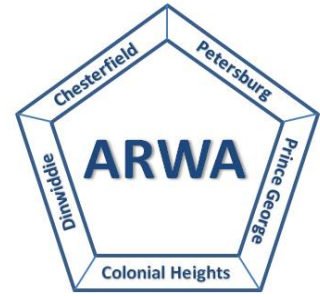


# Appomattox River Water Authority



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

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## APPOMATTOX RIVER WATER AUTHORITY

### Board of Directors Meeting

DATE: January 20, 2022

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 September 23, 2021 (Exhibit A, pages 2 to 6)
3. Public Comment (Exhibit B, page 7)
4. Executive Director's Report:
  - Annual Audit Presentation for FY21 (Exhibit C, pages 8 to 66)
  - Financial Policy Discussion and approval of amended and restated Trust Agreement (Exhibit D, pages 67 to 126)
  - Proposed 2022 meeting schedule (Exhibit E, page 127)
  - Award of Professional Services Contract (annual engineering services) (Exhibit F, page 128)
  - Budget (Exhibit G, pages 129 to 130)
  - Permits to perform dock construction, bulkheads and beaches on reservoir (Exhibit H, pages 131 to 242)
  - Status Report (Exhibit I, pages 243 to 246)
  - Financials (Exhibit J, pages 247 to 251)
5. Items from Counsel
6. Closed Meeting
7. Other items from Board Members/Staff Not on Agenda
8. Adjourn

**BOARD OF DIRECTORS MEETING**  
**Appomattox River Water Authority**  
**September 23, 2021, 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:**

Tangela Innis, (Alternate, Petersburg)  
George Hayes, (Alternate, Chesterfield)

**ABSENT:**

Percy Ashcraft, (Prince George)  
Todd Flippen, (Alternate, Colonial Heights)  
Stuart Turille, (Petersburg)  
Frank Haltom, Secretary/Treasurer (Alternate, Prince George)  
Scott Morris, (Alternate, Chesterfield)

**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:**

None

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
	Joseph Casey	Present
	Tangela Innis	Present

Mr. Smith welcomed Ms. Innis to the Board and for her new role with the City of Petersburg.

**2. Approval of Minutes: Minutes of the Regular Meeting of the Board on July 22, 2021**

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

**RESOLVED, that the Minutes of the Regular Meeting of the Board on July 22, 2021, are hereby approved:**

**For: 4      Against: 0      Abstain: 0**

**3. Public Comment**

There were no Public Comments.

**4. Executive Director's Report:**

• **Financial Policy Discussion**

Mr. Wilson reported on the Financial Policy. He gave a handout to members which included a revision for discussion. He stated we are not looking for action today, just consensus with the methodology that we are heading in the right direction. Our recommendation is to put \$1.2 million towards the VWP Permit renewal, increasing the ERRF from \$500K to \$2.5M, increasing operating reserve up to twelve months, which would approximately be \$3.7 M, and retaining the remaining excess funds in the Surplus Fund and putting that towards a future capital project, which we identified as filter rebuilds in the budget for FY25. The Board will discuss using the excess funds after we do the first three. The Board asked us at the July 22, 2021, meeting to take this and run it by the financial representatives. We did circulate the changes to the financial representatives and received feedback from three. Mr. Wilson talked to Mr. Hayes and included his suggestions in Exhibit "C."

A follow-up conversation was held to ensure the treatment of the surplus funds was consistent with what was worded in the Service Agreement for improvements and non-expansion projects. He referred to the handout he provided today for Board members and stated the part that is written in blue are the suggested changes. It specifically talks about non-expansion projects, it references the Service Agreement, and it talks about the base rate to be consistent with how the rates are in the Service Agreement. It calls out the true-up as one of the potential methods to distribute the funds. Something that came up was determining what type of vote is necessary. The current Service Agreement has majority vote, but there was a discussion point to talk about a unanimous consent. This is something we are looking for guidance from the Board.

We are not looking for approval or resolution until we have the annual audit completed and hope to present that in November. At that time, we will have that exact number where everything falls.

We have a clean copy of the Financial Policies in the Board package of what we sent to the financial representatives. We will insert the Surplus Fund wording after the Board discusses if that is what the Board would like us to consider moving forward. We also have Counsel here to address the other item from July 22, 2021, meeting, which was to allow counsel to start talking to our lenders with the proposed changes to the Trust Agreement. Mr. Anderson has talked with VRA, Davenport, Carter Bank, and US Bank. Mr. Anderson stated VRA signed off a couple of weeks ago. As of last week, US Bank had no objection. We are still waiting to hear from Carter Bank, as they are a small holder. We have not heard anything negative even though they have a few changes. He is not expecting a problem with them.

Dr. Casey stated that this financial team is going to be beneficial to both ARWA and members. He asked if there was anything we need to do before the audit report is done so these funds are classified in the manner you're trying to prescribe or is this just more of a placeholder that the Board will take action on at some point or disclosed at the June 30, 2022, report. Mr. Wilson stated it will be more as a placeholder. We have not made a transfer from the Revenue Fund to the Surplus Fund.

Mr. Smith stated on the Surplus Funds section his recommendation is to keep the language staff proposed with that one revision made by Chesterfield County on how the excess of surplus funds is assigned. He further stated being as not all members were present, we could table this discussion until the next meeting. Mr. Wilson stated we will continue with the same methodology and come back in November and make our recommendation on what we presented. Mr. Smith asked if approval of these could potentially be at the next meeting. Mr. Wilson stated the main thing is we want to report exactly what the surplus is and make sure it's consistent with what we recommend.

- **Maintenance Lake Level Drawdown Request**

Mr. Wilson reported on the maintenance lake level drawdown. He handed out an update to members. Mr. Wilson reached out to Mr. Yeager who had requested the lake level drawdown. He wanted to be upfront and let him know that we would not recommend it. He stated there was one important part left off this. Depending on which month it is during the winter season, and how far we go down, we could potentially be in voluntary restrictions. He added that Mr. Yeager requested the Board consider deferring this for a year or two. He is not sure if this will change staff's recommendation down the road but his request to defer doesn't hurt anything. Mr. Wilson asked Kruger what a buyout would be for them but hasn't received a word back. He stated whichever way the Board wants; we can move forward.

Dr. Casey suggested keeping a list of contractors for the people who want to repair shorelines, bulkheads, and docks and present it to them. He stated if we are in a prolonged period and we know the lake is going to be dropping, we may want to put out a message, for those who want to do maintenance projects. Mr. Wilson stated it's in Mr. Yeager's response that there are more people that might want that done.

Mr. Massengill stated Mr. Yeager usually has a good feel for his part of the lake but for the Dinwiddie side, he would like to know more when you have these conversations to figure out how much of an interest this is for some of the other parts of the lake as well. He is requesting a significant amount of time too. He does not know if that's any of the conversations you have had with Mr. Yeager, but is it limited by your own ability to draw it down. The last time we drew it down we had a challenging time closing it back. There are things Mr. Yeager needs to be aware of when we are talking about this. We are doing more than most to be able to give people on the lake a heads up of when they could spend the time of working on their docks, piers, and shorelines.

Dr. Casey stated that Dr. Killar is another repeat customer. The business of removing silt for his area is not the business of the reservoir today. The cove that Dr. Killar is on is more of the problem than the lake. The silt is coming in through the cove and stopping there before it hits the lake. This is not an ARWA issue. Whatever contractors we have we could share with him. Mr. Massengill referred to the shoreline repairs and asked if Mr. Yeager were talking about driftwood and trash that comes in the lake. Mr. Wilson stated that is something we need additional time to prepare. We must identify what you can and cannot do. Another thing we must deal with is the talking of taking the lake down. It is at 158 and your property line is at 160. That is what we must come up with a plan and a set response for.

Dr. Casey talked about property damage from some of the wakes from boats. He read where Smith Mountain Lake is taking on this topic through the State, and if they can get closure through it there, why do not we get a copy of it and see how applicable it is to go forth here. Mr. Massengill stated what has been indicated to them on the Dinwiddie side is that it's not just the wake of the boats causing the problems, it's the jet skis and lack of a speed limit.

Mr. Smith stated from the staff report about opening the gates, there is a reference to stop logs that would be budgeted in the future budget year. If this were something we would entertain down the road, we want to make sure we have it so we're not in a situation of having trouble getting the gate shut. Mr. Wilson stated we would purchase, install, verify that was the solution, that we could dewater that area before we ever tried. We would put them in and verify it would work.

Dr. Casey stated at some point if a new property owner buys something on the lake or builds a home there, would ARWA be notified. Chesterfield is starting to write all newcomers a welcome letter. Mr. Massengill stated that if someone pulls a permit to do improvement on an undeveloped lot, then Dinwiddie can inform ARWA. Mr. Anderson asked if there was a way to be notified of an existing property that has changed hands. Mr. Massengill stated he requests a report every week

from their Commissioner of Revenue. He can flag it so that if it's lake waterfront property then ARWA can be informed. Dr. Casey stated if ARWA had a database of addresses then Chesterfield could match it to their database.

Mr. Smith stated he didn't get any sense from the Board that we are supporting doing this particular effort. There is interest in gathering information in general from property owners around the lake for what their concerns are. If the Board is all on the same page the response to this would be that this is not an undertaking that the Board will support doing currently. Mr. Wilson stated he would put that we do not support this currently but that he has been asked to gather additional information from the residents. Dr. Casey stated we must be careful with whatever our hydroelectric agreement is. Mr. Wilson stated he is still waiting to get a buyout clause from them.

- **Status Report**

Mr. Wilson reported on the status report. He stated that we selected The Archer Company to perform the classification and compensation study for both plants. Dr. Casey stated they are almost going along with a parallel study, and that we are welcome to borrow anything that comes out of their results. Mr. Wilson stated that our intention is working towards December so when we meet with the directors, we hope to have a proposal, and make a preliminary presentation to the Board in January when we start the budget process. He further stated that Dr. Casey is going to meet with Dr. Killar on Monday, so we are going over there and see if we can help. Mr. Wilson reported on the update for Whippernock Way. He stated originally this was going to be a built in place dock but is now a floating dock. There is also a question of putting a "no wake zone" in that area from a safety issue. Mr. Massengill asked about the no wake zone and who was going to pay for it. Mr. Wilson commented that is what we are trying to figure out.

- **Financials**

Ms. Wilkins reported on the Financials. She stated we put a water mark of "preliminary" on them since last year's financial statements are not final.

**5. Items from Counsel**

There were no items from Counsel.

**6. Closed Session**

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

Upon a motion made by Mr. Massengill and seconded by Ms. Innis the Board went into Closed Session at 2:40 p.m.

**For: 4      Against: 0      Abstain: 0**

Upon a motion made by Ms. Innis and seconded by Mr. Massengill the Board came out of Closed Session at 3:37 p.m.

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

**Vote:**

<b>Doug Smith</b>	<b>Aye</b>
<b>Kevin Massengill</b>	<b>Aye</b>
<b>Joseph Casey</b>	<b>Aye</b>
<b>Tangela Innis</b>	<b>Aye</b>

**Absent During Vote:**

**None**

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

There were no items from Board Members/Staff Not on Agenda.

**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 Ms. Innis the meeting was adjourned at 3:37 p.m.

MINUTES APPROVED BY:

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**Frank Haltom**  
**Secretary/Treasurer**



## **CLOSED MEETING RESOLUTION**

### **APPOMATTOX RIVER WATER AUTHORITY**

**September 23, 2021**

I move that we go into a closed meeting for consultation with legal counsel retained by the Appomattox River Water Authority regarding specific legal matters requiring the provision of legal advice by such counsel related to problems with docks and the maintenance of other improvements on the Authority's property, as permitted by Section 2.2-3711A.8. of the Virginia Freedom of Information Act:

MOTION: Massengill

SECOND: Innis

#### VOTE

Haltom	Aye
Casey	Aye
Massengill	Aye
Smith	Aye
Innis	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 September 23, 2021, 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: Innis

SECOND: Massengill

### VOTE

Haltom	Aye
Casey	Aye
Massengill	Aye
Smith	Aye
Innis	Aye

ABSENT DURING VOTE: None.

ABSENT DURING CLOSED MEETING: None.



APPOMATTOX RIVER WATER AUTHORITY  
21300 Chesdin Road  
Petersburg, VA 23803



SOUTH CENTRAL WASTEWATER AUTHORITY  
900 Magazine Road  
Petersburg, VA 23803

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### **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.

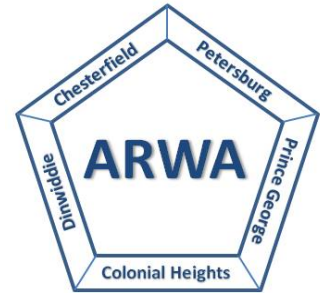
Members of the public requesting to speak will be recognized during the specific time designated on the meeting agenda for "Public Comment Period." Each person will be allowed to speak for up to three minutes.

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.



# EXHIBIT C

## Annual Financial Report Year Ended June 30, 2021

Robinson, Farmer, Cox Associates

Attachment 1 – Financial Statements

Attachment 2 – VRS Report

Attachment 3 – Governance Letter

# **Appomattox River Water Authority**



## **Financial Report Year Ended June 30, 2021**



# **APPOMATTOX RIVER WATER AUTHORITY**

## **S. Chesterfield, Virginia**

(A Public Body chartered November 21, 1960  
Under the Water and Waste Authorities Act of 1950 of the Commonwealth of Virginia)

### **- Board of Directors -**

Douglas E. Smith, Chairman  
*City of Colonial Heights*

W. Kevin Massengill, Vice Chairman  
*Dinwiddie County*

Frank Haltom, Secretary-Treasurer (alternate)  
*Prince George County*

Dr. Joseph Casey, Member  
*Chesterfield County*

Lionel Lyons, Member  
*City of Petersburg*

Percy Ashcraft, Member  
*Prince George County*

### **- Officials -**

Robert B. Wilson, P.E., Executive Director

James C. Gordon, Assistant Executive Director

USBank, Trustee

McGuire Woods, Counsel

## Table of Contents

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	<b>Page</b>
Independent Auditors' Report .....	1-2
Management's Discussion and Analysis.....	3-8
 <b>Financial Statements:</b>	
Statement of Net Position .....	9-10
Statement of Revenues, Expenses and Changes in Net Position .....	11
Statement of Cash Flows .....	12
Notes to Financial Statements .....	13-38
 <b>Required Supplementary Information:</b>	
Schedule of Changes in Net Pension (Asset) Liability and Related Ratios .....	39
Schedule of Employer Contributions-Pension Plan.....	40
Notes to Required Supplementary Information-Pension Plan.....	41
Schedule of Changes in Total OPEB Liability (Asset) and Related Ratios - Health Insurance..	42
Notes to Required Supplementary Information - Health Insurance .....	43
Schedule of Authority's Share of Net OPEB Liability - Group Life Insurance Plan .....	44
Schedule of Employer Contributions - Group Life Insurance Plan.....	45
Notes to Required Supplementary Information - Group Life Insurance Plan .....	46
 <b>Compliance:</b>	
Independent Auditors' Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with <i>Government Auditing Standards</i> .....	47-48





ROBINSON, FARMER, COX ASSOCIATES, PLLC

*Certified Public Accountants*

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**Independent Auditors' Report**

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**To the Honorable Members of  
Appomattox River Water Authority  
S. Chesterfield, Virginia**

**Report on the Financial Statements**

We have audited the accompanying financial statements of the business-type activities of Appomattox River Water Authority, as of and for the year ended June 30, 2021, and the related notes to the financial statements, which collectively comprise the Appomattox River Water Authority's basic financial statements as listed in the table of contents.

***Management's Responsibility for the Financial Statements***

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

***Auditors' Responsibility***

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the *Specifications for Audits of Authorities, Boards, and Commissions*, issued by the Auditor of Public Accounts of the Commonwealth of Virginia. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.



## ***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the business-type activities of Appomattox River Water Authority, as of June 30, 2021, and the changes in financial position, and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

## ***Other Matters***

### ***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and schedules related to pension and OPEB funding on pages 3-8 and 39-46 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

## **Report on Summarized Comparative Information**

We have previously audited Appomattox River Water Authority's 2020 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated October 30, 2020. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2020, is consistent, in all material respects, with the audited financial statements from which it has been derived.

## **Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated November 5, 2021, on our consideration of Appomattox River Water Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of Appomattox River Water Authority's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Appomattox River Water Authority's internal control over financial reporting and compliance.

*Robinson, Farmer, Cox Associates*

Charlottesville, Virginia  
November 5, 2021

**To the Honorable Board of Directors  
Appomattox River Water Authority  
S. Chesterfield, Virginia**

As management of Appomattox River Water Authority (the Authority), we offer readers of our financial statements this narrative overview and analysis of the financial activities of the Authority for the fiscal year ending June 30, 2021.

### **Overview of the Financial Statements**

This discussion and analysis is intended to serve as an introduction to the Authority's basic financial statements. Since the Authority is engaged only in business-type activities, its basic financial statements are comprised of only two components: 1) enterprise fund financial statements and 2) notes to the financial statements. This report also contains required supplementary information in addition to the basic financial statements themselves.

**Enterprise fund financial statements.** The enterprise fund financial statements are designed to provide readers with a broad overview of the Authority's finances, in a manner similar to a private-sector business.

The statement of net position presents information on the Authority's assets, deferred outflows, deferred inflows and liabilities. Equity of the Authority is reported as net position. Net position is the difference between assets and deferred outflows of resources and liabilities and deferred inflows of resources. Net investment in capital assets represents capital assets, reduced by accumulated depreciation and by any outstanding debt, deferred outflows of resources and deferred inflows of resources related to the acquisition, construction or improvement of those assets. Restricted net position represents restricted assets reduced by liabilities and deferred inflows of resources related to those assets. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Authority is improving or deteriorating.

The statement of revenues, expenses and changes in net position presents information showing how the Authority's net position changed during the most recent fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of the cash flows. Thus, revenues and expenses are reported in this statement for some items that will only result in cash flows in future fiscal periods, (e.g. earned but unused vacation leave).

Refer to the table of contents for the basic enterprise fund financial statements.

**Notes to financial statements.** The notes provide additional information that is essential to a full understanding of the data provided in the financial statements. Refer to the table of contents for the notes to the financial statements. Required supplementary information presents the Authority's progress in funding its obligation to provide pension benefits to its employees.

### **Financial Highlights**

- The assets and deferred outflows of resources of the Authority exceeded its liabilities and deferred inflows of resources at the close of the most recent fiscal year by \$50,466,377 (net position). Of this amount \$10,466,008 is reported as unrestricted net position.
- The Authority's total net position increased by \$3,853,977.
- The Authority's total long-term obligations (including premium amortization, compensated absences, OPEB liability and net pension liability) decreased by \$1,547,998 during the current fiscal year. Details of the change in long-term obligations can be found under the heading "*Capital Asset and Debt Administration*."

## **Financial Analysis**

As noted earlier, net position may serve over time as a useful indicator of an Authority's financial position. In the case of the Authority, assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by \$50,466,377 at the close of the most recent fiscal year.

By far the largest portion of the Authority's net position (57 percent) reflects its net investment in capital assets. The Authority uses these capital assets to provide services to its customers; consequently, these assets are not available for future spending. Although the Authority's net investment in capital assets is reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources, since the capital assets themselves cannot be used to liquidate these liabilities.

The following table provides a summary of the statement of net position.

