in the Application or such other address designated in writing to ARWA at the address provided in paragraph 20 of this Second Amended Policy.

(b) Any License, License Agreement, and the privileges created and conferred thereby on a Licensee are terminable at will by either the Board or the Licensee. Termination of the License, License Agreement, and the privileges shall occur immediately upon providing written notice to the other party. Upon termination, the Licensee shall proceed with diligence to remove his or her System at his or her sole expense.

(c) Notwithstanding the foregoing, before the Board amends this Second Amended Policy or terminates any License, the Board shall make a finding that such amendment or termination furthers the public purposes for which ARWA was created, including without limitation the conservation, protection, and beneficial utilization of the surface water in Lake Chesdin to ensure the public welfare, safety, and health of the inhabitants of the Participating Jurisdictions who rely upon Lake Chesdin as a source of drinking water and enabling ARWA to obtain permits for additional water sources reasonably required to serve such inhabitants.

(d) If an amendment of the Second Amended Policy results in the termination of a License and the privileges granted thereby, or if a License is directly terminated by the Board, the Board shall cause a pro rata portion of the License fee based on the months remaining in the Renewal Term to be returned to the affected Licensee.

Future Direct Irrigation Withdrawals. The moratorium on new Direct Irrigation Withdrawals, which has been effective since September 21, 2011, shall continue in full force and effect.

Unlicensed Direct Irrigation Withdrawals. All Direct Irrigation Withdrawals for which a License has not been granted, or for which a License has been terminated, shall cease, and all such Systems utilized for unlicensed Direct Irrigation Withdrawals shall be removed from Lake Chesdin at the sole expense of the owner.

Other Water Withdrawals Prohibited. Except as otherwise provided by this Policy, unless expressly approved by the Board, all other withdrawals from Lake Chesdin are prohibited.

Enforcement. The Executive Director is hereby authorized to engage counsel to undertake appropriate legal action on ARWA's behalf to enforce this Second Amended Policy or the terms of any License approved by the Board.

Golf Course Irrigation. ARWA has previously approved Direct Irrigation Withdrawals from Lake Chesdin for golf course irrigation at Lake Chesdin Golf Club. The Executive Director shall periodically review the agreement with Lake Chesdin Golfers' Club LLC and make recommendations to the Board for amending the conditions upon which that entity may continue to withdraw water from Lake Chesdin consistent with this Policy.

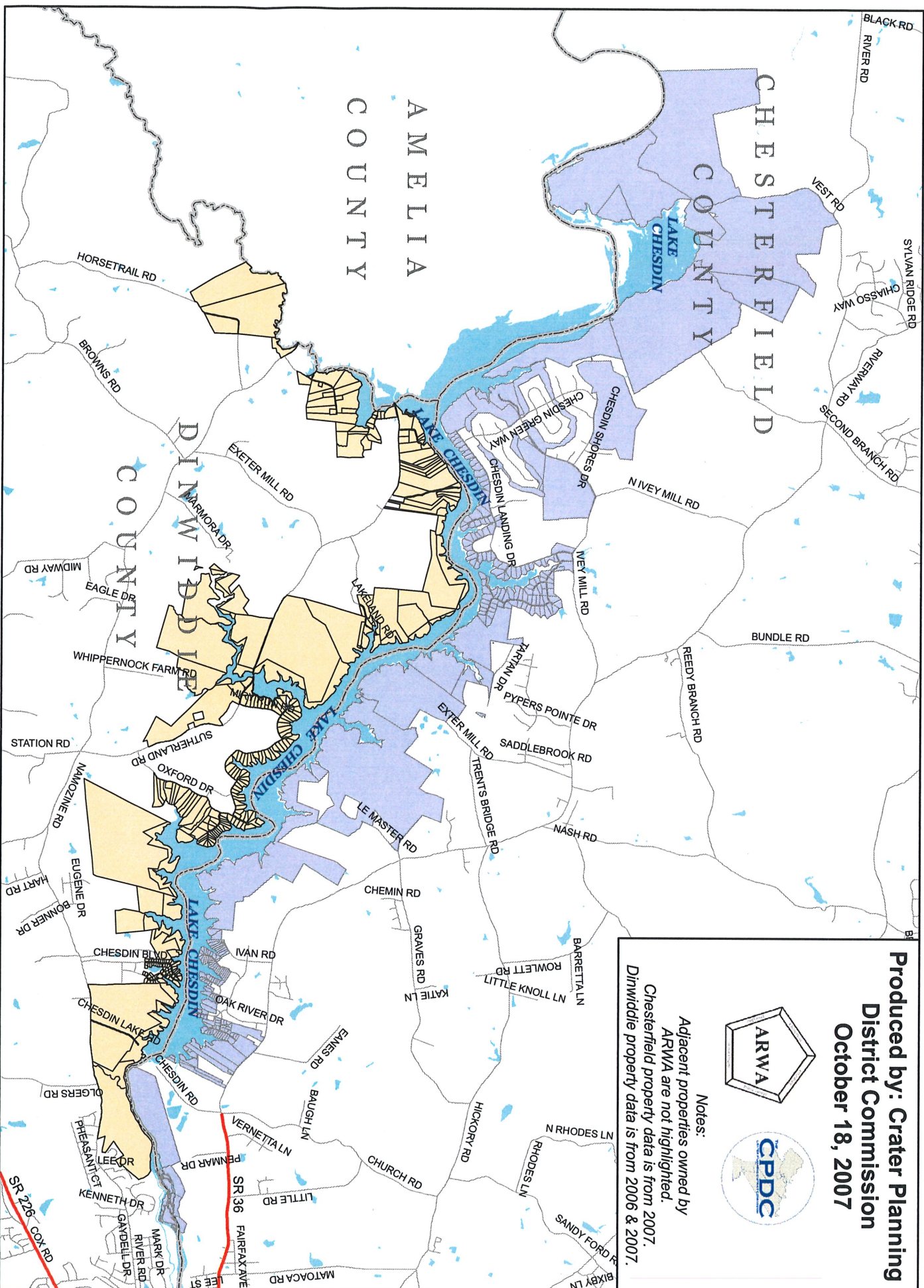
Conflict with Other Policies. This Second Amended Policy supersedes all prior policies pertaining to Direct Irrigation Withdrawals, if any.

Reports of Unauthorized Withdrawals. Anyone observing unauthorized withdrawals from Lake Chesdin can report it to ARWA's Executive Director at:

Appomattox River Water Authority
Executive Director
21300 Chesdin Road
Petersburg, Virginia 23803
Phone: (804) 590-1145

Effective Date. This Second Amended Policy shall take effect immediately.

PROPERTIES ADJACENT TO LAKE CHESDIN



Notes:

Adjacent properties owned by ARWA are not highlighted.
Chesterfield property data is from 2007.
Dimmick property data is from 2006 & 2007.

Produced by: Crater Planning
District Commission
October 18, 2007

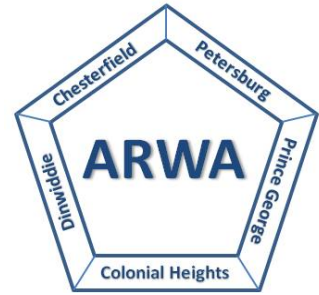
5. Executive Director's Report:

- **Reservoir Status Update for August/September 2018**

- **Status Reports: Ongoing Projects, Operational, and Financial**

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

Appomattox River Water Authority



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

MEMORANDUM

TO: APPOMATTOX RIVER WATER AUTHORITY: BOARD OF DIRECTORS

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

SUBJECT: STATUS REPORT – ON-GOING PROJECTS

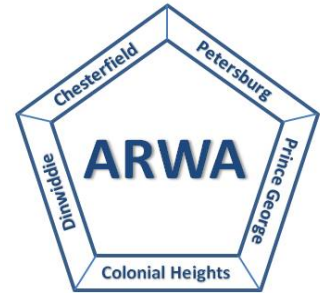
DATE: OCTOBER 18, 2018

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

In-Plant Capital Projects:

- Construction is ongoing, predominantly at Raw Water Pump Station No. 1.
- A construction meeting was held on September 26, 2018 and the next meeting is scheduled for October 31, 2018.
- Switchgear footings have been installed and wall forms are being placed. Anticipate concrete pours the first week of October.
- The transition work at the dam is being planned out and will be submitted for review.
- In October, backfill of electrical conduits at the dam should be complete, and the switchgear building pad will be poured.
- Anticipate construction of the building to occur in November, 2018.

Appomattox River Water Authority



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

MEMORANDUM

TO: APPOMATTOX RIVER WATER AUTHORITY BOARD OF DIRECTORS

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

SUBJECT: OPERATING AND FINANCIAL STATUS REPORT

DATE: OCTOBER 18, 2018

Operating Status Report

General:

- The next scheduled Board of Directors Meeting is **Thursday November 15, 2018** at the South Central Wastewater Authority at 2:00 pm.
- Representatives with the COV457 program have met with staff regarding the transition. The funds have been transferred from Nationwide and the Authority is now participating in the COV457.
- The Groundwater Monitoring Plan has been submitted to DEQ for review and approval.
- Staff has submitted the Filter 28 failure to VML. All indications are this will be considered a covered item.
- A budget work session with member Utility Directors/Engineers has been scheduled for November 16th.
- Staff met with the VDGIF and Chesterfield to discuss Hydrilla management options for the Chesdin Reservoir.