	<b>Net Position</b>	
	<b>2021</b>	<b>2020</b>
Current and other assets	\$ 23,082,913	\$ 20,638,988
Capital assets	<u>47,687,816</u>	<u>48,451,915</u>
Total assets	<u>\$ 70,770,729</u>	<u>\$ 69,090,903</u>
Deferred charge on refunding	\$ 91,617	\$ 133,502
OPEB related items	86,159	30,377
Pension related items	<u>282,504</u>	<u>165,477</u>
Total deferred outflows	<u>\$ 460,280</u>	<u>\$ 329,356</u>
Long-term liabilities	\$ 20,264,401	\$ 21,812,399
Other liabilities	<u>215,816</u>	<u>586,089</u>
Total liabilities	<u>\$ 20,480,217</u>	<u>\$ 22,398,488</u>
OPEB related items	\$ 23,291	\$ 29,790
Pension related items	<u>261,124</u>	<u>379,581</u>
Total deferred inflows	<u>\$ 284,415</u>	<u>\$ 409,371</u>
Net investment in capital assets	\$ 28,712,185	\$ 28,725,207
Restricted	11,288,184	11,428,780
Unrestricted	<u>10,466,008</u>	<u>6,458,413</u>
Total net position	<u><u>\$ 50,466,377</u></u>	<u><u>\$ 46,612,400</u></u>

### **Financial Analysis (continued)**

At the end of the current fiscal year, the Authority is able to report positive balances in all categories of net position.

	<b>Change in Net Position</b>	
	<b>2021</b>	<b>2020</b>
Revenues:		
Operating revenues	\$ 12,753,688	\$ 11,072,811
Gain (loss) on disposal of capital assets	15,189	-
Investment income	5,549	224,629
Litigation proceeds	438,692	855,277
Total revenues	<u>\$ 13,213,118</u>	<u>\$ 12,152,717</u>
Expenses:		
Operating expenses (excluding depreciation)	\$ 6,479,240	\$ 6,328,484
Depreciation expense	1,917,229	2,359,129
Payout of litigation proceeds to localities	438,692	997,050
Bond issuance costs	-	105,084
Interest expense	523,980	631,431
Total expenses	<u>\$ 9,359,141</u>	<u>\$ 10,421,178</u>
Increase (decrease) in net position	\$ 3,853,977	\$ 1,731,539
Net position-July 1	<u>46,612,400</u>	<u>44,880,861</u>
Net position-June 30	<u><u>\$ 50,466,377</u></u>	<u><u>\$ 46,612,400</u></u>

The Authority's net position increased by \$3,853,977 during the current fiscal year. Operating revenues increased by \$1,680,877, reflecting an increase in consumption. Operating expenses (excluding depreciation) increased by \$150,756 over fiscal year 2020 totals. Key elements of these changes are explained in greater detail under the Review of Operations section.

### **Capital Asset and Debt Administration**

Capital Assets - The Authority's investment in capital assets as of June 30, 2021 amounts to \$47,687,816 (net of accumulated depreciation). Investment in capital assets decreased by approximately 1.58% during the year. Below is a comparison of the items that make up capital assets as of June 30, 2021 with that of June 30, 2020.

	<b>2021</b>	<b>2020</b>
Land and land rights	\$ 1,044,167	\$ 1,044,167
Water systems	85,582,831	85,599,031
Equipment	1,738,287	1,708,459
Hydro costs incurred	34,873	34,873
Accumulated depreciation	(53,485,892)	(51,655,169)
Construction in progress	12,773,550	11,720,554
Total capital assets	<u><u>\$ 47,687,816</u></u>	<u><u>\$ 48,451,915</u></u>

More detailed information on the Authority's capital assets is presented in Note 3 of the notes to the financial statements.

## **Capital Asset and Debt Administration (continued)**

**Long-Term Debt** - At the end of the current fiscal year, the Authority had \$19,823,000 in bonds outstanding versus \$21,381,000 in the prior year. The decrease represents payment of principal in accordance with the bond documents.

Other long-term obligations of the Authority include accrued vacation pay. More detailed information on the Authority's long-term obligations is presented in the notes to the financial statements.

## **Review of Operations**

**Operating Revenues.** Operating Revenues increased by \$1,680,877 from 2020 or 15.18%. Four of the five members' consumption increased from 2020. The largest customer experienced catastrophic failure at one of its sources, leading to a consumption increase of 18% for that customer.

**Operating Expenses.** Operating Expenses (excluding depreciation) increased by \$150,756 from 2020 or 2.4%. The majority of this increase can be attributed to higher process chemical costs, utilities, and heating fuel costs.

**Long-Term Issues.** The Federal Safe Drinking Water Act and regulations that derive from this Act mandate the water quality that the Authority must meet for its customers. The regulations require the Authority to constantly improve operations and treatment techniques. The Authority has met the federal and state requirements for drinking water quality in the past and will continue to do so in the future.

## **Authority Highlights**

- Continued to sample, monitor, and map hydrilla emergence around the lake.
- Successful FY2019/2020 annual audit.
- Continued to provide 24/7 safe drinking water during the ongoing COVID-19 crisis while following the Commonwealth of Virginia mandates.
- Complied with all Virginia Department of Health (VDH) and U.S. EPA requirements under the Safe Drinking Water Act.
- Received the Partnership for Safe Water Directors Award for the 21<sup>st</sup> year. This award is presented to Water Treatment Plants that meet superior standards of water quality.
- Successful VDH plant inspection.
- Hired an assistant operations manager. Was successful promoting within the organization.
- Began construction and installation of a new mag meter and vault for Prince George County.
- Awarded project to install large, actuated butterfly valves in finished water pump station 1 and finished water pump station 2. Project also includes adding surge relief to both finished water pump stations.

### **Authority Highlights (continued)**

- Several process and facility improvements were performed during FY2020/2021. The following were reviewed and approved by the Board of Directors in the FY2020/2021 budget.
  - Replaced three venturis on filters with mag meters. Installation was in house by maintenance and IT staff.
  - Purchased a spare rapid mixer for inventory to increase reliability and resiliency.
  - Purchased a 200 Hp, 450 Hp, and 600 Hp motor for inventory to increase reliability and resiliency.
  - Replaced the atomic absorption spectrometer for the laboratory.
  - Began the host software replacement project to replace the Supervisory Control and Data Acquisition (SCADA) system that assists operators with running the plant.
  - Added a solar powered camera to the south side of the dam to improve surveillance.
  - Constructed an additional, secure laydown yard for material storage.
  - Installed a new HMI (human machine interface) on the raw water pump station 2 control cabinet.
  - Added grating around filter actuated control valves to allow IT staff to work on actuators and remove safety concerns.
  - Purchased a side by side ranger for transmission easement access and maintenance.
  - Added lightening protection to the filter building to protect the administration servers and SCADA system.
  - Performed thermal scanning of all MCC's to identify trouble spots. Trouble spots that were identified were addressed.
  - Purchased portable generators to maintain communications and control at key remote meter locations in the event of power failures.
  - Built a new structural steel platform to provide access to the sampling site behind the waste lagoons. This removed a safety issue for laboratory staff.
  - Brought in divers to inspect the wet well at the dam for raw water intake pump station 1 and the underwater screens for raw water pump station 2. No significant issues identified.
  - Replaced the roof on the ammonia caustic building.
  - Ordered a new 1,500 amp 4160 volt transformer to replace an authority owned transformer.

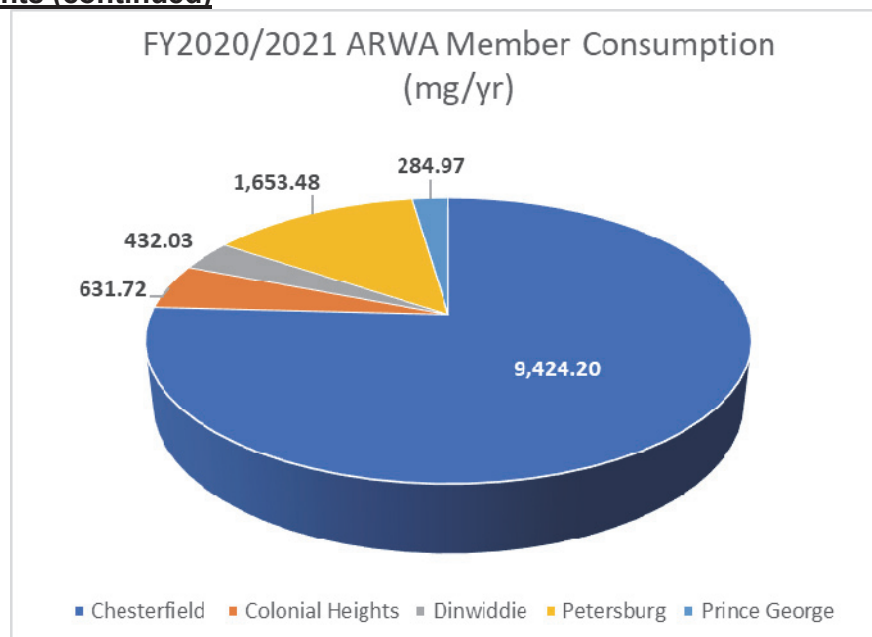
A flow summary for the last two years is shown below:

	<u>2020/2021</u>	<u>2019/2020</u>
Total raw water withdrawal (BG)	14.211	12.337
Average raw water daily withdrawal (mgd)	38.93	33.80

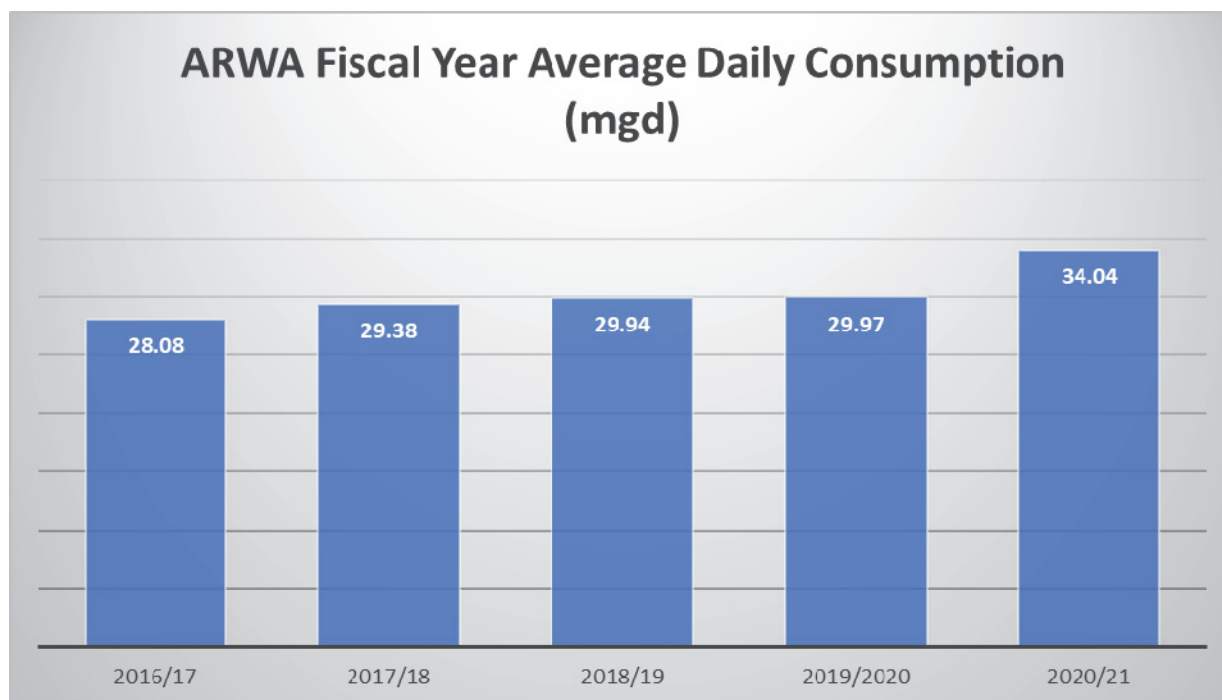
The peak month withdrawal was in July at 1.425 BG. The limitations in the Virginia Water Protection Permit, VWP #: 01-1719, is a maximum day withdrawal of 86.24 mgd, a maximum monthly withdrawal of 2.289 BG and a maximum annual withdrawal of 17.934 BG. The current VWP permit expires on October 31, 2028. The process to renew the VWP will start in 2025.

	<u>2020/2021</u>	<u>2019/2020</u>
Total finished water sold (BG)	12.426	10.941
Average day finished water sold (mgd)	34.04	29.97

### **Authority Highlights (continued)**



Consumption by the localities continues to change over time with annual variation generally based on the weather, with dry years being higher than wet years. Water consumption increased more than expected in FY2020/2021 due to a catastrophic event at one of our member's alternate water sources. During the 2020/2021 fiscal year, the Authority did not issue any formal permit related water conservation restrictions.



### **Economic Conditions**

The Authority continues to operate under sound effective management with total net position increasing during fiscal year 2021. Overall, finances for the Authority for fiscal year 2020-2021 as viewed by management are considered sound.

### **Contacting the Authority**

Questions concerning this financial report or requests for additional information should be directed to the Executive Director, Appomattox River Water Authority, 21300 Chesdin Road, S. Chesterfield, Virginia 23803, telephone (804) 590-1145.

**- Financial Statements -**



# APPOMATTOX RIVER WATER AUTHORITY

## Statement of Net Position

June 30, 2021

(With Comparative Totals for the Prior Year)

	<u>2021</u>	<u>2020</u>
<b>Assets</b>		
<b>Current Assets</b>		
Cash and cash equivalents	\$ 6,687,447	\$ 4,354,040
Accrued interest receivable	222	515
Accounts receivable - water service	3,337,981	2,456,073
Inventory	831,667	296,179
Other receivables	<u>10,556</u>	<u>7,036</u>
Total Current Assets	\$ <u>10,867,873</u>	\$ <u>7,113,843</u>
<b>Noncurrent Assets</b>		
Restricted Assets:		
Cash and cash equivalents	\$ 11,879,918	\$ 13,047,883
Net pension asset	<u>335,122</u>	<u>477,262</u>
Total Restricted Assets	\$ <u>12,215,040</u>	\$ <u>13,525,145</u>
Capital Assets:		
Land and land rights	\$ 1,044,167	\$ 1,044,167
Water system	85,582,831	85,599,031
Equipment	1,738,287	1,708,459
Hydro costs incurred	34,873	34,873
Accumulated depreciation	<u>(53,485,892)</u>	<u>(51,655,169)</u>
Sub-total net capital assets	\$ 34,914,266	\$ 36,731,361
Construction in progress	<u>12,773,550</u>	<u>11,720,554</u>
Net capital assets	\$ <u>47,687,816</u>	\$ <u>48,451,915</u>
Total Noncurrent Assets	\$ <u>59,902,856</u>	\$ <u>61,977,060</u>
Total Assets	\$ <u>70,770,729</u>	\$ <u>69,090,903</u>
<b>Deferred Outflows of Resources</b>		
Deferred charge on refunding	\$ 91,617	\$ 133,502
OPEB related items	86,159	30,377
Pension related items	<u>282,504</u>	<u>165,477</u>
Total Deferred Outflows of Resources	\$ <u>460,280</u>	\$ <u>329,356</u>

## APPOMATTOX RIVER WATER AUTHORITY

### Statement of Net Position

June 30, 2021 (continued)

(With Comparative Totals for the Prior Year)

	<u>2021</u>	<u>2020</u>
<b>Liabilities</b>		
<b>Current Liabilities Payable from Current Assets</b>		
Accounts payable	\$ 44,712	\$ 48,209
Total Current Liabilities Payable from Current Assets	\$ 44,712	\$ 48,209
<b>Current Liabilities Payable from Restricted Assets</b>		
Accounts payable	\$ 31,880	\$ 222,842
Retainage payable	12,492	175,442
Accrued interest payable	126,732	139,596
Bonds payable - current portion	<u>1,601,000</u>	<u>1,558,000</u>
Total Current Liabilities Payable from Restricted Assets	\$ 1,772,104	\$ 2,095,880
Total Current Liabilities	\$ 1,816,816	\$ 2,144,089
<b>Noncurrent Liabilities</b>		
Bonds payable - net of current portion	\$ 18,222,000	\$ 19,860,695
Net OPEB liabilities	250,760	208,447
Compensated absences	<u>190,641</u>	<u>185,257</u>
Total Noncurrent Liabilities	\$ 18,663,401	\$ 20,254,399
Total Liabilities	\$ 20,480,217	\$ 22,398,488
<b>Deferred Inflows of Resources</b>		
OPEB related items	\$ 23,291	\$ 29,790
Pension related items	<u>261,124</u>	<u>379,581</u>
Total Deferred Inflows of Resources	\$ 284,415	\$ 409,371
<b>Net Position</b>		
Net investment in capital assets	\$ 28,712,185	\$ 28,725,207
Restricted for debt service and bond covenants	10,953,062	10,951,518
Restricted for net pension asset	335,122	477,262
Unrestricted	<u>10,466,008</u>	<u>6,458,413</u>
Total Net Position	\$ 50,466,377	\$ 46,612,400

The accompanying notes to financial statements are an integral part of this statement.

# APPOMATTOX RIVER WATER AUTHORITY

## Statement of Revenues, Expenses and Changes in Net Position Year Ended June 30, 2021 (With Comparative Totals for the Prior Year)

	<u>2021</u>	<u>2020</u>
<b>Operating Revenues</b>		
Water service	\$ 12,683,083	\$ 11,024,557
Other	<u>70,605</u>	<u>48,254</u>
Total Operating Revenues	\$ <u>12,753,688</u>	\$ <u>11,072,811</u>
<b>Operating Expenses</b>		
Operating and maintenance		
Salaries	\$ 1,620,369	\$ 1,691,846
Employee benefits	513,005	504,607
Contractual services	902,470	893,464
Materials, supplies and other costs	2,409,528	2,280,337
Other charges	1,033,868	958,230
Depreciation	<u>1,917,229</u>	<u>2,359,129</u>
Total Operating Expenses	\$ <u>8,396,469</u>	\$ <u>8,687,613</u>
Net Operating Income (Loss)	\$ <u>4,357,219</u>	\$ <u>2,385,198</u>
<b>Nonoperating Revenues (Expenses)</b>		
Income from investments	\$ 5,549	\$ 224,629
Litigation proceeds	438,692	855,277
Gain (loss) of disposal of capital assets	15,189	-
Payout of litigation proceeds to localities	(438,692)	(997,050)
Bond issuance costs	-	(105,084)
Interest expense	<u>(523,980)</u>	<u>(631,431)</u>
Total Nonoperating Revenues (Expenses)	\$ <u>(503,242)</u>	\$ <u>(653,659)</u>
Change in net position	\$ 3,853,977	\$ 1,731,539
Net position, beginning of year	<u>46,612,400</u>	<u>44,880,861</u>
Net position, end of year	\$ <u><u>50,466,377</u></u>	\$ <u><u>46,612,400</u></u>

The accompanying notes to financial statements are an integral part of this statement.