Operations:

- Finished water met all permit requirements for the month of August. Copies of the VDH monitoring reports are available if anyone would like to see them.
- Operations staff are in the process of performing the fall cleaning of the basins and flume.
- In early November, staff will be swapping the Waste Lagoons

Maintenance:

- P21 has been repaired and is operating well. Staff is preparing to install the new motor on P17
- Works continues on replacing the transmission ARVs.
- Replaced the Petersburg Actuator.

Instrumentation/IT:

- Wired and verified operation of the Petersburg Actuator. Currently staff is evaluating the communications and programming for this actuator
- Troubleshooting Alum flow meters.

Laboratory:

- Running the quarterly HAAs and THMs

Financial Status Report:

Following is the Executive Summary of the Monthly Financial Statement that includes the YTD Budget Performance and the Financial Statement for September 2018.

Appomattox River Water Authority-Balance Sheet
For Month Ending September 30, 2018

Assets

Current Assets

Petty Cash	\$	400
SunTrust Operating Fund	\$	1,537,925
SunTrust Replacement Fund	\$	-
Total Unrestricted Cash	\$	1,538,325

Water Revenue	\$	3,780,256
Reserve Account	\$	2,728,967
Replacement Account	\$	486,444
Debt Service Reserve	\$	1,068,046
Bond Principal/Interest	\$	2,012,869
Bond Construction	\$	12,104,319
Total Restricted Cash	\$	22,180,902

Total Checking/Savings **\$ 23,719,226**

Accounts Receivable	\$	2,945,306
Other Current Assets	\$	(221,272)
Inventory	\$	160,010

Total Current Assets **\$ 26,603,270**

Fixed Assets

Land and Land Rights	\$	1,090,685
Water System	\$	85,625,821
Equipment	\$	1,176,668
Hydro	\$	34,873
Construction in Progress	\$	803,082
Accumulated Amortization	\$	(34,175)
Accumulated Depreciation	\$	(47,059,529)
Total Fixed Assets	\$	41,637,425

Other Assets

Def Out Res-Post ER Pension Costs	\$	74,997
Deferred Outflow-OPEB GLI	\$	7,729
Def Out Res-Net Dif Pension Inv	\$	36,171
Total Other Assets	\$	118,897

Total Assets **\$ 68,359,591**

Liabilities & Equity

Current Liabilities

Accounts Payable	\$	194,941
Retainage Payable	\$	-
Accrued Interest Payable	\$	198,754
Total Current Liabilities	\$	393,696

Long Term Liabilities

Def Inf Res-Pen Chg Assumptions	\$	132,365
Def Inf Res-Pens Dif Proj/Act E	\$	82,326
Net Pension Liability	\$	(118,326)
Def Infl-OPEB Chg of Assumptions	\$	3,106
Deferred Inflow-OPEB GLI	\$	16,000
Bonds Payable-2010	\$	7,810,016
Bonds Payable-2012	\$	2,597,000
Bonds Payable-2017	\$	13,500,000
Accrued Leave Payable	\$	193,901
Post Employment Benefit	\$	107,038
OPEB Liability-GLI	\$	119,000
Total Long-Term Liabilities	\$	24,442,426

Total Liabilities **\$ 24,836,122**

Equity

Retained Earnings	\$	(3,281,219)
Reserve for Operations	\$	3,341,142
Reserve for Water Revenue	\$	5,991,639
Reserve for Replacements	\$	500,000
Reserve for Bond Interest	\$	198,754
Reserve for Debt Service	\$	2,142,022
Reserve for Bond Principal	\$	1,370,000
Reserve for Reserve	\$	2,602,136
Fixed Assets, Net of Debt	\$	30,696,880

Net Income	\$	(37,885)
Total Equity	\$	43,523,470

Total Liabilities & Equity **\$ 68,359,591**

Appomattox River Water Authority
YTD Income Statement for the period ending September 30, 2018

Water Rate Center

Revenues and Expenses Summary

<i>Budget</i>	<i>Budget</i>	<i>Actual</i>	<i>YTD Budget</i>	<i>Variance</i>
<i>FY 18/19</i>	<i>Year-to-Date</i>	<i>Year-to-Date</i>	<i>vs. Actual</i>	<i>Percentage</i>

Operating Budget vs. Actual

Revenues

Water Sales	\$ 10,163,119	\$ 2,540,780	\$ 2,944,556	\$ 403,776	15.89%
Misc. Revenue	\$ 30,000	\$ 7,500	\$ 400	\$ (7,100)	-94.67%
Total Operating Revenues	\$ 10,193,119	\$ 2,548,280	\$ 2,944,956	\$ 396,676	15.57%

Expenses

Personnel Cost	\$ 2,378,100	\$ 594,525	\$ 581,902	\$ (12,623)	-2.12%
Contractual/Professional Services	\$ 952,500	\$ 244,625	\$ 231,708	\$ (12,917)	-5.28%
Utilities	\$ 824,000	\$ 206,000	\$ 201,553	\$ (4,447)	-2.16%
Communication/Postal/Freight	\$ 39,200	\$ 9,800	\$ 9,769	\$ (31)	-0.32%
Office/Lab/Purification Supplies	\$ 101,000	\$ 25,250	\$ 29,652	\$ 4,402	17.43%
Insurance	\$ 90,000	\$ 90,000	\$ 85,804	\$ (4,196)	-4.66%
Lease/Rental Equipment	\$ 20,000	\$ 5,000	\$ 4,008	\$ (992)	-19.85%
Travel/Training/Dues	\$ 51,400	\$ 12,850	\$ 3,327	\$ (9,523)	-74.11%
Safety/Uniforms	\$ 26,000	\$ 6,500	\$ 4,492	\$ (2,008)	-30.89%
Chemicals	\$ 2,300,000	\$ 575,000	\$ 630,675	\$ 55,675	9.68%
Repair/Maintenance Parts & Supplies	\$ 330,000	\$ 82,500	\$ 65,689	\$ (16,811)	-20.38%
Total Operating Expenses	\$ 7,112,200	\$ 1,852,050	\$ 1,848,579	\$ (3,471)	-0.19%
Operating Suplus/(Deficit)	\$ 3,080,919	\$ 696,230	\$ 1,096,377	\$ 400,147	57.47%

Replacement Outlay Budget vs. Actual

Machinery & Motors	\$ 160,000	\$ 40,000	\$ 164,641	\$ 124,641	311.60%
Instrumentation	\$ -	\$ -	\$ -	\$ -	#DIV/0!
SCADA	\$ 50,000	\$ 12,500	\$ -	\$ (12,500)	-100.00%
Computer Equipment	\$ 10,000	\$ 2,500	\$ -	\$ (2,500)	-100.00%
Furniture/Fixtures	\$ 6,000	\$ 1,500	\$ -	\$ (1,500)	-100.00%
Motor Vehicles	\$ 28,000	\$ 7,000	\$ 35,540	\$ 28,540	407.71%
Special Studies	\$ 400,000	\$ 100,000	\$ -	\$ (100,000)	-100.00%
Valve Replacement	\$ 50,000	\$ 12,500	\$ -	\$ (12,500)	-100.00%
Concrete	\$ 25,000	\$ 6,250	\$ -	\$ (6,250)	-100.00%
In-Plant Capital Upgrade	\$ -	\$ -	\$ 1,037,469	\$ 1,037,469	#DIV/0!
Chedin East Flow Meter	\$ 40,000	\$ 10,000	\$ -	\$ (10,000)	-100.00%
Replacement-Other	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Total Capital Outlay	\$ 769,000	\$ 192,250	\$ 1,237,650	\$ 1,045,400	543.77%

Debt Service Budget vs. Actual

Interest Income	\$ -	\$ -	\$ 103,388	\$ 103,388	#DIV/0!
Interest Jurisdictions (Income)	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Interest Expense	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Principal Payments	\$ 2,142,225	\$ 2,142,225	\$ -	\$ (2,142,225)	-100.00%

- **Review of Raftelis Report: Preliminary Valuation of Water System Assets and Review of Governance & Ownership Alternatives**

Following is a summary of the Raftelis Preliminary Valuation of Water System Assets and Review of Governance & Ownership Alternatives Report.

Summary of Preliminary Valuation of Water System Assets
and Review of Governance & Ownership Alternatives

REPORT PREPARED BY RAFTELIS / JANUARY 23, 2018

Appomattox River Water Authority



Valuation Assessment

THREE GENERALLY RECOGNIZED APPROACHES WERE USED TO VALUE SYSTEM ASSETS, (1) THE COST APPROACH, (2) THE INCOME APPROACH, AND (3) THE SALES COMPARISON APPROACH. A FOURTH APPROACH, THE RATE BASE APPROACH, WAS ALSO CONSIDERED.

The Cost Approach

- The Cost Approach is based on the principle of substitution. This principle states that a prudent buyer will not pay more for a property than the cost of acquiring a substitute property of equivalent value.
- The preliminary estimate of value of ARWA's water system assets under the cost approach was calculated by subtracting indexed depreciation from the replacement or reproduction cost estimates, and then adding the preliminary estimate of land value to this total.
- The preliminary value under this approach was estimated to be \$115.0 million for the depreciable assets, plus \$39.6 million for land and easements, for a total value estimate of \$154.6 million.

The Income Approach

- The Income Approach is based on the premise that the value of a property is the present value of the future economic benefits of owning the property. This approach is relevant when the property being valued generates or is anticipated to generate net income, profits, or free cash flow to the owner.
- Over the long term, there are no net earnings or profits of the system that are returned to ARWA or its member jurisdictions. Therefore, we consider the income approach to valuation of the water system in this situation not applicable.