# APPOMATTOX RIVER WATER AUTHORITY

## Statement of Cash Flows Year Ended June 30, 2021 (With Comparative Totals for the Prior Year)

	<u>2021</u>	<u>2020</u>
<b>Cash flows from operating activities:</b>		
Receipts from customers and users	\$ 11,868,260	\$ 11,491,809
Payments to suppliers and vendors	(4,884,851)	(4,423,562)
Payments to and on behalf of employees	(2,241,302)	(2,349,475)
Net cash provided by (used for) operating activities	<u>\$ 4,742,107</u>	<u>\$ 4,718,772</u>
<b>Cash flows from noncapital financing activities:</b>		
Litigation proceeds	\$ 438,692	\$ 855,277
Payout of litigation proceeds to localities	(438,692)	(997,050)
Net cash provided by (used for) noncapital financing activities	<u>\$ -</u>	<u>\$ (141,773)</u>
<b>Cash flows from capital and related financing activities:</b>		
Acquisition of utility plant in service	\$ (1,541,750)	\$ (4,639,656)
Principal paid on bonds	(1,558,000)	(7,891,000)
Interest paid on bonds	(532,655)	(689,076)
Sale of capital assets	49,898	-
Bond issuance costs	-	(105,084)
Proceeds from indebtedness	-	6,659,145
Net cash provided by (used for) capital and related financing activities	<u>\$ (3,582,507)</u>	<u>\$ (6,665,671)</u>
<b>Cash flows from investing activities:</b>		
Interest received	\$ 5,842	\$ 239,278
Net cash provided by (used for) investing activities	<u>\$ 5,842</u>	<u>\$ 239,278</u>
Net increase (decrease) in cash and cash equivalents	<u>\$ 1,165,442</u>	<u>\$ (1,849,394)</u>
Cash and cash equivalents at beginning of year (including \$13,047,883 and \$16,752,344 in restricted accounts)	<u>\$ 17,401,923</u>	<u>\$ 19,251,317</u>
Cash and cash equivalents at end of year (including \$11,879,918 and \$13,047,883 in restricted accounts)	<u>\$ 18,567,365</u>	<u>\$ 17,401,923</u>
Reconciliation of operating income (loss) to net cash provided by (used for) operating activities:		
Operating income (loss)	\$ 4,357,219	\$ 2,385,198
Adjustments to reconcile operating income (loss) to net cash provided by (used for) operating activities:		
Depreciation	1,917,229	2,359,129
Changes in operating assets, deferred outflows of resources, liabilities, and deferred inflows of resources:		
(Increase) decrease in receivables	(885,428)	418,998
(Increase) decrease in inventories	(535,488)	(31,256)
Increase (decrease) in operating accounts payable	(3,497)	(260,275)
Increase (decrease) in compensated absences	5,384	4,552
(Increase) decrease in pension deferred outflow of resources	(117,027)	(101,557)
(Increase) decrease in OPEB deferred outflow of resources	(55,782)	(16,271)
Increase (decrease) in pension deferred inflow of resources	(118,457)	155,359
Increase (decrease) in OPEB deferred inflow of resources	(6,499)	(10,137)
(Increase) decrease in net pension asset	142,140	(197,972)
Increase (decrease) in net OPEB liabilities	42,313	13,004
Net cash provided by (used for) operating activities	<u>\$ 4,742,107</u>	<u>\$ 4,718,772</u>

The accompanying notes to financial statements are an integral part of this statement.

# APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021

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## **NOTE 1 - NATURE OF ENTITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:**

### Nature of Entity:

The Appomattox River Water Authority (Authority) is a body politic and corporate organized under the laws of the Commonwealth of Virginia whose address is 21300 Chesdin Road, South Chesterfield, Virginia 23803. The Authority provides wholesale potable water to five participating jurisdictions: County of Chesterfield, City of Colonial Heights, County of Dinwiddie, City of Petersburg and County of Prince George. The requirements and billing structure for providing water to the five participating jurisdictions is outlined in the 1964 Service Agreement and subsequent amendments. The current plant's rated capacity is 96 million gallons per day.

### Summary of Significant Accounting Policies:

#### A. Basis of Accounting:

Appomattox River Water Authority operates as an enterprise fund, uses the flow of economic resources measurement focus and its accounts are maintained on the accrual basis of accounting. Under this method, revenues are recognized when earned, and expenses are recorded as liabilities when incurred, without regard to receipt or payment of cash. The Authority accrues revenue for services rendered but not yet billed at the end of the fiscal year. The Authority follows Governmental Accounting Standards Board (GASB) pronouncements.

The Authority distinguishes *operating* revenues and expenses from *nonoperating* items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with the Authority's principal ongoing operations. The principal operating revenues of the Authority are charges to customers for sales and services. Operating expenses include the cost of sales and services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

#### B. Basic Financial Statements:

The financial statements include a Management's Discussion and Analysis (MD&A) section providing an analysis of the Authority's overall financial position and results of operations.

Since the Authority is only engaged in business-type activities, it is required to present only the financial statements required for enterprise funds. For the Authority, the basic financial statements and required supplementary information consist of:

- Management's Discussion and Analysis
- Enterprise Fund Financial Statements
  - Statement of Net Position
  - Statement of Revenues, Expenses and Changes in Net Position
  - Statement of Cash Flows
  - Notes to Financial Statements
- Required Supplementary Information
  - Schedule of Changes in Net Pension (Asset) Liability and Related Ratios
  - Schedule of Employer Contributions–Pension Plan
  - Notes to Required Supplementary Information–Pension Plan
  - Schedule of Changes in Total OPEB Liability (Asset) and Related Ratios - Health Insurance
  - Notes to Required Supplementary Information - Health Insurance
  - Schedule of Authority's Share of Net OPEB Liability - Group Life Insurance Plan
  - Schedule of Employer Contributions - Group Life Insurance Plan
  - Notes to Required Supplementary Information - Group Life Insurance Plan

# APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

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## **NOTE 1 - NATURE OF ENTITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (continued)**

### **C. Cash and Cash Equivalents:**

For purposes of the statement of cash flows, the Authority considers all highly liquid investments (including restricted assets) with an original maturity of three months or less when purchased to be cash equivalents.

### **D. Accounts Receivable:**

Accounts receivable is recorded at face value. Since substantially all of the Authority's receivables are from the participating jurisdictions, no allowance for uncollectible accounts is deemed necessary.

### **E. Capital Assets:**

Capital assets, which include property, plant, equipment, and infrastructure assets are reported in the financial statements. Capital assets are defined by the Authority as assets with an initial, individual cost of more than \$5,000 (amount not rounded) and an estimated useful life in excess of one year. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated capital assets are recorded at acquisition value at the date of donation.

The costs of normal maintenance and repairs that do not add to the value of the asset or materially extend the asset's life are not capitalized.

Major outlays for capital assets and improvements are capitalized as projects are constructed. Interest incurred during the construction phase of capital assets of business-type activities is included as part of the capitalized value of the assets constructed. No interest was capitalized during the current or previous fiscal year.

Property, plant, equipment and infrastructure is depreciated using the straight-line method over the following estimated useful lives:

<u>Assets</u>	<u>Years</u>
Structures, lines and accessories	50
Equipment	3 to 10

### **F. Investments:**

Money market investments, participating interest-earning investment contracts (repurchase agreements) that have a remaining maturity at time of purchase of one year or less, nonparticipating interest-earning investment contracts (nonnegotiable certificates of deposit (CDs)) and external investment pools are measured at amortized cost. All other investments are reported at fair value.

### **G. Premiums/Discount on Bonds Held for Investment:**

The premium/discounts paid on bonds held for investment are being amortized over the life of investment using the effective interest method.

### **H. Budgets:**

The Authority adopts annual budgets for water service revenues and Operating Fund expenditures. The budgets are prepared on the basis of expected cash receipts and disbursements rather than on the accrual basis.

## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

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### **NOTE 1 - NATURE OF ENTITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (continued)**

I. Unamortized Deferred Charge on Refunding:

The deferred charge on refunding, resulting from the refunding of the Series 2002C and Series 2010 Revenue Bonds is being amortized using the bonds outstanding method over the life of the Series 2010 and Series 2019 Revenue Refunding Bonds, which is not materially different from the effective interest method. The current year amortization is included in interest expense.

J. Use of Estimates:

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

K. Net Position:

Net position is the difference between a) assets and deferred outflows of resources and (b) liabilities and deferred inflows of resources. Net investment in capital assets represents capital assets, less accumulated depreciation, less any outstanding debt related to the acquisition, construction or improvement of those assets. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt are also included in this component of net position.

L. Net Position Flow Assumption:

Sometimes the Authority will fund outlays for a particular purpose from both restricted (e.g., restricted bond) and unrestricted resources. In order to calculate the amounts to report as restricted - net position and unrestricted - net position, a flow assumption must be made about the order in which the resources are considered to be applied. It is the Authority's policy to consider restricted - net position to have been depleted before unrestricted - net position is applied.

M. Deferred Outflows/Inflows of Resources:

In addition to assets, the statement of financial position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resources (expense) until then. The Authority has multiple items that qualify for reporting in this category. One item is the deferred charge on refunding reported in the government-wide statement of net position. A deferred charge on refunding results from the difference in the carrying value of refunded debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt. The other item is comprised of certain items related to the measurement of the net pension asset and net OPEB liabilities and contributions to the pension and OPEB plans made during the current year and subsequent to the net pension asset and net OPEB liability measurement date. For more detailed information on these items, reference the related notes.



## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

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### **NOTE 1 - NATURE OF ENTITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (continued)**

#### **M. Deferred Outflows/Inflows of Resources: (continued)**

In addition to liabilities, the statement of financial position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until that time. The Authority has one type of item that qualifies for reporting in this category. Certain items related to the measurement of the net pension asset and net OPEB liabilities are reported as deferred inflows of resources. For more detailed information on these items, reference the related notes.

#### **N. Restricted Assets:**

Certain proceeds of the Authority's revenue bonds, as well as certain resources set aside for their repayment, are classified as restricted assets on the statement of net position because they are maintained in separate bank accounts and their use is limited by applicable bond covenants.

#### **O. Inventories:**

Inventories are reported at cost, and cost is determined on the first-in, first-out basis.

#### **P. Prepaid Expenses:**

Certain payments to vendors represent costs applicable to future accounting periods and are recorded as prepaid items in both the government-wide and fund financial statements. The cost of prepaid items is recorded as expenses when consumed rather than when purchased.

#### **Q. Pensions:**

For purposes of measuring the net pension asset, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Authority's Retirement Plan and the additions to/deductions from the Authority's Retirement Plan's fiduciary net position have been determined on the same basis as they were reported by the Virginia Retirement System (VRS). For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with benefit terms. Investments are reported at fair value.

#### **R. Other Postemployment Benefits (OPEB)**

##### *Group Life Insurance*

For purposes of measuring the net GLI Plan OPEB liability, deferred outflows of resources and deferred inflows of resources related to the GLI OPEB, and GLI OPEB expense, information about the fiduciary net position of the VRS GLI Plan OPEB and the additions to/deductions from the VRS GLI OPEB's fiduciary net position have been determined on the same basis as they were reported by VRS. In addition, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.



## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

### **NOTE 2 - DEPOSITS AND INVESTMENTS:**

#### **Deposits:**

Deposits with banks are covered by the Federal Deposit Insurance Corporation (FDIC) and collateralized in accordance with the Virginia Security for Public Deposits Act (the "Act") Section 2.2-4400 et. seq. of the Code of Virginia. Under the Act, banks and savings institutions holding public deposits in excess of the amount insured by the FDIC must pledge collateral to the Commonwealth of Virginia Treasury Board. Financial Institutions may choose between two collateralization methodologies and depending upon that choice, will pledge collateral that ranges in the amounts from 50% to 130% of excess deposits. Accordingly, all deposits are considered fully collateralized.

#### **Investments:**

Statutes authorize the Authority to invest in obligations of the United States or agencies thereof, obligations of the Commonwealth of Virginia or political subdivisions thereof, obligations of the International Bank for Reconstruction and Development (World Bank), the Asian Development Bank, the African Development Bank, "prime quality" commercial paper that has received at least two of the following ratings: P-1 by Moody's Investors Service, Inc.; A-1 by Standard & Poor's; or F-1 by Fitch Ratings, Inc., banker's acceptances, repurchase agreements and the State Treasurer's Local Government Investment Pool (LGIP).

The Authority has not implemented a formal investment policy.

#### **Credit Risk of Debt Securities:**

The Authority's rated debt investments as of June 30, 2021 were rated by Standard & Poor's and the ratings are presented below using the Standard & Poor's rating scale.

<b><u>Authority's Rated Debt Investments' Values</u></b>	
<b><u>Rated Debt Investments</u></b>	<b><u>Fair Quality Ratings</u></b>
	<b><u>AAAm</u></b>
Money market fund - U.S. Treasury Securities	\$ <u>15,640,306</u>
Total	\$ <u><u>15,640,306</u></u>

#### **Interest Rate Risk:**

<b><u>Investment Maturities (in years)</u></b>		
	<b><u>Fair Value</u></b>	<b><u>Less Than 1 Year</u></b>
Money market fund - U.S. Treasury Securities	\$ <u>15,640,306</u>	\$ <u>15,640,306</u>
	\$ <u><u>15,640,306</u></u>	\$ <u><u>15,640,306</u></u>

# APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

## **NOTE 3 - CAPITAL ASSETS:**

A summary of the Authority's capital assets and the changes therein for the year ended June 30, 2021, follows:

	<b>Beginning Balance</b>	<b>Increases</b>	<b>Decreases</b>	<b>Ending Balance</b>
Capital assets not being depreciated:				
Land and land rights	\$ 1,044,167	\$ -	\$ -	\$ 1,044,167
Construction in progress	11,720,554	1,081,686	28,690	12,773,550
Total capital assets not being depreciated	<u>\$ 12,764,721</u>	<u>\$ 1,081,686</u>	<u>\$ 28,690</u>	<u>\$ 13,817,717</u>
Other capital assets, being depreciated:				
Water system	\$ 85,599,031	\$ -	\$ 16,200	\$ 85,582,831
Equipment	1,708,459	134,843	105,015	1,738,287
Hydro costs incurred	34,873	-	-	34,873
Total other capital assets being depreciated	<u>\$ 87,342,363</u>	<u>\$ 134,843</u>	<u>\$ 121,215</u>	<u>\$ 87,355,991</u>
Accumulated depreciation:				
Water system	\$ (50,762,802)	\$ (1,738,230)	\$ (5,311)	\$ (52,495,721)
Equipment	(857,494)	(178,999)	(81,195)	(955,298)
Hydro costs incurred	(34,873)	-	-	(34,873)
Total accumulated depreciation	<u>\$ (51,655,169)</u>	<u>\$ (1,917,229)</u>	<u>\$ (86,506)</u>	<u>\$ (53,485,892)</u>
Other capital assets being depreciated, net	<u>\$ 35,687,194</u>	<u>\$ (1,782,386)</u>	<u>\$ 34,709</u>	<u>\$ 33,870,099</u>
Capital assets, net	<u>\$ 48,451,915</u>	<u>\$ (700,700)</u>	<u>\$ 63,399</u>	<u>\$ 47,687,816</u>

Depreciation expense for the fiscal year totaled \$1,917,229.

## **NOTE 4 - LONG-TERM OBLIGATIONS:**

### **A. Changes in Long-Term Obligations:**

The following is a summary of long-term obligations transactions for the year ended June 30, 2021:

	<b>Balance July 1, 2020</b>	<b>Issuances</b>	<b>Retirements</b>	<b>Balance June 30, 2021</b>	<b>Due Within One Year</b>
Direct borrowings and direct placements					
Revenue and revenue refunding bonds	\$ 21,381,000	\$ -	\$ (1,558,000)	\$ 19,823,000	\$ 1,601,000
Add (less) amounts:					
For issuance premiums	37,695	-	(37,695)	-	-
Total direct borrowings and direct placements	<u>\$ 21,418,695</u>	<u>\$ -</u>	<u>\$ (1,595,695)</u>	<u>\$ 19,823,000</u>	<u>\$ 1,601,000</u>
Net OPEB liability	<u>\$ 208,447</u>	<u>\$ 95,083</u>	<u>\$ (52,770)</u>	<u>\$ 250,760</u>	<u>\$ -</u>
Compensated absences	<u>\$ 185,257</u>	<u>\$ 5,384</u>	<u>\$ -</u>	<u>\$ 190,641</u>	<u>\$ -</u>
Totals	<u>\$ 21,812,399</u>	<u>\$ 100,467</u>	<u>\$ (1,648,465)</u>	<u>\$ 20,264,401</u>	<u>\$ 1,601,000</u>

**APPOMATTOX RIVER WATER AUTHORITY**

Notes to Financial Statements  
June 30, 2021 (continued)

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**NOTE 4 - LONG-TERM OBLIGATIONS: (continued)****B. Annual Amortization of Long-Term Obligations:**

The annual requirements to amortize all long-term obligations outstanding at June 30, 2021 are as follows:

Year Ended June 30,	Direct Borrowings and Direct Placements	
	Revenue and Revenue Refunding Bonds	
	Principal	Interest
2022	\$ 1,601,000	\$ 487,456
2023	1,640,000	447,876
2024	1,679,000	406,952
2025	1,723,000	364,483
2026	1,770,000	320,106
2027	1,821,000	273,831
2028	1,858,000	225,855
2029	1,605,000	180,777
2030	1,644,000	138,753
2031	1,685,000	95,220
2032	1,730,000	49,950
2033	1,067,000	13,423
Total	\$ <u>19,823,000</u>	\$ <u>3,004,682</u>

## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

### **NOTE 4 - LONG-TERM OBLIGATIONS: (continued)**

#### **C. Details of Long-Term Obligations:**

	<b><u>Total Amount</u></b>	<b><u>Amount Due Within One Year</u></b>
<b>Revenue Bonds</b>		
<b>Direct Borrowings and Direct Placements:</b>		
On December 21, 2017, the Authority issued \$13,500,000 of Water Revenue Bonds bearing interest at 2.516% payable semiannually through October 2032. Principal payments commence October 2018, payable annually, through October 2032.	\$ 11,192,000	\$ 809,000
On May 30, 2012, the Authority issued \$3,623,000 of Water Revenue Bonds bearing interest at 3.10% payable semiannually through October 2027. Principal payments commence October 2013.	1,901,000	247,000
On November 20, 2019, the Authority issued \$6,820,000 of Water Revenue Refunding Bonds, Series 2019 to provide funds to defease \$7,330,000 of Water Revenue Refunding Bonds, Series 2010. The Authority advance refunded the 2010 Series bonds to reduce its total debt service payments by \$711,115. The defeased bonds were called and retired on October 1, 2020. Bond issue costs in the amount of \$105,084 are associated with these bonds. The bonds bear interest, payable semiannually, at rates of 2.915%. Principal is payable annually on October 1, 2020 through 2031.	6,730,000	545,000
Total Revenue Bonds	\$ 19,823,000	\$ 1,601,000
Net OPEB liability	\$ 250,760	\$ -
Compensated absences	\$ 190,641	\$ -
Total long-term obligations	\$ 20,264,401	\$ 1,601,000

#### **D. Pledge of Revenues and Funds**

The Authority pledges and assigns to the trustee all revenues derived from the ownership or operation of the System and all monies in the Construction Account, the Revenue Account, the Operating Account, the Bond Account, the Debt Service Reserve Accounts and the Replacement Account for the payment of the principal of interest on the bonds, subject only to the right of the Authority to make application thereof to other purposes as provided in the Trust Agreement.

## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

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### **NOTE 5 - PENSION PLAN:**

#### ***Plan Description***

All full-time, salaried permanent employees of the Authority are automatically covered by a VRS Retirement Plan upon employment. This is an agent multiple-employer plan administered by the Virginia Retirement System (the System) along with plans for other employer groups in the Commonwealth of Virginia. Members earn one month of service credit for each month they are employed and for which they and their employer pay contributions to VRS. Members are eligible to purchase prior service, based on specific criteria as defined in the Code of Virginia, as amended. Eligible prior service that may be purchased includes prior public service, active military service, certain periods of leave, and previously refunded service.

#### ***Benefit Structures***

The System administers three different benefit structures for covered employees – Plan 1, Plan 2 and Hybrid. Each of these benefit structures has different eligibility criteria, as detailed below.

- a. Employees with a membership date before July 1, 2010, vested as of January 1, 2013, and have not taken a refund, are covered under Plan 1, a defined benefit plan. Non-hazardous duty employees are eligible for an unreduced retirement benefit beginning at age 65 with at least 5 years of service credit or age 50 with at least 30 years of service credit. Non-hazardous duty employees may retire with a reduced benefit as early as age 55 with at least 5 years of service credit or age 50 with at least 10 years of service credit.
- b. Employees with a membership date from July 1, 2010 to December 31, 2013, that have not taken a refund or employees with a membership date prior to July 1, 2010 and not vested before January 1, 2013, are covered under Plan 2, a defined benefit plan. Non-hazardous duty employees are eligible for an unreduced benefit beginning at their normal social security retirement age with at least 5 years of service credit or when the sum of their age plus service credit equals 90. Non-hazardous duty employees may retire with a reduced benefit as early as age 60 with at least 5 years of service credit.
- c. Non-hazardous duty employees with a membership date on or after January 1, 2014 are covered by the Hybrid Plan combining the features of a defined benefit plan and a defined contribution plan. Plan 1 and Plan 2 members also had the option of opting into this plan during the election window held January 1 – April 30, 2014 with an effective date of July 1, 2014. Employees covered by this plan are eligible for an unreduced benefit beginning at their normal social security retirement age with at least 5 years of service credit, or when the sum of their age plus service credit equals 90. Employees may retire with a reduced benefit as early as age 60 with at least 5 years of service credit. For the defined contribution component, members are eligible to receive distributions upon leaving employment, subject to restrictions.

#### ***Average Final Compensation and Service Retirement Multiplier***

The VRS defined benefit is a lifetime monthly benefit based on a retirement multiplier as a percentage of the employee's average final compensation multiplied by the employee's total service credit. Under Plan 1, average final compensation is the average of the employee's 36 consecutive months of highest compensation and the multiplier is 1.7% for non-hazardous duty employees, 1.85% for sheriffs and regional jail superintendents. Under Plan 2, average final compensation is the average of the employee's 60 consecutive months of highest compensation and the retirement multiplier is 1.65% for non-hazardous duty employees, 1.85% for sheriffs and regional jail superintendents. Under the Hybrid Plan, average final compensation is the average of the employee's 60 consecutive months of highest compensation and the multiplier is 1.00%. For members who opted into the Hybrid Retirement Plan from Plan 1 or Plan 2, the applicable multipliers for those plans will be used to calculate the retirement benefit for service credited in those plans.

## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

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### **NOTE 5 - PENSION PLAN: (continued)**

#### ***Cost-of-Living Adjustment (COLA) in Retirement and Death and Disability Benefits***

Retirees with an unreduced benefit or with a reduced benefit with at least 20 years of service credit are eligible for an annual COLA beginning July 1 after one full calendar year from the retirement date. Retirees with a reduced benefit and who have less than 20 years of service credit are eligible for an annual COLA beginning on July 1 after one calendar year following the unreduced retirement eligibility date. Under Plan 1, the COLA cannot exceed 5.00%. Under Plan 2 and the Hybrid Plan, the COLA cannot exceed 3.00%. The VRS also provides death and disability benefits. Title 51.1 of the Code of Virginia, as amended, assigns the authority to establish and amend benefit provisions to the General Assembly of Virginia.

#### ***Employees Covered by Benefit Terms***

As of the June 30, 2019 actuarial valuation, the following employees were covered by the benefit terms of the pension plan:

	<b><u>Number</u></b>
Inactive members or their beneficiaries currently receiving benefits	18
Inactive members:	
Vested inactive members	1
Non-vested inactive members	3
Long-term disability (LTD)	-
Inactive members active elsewhere in VRS	<u>6</u>
Total inactive members	10
Active members	<u>28</u>
Total covered employees	<u><u>56</u></u>

#### ***Contributions***

The contribution requirement for active employees is governed by §51.1-145 of the Code of Virginia, as amended, but may be impacted as a result of funding options provided to political subdivisions by the Virginia General Assembly. Employees are required to contribute 5.00% of their compensation toward their retirement.

The Authority's contractually required employer contribution rate for the year ended June 30, 2021 was 3.57% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2019.

This rate, when combined with employee contributions, was expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the pension plan from the Authority were \$35,851 and \$61,836 for the years ended June 30, 2021 and June 30, 2020, respectively.

#### ***Net Pension Liability (Asset)***

The net pension liability (asset) is calculated separately for each employer and represents that particular employer's total pension liability determined in accordance with GASB Statement No. 68, less that employer's fiduciary net position. For the Authority, the net pension liability (asset) was measured as of June 30, 2020. The total pension liability used to calculate the net pension liability (asset) was determined by an actuarial valuation performed as of June 30, 2019 rolled forward to the measurement date of June 30, 2020.

## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

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### **NOTE 5 - PENSION PLAN: (continued)**

#### ***Actuarial Assumptions – General Employees***

The total pension liability for General Employees in the Authority's Retirement Plan was based on an actuarial valuation as of June 30, 2019, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2020.

Inflation	2.5%
Salary increases, including inflation	3.5% – 5.35%
Investment rate of return	6.75%, net of pension plan investment expense, including inflation*

\* Administrative expenses as a percent of the fair value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GASB purposes of slightly more than the assumed 6.75%. However, since the difference was minimal, and a more conservative 6.75% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 6.75% to simplify preparation of pension liabilities.

#### **Mortality rates:**

All Others (Non 10 Largest) – Non-Hazardous Duty: 15% of deaths are assumed to be service related

##### **Pre-Retirement:**

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates at ages 81 and older projected with scale BB to 2020; males 95% of rates; females 105% of rates.

##### **Post-Retirement:**

RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with scale BB to 2020; males set forward 3 years; females 1.0% increase compounded from ages 70 to 90.

##### **Post-Disablement:**

RP-2014 Disability Mortality Rates projected with scale BB to 2020; males set forward 2 years, 110% of rates; females 125% of rates.

The actuarial assumptions used in the June 30, 2019 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

All Others (Non 10 Largest) – Non-Hazardous Duty:

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered rates at older ages and changed final retirement from 70 to 75
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Lowered rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14.00% to 15.00%
Discount Rate	Decreased rate from 7.00% to 6.75%



## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

### **NOTE 5 - PENSION PLAN: (continued)**

#### ***Long-Term Expected Rate of Return***

The long-term expected rate of return on pension System investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension System investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class (Strategy)	Long-Term Target Asset Allocation	Arithmetic Long-term Expected Rate of Return	Weighted Average Long-term Expected Rate of Return*
Public Equity	34.00%	4.65%	1.58%
Fixed Income	15.00%	0.46%	0.07%
Credit Strategies	14.00%	5.38%	0.75%
Real Assets	14.00%	5.01%	0.70%
Private Equity	14.00%	8.34%	1.17%
MAPS - Multi-Asset Public Strategies	6.00%	3.04%	0.18%
PIP - Private Investment Partnership	3.00%	6.49%	0.19%
Total	100.00%		4.64%
		Inflation	2.50%
		Expected arithmetic nominal return*	7.14%

\* The above allocation provides a one-year return of 7.14%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 7.11%, including expected inflation of 2.50%. On October 10, 2019, the VRS Board elected a long-term rate of 6.75% which is roughly at the 40<sup>th</sup> percentile of expected long-term results of the VRS fund asset allocation. More recent capital market assumptions compiled for the FY2020 actuarial valuations provide a median return of 6.81%.

#### ***Discount Rate***

The discount rate used to measure the total pension liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that System member contributions will be made per the VRS Statutes and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Consistent with the phased-in funding provided by the General Assembly for state and teacher employer contributions; the Authority was also provided with an opportunity to use an alternative employer contribution rate. For the year ended June 30, 2020, the alternate rate was the employer contribution rate used in FY 2012 or 100% of the actuarially determined employer contribution rate from the June 30, 2017 actuarial valuations, whichever was greater. From July 1, 2020 on, participating employers are assumed to continue to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total pension liability.



# **APPOMATTOX RIVER WATER AUTHORITY**

Notes to Financial Statements  
June 30, 2021 (continued)

## **NOTE 5 - PENSION PLAN: (continued)**

### ***Changes in Net Pension Liability (Asset)***

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (Asset) (a) - (b)
Balances at June 30, 2019	\$ 5,825,237	\$ 6,302,499	\$ (477,262)
Changes for the year:			
Service cost	\$ 151,219	\$ -	\$ 151,219
Interest	377,352	-	377,352
Differences between expected and actual experience	(141,255)	-	(141,255)
Contributions - employer	-	61,655	(61,655)
Contributions - employee	-	72,432	(72,432)
Net investment income	-	115,538	(115,538)
Benefit payments, including refunds of employee contributions	(469,669)	(469,669)	-
Administrative expenses	-	(4,312)	4,312
Other changes	-	(137)	137
Net changes	\$ (82,353)	\$ (224,493)	\$ 142,140
Balances at June 30, 2020	\$ 5,742,884	\$ 6,078,006	\$ (335,122)

### ***Sensitivity of the Net Pension Liability (Asset) to Changes in the Discount Rate***

The following presents the net pension liability (asset) of the Authority using the discount rate of 6.75%, as well as what the Authority's net pension liability (asset) would be if it were calculated using a discount rate that is one percentage point lower (5.75%) or one percentage point higher (7.75%) than the current rate:

	Rate		
	(5.75%)	(6.75%)	(7.75%)
Appomattox River Water Authority Net Pension Liability (Asset)	\$ 331,651	\$ (335,122)	\$ (895,777)

### ***Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions***

For the year ended June 30, 2021, the Authority recognized pension expense of (\$57,674). At June 30, 2021, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ 261,124
Change of assumptions	61,850	-
Net difference between projected and actual earnings on pension plan investments	184,803	-
Employer contributions subsequent to the measurement date	35,851	-
Total	\$ 282,504	\$ 261,124

## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

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### **NOTE 5 - PENSION PLAN: (continued)**

#### ***Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions (continued)***

\$35,851 reported as deferred outflows of resources related to pensions resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability (Asset) in the fiscal year ending June 30, 2022. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense in future reporting periods as follows:

<u>Year ended June 30</u>	
2022	\$ (104,403)
2023	(6,769)
2024	37,020
2025	59,681
2026	-
Thereafter	-

#### ***Pension Plan Data***

Information about the VRS Political Subdivision Retirement Plan is also available in the separately issued VRS 2020 Comprehensive Annual Financial Report (Annual Report). A copy of the 2020 VRS Annual Report may be downloaded from the VRS website at <http://www.varetire.org/Pdf/Publications/2020-annual-report.pdf>, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA 23218-2500.

### **NOTE 6 - COMPENSATED ABSENCES:**

Accumulated unpaid vacation, vested sick leave and other compensatory leave amounts are accrued when incurred. At June 30, 2021 and 2020 liabilities were as follows:

	<u>2021</u>	<u>2020</u>
Accumulated and compensatory leave	\$ <u>190,641</u>	\$ <u>185,257</u>

Sick leave is vested and payable upon eligible retirement from the Authority and accordingly recorded as a liability in the financial statements.

### **NOTE 7 - RISK MANAGEMENT:**

The Authority is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The Authority joined together with other local governments in the State to form the Virginia Municipal Group Self Insurance Association, a public entity risk pool currently operating as a common risk management and insurance program for member governments. The Authority pays an annual premium to the pool for its workers compensation coverage and other liability insurance. The Agreement for Formation of the association provides that the association will be self-sustaining through member premiums. The Authority also participates in the VaRisk2, a group liability self insurance plan, administered by the Commonwealth of Virginia, Department of General Services, Division of Risk Management. The Authority pays an annual premium for its public officials general liability insurance to the public entity risk pool currently operating as a common risk management and insurance program for participating governments. Settled claims have not exceeded pool coverage in any of the past three fiscal years.

## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

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### **NOTE 7 - RISK MANAGEMENT: (continued)**

The Authority continues to carry commercial insurance for all other risks of loss, including employee health and accident insurance. Settled claims resulting from these risks have not exceeded commercial insurance coverage in any of the past three fiscal years.

### **NOTE 8 - OTHER POSTEMPLOYMENT BENEFITS:**

#### **Health Insurance:**

##### **Plan Description**

In addition to the pension benefits described in Note 5, the Authority administers a single-employer defined benefit healthcare plan. The plan provides postemployment health care benefits to all eligible permanent employees who meet the requirements under the Authority's pension plans. The plan does not issue a publicly available financial report.

##### **Benefits Provided**

Participants who are eligible to retire from the VRS pension plan are allowed access to the plan until they reach age 65. Retirees pay the blended (employees and retirees) published rate, however as they are older than the typical employee (and thus more expensive) there is a cost to this right to purchase insurance at the blended rate.

VRS retirement eligibility is age 50 with 10 years of service or age 55 with 5 years of service for employees hired prior to July 1, 2010 who were vested in the plan prior to July 1, 2013. VRS retirement eligibility is the earlier of age 60 with 5 years of service or 90 combined age and service points for other employees.

##### **Plan Membership**

At June 30, 2020 (measurement date), the following employees were covered by the benefit terms:

Total active employees with coverage	58
Total retirees with coverage	<u>29</u>
Total	<u><u>87</u></u>

##### **Contributions**

The Authority does not pre-fund benefits; therefore, no assets are accumulated in a trust fund. The current funding policy is to pay benefits directly from general assets on a pay-as-you-go basis. The funding requirements are established and may be amended by the Authority. The amount paid by the Authority for OPEB during the year ended June 30, 2020 was \$13,173.

##### **Total OPEB Liability**

The Authority's total OPEB liability was measured as of June 30, 2020.

## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

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### **NOTE 8 - OTHER POSTEMPLOYMENT BENEFITS: (continued)**

#### **Health Insurance: (continued)**

##### **Actuarial Assumptions**

The total OPEB liability in the January 1, 2021 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Inflation	2.50% per year as of June 30, 2020
Salary Increases	3.5% -5.35% including inflation
Discount Rate	3.13% for accounting and funding disclosures as of June 30, 2019
	2.45% for accounting and funding disclosures as of June 30, 2020

##### **Discount Rate**

The discount rate used to determine the liabilities under GASB 75 is based on an index rate for 20-year tax exempt general obligation municipal bonds with an average rating of AA/Aa or higher. This rate was 3.13% as of June 30, 2019 and 2.45% as of June 30, 2020.

##### **Changes in Total OPEB Liability**

		<b><u>Total OPEB Liability</u></b>
Balances at June 30, 2019	\$	79,079
Changes for the year:		
Service cost		5,405
Interest		2,347
Difference between expected and actual experience		52,830
Changes in assumptions		609
Benefit payments		(15,174)
Net changes	\$	<u>46,017</u>
Balances at June 30, 2020	\$	<u><u>125,096</u></u>

##### **Sensitivity of the Total OPEB Liability to Changes in the Discount Rate**

The following amounts present the total OPEB liability of the Authority, as well as what the total OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (1.45%) or one percentage point higher (3.45%) than the current discount rate:

	<b><u>1% Decrease (1.45%)</u></b>	<b><u>Current Discount Rate (2.45%)</u></b>	<b><u>1% Increase (3.45%)</u></b>
\$	133,017	\$ 125,096	\$ 117,666

## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

### **NOTE 8 - OTHER POSTEMPLOYMENT BENEFITS: (continued)**

#### **Health Insurance: (continued)**

##### **Sensitivity of the Total OPEB Liability to Changes in the Healthcare Cost Trend Rates**

The following presents the total OPEB liability of the Authority, as well as what the total OPEB liability would be if it were calculated using healthcare cost trend rates that are one percentage point lower (3.00%) or one percentage point higher (5.00%) than the current healthcare cost trend rates:

	<b>1% Decrease (3.00%)</b>	<b>Healthcare Cost Trend Rates (4.00%)</b>	<b>1% Increase (5.00%)</b>
	<u>                    </u>	<u>                    </u>	<u>                    </u>
\$	114,627	\$ 125,096	\$ 137,291

##### **OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources**

For the year ended June 30, 2021, the Authority recognized OPEB expense in the amount of \$12,267. At June 30, 2021, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
	<u>                    </u>	<u>                    </u>
Differences between expected and actual experience	\$ 43,133	\$ 11,985
Changes in assumptions	1,873	1,092
Employer contributions subsequent to the measurement date	13,173	-
Total	<u>\$ 58,179</u>	<u>\$ 13,077</u>

\$13,173 reported as deferred outflows of resources related to OPEB resulting from employer contributions subsequent to measurement date will be recognized as a reduction of the net OPEB liability in the year ended June 30, 2022.

Amounts reported as deferred outflows of resources and deferred inflows of resources will be recognized in OPEB expense in future reporting periods as follows:

<b>Year Ended June 30</b>	
	<u>                    </u>
2022	\$ 4,513
2023	5,290
2024	11,439
2025	10,687
2026	-
Thereafter	-

Additional disclosures on changes in total OPEB liability, related ratios, and employer contributions can be found in the required supplementary information following the notes to the financial statements.

## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

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### **NOTE 8 - OTHER POSTEMPLOYMENT BENEFITS: (continued)**

#### **Group Life Insurance (GLI) Plan (OPEB PLAN):**

##### ***Plan Description***

The Group Life Insurance (GLI) Plan was established pursuant to §51.1-500 et seq. of the Code of Virginia, as amended, and which provides the authority under which benefit terms are established or may be amended. All full-time, salaried permanent employees of the state agencies, teachers, and employees of participating political subdivisions are automatically covered by the VRS GLI Plan upon employment. This is a cost-sharing multiple-employer plan administered by the Virginia Retirement System (the System), along with pensions and other OPEB plans, for public employer groups in the Commonwealth of Virginia.

In addition to the Basic Group Life Insurance benefit, members are also eligible to elect additional coverage for themselves as well as a spouse or dependent children through the Optional GLI Plan. For members who elect the optional group life insurance coverage, the insurer bills employers directly for the premiums. Employers deduct these premiums from members' paychecks and pay the premiums to the insurer. Since this is a separate and fully insured plan, it is not included as part of the GLI Plan OPEB.

The specific information for GLI OPEB, including eligibility, coverage and benefits is described below:

##### ***Eligible Employees***

The GLI Plan was established July 1, 1960, for state employees, teachers, and employees of political subdivisions that elect the plan. Basic GLI coverage is automatic upon employment. Coverage ends for employees who leave their position before retirement eligibility or who take a refund of their accumulated retirement member contributions and accrued interest.

##### ***Benefit Amounts***

The GLI Plan is a defined benefit plan with several components. The natural death benefit is equal to the employee's covered compensation rounded to the next highest thousand and then doubled. The accidental death benefit is double the natural death benefit. In addition to basic natural and accidental death benefits, the plan provides additional benefits provided under specific circumstances that include the following: accidental dismemberment benefit, safety belt benefit, repatriation benefit, felonious assault benefit, and accelerated death benefit option. The benefit amounts are subject to a reduction factor. The benefit amount reduces by 25% on January 1 following one calendar year of separation. The benefit amount reduces by an additional 25% on each subsequent January 1 until it reaches 25% of its original value. For covered members with at least 30 years of service credit, the minimum benefit payable was set at \$8,000 by statute in 2015. This will be increased annually based on the VRS Plan 2 cost-of-living adjustment calculation. The minimum benefit adjusted for the COLA was \$8,616 as of June 30, 2021.

## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

### **NOTE 8 - OTHER POSTEMPLOYMENT BENEFITS: (continued)**

#### **Group Life Insurance (GLI) Plan (OPEB PLAN): (continued)**

##### ***Contributions***

The contribution requirements for the GLI Plan are governed by §51.1-506 and §51.1-508 of the Code of Virginia, as amended, but may be impacted as a result of funding provided to state agencies and school divisions by the Virginia General Assembly. The total rate for the GLI Plan was 1.34% of covered employee compensation. This was allocated into an employee and an employer component using a 60/40 split. The employee component was 0.80% (1.34% x 60%) and the employer component was 0.54% (1.34% x 40%). Employers may elect to pay all or part of the employee contribution; however, the employer must pay all of the employer contribution. Each employer's contractually required employer contribution rate for the year ended June 30, 2021 was 0.54% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2019. The actuarially determined rate, when combined with employee contributions, was expected to finance the costs of benefits payable during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the GLI Plan from the entity were \$7,801 and \$8,063 for the years ended June 30, 2021 and June 30, 2020, respectively.

##### ***GLI OPEB Liabilities, GLI OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the GLI Plan OPEB***

At June 30, 2021, the entity reported a liability of \$125,664 for its proportionate share of the Net GLI OPEB Liability. The Net GLI OPEB Liability was measured as of June 30, 2020 and the total GLI OPEB liability used to calculate the Net GLI OPEB Liability was determined by an actuarial valuation performed as of June 30, 2019 and rolled forward to the measurement date of June 30, 2020. The covered employer's proportion of the Net GLI OPEB Liability was based on the covered employer's actuarially determined employer contributions to the GLI Plan for the year ended June 30, 2020 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2020, the participating employer's proportion was .00753% as compared to .00795% at June 30, 2019.

For the year ended June 30, 2021, the participating employer recognized GLI OPEB expense of \$3,925. Since there was a change in proportionate share between measurement dates, a portion of the GLI OPEB expense was related to deferred amounts from changes in proportion.