The Sales Comparison Approach

- The Sales Comparison Approach is used to estimate value by analyzing recent sales (or offering prices) or properties that are similar (i.e., comparable) to the subject property. If the sales comparisons are not exactly like the properties being valued, then the selling prices are adjusted to equate them to the characteristics of the properties being valued.
- Our analysis focused on comparable sales of water utility systems that were closed within five years of the valuation date of this report. Many of the water sales transactions that were identified involved the sale of very small retail water systems. None of the recent water system sales transactions were considered comparable to the ARWA facilities.

- A value comparison was made to the Cobbs Creek Reservoir and Dam project that was designed to provide Henrico County with 47 MGD of raw water capacity. A value comparison was made by calculating the cost per unit of capacity provided by the Cobbs Creek Reservoir to the capacity of the Chesdin Reservoir and Brasfield Dam, and an adjustment in unit value was made to reflect that the Cobbs Creek assets are new, whereas a portion of the useful life of the Chesdin Reservoir and Brasfield Dam has already been used.
- Using this method, the value of the Chesdin Reservoir and Brasfield Dam could be as high as \$3.1 million per MGD of raw water supply capacity or approximately \$220 million. Combining the OCLD value (\$56.4 million) or the RCNLD value (\$102.0 million) for the WTP and transmission system provides an estimate of total system value ranging from \$276 million to \$322 million.

The Rate Base Approach

- The Rate Base Approach reflects the general practice by regulated public utilities of using original cost, less depreciation (OCLD) value (with certain adjustments) as the rate base in which the investor-owned utility may recover its investment and can earn a rate of return on the unrecouped asset value or rate base. In general, in an acquisition, any excess in acquisition cost over OCLD is excluded from rate base, eliminating the opportunity for the buying entity to directly recoup its investment of this excess.
- The preliminary value estimate under this approach was calculated by subtracting depreciation from the original cost amounts, and then adding this preliminary estimate of land value to this total. The preliminary estimate of value under this approach was estimated to be \$58,426,000 for the depreciable assets and \$39,648,000 for the land, for a total estimated value of \$98,074,000.



Based on our preliminary valuation assessment, the value of the ARWA water system is estimated to be in the range of \$98.1 million and \$321.8 million. This range is shown in Table 1 below.

Table 1 – Preliminary Valuation Estimate

Valuation Method	Low Range	High Range
Cost Approach	\$154,624,000	
Income Approach	N/A	
Market Approach	\$276,186,000	\$321,774,000
Rate Base Approach	\$98,074,000	
Preliminary Value Estimate Range	\$98,074,000	\$321,774,000

Governance & Ownership Alternatives Evaluation

THE GOVERNANCE & OWNERSHIP ALTERNATIVES EVALUATION AIMED TO ADDRESS SEVERAL ARWA CHALLENGES, INCLUDING THE FOLLOWING:

- Inability to Transfer Capacity Shares Among Member Jurisdictions
- Differing Interests Regarding System Expansion
- Capacity Limitations in the Transmission System
- Financing Challenges
- A Perception of Less Regional Cooperation and Control Issues

Several alternative models of governance and ownership were evaluated that could potentially address one or more of the identified challenges. These alternatives are summarized in the following.

Alternative 1. Maintain Authority Model and Revise the Service Agreement or Change Voting.

- Allows ARWA to continue to own and operate the water system and provide treated water to member jurisdictions through amended/modified Service Agreements.
- Assumes modification of the existing Service Agreements to place an “ownership” right on water treatment plant capacity and allow for the transfer of ownership capacity.
- Assumes modification of the Agreements to include operating parameters associated with the delivery of water through the transmission system during peak use periods.
- Voting rights could be changed to alter the composition of the Board or to change the weight of each members’ vote to more closely align with their capacity used.

Alternative 2. Convert to a Municipal Model

- Modify ownership such that one municipality would have sole ownership of the water system and provide service to the other communities through Contractual Agreements.
- Would require dissolving ARWA and selling its assets to the purchasing municipality. A fair price for sale of the utility assets would need to be set and agreed to by each of the Board Members and their jurisdictions.
- This model could create an immediate influx of cash from the sale of ARWA assets for the non-purchasing municipalities.
- New Service Agreements would need to be implemented to address service standards across the system, detail how capacity would be expanded, allocated, and paid for, and include governance language to address dispute resolution procedures.

Alternative 3. Convert to a Hybrid Model

- ARWA maintains ownership and control over the raw water supply and the water treatment plant, but the transmission system assets are sold to one or more of the member jurisdictions. The Service Agreements between ARWA and its member jurisdictions for source of supply and treatment capacity would remain in effect.