At June 30, 2021, the employer reported deferred outflows of resources and deferred inflows of resources related to the GLI OPEB from the following sources:

	<b><u>Deferred Outflows of Resources</u></b>	<b><u>Deferred Inflows of Resources</u></b>
Differences between expected and actual experience	\$ 8,060	\$ 1,129
Net difference between projected and actual earnings on GLI OPEB plan investments	3,775	-
Change in assumptions	6,285	2,624
Changes in proportionate share	2,059	6,461
Employer contributions subsequent to the measurement date	7,801	-
Total	<u>\$ 27,980</u>	<u>\$ 10,214</u>



## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

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### **NOTE 8 - OTHER POSTEMPLOYMENT BENEFITS: (continued)**

#### **Group Life Insurance (GLI) Plan (OPEB PLAN): (continued)**

#### ***GLI OPEB Liabilities, GLI OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the GLI Plan OPEB: (continued)***

\$7,801 reported as deferred outflows of resources related to the GLI OPEB resulting from the employer's contributions subsequent to the measurement date will be recognized as a reduction of the Net GLI OPEB Liability in the fiscal year ending June 30, 2022. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the GLI OPEB will be recognized in the GLI OPEB expense in future reporting periods as follows:

<b><u>Year Ended June 30</u></b>		
2022	\$	1,026
2023		2,092
2024		3,310
2025		3,557
2026		142
Thereafter		(162)

#### ***Actuarial Assumptions***

The total GLI OPEB liability was based on an actuarial valuation as of June 30, 2019, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2020. The assumptions include several employer groups. Salary increases and mortality rates included herein are for relevant employer groups. Information for other groups can be referenced in the VRS Annual Report.

Inflation	2.50%
Salary increases, including inflation:	
Locality - General employees	3.50%-5.35%
Investment rate of return	6.75%, net of investment expenses, including inflation*

\*Administrative expenses as a percent of the fair value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GASB purposes of slightly more than the assumed 6.75%. However, since the difference was minimal, and a more conservative 6.75% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 6.75% to simplify preparation of OPEB liabilities.

## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

### **NOTE 8 - OTHER POSTEMPLOYMENT BENEFITS: (continued)**

#### **Group Life Insurance (GLI) Plan (OPEB PLAN): (continued)**

##### ***Actuarial Assumptions: (continued)***

##### **Mortality Rates – Non-Largest Ten Locality Employers – General Employees**

###### **Pre-Retirement:**

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with scale BB to 2020; males 95% of rates; females 105% of rates.

###### **Post-Retirement:**

RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with scale BB to 2020; males set forward 3 years; females 1.0% increase compounded from ages 70 to 90.

###### **Post-Disablement:**

RP-2014 Disability Mortality Rates projected with scale BB to 2020; males set forward 2 years, 110% of rates; females 125% of rates.

The actuarial assumptions used in the June 30, 2019 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14.00% to 15.00%
Discount Rate	Decreased rate from 7.00% to 6.75%

##### ***NET GLI OPEB Liability***

The net OPEB liability (NOL) for the GLI Plan represents the plan's total OPEB liability determined in accordance with GASB Statement No. 74, less the associated fiduciary net position. As of the measurement date of June 30, 2020, NOL amounts for the GLI Plan are as follows (amounts expressed in thousands):

		<b>GLI OPEB Plan</b>
Total GLI OPEB Liability	\$	3,523,937
Plan Fiduciary Net Position		1,855,102
GLI Net OPEB Liability (Asset)	\$	1,668,835
Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability		52.64%

## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

### **NOTE 8 - OTHER POSTEMPLOYMENT BENEFITS: (continued)**

#### **Group Life Insurance (GLI) Plan (OPEB PLAN): (continued)**

##### ***NET GLI OPEB Liability: (continued)***

The total GLI OPEB liability is calculated by the System's actuary, and each plan's fiduciary net position is reported in the System's financial statements. The net GLI OPEB liability is disclosed in accordance with the requirements of GASB Statement No. 74 in the System's notes to the financial statements and required supplementary information.

##### ***Long-Term Expected Rate of Return***

The long-term expected rate of return on the System's investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of System's investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

<b>Asset Class (Strategy)</b>	<b>Long-Term Target Asset Allocation</b>	<b>Arithmetic Long-term Expected Rate of Return</b>	<b>Weighted Average Long-term Expected Rate of Return*</b>
Public Equity	34.00%	4.65%	1.58%
Fixed Income	15.00%	0.46%	0.07%
Credit Strategies	14.00%	5.38%	0.75%
Real Assets	14.00%	5.01%	0.70%
Private Equity	14.00%	8.34%	1.17%
MAPS - Multi-Asset Public Strategies	6.00%	3.04%	0.18%
PIP - Private Investment Partnership	3.00%	6.49%	0.19%
Total	100.00%		4.64%
		Inflation	2.50%
		Expected arithmetic nominal return*	7.14%

\*The above allocation provides a one-year return of 7.14%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 7.11%, including expected inflation of 2.50%. On October 10, 2019, the VRS Board elected a long-term rate of 6.75%, which is roughly the 40<sup>th</sup> percentile of expected long-term results of the VRS fund asset allocation. More recent capital market assumptions compiled for the FY2020 actuarial valuations provide a median return of 6.81%.

## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

### **NOTE 8 - OTHER POSTEMPLOYMENT BENEFITS: (continued)**

#### **Group Life Insurance (GLI) Plan (OPEB PLAN): (continued)**

##### ***Discount Rate***

The discount rate used to measure the total GLI OPEB liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that member contributions will be made per the VRS guidance and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ending June 30, 2020, the rate contributed by the entity for the GLI OPEB will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2020 on, employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the GLI OPEB's fiduciary net position was projected to be available to make all projected future benefit payments of eligible employees. Therefore, the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total GLI OPEB liability.

##### ***Sensitivity of the Employer's Proportionate Share of the Net GLI OPEB Liability to Changes in the Discount Rate***

The follow presents the employer's proportionate share of the net GLI OPEB liability using the discount rate of 6.75%, as well as what the employer's proportionate share of the net GLI OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (5.75%) or one percentage point higher (7.75%) than the current rate:

	Rate		
	1% Decrease	Current Discount	1% Increase
	(5.75%)	(6.75%)	(7.75%)
Authority's proportionate share of the Group Life Insurance Plan			
Net OPEB Liability	\$ 165,194	\$ 125,664	\$ 93,561

##### ***Group Life Insurance (GLI) Plan Fiduciary Net Position***

Detailed information about the Group Life Insurance Plan's Fiduciary Net Position is available in the separately issued VRS 2020 Comprehensive Annual Financial Report (Annual Report). A copy of the 2020 VRS Annual Report may be downloaded from the VRS website at <http://www.varetire.org/Pdf/Publications/2020-annual-report.pdf>, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

##### ***OPEB Aggregate Totals***

	Appomattox River Water Authority			
	Deferred Outflows	Deferred Inflows	Net OPEB Liability	OPEB Expense
VRS OPEB Plans:				
Group Life Insurance Plan (Note 8):	\$ 27,980	\$ 10,214	\$ 125,664	\$ 3,925
Authority's Stand-Alone Plan (Note 8)	58,179	13,077	125,096	12,267
Totals	<u>\$ 86,159</u>	<u>\$ 23,291</u>	<u>\$ 250,760</u>	<u>\$ 16,192</u>

## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

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### **NOTE 9 - DEFERRED COMPENSATION PLAN:**

Eligible employees of the Authority may participate in a deferred compensation plan in accordance with Internal Revenue Code section 457. The plan permits participants to defer a portion of their salary until future years. The deferred compensation is not available to employees until termination of employment, retirement, death or an unforeseen emergency. The Authority has no fiduciary responsibility for the plan, has no liability for losses incurred under the plan as the plan is administered by the U.S. Conference of Mayors and the plan is not accessible by the Authority's creditors; therefore, any related assets and liabilities are not reflected in the financial statements.

### **NOTE 10 - RELATED PARTY TRANSACTIONS:**

The Authority is governed by a common Board of Directors with the South Central Wastewater Authority ("SCWWA"). The Authority has an agreement with SCWWA to share several key positions utilized by both the Authority and SCWWA. Accordingly the two Authorities share personnel costs necessary to fund the positions. During the current fiscal year the Authority received reimbursement in the amount of \$161,734 from SCWWA for reimbursement of salary and benefits paid to Authority employees that allocate time and duties with SCWWA. Similarly, the Authority pays a reimbursement to SCWWA for salary and benefits for SCWWA employees that allocate time and duties with the Authority. The Authority reported expenses of \$177,405 as reimbursement.

### **NOTE 11 - FAIR VALUE MEASUREMENTS:**

Fair value for investments is determined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. The three-level fair value hierarchy prioritizes the inputs used to measure fair value. This hierarchy requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows:

- Level 1 — Quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2 — Significant observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.
- Level 3 — Significant unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. This includes certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

## APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements  
June 30, 2021 (continued)

### **NOTE 11 - FAIR VALUE MEASUREMENTS: (continued)**

The Authority is providing the following information related to its investments:

	Fair Value Measurements at Reporting Date Using			
	Total June 30, 2021	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
U.S. Treasury & Agency Money Market Funds	\$ 15,640,306	\$ 15,640,306	\$ -	\$ -
Total investments measured at fair value	\$ 15,640,306	\$ 15,640,306	\$ -	\$ -

### **NOTE 12 - UPCOMING PRONOUNCEMENTS:**

Statement No. 87, *Leases*, requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. The requirements of this Statement are effective for reporting periods beginning after June 15, 2021.

Statement No. 89, *Accounting for Interest Cost Incurred Before the End of a Construction Period*, provides guidance for reporting capital assets and the cost of borrowing for a reporting period and simplifies accounting for interest cost incurred before the end of a construction period. The requirements of this Statement are effective for reporting periods beginning after December 15, 2020.

Statement No. 92, *Omnibus 2020*, addresses practice issues that have been identified during implementation and application of certain GASB Statements. This Statement addresses a variety of topics such as leases, assets related to pension and postemployment benefits, and reference to nonrecurring fair value measurements of assets or liabilities in authoritative literature. The effective dates differ by topic, ranging from January 2020 to periods beginning after June 15, 2021.

Statement No. 94, *Public-Private and Public-Public Partnerships and Availability of Payment Arrangements*, addresses issues related to public-private and public-public partnership arrangements. This Statement also provides guidance for accounting and financial reporting for availability payment arrangements. The requirements of this Statement are effective for reporting periods beginning after June 15, 2022.

Statement No. 96, *Subscription-Based Information Technology Arrangements (SBITAs)*, (1) defines a SBITA; (2) establishes that a SBITA results in a right-to-use subscription asset—an intangible asset—and a corresponding subscription liability; (3) provides the capitalization criteria for outlays other than subscription payments, including implementation costs of a SBITA; and (4) requires note disclosures regarding a SBITA. The requirements of this Statement are effective for reporting periods beginning after June 15, 2022.

Management is currently evaluating the impact these standards will have on the financial statements when adopted.

**APPOMATTOX RIVER WATER AUTHORITY**

Notes to Financial Statements  
June 30, 2021 (continued)

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**NOTE 13 - CHANGE IN RESTRICTIONS:**

The current year report includes a change in calculations related to restricted cash and restricted net position. The prior year restricted amounts have been updated to reflect current year calculations. The changes in prior year reported amounts for both restricted cash and restricted net position are detailed below.

***Changes in restricted cash:***

<b>Restriction</b>	<b>Restricted cash at June 30, 2020 per prior year report</b>	<b>Adjustment</b>	<b>Restricted cash at June 30, 2020 as adjusted</b>
Replacement fund	\$ 500,000	\$ -	\$ 500,000
Bond reserve	2,090,663	4,168	2,094,831
Bond interest	279,200	-	279,200
Bond principal fund	1,558,000	-	1,558,000
Operating fund	3,675,319	(769,186)	2,906,133
Operating reserve fund	-	3,752,950	3,752,950
Unspent bond proceeds	1,956,769	-	1,956,769
2017 bond interest	152,954	(152,954)	-
Total restricted cash	\$ 10,212,905	\$ 2,834,978	\$ 13,047,883

***Changes in restricted net position:***

<b>Restriction</b>	<b>Restricted net position at June 30, 2020 per prior year report</b>	<b>Adjustment</b>	<b>Restricted net position at June 30, 2020 as adjusted</b>
Net investment in capital assets \$	29,695,452	\$ (970,245)	\$ 28,725,207
Restricted for debt service and bond covenants	7,963,578	2,987,940	10,951,518
Restricted for net pension asset	-	477,262	477,262
Total restricted net position	\$ 37,659,030	\$ 2,494,957	\$ 40,153,987



**- Required Supplementary Information -**

**APPOMATTOX RIVER WATER AUTHORITY**

Schedule of Changes in Net Pension (Asset) Liability and Related Ratios  
Pension Plan  
For the Measurement Dates of June 30, 2014 through June 30, 2020

	2020	2019	2018	2017	2016	2015	2014
<b>Total pension liability</b>							
Service cost	\$ 151,219	\$ 133,704	\$ 133,770	\$ 141,274	\$ 134,438	\$ 128,956	\$ 115,714
Interest	377,352	392,689	382,392	377,709	361,682	323,274	304,237
Differences between expected and actual experience	(141,255)	(336,850)	(114,977)	(8,307)	(28,955)	280,591	-
Changes of assumptions	-	145,432	-	(181,571)	-	-	-
Benefit payments	(469,669)	(239,153)	(269,025)	(255,396)	(221,000)	(147,277)	(148,713)
<b>Net change in total pension liability</b>	<b>\$ (82,353)</b>	<b>\$ 95,822</b>	<b>\$ 132,160</b>	<b>\$ 73,709</b>	<b>\$ 246,165</b>	<b>\$ 585,544</b>	<b>\$ 271,238</b>
<b>Total pension liability - beginning</b>	<b>5,825,237</b>	<b>5,729,415</b>	<b>5,597,255</b>	<b>5,523,546</b>	<b>5,277,381</b>	<b>4,691,837</b>	<b>4,420,599</b>
<b>Total pension liability - ending (a)</b>	<b>\$ 5,742,884</b>	<b>\$ 5,825,237</b>	<b>\$ 5,729,415</b>	<b>\$ 5,597,255</b>	<b>\$ 5,523,546</b>	<b>\$ 5,277,381</b>	<b>\$ 4,691,837</b>
<b>Plan fiduciary net position</b>							
Contributions - employer	\$ 61,655	\$ 63,920	\$ 74,997	\$ 77,470	\$ 90,504	\$ 84,275	\$ 84,546
Contributions - employee	72,432	73,543	70,080	70,147	71,510	66,467	62,807
Net investment income	115,538	399,703	421,113	630,091	90,092	227,824	674,742
Benefit payments	(469,669)	(239,153)	(269,025)	(255,396)	(221,000)	(147,277)	(148,713)
Administrator charges	(4,312)	(3,967)	(3,668)	(3,675)	(3,223)	(3,066)	(3,607)
Other	(137)	(252)	(373)	(559)	(38)	(48)	35
<b>Net change in plan fiduciary net position</b>	<b>\$ (224,493)</b>	<b>\$ 293,794</b>	<b>\$ 293,124</b>	<b>\$ 518,078</b>	<b>\$ 27,845</b>	<b>\$ 228,175</b>	<b>\$ 669,810</b>
<b>Plan fiduciary net position - beginning</b>	<b>6,302,499</b>	<b>6,008,705</b>	<b>5,715,581</b>	<b>5,197,503</b>	<b>5,169,658</b>	<b>4,941,483</b>	<b>4,271,673</b>
<b>Plan fiduciary net position - ending (b)</b>	<b>\$ 6,078,006</b>	<b>\$ 6,302,499</b>	<b>\$ 6,008,705</b>	<b>\$ 5,715,581</b>	<b>\$ 5,197,503</b>	<b>\$ 5,169,658</b>	<b>\$ 4,941,483</b>
<b>Authority's net pension (asset) liability - ending (a) - (b)</b>	<b>\$ (335,122)</b>	<b>\$ (477,262)</b>	<b>\$ (279,290)</b>	<b>\$ (118,326)</b>	<b>\$ 326,043</b>	<b>\$ 107,723</b>	<b>\$ (249,646)</b>
<b>Plan fiduciary net position as a percentage of the total pension liability</b>	<b>105.84%</b>	<b>108.19%</b>	<b>104.87%</b>	<b>102.11%</b>	<b>94.10%</b>	<b>97.96%</b>	<b>105.32%</b>
<b>Covered payroll</b>	<b>\$ 1,550,601</b>	<b>\$ 1,557,186</b>	<b>\$ 1,475,042</b>	<b>\$ 1,462,461</b>	<b>\$ 1,467,991</b>	<b>\$ 1,339,006</b>	<b>\$ 1,256,141</b>
<b>Authority's net pension (asset) liability as a percentage of covered payroll</b>	<b>(21.61%)</b>	<b>(30.65%)</b>	<b>(18.93%)</b>	<b>(8.09%)</b>	<b>22.21%</b>	<b>8.04%</b>	<b>(19.87%)</b>

This schedule is intended to report information for 10 years. Information prior to the 2014 valuation is not available. Additional years will be included when available.

# **APPOMATTOX RIVER WATER AUTHORITY**

## Schedule of Employer Contributions

### Pension Plan

For the Years Ended June 30, 2012 through June 30, 2021

<b>Fiscal Year</b>	<b>Contractually Required Contribution (1)</b>	<b>Contributions in Relation to Contractually Required Contribution (2)</b>	<b>Contribution Deficiency (Excess) (3)</b>	<b>Employer's Covered Payroll (4)</b>	<b>Contributions as a % of Covered Payroll (5)</b>
2012	\$ 28,190	\$ 28,190	\$ -	\$ 985,675	2.86%
2013	74,118	74,118	-	1,126,410	6.58%
2014	82,654	82,654	-	1,256,141	6.58%
2015	87,660	87,660	-	1,339,006	6.55%
2016	90,504	90,504	-	1,467,991	6.17%
2017	77,470	77,470	-	1,462,461	5.30%
2018	74,997	74,997	-	1,475,042	5.08%
2019	63,920	63,920	-	1,557,186	4.10%
2020	61,836	61,836	-	1,550,601	3.99%
2021	35,851	35,851	-	1,444,682	2.48%

## APPOMATTOX RIVER WATER AUTHORITY

### Notes to Required Supplementary Information Pension Plan For the Year Ended June 30, 2021

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**Changes of benefit terms** – There have been no actuarially material changes to the System benefit provisions since the prior actuarial valuation.

**Changes of assumptions** – The actuarial assumptions used in the June 30, 2019 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

**All Others (Non 10 Largest) – Non-Hazardous Duty:**

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered rates at older ages and changed final retirement from 70 to 75
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Lowered rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14.00% to 15.00%
Discount Rate	Decreased rate from 7.00% to 6.75%

# **APPOMATTOX RIVER WATER AUTHORITY**

## Schedule of Changes in Total OPEB Liability (Asset) and Related Ratios - Health Insurance For the Years Ended June 30, 2018 through 2021

	<u>2021</u>		<u>2020</u>		<u>2019</u>		<u>2018</u>
<b>Total OPEB liability</b>							
Service cost	\$ 5,405	\$	4,870	\$	7,039	\$	7,411
Interest	2,347		2,655		3,760		3,037
Changes in assumptions	609		2,310		(782)		(3,882)
Differences between expected and actual experience	52,830		1,449		(29,964)		-
Benefit payments	(15,174)		(9,648)		(9,648)		(12,200)
<b>Net change in total OPEB liability</b>	\$ 46,017	\$	1,636	\$	(29,595)	\$	(5,634)
<b>Total OPEB liability – beginning</b>	79,079		77,443		107,038		112,672
<b>Total OPEB liability – ending</b>	<u>\$ 125,096</u>	<u>\$</u>	<u>79,079</u>	<u>\$</u>	<u>77,443</u>	<u>\$</u>	<u>107,038</u>
 <b>Covered-employee payroll</b>	 \$ N/A	 \$	 N/A	 \$	 N/A	 \$	 N/A
 <b>Authority's total OPEB liability (asset) as a percentage of covered payroll</b>	 N/A		 N/A		 N/A		 N/A

Schedule is intended to show information for 10 years. Additional years will be included as they become available.

## APPOMATTOX RIVER WATER AUTHORITY

### Notes to Required Supplementary Information - Health Insurance For the Year Ended June 30, 2021

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Valuation Date: January 1, 2021

Measurement Date: June 30, 2020

No assets are accumulated in a trust that meets the criteria in GASB 75 to pay related benefits.

*Methods and assumptions used to determine OPEB liability:*

Actuarial Cost Method	Entry Age Normal cost method
Discount Rate	3.13% as of June 30, 2019; 2.45% as of June 30, 2020
Inflation	2.50% per year as of June 30, 2019; 2.45% per year as of June 30, 2020
Healthcare Trend Rate	Healthcare trend rate of 4.00%. Rates are selected based on an economic model developed by a healthcare economist for the Society of Actuaries.
Salary Increase Rates	Salary increase rates of 3.5% - 5.35% including inflation
Demographic Assumptions	Assumed that 50% of employees with medical coverage would elect to retain the coverage at retirement.

# **APPOMATTOX RIVER WATER AUTHORITY**

## Schedule of Authority's Share of Net OPEB Liability

### Group Life Insurance (GLI) Plan

For the Measurement Dates of June 30, 2017 through June 30, 2020

<b>Date</b>	<b>Employer's Proportion of of the Net GLI OPEB Liability (Asset)</b>	<b>Employer's Proportionate Share of the Net GLI OPEB Liability (Asset)</b>	<b>Employer's Covered Payroll</b>	<b>Employer's Proportionate Share of the Net GLI OPEB Liability (Asset) as a Percentage of Covered Payroll (3)/(4)</b>	<b>Plan Fiduciary Net Position as a Percentage of Total GLI OPEB Liability</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>	<b>(6)</b>
2020	0.00753% \$	125,664 \$	1,550,601	8.10%	52.64%
2019	0.00795%	129,368	1,557,186	8.31%	52.00%
2018	0.00776%	118,000	1,475,042	8.00%	51.22%
2017	0.00793%	119,000	1,462,461	8.14%	48.86%

Schedule is intended to show information for 10 years. Information prior to the 2017 valuation is not available. However, additional years will be included as they become available.



# **APPOMATTOX RIVER WATER AUTHORITY**

Schedule of Employer Contributions  
Group Life Insurance (GLI) Plan  
For the Years Ended June 30, 2017 through June 30, 2021

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<b>Date</b>	<b>Contributions in Relation to</b>			<b>Contributions as a % of</b>	
	<b>Contractually Required Contribution</b>	<b>Contractually Required Contribution</b>	<b>Contribution Deficiency (Excess)</b>	<b>Employer's Covered Payroll</b>	<b>Covered Payroll</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
2021	\$ 7,801	\$ 7,801	\$ -	\$ 1,444,682	0.54%
2020	8,063	8,063	-	1,550,601	0.52%
2019	8,106	8,106	-	1,557,186	0.52%
2018	7,729	7,729	-	1,475,042	0.52%
2017	7,608	7,608	-	1,462,461	0.52%

Schedule is intended to show information for 10 years. Information is unavailable for all 10 years. Additional years will be included as they become available.

## APPOMATTOX RIVER WATER AUTHORITY

### Notes to Required Supplementary Information Group Life Insurance (GLI) Plan For the Year Ended June 30, 2021

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**Changes of benefit terms** – There have been no actuarially material changes to the System benefit provisions since the prior actuarial valuation.

**Changes of assumptions** – The actuarial assumptions used in the June 30, 2019 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

#### Non-Largest Ten Locality Employers - General Employees

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14.00% to 15.00%
Discount Rate	Decreased rate from 7.00% to 6.75%

**- Compliance -**



ROBINSON, FARMER, COX ASSOCIATES, PLLC

*Certified Public Accountants*

**Independent Auditors' Report on Internal Control over Financial Reporting and on  
Compliance and Other Matters Based on an Audit of Financial Statements  
Performed in Accordance with *Government Auditing Standards***

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**To the Honorable Members of  
Appomattox River Water Authority  
S. Chesterfield, Virginia**

We have audited, in accordance with the auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the *Specifications for Audits of Authorities, Boards, and Commissions*, issued by the Auditor of Public Accounts of the Commonwealth of Virginia, the financial statements of the business-type activities of Appomattox River Water Authority as of and for the year ended June 30, 2021, and the related notes to the financial statements, which collectively comprise Appomattox River Water Authority's basic financial statements and have issued our report thereon dated November 5, 2021.

**Internal Control over Financial Reporting**

In planning and performing our audit of the financial statements, we considered Appomattox River Water Authority's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Appomattox River Water Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of Appomattox River Water Authority's internal control.

*A deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. *A material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented or detected and corrected on a timely basis. *A significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

## Compliance and Other Matters

As part of obtaining reasonable assurance about whether Appomattox River Water Authority's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

## Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

A handwritten signature in black ink that reads "Robinson, Farmer, Cox Associates". The script is cursive and fluid.

Charlottesville, Virginia  
November 5, 2021



# ROBINSON, FARMER, COX ASSOCIATES, PLLC

*Certified Public Accountants*

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## Independent Accountants' Report

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Auditor of Public Accounts  
P.O. Box 1295  
Richmond, VA 23218

We have examined management of Appomattox River Water Authority's assertion that the census data reported to the Virginia Retirement System by Appomattox River Water Authority during the year ended June 30, 2021, were complete and accurate based on the criteria set forth by the Virginia Retirement System and the Board of Trustees' plan provisions as mandated in §51.1-136 of the Code of Virginia. Appomattox River Water Authority's management is responsible for its assertion. Our responsibility is to express an opinion on the assertion based on our examination.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform the examination to obtain reasonable assurance about whether management's assertion is fairly stated, in all material respects. An examination involves performing procedures to obtain evidence about management's assertion. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risks of material misstatement of management's assertion, whether due to fraud or error. We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

In our opinion, management's assertion that the census data reported to the Virginia Retirement System by the Appomattox River Water Authority during the year ended June 30, 2021, were complete and accurate based on the criteria set forth by the Virginia Retirement System and the Board of Trustees' plan provisions as mandated in §51.1-136 of the Code of Virginia, is fairly stated, in all material respects.

This report is intended solely for the information and use of Appomattox River Water Authority and the Auditor of Public Accounts of the Commonwealth of Virginia and is not intended to be and should not be used by anyone other than these specified parties.

*Robinson, Farmer, Cox Associates*

Charlottesville, Virginia  
November 5, 2021

cc: Local Governing Body

## Appendix A

We identified one control environment during this review for which Appomattox River Water Authority was responsible.

The following table reflects the population size and sample size for each procedure performed over the control environment for which Appomattox River Water Authority was responsible:

Required Audit Procedure	Population Size	Sample Size*	Risks and Other Considerations Used to Determine Sample Size
Review of Census Data Elements	34	5	Very small population. Prior history, staff knowledge of VRS requirements, etc. was factored into determining sample size.
Review of Eligibility of Newly Enrolled Members Reported to the VRS	4	1	Very small population. Prior history, staff knowledge of VRS requirements, etc. was factored into determining sample size.
Review of Monthly <i>myVRS</i> Navigator Contribution Reconciliations	12	3	Very small population. Prior history, staff knowledge of VRS requirements, etc. was factored into determining sample size.
Review of <i>myVRS</i> Navigator System Access	2	2	Tested full population.

\* Sample sizes are based on a 5% tolerable rate and approximately a 75% confidence level for populations over 250. Sample sizes for populations under 250 are based on a percentage of the population which is not less than 10%.





# ROBINSON, FARMER, COX ASSOCIATES, PLLC

*Certified Public Accountants*

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## Communication with Those Charged with Governance

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### To the Board of Directors Appomattox River Water Authority

We have audited the financial statements of the business-type activities of Appomattox River Water Authority for the year ended June 30, 2021. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards and *Government Auditing Standards*, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter to you dated November 5, 2021. Professional standards also require that we communicate to you the following information related to our audit.

#### Significant Audit Matters

##### *Qualitative Aspects of Accounting Practices*

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by the Authority are described in Note 1 to the financial statements. No new accounting policies were adopted and the application of existing policies was not changed during 2021. We noted no transactions entered into by the entity during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the Authority's financial statements were:

Management's estimate of the useful lives of depreciable assets is based on industry standards. Pension and OPEB estimates were determined by valuations performed by actuaries. We evaluated the key factors and assumptions used to develop the estimates in determining that they are reasonable in relation to the financial statements taken as a whole.

The financial statement disclosures are neutral, consistent, and clear.

##### *Difficulties Encountered in Performing the Audit*

We encountered no significant difficulties in dealing with management in performing and completing our audit.

##### *Corrected and Uncorrected Misstatements*

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. Management has corrected all such misstatements. In addition, none of the misstatements detected as a result of audit procedures and corrected by management were material, either individually or in the aggregate, to each opinion unit's financial statements taken as a whole.

### *Disagreements with Management*

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditors' report. We are pleased to report that no such disagreements arose during the course of our audit.

### *Management Representations*

We have requested certain representations from management that are included in the management representation letter dated November 5, 2021.

### *Management Consultations with Other Independent Accountants*

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the entity's financial statements or a determination of the type of auditors' opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

### *Other Audit Findings or Issues*

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the entity's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

### Other Matters

We applied certain limited procedures to management's discussion and analysis and the schedules related to pension and OPEB funding, which are required supplementary information (RSI) that supplements the basic financial statements. Our procedures consisted of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We did not audit the RSI and do not express an opinion or provide any assurance on the RSI.

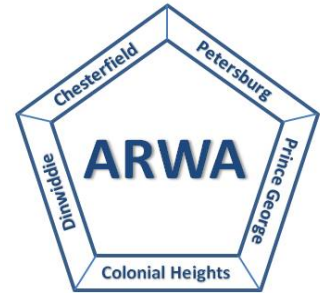
### Restriction on Use

This information is intended solely for the use of the Board of Directors and management of the Appomattox River Water Authority and is not intended to be, and should not be, used by anyone other than these specified parties.

*Robinson, Farmer, Cox Associates*

Charlottesville, Virginia  
November 5, 2021

# Appomattox River Water Authority



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

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## EXHIBIT D

TO: Appomattox River Water Authority Board of Directors

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

DATE: January 20, 2022

SUBJECT: Financial Policies  
Amended and Restated Trust Agreement

Staff circulated the Financial Policies and the Amended and Restated Trust Agreement to members for review. To date, no questions or comments were received on the Financial Policies. There was one minor revision presented by a member for the Amended and Restated Trust Agreement that counsel is making. Counsel also circulated the Amended and Restated Trust Agreement to the Authority's financial consultant, Davenport, who, in turn, distributed to the Authority's three lenders; VRA, Carter Bank and U.S. Bank. All three lenders found the Amended and Restated Trust Agreement language to be satisfactory.

The Financial Policies include a policy to address surplus funds in the Revenue Fund. Staff is recommending the surplus funds in the Revenue Fund, identified by the FY21 audit, be used as outlined in Attachment 2.

The following attachments are included with this Exhibit:

- Attachment 1 – Proposed Financial Policies
- Attachment 2 – Proposed use of the surplus in the Revenue Fund
- Attachment 3 – Amended and Restated Trust Agreement
- Attachment 4 – Proposed Approval Resolution

### Board Action Requested:

Staff requests that the Board approve the proposed Financial Policies, approve the allocation of surplus funds from the Revenue Fund, and approve the Amended and Restated Trust Agreement.

***Draft***

Financial Policies and Procedures  
Appomattox River Water Authority  
Effective Date: \_\_\_\_\_

**A. 1986 Agreement of Trust**

The Appomattox River Water Authority (ARWA) is governed by the 1986 Agreement of Trust as amended and restated in January 2022 (Trust Agreement). The Trust Agreement established five funds to be applied as described below:

- **Revenue Fund.** This is the fund where all revenue from billing the five participating jurisdictions is deposited. It is held by U.S. Bank as Trustee (Trustee). Participating jurisdictions are billed on a quarterly basis—9/30 (payment due 10/25), 12/31 (due 1/25), 3/31 (due 4/25), and 6/30 (due 7/25). Currently, on a monthly basis, the Trustee makes deposits to the other four funds in the order described below and illustrated in the chart attached as Annex 1. ARWA (acting through the business manager) normally directs the Trustee through each step of the process.
- **Operating Fund.** This is the fund that ARWA uses to pay all the expenses for operating and maintenance including Operating Capital Outlay Expenses (Operating Expenses). This fund is held by ARWA. On a monthly basis the business manager advises the Trustee of the upcoming Operating Expenses for the next four months. The Trustee transfers from the Revenue Fund to the Operating Fund the amount necessary, less any money already on deposit, to pay any outstanding checks plus the next four months of Operating Expenses based on the current ARWA annual budget. ARWA then processes checks on the Operating Fund for payment of Operating Expenses. The reason for the four months amount of Operating Expenses is that participating jurisdictions are billed quarterly and have until the 25<sup>th</sup> of the following month to pay their invoice, which works out to four months.
- **Bond Fund.** This is the fund for the principal and interest payments for each fiscal year on ARWA's bond. This fund is held by the Trustee. Once the Trustee has transferred sufficient money to ARWA to fully fund the Operating Fund, the Trustee then transfers money to the Interest Account of the Bond Fund to make the next six months of interest payments and to the Principal Account of the Bond Fund enough to make the next 12 months of principal payments. The Trust Agreement is designed to accommodate ideally fixed rate bonds that pay interest semiannually and principal once a year. The

Trustee applies the balances in the Interest Account and Principal Account to make the debt service payments on each bond when due.

- **Debt Service Reserve Fund.** The Debt Service Reserve Fund is held by the Trustee and is designed to maintain a minimum balance of the maximum annual debt service on all of the outstanding bonds. If there is ever a deficiency in the Bond Fund to pay debt service on the bonds and the deficiency is not covered by amount in the Operating Reserve Fund, the Surplus Fund and the ERRF (as described below), the Trustee will apply the Debt Service Reserve Fund to the extent necessary to cover the deficiency. Each month after the Trustee makes the required transfers from the Revenue Fund to the Operating Fund and the Bond Fund, the Trustee will then transfer the amount, if any, necessary to restore the Debt Service Reserve Fund to its minimum balance.
- **Equipment Repair and Replacement Fund (ERRF).** The ERRF is held by the Trustee. The ERRF is to be used in the following order of priority:
  - To pay Operating Expenses if the Operating Fund is insufficient.
  - To make transfers to the Bond Fund as needed to pay debt service.
  - To make transfers to the Debt Service Reserve Fund to restore its minimum balance.
  - To pay reasonable and necessary expenses with respect to the System for major repairs and replacements, System reconstruction or the construction of additions to, or extensions of, the System.

Although the Trust Agreement authorizes a wider range of uses, ARWA intends to reserve the ERRF to address catastrophic events. After the Trustee makes the required transfers from the Revenue Fund to the Operating Fund, Bond Fund and Debt Service Reserve Fund, it will then transfer from the Revenue Fund to the ERRF the amount, if any, necessary to restore the balance in the ERRF to \$2,500,000 over a period of not more than five years.

The Trust Agreement provides that, not less frequently than annually, any amount in the Revenue Fund in excess of \$100,000 be transferred to ARWA; provided that all of the required transfers to the Operating Fund, the Bond Fund, the Debt Service Reserve Fund and the ERRF have been made as of the date of the transfer. ARWA intends to request the Trustee to make the transfer within 30 days after ARWA's audited financials have been presented to and accepted by the ARWA Board. The Trust Indenture permits ARWA to apply the transferred funds for any of several listed purposes, including to pay the cost of System improvements or extensions and for any other lawful purpose permitted by the Virginia Water and Waste Authorities Act and the Trust Indenture. ARWA intends to deposit the transferred funds into the below-described ARWA reserves and apply them as set forth below.

## B. ARWA Reserves

In addition to the five funds required in the Trust Agreement, ARWA maintains two reserve funds:

- **Operating Reserve Fund.** The Operating Reserve Fund is intended to be ARWA's first source of funding to pay any Operating Expenses and debt service on ARWA's bonds in the event current revenues from the participating jurisdictions is insufficient. The Operating Reserve Fund may be eliminated or its purpose changed at any time by the ARWA Board and nothing in these policies is intended to create a pledge of the Operating Reserve Fund to secure ARWA's bonds.

The minimum balance for the Operating Reserve Fund is six months of Operating Expenses for the current fiscal year. For purposes of the Operating Reserve Fund, the term "Operating Expenses" does not include budgeted Operating Capital Outlay Expenses. If the balance in the Operating Reserve Fund falls below the minimum requirement, the shortfall will be included in the budget for the next fiscal year. The maximum balance in the Operating Reserve Fund is twelve months of Operating Expenses. The difference between the minimum and maximum balances will consist of excess funds swept from the Revenue Fund.

- **Surplus Fund.** The Surplus Fund is a placeholder for all excess funds collected and swept from the Revenue Fund after the audited financials have been presented to and accepted by the ARWA Board. These excess funds are generated from user fees collected from the participating jurisdictions that are not spent in the fiscal year. User fees are non-expansion fees included in the "Base Rate" for operation and maintenance costs under ARWA's Service Agreements. Therefore, the excess funds in the Surplus Fund are to be designated for non-expansion projects ("Improvements" under the Service Agreements) or a true-up back to the participating jurisdictions. The amount of surplus funds available for each fiscal year is determined by the audit team during the annual audit. After the audit team determines the amount of the surplus, if any, and presents the audit findings to the Board, the Executive Director will make a recommendation to the ARWA Board for the allocation or distribution of the surplus funds. ARWA Board action is required for distribution of funds from the Surplus Fund account except in the case of a shortfall in the Trust Agreement funds and the Operating Reserve Fund to make the required deposits under the Trust Agreement.

## C. Monthly Cash Flow

ARWA bills its member jurisdictions on a quarterly basis in arrears based on actual consumption occurring in the prior quarter:

Quarter	First	Second	Third	Fourth
Invoice Date	September 30	December 31	March 31	June 30
Due Date	October 25	January 25	April 25	July 25

Each jurisdiction sends payment to ARWA by the 25<sup>th</sup> of the following month billed. ARWA, in turn, makes electronic transfers into the Revenue Fund and the amounts in the Revenue Fund are applied as described above.

#### **D. Budget Process**

The proposed fiscal year budget for the succeeding fiscal year is discussed with the member jurisdiction utility directors in December of each year. After that presentation, a Budget Narrative is prepared with the proposed budget and the budget is presented to the Board at the January meeting.

The budget is broken down into five categories:

- Operating Expenses (other than Operating Capital Outlay Expenses)
- Operating Capital Outlay Expenses
- Debt Service
- Operating Reserve Fund
- Construction Fund

The Operating Expenses are the proposed expenses to support daily operations and maintenance for the next fiscal year.

The Operating Capital Outlay expenses are large, budgeted projects that either rehabilitate or replace an existing asset and are approved on an annual basis. To meet this criteria, the project must be at least \$5,000. These projects are not “improvement” or “expansion” projects within the meaning of the Service Agreements.

The debt service portion of the budget is broken down by issuance to identify the annual debt service payment. This portion of the budget fills up the Bond Fund for the next fiscal year. In addition, we are also required to maintain an amount at least equal to the maximum annual debt service for all of the outstanding bonds in the Debt Service Reserve Fund. The Debt Service Reserve Fund should remain fully funded and only require minimum adjustments with changes in debt service per set debt service payment schedules. For the final year of an issuance, the debt service reserve for that issuance should make the final payment.

In the event the Operating Reserve Fund is less than six months of budgeted Operating Expenses (less Operating Capital Outlay Expenses), there will be an amount shown in the Operating Reserve Fund section of the budget to increase the Operating Reserve Fund to six months of Operating Expenses. The Operating Reserve Fund should remain fully funded to at least the six-month requirement and not require additional funding annually.