- Transfer of transmission system ownership could allow the buyer and the other jurisdictions to negotiate separate transmission main service agreements that could clarify investment responsibilities related to the transmission system, as well as the establishment of operational parameters.
- Selling the transmission assets to one municipality would entail many of the same issues as complete sale of all assets of the system. However,

because very little land would be transferred, and no supply or treatment assets would be included, coming to an agreement on an acquisition price could be somewhat easier.

- Establishing water rates for use of the transmission system could be accomplished using industry guidelines on rate setting for transmission main “wheeling rates” that involve recovery of the capital and operating costs of the transmission system.

- Does not address concern over the inability of member jurisdictions to agree on expanded capacity of the dam to allow the full water treatment plant capacity to be utilized.

To aid in the consideration of these issues, Table 2 identifies ARWA’s existing ownership and governance challenges and provides a subjective analysis of how well each alternative ownership and governance option addresses them.

Table 2 – Existing Ownership and Governance Challenges

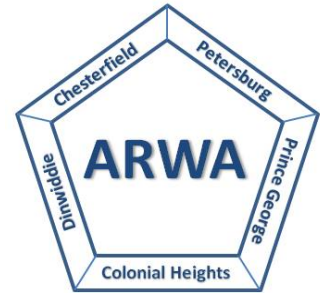
Existing Challenge	Alternative 1	Alternative 2	Alternative 3
Inability to Transfer WTP Capacity Shares Among Member Jurisdictions	Yes If adequately described in the Service Agreements.	Yes One municipality would control capacity and allocate it based on negotiated Service Agreements.	No Does not address WTP capacity issues, only transmission system.
Differing Interests Among the Member Jurisdictions Regarding System Expansion	Partially If adequately described in the Service Agreements or expressly excluded from Service Agreements and delegated to a vote through the bylaws or charter.	Partially Expansion provisions could be outlined in the Service Agreements or be left up to the discretion of the owning entity.	Partially Expansion provisions could be outlined in the Service Agreements for the transmission system only.
Capacity Limitations in the Transmission System	Partially If adequately described in the Service Agreements or expressly excluded from Service Agreements and delegated to a vote through the bylaws or charter.	Yes Capacity provisions could be outlined in the Service Agreements or be left up to the discretion of the owning entity.	Yes Capacity and service levels addressed in Service Agreements.
Financing Challenges Due to the Financial Condition of Petersburg	Partially If adequately described in the Service Agreements or expressly excluded from Service Agreements and delegated to a vote through the bylaws or charter.	Yes Credit rating would be based on the owning entity and not the other service jurisdictions; assumes good credit of the owner.	Partially Does not address financing challenges directly but may provide funds from sale to Petersburg to improve financial condition.
A Perception of Less Regional Cooperation and Control Issues	Partially New Service Agreements could foster cooperation or changes in voting could allow improved perceptions of equity between member jurisdictions.	Partially Some may gain control, while others may relinquish control; some of this could be addressed through the Service Agreements.	Partially Some of the control issues associated with the transmission system could be addressed.

- **Review of 2012 & 2017 Bond Debt Service**

Following is a memo regarding the allocation of the 2012 and 2017 bond debt service in the current and prior budgets

Please note that the true-up table on page 31 of 36 has been updated.

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 OF DIRECTORS

FROM: ROBERT C. WICHSER, EXECUTIVE DIRECTOR
ARTHUR ANDERSON, McGUIREWOODS

DATE: OCTOBER 18, 2018

RE: 2012 BOND AND 2017 BOND DEBT SERVICE—INCLUDE IN BASE RATE VS. APPORTION BY PLANT ALLOCATION

On August 7, 2018, Chesterfield County Utilities contacted Authority staff to question the funding mechanism that was being used to cover the annual debt service payments on both the 2012 \$3.6M bond purchased by Carter Bank (the "2012 Bond") and the 2017 \$13.5M bond purchased by U.S. Bank (the "2017 Bond"). Both the 2012 Bond and the 2017 Bond financed solely capital maintenance projects at the water treatment plant 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 Authority 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 per 1,000 gallon rate applied equally to all water purchases by each participating jurisdiction, which rate is based annually upon the total projected 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).^{1, 2}

However, in the adopted FY 2019 budget the debt service for both the 2012 Bond and the 2017 Bond appear as separate line items apportioned to each participating jurisdiction by "plant allocation." Debt service on the 2012 Bond was apportioned by plant allocation in the FY 2016, 2017 and 2018 budgets, although in FY 2013, 2014 and 2015, the 2012 Bond debt service was included in the Base Rate. FY 2019 is the first year in which any charges are to be assessed to pay debt service on the 2017 Bond.

Why the switch to plant allocation?