The Construction Fund identifies proposed large projects within the ten year planning window that will most likely require an issuance (debt service) to finance. This section is provided for members for planning purposes. The estimated debt service for these proposed

projects is included in future rate estimates for the members to illustrate potential impact to their future water rates. Structurally, the fiscal budget is approved on an annual basis. Once a large project is approved and there is a debt issuance approved by the Board, this cost moves to the debt service portion of the budget. In addition, a deposit may need to be made to the Debt Service Reserve Fund to maintain the balance at maximum annual debt service.

**E. Investments**

The funds held by the Trustee are invested by the Trustee at ARWA's direction in permitted investments under the Trust Agreement. The funds held by the Authority are invested in interest bearing accounts in the Local Government Investment Pool (LGIP) or such other investment option as approved by the Board. Investments are reviewed quarterly with recommendations to the Board for any changes in investment strategy.

**F. ARWA Bonds – Post-Issuance Tax Compliance – See Annex 2**



Annex 1

Revenue Fund (Trustee Held)  
If balance is \$100,000 or greater, distributions  
made on 25th of month.

Operating Fund (Authority Held)  
Total estimated budgeted operating expenses  
for the next 4 months and any outstanding  
checks

Bond Fund Interest Account (Trustee Held)  
Interest due within the next 6 months

Bond Fund Principal Account (Trustee Held)  
Principal due within the next 12 months

Debt Service Reserve Fund (Trustee Held)  
Minimum balance equal to maximum annual  
future debt service on a fiscal year basis

Equipment Repair and Replacement Fund  
(Trustee Held)  
Minimum balance of \$2,500,000

Operating Reserve Fund (Authority Held)  
Minimum balance of 6 months of Operating  
Expenses.  
Maximum balance of 12 months Operating  
Expenses

Surplus Fund (Authority Held)  
Any remaining excess revenues

## Annex 2

### ARWA Bonds – Post-Issuance Tax Compliance

**General.** ARWA has historically debt financed its large improvement and expansion projects with tax-exempt governmental bonds. The Internal Revenue Code (Tax Code) contains numerous requirements to qualify and maintain tax-exempt status for these bonds, many of which are addressed on or before closing with the assistance of ARWA’s counsel and financial advisor. However, the two most important requirements call for on-going post-issuance compliance. Those requirements are that, following the date of issuance of any tax-exempt governmental bonds:

- The issuer will take no deliberate action to cause the bonds to become “private activity bonds” under Section 141 of the Tax Code; and
- The issuer will comply with the arbitrage yield restriction and rebate requirements under Section 148 of the Tax Code.

ARWA’s Executive Director is the officer charged with the responsibility of maintaining the tax-exempt status of ARWA’s bonds.

**Avoiding Private Activity Bond Status.** The easiest way for a wholesale utility operator such as ARWA to keep its bonds from becoming “private activity bonds” is to avoid any post-issuance “private business use.”

Use of bond proceeds or bond-financed property by a nongovernmental person in furtherance of a trade or business activity is considered private business use.

A “nongovernmental person” is any corporation, partnership or any other entity or person (including a natural person), except for a state or local governmental unit. Note that the federal government is considered a nongovernmental person for purposes of Section 141 of the Tax Code.

For this purpose, any trade or business activity of a natural person is treated as a trade or business, and any activity carried on by a person (including a governmental entity or corporation) other than a natural person is treated as a trade or business.

Private business use can arise in a number of ways. In most cases, private business use results if a nongovernmental person has “special legal entitlements” to use bond-financed property under an arrangement with the issuer.

For ARWA, private business use is likely to arise from the following three types of special legal entitlements:

- Ownership of bond-financed property by a nongovernmental person (including through a post-issuance sale);
- Leases of bond-financed property to a nongovernmental person; and

- Management or service contracts under which a non-governmental person provides services involving all, a portion of, or any function of, bond-financed property, other than contracts for services that are solely incidental to ARWA's primary governmental function or the functions of the bond-financed property (for example, contracts for janitorial, office equipment repair, billing, or similar services).

The Executive Director will maintain an inventory of ARWA's bond-financed property and update it at least annually. The Executive Director will seek the advice of counsel before entering into any arrangement providing to a nongovernmental person a special legal entitlement to use any of the proceeds of ARWA's tax-exempt governmental bonds or the property financed or refinanced with such proceeds. The purpose of seeking such advice is to preserve ARWA's ability to (i) avoid private business use by applying certain provisions of the Tax Code, the Treasury Regulations and other pronouncements of the Internal Revenue Service or (ii) take advantage of the remedial action provisions of the Treasury Regulations, all of which have strict time requirements measured from the date the deliberate action is deemed to have occurred.

**Compliance with the Arbitrage Requirements.** Section 103 of the Tax Code provides generally that interest on an "arbitrage bond" is not excluded from gross income for federal income tax purposes. Under Section 148 of the Tax Code, arbitrage bond status will result from violation of either (i) the "yield restriction" rule of Section 148(a) or (ii) the arbitrage rebate requirement of Section 148(f).

Under Section 148(a) of the Tax Code, arbitrage bond status generally results from the investment of gross proceeds in higher yielding investments and requires a comparison of the yield on the related issue of bonds to the yield on investments acquired with the gross proceeds of those bonds. Not all gross proceeds are required to be yield-restricted. For example, properly sized debt service reserve funds and gross proceeds eligible for "temporary periods" may be invested without yield restriction, either throughout the term of the bonds or for the duration of the temporary period.

Contemporaneously with the closing of each ARWA bond issue, the Executive Director will work with counsel and ARWA's financial advisor to develop a list of the gross proceeds that are required to be yield-restricted, either from the closing date or starting at a later date. As part of the quarterly review of investments as described in the section above "Investments," the Executive Director will update the list and work with counsel and financial advisor to ensure each of ARWA's bonds is in compliance with the applicable yield restriction requirements.

Under Section 148(f) of the Tax Code, arbitrage bond status also results from a failure of an issuer to "rebate" to the Internal Revenue Service amounts attributable to investments of gross proceeds at a yield in excess of the yield on the related bonds. Even gross proceeds that may be invested at an unrestricted yield are generally subject to the rebate requirement.

Contemporaneously with the closing of each ARWA bond, the Executive Director will collaborate with counsel and the financial advisor to identify any applicable exceptions to the rebate requirement. Two of the more commonly used exceptions are the six-month and two-year spending exceptions, by which an issuer can avoid the rebate requirement on certain gross proceeds by spending them within certain time periods following closing. The Executive Director will take

reasonable and appropriate steps to qualify the gross proceeds of ARWA bonds for the applicable exceptions. In addition, the Authority will engage an arbitrage rebate calculation service as required to calculate any rebate amount owed to the Internal Revenue Service.

**Updates to Post-Issuance Tax Compliance Policy.** Contemporaneously with the closing of each issue of ARWA bonds, the Executive Director will review the post-issuance tax compliance policy and work with counsel and the financial advisor to update it to address changes in applicable law or ARWA's circumstances and to cover any new type of tax-exempt or tax-advantaged bonds that ARWA may issue.

ATTACHMENT #2

Proposed Surplus Funds Distribution

Item	Total	Comments
Cash as of 6/30/2021	\$ 18,567,364.65	
Restricted Cash		
Required Debt Service Reserve	\$ 2,094,831.09	
Required Principal for Debt Service	\$ 1,601,000.00	
Required Debt Service Interest	\$ 126,731.53	
Replacement Fund	\$ 500,000.00	
Reserve Policy	\$ 3,750,300.00	
	<u>\$ 8,072,862.62</u>	
Subtotal 1 (cash - restricted cash)	\$ 10,494,502.03	
Operating Account (first quarter)	<u>\$ 4,003,336.00</u>	
Subtotal 2 (subtotal 1 - operating account)	\$ 6,491,166.03	surplus funds
<b>Recommended Surplus Distribution:</b>		
Equipment Repair and Replacement Fund (ERRF)	\$ 2,000,000.00	increase \$500K to \$2.5 million
Operating Reserve	\$ 1,900,000.00	moving towards 1 year of operating expenses
VWP permit renewal	\$ 1,200,000.00	put in separate, trackable account
Liquid Lime System	\$ 1,000,000.00	ongoing operating issues with dry lime system
AWIA Security Improvements	\$ 133,000.00	\$250K appropriation, spent \$117K
SCADA	\$ 221,000.00	existing purchase order
Subtotal 3 (surplus distribution)	<u>\$ 6,454,000.00</u>	
Remaining Funds (subtotal 2 - subtotal 3)	\$ 37,166.03	

AMENDED AND RESTATED AGREEMENT OF TRUST

between

APPOMATTOX RIVER WATER AUTHORITY

and

U.S. BANK NATIONAL ASSOCIATION

as Trustee

Dated as of January 15, 2022

## TABLE OF CONTENTS

	Page
Parties .....	1
Recitals.....	1
ARTICLE I      DEFINITIONS AND RULES OF CONSTRUCTION .....	2
Section 101.      Definitions.....	2
Section 102.      Rules of Construction .....	5
ARTICLE II      GENERAL BOND PROVISIONS .....	5
Section 201.      Authority for Master Trust Agreement; Effective Date.....	5
Section 202.      Master Trust Agreement Constitutes Contract .....	5
Section 203.      Prior Bonds and Prior Supplements.....	6
Section 204.      Form and Details of Each Series of Bonds .....	6
Section 205.      Payment of Bonds .....	6
Section 206.      Execution of Bonds.....	6
Section 207.      Authentication of Bonds .....	6
Section 208.      Registration and Exchange of Bonds; Persons Treated as Bondholders .....	7
Section 209.      Charges for Exchange of Bonds .....	7
Section 210.      Temporary Bonds.....	7
Section 211.      Mutilated, Lost or Destroyed Bonds.....	7
Section 212.      Cancellation and Disposition of Bonds.....	8
ARTICLE III      REDEMPTION OF BONDS .....	8
Section 301.      Redemption of Bonds .....	8
Section 302.      Selection of Bonds for Redemption.....	8
Section 303.      Notice of Redemption .....	8
Section 304.      Payment of Redeemed Bonds .....	9
ARTICLE IV      ADDITIONAL BONDS .....	9
Section 401.      Issuance of Additional Bonds .....	9
Section 402.      Purposes of Additional Bonds .....	9
Section 403.      Authentication and Delivery of Additional Bonds .....	9
Section 404.      Use of Proceeds of Additional Bonds for Additional Construction.....	12
Section 405.      Use of Proceeds of Additional Bonds for Refunding .....	12
ARTICLE V      CONSTRUCTION FUND.....	13
Section 501.      Creation of Construction Fund.....	13
Section 502.      Payments into Construction Fund.....	13
Section 503.      Cost of the System .....	13
Section 504.      Payments from Construction Fund .....	13
Section 505.      Disposition of Balance in Construction Fund.....	14
ARTICLE VI      REVENUES AND FUNDS.....	15
Section 601.      Annual Budget .....	15
Section 602.      Revenue Covenant .....	15

## TABLE OF CONTENTS

(continued)

	Page
Section 603. Billing and Enforcement of Charges.....	15
Section 604. Establishment of Funds.....	16
Section 605. Revenue Fund .....	16
Section 606. Operating Fund .....	17
Section 607. Bond Fund.....	17
Section 608. Debt Service Reserve Fund.....	18
Section 609. Equipment Repair and Replacement Fund .....	18
Section 610. Pledge of Revenues and Funds .....	19
Section 611. Disposition of Balances in Funds and Accounts after Payment of Bonds .....	19
Section 612. Bond Anticipation Notes.....	20
Section 613. Acceptance of Other Monies .....	20
ARTICLE VII INVESTMENTS AND SECURITY FOR DEPOSITS .....	20
Section 701. Bank Accounts .....	20
Section 702. Investment of Moneys in Funds.....	20
Section 703. Valuation of Investments .....	22
Section 704. Investments Made By Trustee .....	22
ARTICLE VIII PARTICULAR COVENANTS .....	22
Section 801. Payment of Bonds; Limited Obligations.....	22
Section 802. Covenants and Representations of Authority .....	23
Section 803. Operation and Maintenance .....	23
Section 804. Consulting Engineer.....	23
Section 805. Sale or Encumbrance .....	23
Section 806. Creation of Liens.....	24
Section 807. Insurance .....	24
Section 808. Notice in Event of Damage, Destruction, Condemnation and Loss of Title .....	25
Section 809. Damage, Destruction, Condemnation and Loss of Title.....	26
Section 810. Records and Accounts; Inspections and Reports .....	26
Section 811. Arbitrage Covenant.....	26
Section 812. Reports by Trustee .....	26
Section 813. Enforcement of Service Agreements .....	26
ARTICLE IX DISCHARGE OF MASTER TRUST AGREEMENT AND PARTICULAR BONDS .....	27
Section 901. Discharge of Agreement .....	27
ARTICLE X DEFAULT PROVISIONS AND REMEDIES OF TRUSTEE AND BONDHOLDERS .....	27
Section 1001. Events of Default .....	27
Section 1002. Acceleration .....	29
Section 1003. Other Remedies; Rights of Bondholders .....	29
Section 1004. Right of Bondholders To Direct Proceedings.....	30



## TABLE OF CONTENTS

(continued)

	<b>Page</b>
Section 1005. Application of Moneys .....	30
Section 1006. Remedies Vested in Trustee.....	31
Section 1007. Limitation on Suits.....	31
Section 1008. Unconditional Right To Receive Principal, Premium and Interest.....	32
Section 1009. Termination of Proceedings.....	32
Section 1010. Waivers of Events of Default.....	32
ARTICLE XI THE TRUSTEE .....	33
Section 1101. Acceptance of Trusts and Obligations .....	33
Section 1102. Fees, Charges and Expenses of Trustee.....	35
Section 1103. Intervention by Trustee .....	35
Section 1104. Merger or Consolidation of Trustee.....	35
Section 1105. Resignation by Trustee .....	36
Section 1106. Removal of Trustee.....	36
Section 1107. Appointment of Successor Trustee by Bondholders; Temporary Trustee.....	36
Section 1108. Concerning any Successor Trustee .....	36
Section 1109. Trustee Protected in Relying on Resolutions, etc .....	37
Section 1110. Successor Trustee as Paying Agent, Registrar and Custodian of Funds.....	37
ARTICLE XII SUPPLEMENTAL TRUST AGREEMENTS.....	37
Section 1201. Supplemental Trust Agreements Not Requiring Consent of Bondholders .....	37
Section 1202. Supplemental Trust Agreements Requiring Consent of Bondholders .....	38
Section 1203. Opinion of Counsel Required .....	39
Section 1204. Trustee's Obligation Regarding Supplemental Trust Agreements .....	39
ARTICLE XIII AMENDMENTS TO SERVICE AGREEMENTS .....	39
Section 1301. Limitation on Amendments .....	39
Section 1302. Consent of Trustee to Amendments.....	39
ARTICLE XIV MISCELLANEOUS .....	39
Section 1401. Consents, etc., of Bondholders .....	39
Section 1402. Limitation of Rights.....	39
Section 1403. Limitation of Liability of Members, etc., of Authority.....	40
Section 1404. Notices .....	40
Section 1405. Successors and Assigns.....	40
Section 1406. Severability .....	40
Section 1407. Applicable Law .....	40
Section 1408. Counterparts.....	40

THIS AMENDED AND RESTATED AGREEMENT OF TRUST is dated as of the 15<sup>th</sup> day of January, 2022, (as more particularly defined below, the "Master Trust Agreement") by and between the APPOMATTOX RIVER WATER AUTHORITY, a public body politic and corporate of the Commonwealth of Virginia (the "Authority"), and U.S. BANK NATIONAL ASSOCIATION, a national banking association with a corporate trust office in Richmond, Virginia, and its successors, as trustee (the "Trustee"), and amends and restates in its entirety the Agreement of Trust dated as of August 15, 1986 (the "1986 Master Trust Agreement"), between the Authority and the Trustee (as successor trustee to United Virginia Bank), as previously supplemented and amended;

W I T N E S S E T H

The Authority is a public body politic and corporate of the Commonwealth of Virginia duly created pursuant to the Virginia Water and Waste Authorities Act (Chapter 51, Title 15.2 of the Code of Virginia of 1950, as amended) by the Cities of Colonial Heights and Petersburg and the Counties of Chesterfield, Dinwiddie and Prince George ("Participating Jurisdictions"), and is authorized to acquire, finance, construct, operate and maintain facilities for developing and operating a water supply system for the Participating Jurisdictions and to borrow money and to issue its revenue bonds to pay all or part of the cost of such system.

The Participating Jurisdictions have entered into agreements with the Authority with respect to the allocation and payments for water and for the purpose of establishing an equitable basis for sharing the costs incurred by the Authority in operating the Authority's water supply system.

Under the 1986 Master Trust Agreement the Authority has issued multiple series of Additional Bonds for the Authority's authorized purposes pursuant to supplemental trust agreements. The portions of the Bonds issued under the 1986 Master Trust Agreement that are outstanding as of the date hereof are listed on Exhibit A hereto and will be referred to collectively as the "Prior Bonds" and the supplemental trust agreements under which the Prior Bonds were issued will be referred to collectively as the "Prior Supplements."

The Authority now desires to enter into this Master Trust Agreement to amend and restate the 1986 Master Trust Agreement to change certain provisions and to remove provisions that no longer apply.

The Authority and the Trustee have entered into this Master Trust Agreement after receiving the consent of all of the Bondholders of the Bonds outstanding under the 1986 Master Trust Agreement pursuant to Section 1202 of the 1986 Master Trust Agreement. The Authority has provided to the Trustee the Opinion of Counsel addressing the authorization and permissibility of the amendments made by this Master Trust Agreement to the 1986 Master Trust Agreement as required under Section 1203 of the 1986 Master Trust Agreement.

All acts, conditions and things have been done and performed which are necessary to make this Master Trust Agreement a valid and binding agreement:

In consideration of the premises and the mutual covenants and agreements hereinafter contained, the parties hereto agree as follows:

## ARTICLE I

### **DEFINITIONS AND RULES OF CONSTRUCTION**

**Section 101. Definitions.** The following words as used in this Master Trust Agreement shall have the following meanings unless a different meaning clearly appears from the context:

"Act" means the Virginia Water and Waste Authorities Act (Chapter 51, Title 15.2, Code of Virginia of 1950, as amended).

"Additional Bonds" means any Bonds issued pursuant to Article IV or Bond Anticipation Notes issued pursuant to Article VI and secured on a parity with the then outstanding Bonds by a pledge of the revenues derived from the ownership or operation of the System.

"Annual Budget" means the budget by that name referred to in Section 601.

"Authority" means the Appomattox River Water Authority, a public body politic and corporate of the Commonwealth of Virginia duly created pursuant to the Act by resolutions of the Councils of the Cities of Colonial Heights and Petersburg and the Boards of Supervisors of Chesterfield County, Dinwiddie County and Prince George County, and duly authorized to operate under the Act pursuant to a certificate of incorporation issued by the State Corporation Commission of Virginia on November 21, 1960, and its successors and assigns.

"Authorized Representative of the Authority" means such person or persons as may be designated to act on behalf of the Authority by certificate signed by its Chairman or Vice Chairman and filed with the Trustee.

"Bond Anticipation Notes" means any notes issued in anticipation of the issuance of Additional Bonds.

"Bond Fund" means the Bond Fund established in Section 604.

"Bondholder" means the registered owner of any Bond.

"Bonds" means the Prior Bonds and any Additional Bonds or Bond Anticipation Notes issued hereunder.

"Business Day" means any Monday, Tuesday, Wednesday, Thursday or Friday on which commercial banking institutions generally are open for business in New York and Virginia.

"Construction Fund" means the Construction Fund established in Section 501.

"Consulting Engineer" means such engineering firm or individual engineer as may be employed by the Authority as Consulting Engineer in accordance with Section 804.

"Cost" or "Cost of the System" means the cost of the System as set forth in Section 503.