In late 2013, the Authority and the participating jurisdictions began developing a new Water Service Agreement (the "Proposed Agreement"). One of the primary goals of the effort was to provide to each participating jurisdiction a fixed "ownership" right in the Authority's system capacity to facilitate planning for growth and to allow the purchase and sale of excess capacity. Each participating jurisdiction's initial ownership percentage (which staff

has referred to as "plant allocation") would be equal to its current "Allocation of Total Capacity" under the Existing Agreements (that is, Chesterfield 69.31%, Colonial Heights 4.39%, Dinwiddie 6.75%, Petersburg 16.69% and Prince George 2.86%). Under the Proposed Agreement there would be a base rate, but it would not include any debt service. Rather, debt service for maintenance projects of the kind financed by the 2012 Bond and the 2017 Bond would have been apportioned according to plant allocation. The reasoning was that "ownership" of plant allocation entails the payment of a fixed amount of maintenance project bond debt service corresponding to the percentage of ownership, regardless of actual water purchases.

Apparently, during the period of the development of the FY 2016 budget (mid-November 2014 to mid-December 2014), the 2012 Bond debt service was moved from the Base Rate to a plant allocation-based separate line item. Authority staff and counsel have not been able to confirm exactly when or in what form the staff got direction to prepare the FY 2016 budget as described above, but at the time it appeared reasonably likely that the Proposed Agreement would be approved, particularly because certain participating jurisdictions were eager to purchase and sell excess capacity.³ The Authority presented the proposed FY 2016 budget to the Authority Board in January 2015 and in March 2015 the Authority advertised three FY 2016 budget options all three of which showed the 2012 Bond debt service as being covered by plant allocation. Ever since January of 2015 all of the Authority's budgets and the presentations and planning for the 2017 Bond have apportioned the debt service on the 2012 Bond and the 2017 Bond by plant allocation.

It is now apparent that the effort to develop the Proposed Agreement has ended. As such, Authority counsel has advised that (a) the debt service payments for the 2012 Bond for FY 2016, 2017 and 2018 be "true-up" to reflect what each participating jurisdiction would have paid had the payments been included in the Base Rate and (b) the debt service for the 2012 Bond and the 2017 Bond be included in the Base Rate in the FY 2019 budget and future budgets as required by the Existing Agreements. To officially move to the plant allocation method would require the consent of the Authority Board and the governing bodies of all five member jurisdictions.

Fortunately, the financial impact of the "true-up" is relatively small and, since the participating jurisdictions have not yet been billed anything to cover the 2017 Bond debt service, there is ample time and leeway for the Authority to make the required adjustments.

The chart below illustrates the financial impacts related to the three years (FY 2016, 2017, and 2018) that the 2012 Bond debt service has been covered by plant allocation rather than included in the Base Rate.

		Chesterfield	Colonial Heights	Dinwiddie	Petersburg	Prince George
FY 15/16	Difference in Base rate budget and allocation budget	-\$7,207	\$4,832	-\$8,750	\$2,421	-\$1,154
FY 16/17	Difference in Base rate budget and allocation budget	\$1,295	\$4,465	-\$8,377	-\$462	-\$1,080
FY 17/18	Difference in Base rate budget and allocation budget	\$13,639	\$4,593	-\$7,345	\$2,294	-\$706
Total Difference for member (Owe or (\$ to be Refunded))		\$7,726	\$13,890	(\$24,473)	\$4,252	(\$2,940)

NOTE: FY 2016, 2017, & 2018 difference between rates is based on actual flow numbers to calculate the base rate.

The next chart shows the effects on the FY 2019 budget related to the 2012 Bond and 2017 Bond debt service being met by plant allocation rather than the Base Rate and the expected financial impact of addressing the issue.

2012 and 2017 Debt - Base vs. Allocation Comparison Summary					
RATE COMPARISON					
	<u>Chesterfield</u>	<u>Colonial Heights</u>	<u>Dinwiddie</u>	<u>Petersburg</u>	<u>Prince George</u>
Revised with 2012 and 2017 Debt in Base	\$0.9637	\$0.9878	\$1.4349	\$0.9601	\$1.3733
As Presently Billed	\$0.9614	\$0.9503	\$1.5169	\$0.9591	\$1.4004
Rate Difference (Approved - Revised)	\$0.0023	\$0.0375	-\$0.0820	\$0.0010	-\$0.0271
CASH COMPARISON					
	<u>Chesterfield</u>	<u>Colonial Heights</u>	<u>Dinwiddie</u>	<u>Petersburg</u>	<u>Prince George</u>
Revised with 2012 and 2017 Debt in Base	\$6,948,518.7068	\$613,342.2468	\$616,400.3845	\$1,650,399.3029	\$334,458.5957
As Presently Billed	\$6,931,691.9481	\$590,064.6336	\$651,623.9318	\$1,648,676.1905	\$341,062.5327
Rate Difference (Approved - Revised)	\$16,826.76	\$23,277.61	-\$35,223.55	\$1,723.11	-\$6,603.94

Authority staff recommends that Authority Board authorize the publication of notice of public hearing to amend the FY 2019 budget to effect (a) the "true-up" related to the 2012 Bond debt service in FY 2016-2018 and (b) the change in the Base Rate for FY 2019. If approved at the November Board meeting, both the "true-up" and the Base Rate change would be reflected in the second quarter invoices to be issued to the participating jurisdictions in January 2019.

Recommended Motion: I move to authorize Authority staff to prepare and publish a notice of public hearing to be held on November 22, 2018, to consider amendments to the Authority's Fiscal Year 2019 budget to effect (a) the adjustments necessary to reflect the inclusion of the debt service payments on the 2012 Bond in the Authority's Base Rate for Fiscal Years 2016-2018 and (b) the inclusion of the debt service on both the 2012 Bond and the 2017 Bond in the Base Rate for Fiscal Year 2019.

¹The Authority develops the total projected water usage from the average past five year flows that have been recorded from each participating jurisdiction's water demands.

²Under the Existing Agreements the Authority covers debt service on bonds issued to financing plant or system expansion through the "Expansion Rate."

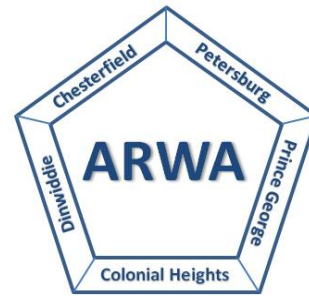
³Authority staff has reviewed regular and special Board meeting minutes, Board meeting tapes and memorandums, and conversations we had with both Board members and the utility directors of the participating jurisdictions. Staff cannot confirm from written or recorded tape narrative why the change had occurred; however, what happened was that the conversion from servicing the 2012 bond debt from the base rate to plant allocation occurred and was

continued over with the 2017 Bond debt servicing by plant allocation. What most likely occurred during these discussions with the then Board Chairman Tom Mattis (perhaps during a SCWWA meeting) stating that he did not want reserves to include bond payments or capital expenses. The thought at the time was that technically if the Bond payments are for maintenance improvements, they should be included in the base rate which would be considered O&M expenses and would be part of the Reserve calculation. This would significantly increase the fiscal year budgets (especially due to the 2017 Bond). During the development of the FY 2016 budget, both the Board and the Utility Directors wanted to see what the individual rate and cost impact per member was for the Capital Program Plan and Reserve policy by including the debt service by Base Rate versus plant allocation. At the time it was decided that the fairest and cleanest way to proceed with the revenue calculation was to base the 2012 maintenance bond (and any future maintenance bonds) on plant allocation. The rationale behind this was that our members would have had an agreed upon allocation (everybody assumed that the Proposed Agreement would have already been accepted by March 2015), and maintenance items could then be based on plant allocation rather than on the base rate.

- **Proposed 2019 Board Meeting Dates**

Following is a memo regarding the proposed 2019 Board of Directors meeting dates.

Appomattox River Water Authority



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

MEMORANDUM

TO: APPOMATTOX RIVER WATER AUTHORITY: BOARD OF DIRECTORS

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

**SUBJECT: PROPOSED SCHEDULE FOR 2019 BOARD OF DIRECTORS:
SOUTH CENTRAL WASTEWATER AUTHORITY MEETINGS
APPOMATTOX RIVER WATER AUTHORITY MEETINGS**

DATE: OCTOBER 18, 2018

Staff is proposing a similar schedule as followed in 2019 for the Board of Directors meetings. The South Central Wastewater Authority-based meetings are held at 900 Magazine Road, Petersburg, Virginia unless otherwise notified as to an alternative location. The Appomattox River Water Authority-based meetings will be held in the Appomattox River Water Authority Board Room located at 21300 Chesdin Road, Petersburg, Virginia unless otherwise notified as to an alternative location. Special Board Meetings may be called based on specific needs. The proposed 2019 Board meeting schedule is as follows:

MONTH/DAY	LOCATION
January 17	Appomattox River Water Authority
March 21	South Central Wastewater Authority
May 16	Appomattox River Water Authority
June 20	Appomattox River Water Authority
July 18	Appomattox River Water Authority
August 15	Appomattox River Water Authority
September 12	South Central Wastewater Authority
November 14	South Central Wastewater Authority

*Note: VML Annual Conference: October 4-8, 2019 Roanoke
VLGMA Winter Conference: February 20-22, 2019 Staunton*

BOARD ACTION REQUESTED:

Staff recommends that the Board approve the proposed schedule of regular meeting dates for 2019 as presented above.

6. Items from Counsel

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

8. Closed Session

9. Adjourn