"Debt Service Reserve" means an amount equal to the maximum amount payable on account of annual debt service on the Bonds, which shall include the principal of (whether at maturity or by mandatory sinking fund redemption) and interest on the Bonds (excluding Bond Anticipation Notes) in any Fiscal Year.

"Debt Service Reserve Fund" means the Debt Service Reserve Fund established in Section 604.

"Effective Date" means January \_\_, 2022.

"ERRF" means the Equipment Repair and Replacement Fund established in Section 604.

"Event of Default" means any of the events enumerated in Section 1001.

"Fiscal Year" means the twelve-month period beginning on July 1 of one year and ending on June 30 of the following year or such other fiscal year of twelve months as may be selected by the Authority.

"Master Trust Agreement" means this Amended and Restated Agreement of Trust dated as of January 15, 2022, between the Authority and the Trustee, as it may be amended or supplemented from time to time by any Supplemental Trust Agreements.

"Net Proceeds" means the gross proceeds from any insurance recovery remaining after payment of attorneys' fees, fees and expenses of the Authority and the Trustee and all other expenses incurred in collection of such gross proceeds.

"Operating Capital Outlay Expenses" means reasonable and necessary expenses with respect to major repairs to or replacements or maintenance of the System, including expenses of a type not recurring annually or at shorter intervals, which have been designated as "Operating Capital Outlay Expenses" in the Annual Budget, regardless of whether such expenses may be capitalized under generally accepted accounting principles.

"Operating Expenses" means all current expenses directly or indirectly attributable to the Ownership or operation of the System, including, without intending to limit or restrict any proper definition of such expenses under any applicable laws or generally accepted accounting principles, reasonable and necessary usual expenses of administration, operation, maintenance and repair, costs for billing and collecting the rates, fees and charges for the use of or the services furnished by the System, insurance and surety bond premiums and other charges and fees necessary for the maintenance of adequate insurance coverage for the Authority and the System, legal, engineering and auditing expenses, expenses and compensation of the Trustee, other current expenses of the Authority required to be paid by law or under this Master Trust Agreement and Operating Capital Outlay Expenses, but shall not include any allowance for depreciation, deposits or transfers to the Bond Fund, the Debt Service Reserve Fund, or the ERRF, or costs of "improvements" or "expansions" of the System within the meaning of the Service Agreements.

"Operating Fund" means the Operating Fund established in Section 604.

"Opinion of Counsel" means an opinion of any attorney or firm of attorneys acceptable to the Trustee, who may be counsel for the Authority but shall not be a full time employee of either the Authority or the Trustee.

"Participating Jurisdictions" means the Cities of Colonial Heights and Petersburg, and the Counties of Chesterfield, Dinwiddie and Prince George.

"Prior Bonds" has the meaning set forth in the Recitals to this Master Trust Agreement.

"Prior Supplements" has the meaning set forth in the Recitals to this Master Trust Agreement.

"Revenue Fund" means the Revenue Fund established in Section 604.

"Revenues" means all revenues, receipts and other income derived by the Authority from the ownership or operation of the System, including without limitation, all amounts received by the Authority from the Participating Jurisdictions pursuant to the Service Agreements, except for amounts received pursuant to a Participating Jurisdiction's election to provide its available funds to pay its share of any Future Expansion Costs pursuant to paragraph 2(a) of the Third Amendment to the Service Agreements.

"Second Amendment to Service Agreements" means the Second Amendment to the Service Agreements between the Participating Jurisdictions and the Authority, entered into as of August 15, 1986.

"Service Agreements" means the Service Agreements between the Participating Jurisdictions and the Authority, entered into with respect to the City of Colonial Heights on September 15, 1964, the City of Petersburg on August 28, 1964, the County of Chesterfield on September 9, 1964, the County of Dinwiddie on September 9, 1964, and the County of Prince George on September 8, 1964, all as amended by a First Amendment thereto dated December 16, 1982, by a Modification Agreement dated as of September 1, 1983, by the Second Amendment to Service Agreements and by the Third Amendment to Service Agreements, and as any of the foregoing may be further amended or supplemented from time to time.

"Supplemental Trust Agreement" means any of the Prior Supplements, the provisions of which are incorporated by reference herein to the extent that such provisions are not inconsistent with the provisions hereof (the provisions of this Master Trust Agreement supersede the provisions of the Prior Supplements to the extent of any inconsistency or conflict), any Supplemental Trust Agreement executed and delivered on or after the Effective Date, and any trust agreement supplementary to or amendatory of this Master Trust Agreement, any Prior Supplement or any Supplemental Trust Agreement now or hereafter duly executed and delivered in accordance with the provisions of Article XII of this Master Trust Agreement.

"System" means all plants, systems, facilities or properties owned or maintained by the Authority and used in connection with the supply or distribution of water, including without limitation, dams, water supply systems, water distribution systems, reservoirs, wells, intakes, mains, laterals, pumping stations, standpipes, filtration plants, purification plants, hydrants, meters, valves and equipment and apparatus, all properties, rights, easements and franchises

relating thereto, and all other items properly chargeable to the Cost of the System as described in Section 503, as the same may at any time exist.

"Term Bonds" means any of the Prior Bonds or Additional Bonds required to be redeemed in part prior to maturity according to a sinking fund schedule.

"Third Amendment to Service Agreements" means the Third Amendment to 1964 Service Agreements between the Participating Jurisdictions and the Authority, dated as of September 4, 2001.

"Trustee" means U.S. Bank National Association, Richmond, Virginia, or its successor serving as such hereunder.

**Section 102. Rules of Construction.** Unless the context clearly indicates to the contrary, the following rules shall apply to the construction of this Master Trust Agreement:

(a) Words importing the singular number shall include the plural number and vice versa.

(b) Words importing the redemption or calling for redemption of Bonds shall not be deemed to refer to or connote the payment of Bonds at their stated maturity.

(c) Unless otherwise indicated, all references herein to particular articles or sections are references to articles or sections of this Master Trust Agreement.

(d) The headings and Table of Contents herein are solely for convenience of reference and shall not constitute a part of this Master Trust Agreement nor shall they affect its meaning, construction or effect.

(e) All references herein to the payment of Bonds are references to payment of principal of and premium, if any, and interest on Bonds.

## ARTICLE II

### **GENERAL BOND PROVISIONS**

**Section 201. Authority for Master Trust Agreement; Effective Date.** This Master Trust Agreement has been executed and delivered under a resolution adopted by the Authority's Board on January 20, 2022, and shall be in full force and effect on and after the Effective Date.

**Section 202. Master Trust Agreement Constitutes Contract.** In consideration of the Bondholders' purchase and acceptance of the Bonds, the provisions of this Master Trust Agreement and the Supplemental Trust Agreements shall be a part of the Authority's contract with the Bondholders and shall be deemed to be and shall constitute a contract among the Authority, the Trustee and the Bondholders from time to time of the Bonds.

**Section 203. Prior Bonds and Prior Supplements.**

(a) The Authority has issued the Prior Bonds pursuant to the 1986 Master Trust Agreement and the Prior Supplements. Such Bonds are and shall continue to be secured under this Master Trust Agreement by the assignment and pledge of the Revenues and the rest of the Trust Estate. To the extent the provisions of the Prior Supplements are not inconsistent with the provisions of this Master Trust Agreement, they shall remain in effect.

(b) On the Effective Date, the Trustee shall transfer from the Revenue Fund an amount sufficient to cause the balance in the ERRF to be equal to \$2,500,000.00.

**Section 204. Form and Details of Each Series of Bonds.** The Bonds of each Series issued pursuant to this Master Trust Agreement on and after the Effective Date shall be styled as "Appomattox River Water Authority, Water Revenue Bonds" with an appropriate Series designation. The forms, details and terms of each Series of Bonds, the funds and accounts to be established with respect to such Series, and such other matters as the Authority may deem appropriate shall be set forth in the related Supplemental Trust Agreement.

**Section 205. Payment of Bonds.** The principal of and premium, if any, and interest on Bonds of each Series shall be payable in lawful money of the United States of America, but only from the revenues, money or property pledged to such payment pursuant to this Master Trust Agreement. The principal of and premium, if any, and interest on Bonds of each Series shall be payable at such place or places and in such manner as specified in the related Supplemental Trust Agreement. Unless otherwise provided in the related Supplemental Trust Agreement, if a payment date for any Bonds of any Series or the date fixed for the redemption of any such Bonds is not a Business Day, then payment of the principal and premium, if any, and interest need not be made on such date, but may be made on the next succeeding date which is a Business Day, and if made on such next succeeding Business Day no additional interest will accrue for the period after such payment date or date fixed for redemption.

**Section 206. Execution of Bonds.** The Bonds shall be Signed by the facsimile signature of the Chairman or Vice Chairman of the Authority, and a facsimile of its seal shall be printed thereon and attested by the facsimile signature of its secretary or General Manager. In case any officer whose signature or a facsimile of whose signature shall appear on any Bond shall cease to be such officer before the delivery of the Bonds, such signature or such facsimile shall nevertheless be valid and sufficient for all purposes the same as if he had remained in office until such delivery. Any Bond may bear the facsimile signature of or may be signed by such persons as at the actual time of the execution thereof shall be the proper officers to sign such Bond although at the date of such Bond such persons may not have been such officers.

**Section 207. Authentication of Bonds.** The Bonds shall bear a certificate of authentication and shall not be valid until the Trustee shall have duly executed the certificate of authentication and inserted the date of authentication thereon. The Trustee shall authenticate each Bond with the signature of an authorized officer or employee, but it shall not be necessary for the same person to authenticate all of the Bonds. Only such authenticated Bonds shall be entitled to any right or benefit under this Master Trust Agreement, and such certificate on any Bond issued

hereunder shall be conclusive evidence that the Bond has been duly issued and is secured by the provisions hereof.

**Section 208. Registration and Exchange of Bonds; Persons Treated as Bondholders.**

The Trustee shall maintain registration books for the registration and exchange of Bonds. Upon surrender of any Bonds at the corporate trust office of the Trustee, together with an assignment duly executed by the registered owner or his duly authorized attorney or legal representative in such form as shall be satisfactory to the Trustee, such Bond may be exchanged for an equal aggregate principal amount of Bonds, in authorized denominations, of the same series, form and maturity, bearing interest at the same rate as the Bond surrendered, and registered in the name or names as requested by the then registered owner thereof or his duly authorized attorney or legal representative. The Authority shall execute and the Trustee shall authenticate any Bonds necessary to provide for exchange of Bonds pursuant to this section.

The Trustee shall treat the registered owner as the person exclusively entitled to payment of principal, premium, if any, and interest and the exercise of all other rights and powers of the Bondholder, except that interest payments shall be made to the person shown as Bondholder on the 15th day of the month preceding each interest payment date.

**Section 209. Charges for Exchange of Bonds.** Any exchange of Bonds shall be at the expense of the Authority, except that the Trustee may charge the person requesting such exchange the amount of any tax or other governmental charge required to be paid with respect thereto.

**Section 210. Temporary Bonds.** Prior to the preparation of Bonds in definitive form, the Authority may issue temporary Bonds in registered form and in such denominations as the Authority may determine, but otherwise in substantially the form hereinabove set forth, with appropriate variations, omissions and insertions. The Authority shall promptly prepare, execute and deliver to the Trustee before the first interest payment date Bonds in definitive form and thereupon, upon surrender of Bonds in temporary form, the Trustee shall authenticate and deliver in exchange therefor Bonds in definitive form of the same maturity having an equal aggregate principal amount. Until exchanged for Bonds in definitive form, Bonds in temporary form shall be entitled to the lien and benefit of this Master Trust Agreement.

**Section 211. Mutilated, Lost or Destroyed Bonds.** If any Bond has been mutilated, lost or destroyed, the Authority shall cause to be executed, and the Trustee shall authenticate and deliver, a new Bond of like date and tenor in exchange and substitution for, and upon cancellation of, such mutilated Bond or in lieu of and in substitution for such lost or destroyed Bond; provided, however, that the Authority and the Trustee shall so execute and deliver only if the Bondholder has paid the reasonable expenses and charges of the Authority and the Trustee in connection therewith and, in the case of a lost or destroyed Bond (i) has filed with the Authority and the Trustee evidence satisfactory to them that such Bond was lost or destroyed and (ii) has furnished to the Authority and the Trustee indemnity satisfactory to them. If any such Bond has matured, instead of issuing a new Bond the Trustee may pay the same without surrender thereof.



**Section 212. Cancellation and Disposition of Bonds.** All Bonds that have been surrendered for transfer or exchange pursuant to Section 208, paid (whether at maturity, by sinking fund redemption, acceleration or call for redemption or otherwise), purchased pursuant to Section 605 or 607, or delivered to the Trustee by the Authority for cancellation shall not be reissued, and the Trustee shall, unless otherwise directed by the Authority, cremate, shred or otherwise dispose of such Bonds. The Trustee shall deliver to the Authority a certificate of any such cremation, shredding or other disposition.

### **ARTICLE III**

#### **REDEMPTION OF BONDS**

**Section 301. Redemption of Bonds.** The Bonds of each Series shall be subject to redemption as specified in the related Supplemental Trust Agreement.

**Section 302. Selection of Bonds for Redemption.** Bonds of any Series to be called for redemption shall be selected as provided in the related Supplemental Trust Agreement. The Trustee shall treat each Bond of a denomination greater than the minimum denomination authorized in the related Supplemental Trust Agreement as representing the number of separate Bonds that can be obtained by dividing the Bond's actual principal amount by such minimum denomination.

**Section 303. Notice of Redemption.**

(a) Except as otherwise provided in the related Supplemental Trust Agreement, in the case of any redemption of the Bonds of any Series, the Trustee shall give notice, in its own name or in the Authority's name, as provided for in this Section, that Bonds of a particular Series identified by serial or CUSIP numbers have been called for redemption and, in the case of Bonds to be redeemed in part only, the principal amount of the Bonds that have been called for redemption (or if all the outstanding Bonds of a Series are to be redeemed, so stating, in which event serial or CUSIP numbers may be omitted), that they will be due and payable on the date fixed for redemption (specifying the date) upon presentation and, if required by the related Supplemental Trust Agreement or the applicable securities depository, if any, surrender of the Bonds at the designated corporate trust office of the Trustee, at the applicable redemption price (specifying the price) together with any accrued interest to such date, and that all interest on the Bonds to be redeemed will cease to accrue on and after such date.

(b) Unless otherwise specified in the related Supplemental Trust Agreement, such notice shall be mailed by first class mail, postage prepaid, not less than thirty nor more than sixty days before the date fixed for redemption, to the Bondholders of the Bonds called for redemption, at their respective addresses as they last appear on the registration books maintained by the Trustee and any notice of redemption may state that it is conditional upon the deposit with the Trustee of funds sufficient to undertake the redemption. The receipt of notice will not be a condition precedent to the redemption and failure to mail any notice to a Bondholder or any defect in any notice will not affect the validity of the proceedings for the redemption of Bonds.

#### **Section 304. Payment of Redeemed Bonds.**

(a) Except as otherwise provided in the related Supplemental Trust Agreement, if notice of redemption has been given as provided in Section 303, the Bonds called for redemption shall be due and payable on the date fixed for redemption at a redemption price equal to the principal amount of and premium, if any, on the Bonds, together with accrued interest to the date fixed for redemption. Payment of the redemption price shall be made by the Trustee upon presentation and, if required by the related Supplemental Trust Agreement, surrender of the Bonds. Except as otherwise provided in the related Supplemental Trust Agreement, if less than the full principal amount of a Bond is called for redemption, the Authority shall execute and deliver and the Trustee shall authenticate, upon surrender of the Bond, and without charge to the Bondholder, Bonds of the same Series for the unredeemed portion of the principal amount of the Bond so surrendered.

(b) If any Bond has been duly called for redemption and payment of the principal of and premium, if any, and unpaid interest accrued to the date fixed for redemption on the Bond has been made or provided for, then, notwithstanding that the Bond called for redemption has not been presented or surrendered for payment, interest on the Bond shall cease to accrue from the date fixed for redemption, and, from and after the date fixed for redemption, the Bond shall no longer be entitled to any lien, benefit or security under this Master Trust Agreement, and its Bondholder shall have no rights in respect of the Bond except to receive payment of the principal of and premium, if any, and unpaid interest accrued to the date fixed for redemption of the Bond.

### **ARTICLE IV**

#### **ADDITIONAL BONDS**

**Section 401. Issuance of Additional Bonds.** Subject to receipt by the Trustee of the documents listed below, the Authority may issue one or more series of Additional Bonds for the purposes set forth in Section 402. Each such series of Additional Bonds shall be issued pursuant to a Supplemental Trust Agreement and shall be equally and ratably secured under this Master Trust Agreement with the Prior Bonds and any other series of Additional Bonds issued pursuant to this article, without preference, priority or distinction of any Bonds over any other Bonds. Unless provided otherwise in the related Supplemental Trust Agreement, all such Additional Bonds shall be in substantially the same form as the Prior Bonds, but shall bear such date or dates, bear interest at such rate or rates, have such maturity date or dates, redemption dates and redemption premiums, contain an appropriate series designation, and be issued at such prices as shall be approved by the Authority.

**Section 402. Purposes of Additional Bonds.** Additional Bonds may be issued (i) to pay the costs of acquiring or constructing improvements, extensions, additions or replacements to the System that are of such nature as to be chargeable to fixed capital account by generally accepted accounting principles, (ii) to refund any of the Bonds, or (iii) for any combination of such purposes.

**Section 403. Authentication and Delivery of Additional Bonds.** The Trustee shall authenticate and deliver Additional Bonds, but only upon receipt of the following:

(a) A certificate of the Authority dated as of the date of delivery of such Additional Bonds and signed by its Chairman or Vice Chairman, stating that either (i) as of the date of such certificate to the best of the knowledge of the signer no event or condition is happening or existing which constitutes, or which, with notice or lapse of time or both, would constitute, an Event of Default by the Authority under this Master Trust Agreement or (ii) if any such event or condition is happening or existing, specifying such event or condition and stating in detail reasonably acceptable to the Trustee that such event or condition will be corrected promptly after the issuance of such Additional Bonds.

(b) A certified copy of a resolution or resolutions of the Authority (i) authorizing the execution and delivery of a related Supplemental Trust Agreement, and (ii) authorizing the issuance, sale, award, execution and delivery of such Additional Bonds.

(c) An original executed counterpart of a Supplemental Trust Agreement authorizing the issuance and providing for the details of such Additional Bonds, including:

(1) the interest rate or rates, maturity date or dates and redemption provisions for the Additional Bonds;

(2) the redemption price of any Bonds to be refunded, the interest accrued thereon to the date fixed for redemption, the expenses incidental to such redemption and any other applications of the proceeds of Additional Bonds issued for the purpose of refunding;

(3) the amounts required to be on deposit at all times in the Debt Service Reserve Fund; and

(4) the cost of each purpose for which the Additional Bonds are to be issued and the amount of capitalized interest, if any, during construction.

(d) If such Additional Bonds are issued to pay the cost of acquiring or constructing improvements, extensions, additions or replacements to the System, either the consent of the Bondholders of two-thirds in aggregate principal amount of the Bonds then outstanding or

(1) A written statement of the Consulting Engineer setting forth the Consulting Engineer's (A) estimate of the cost of such acquisition or construction (including all financing, reserves and related costs) and the date on which such acquisition or construction will be completed and (B) opinion that the proceeds of such Additional Bonds, together with any other moneys available for such purpose, will be sufficient to pay the cost of such acquisition or construction;

(2) Evidence satisfactory to the Trustee that upon the issuance of such Additional Bonds the Debt Service Reserve Fund will contain the Debt Service Reserve;

(3) A certificate of an independent certified public accountant stating that based on the Authority's audit for each of the last two Fiscal Years prior to the proposed issuance of the Additional Bonds the revenues were sufficient to meet the revenue covenant contained in Section 602; and

(4) If the issuance of such Additional Bonds will require an increase of more than 20% in the Debt Service Reserve, a written statement of the Consulting Engineer which projects Operating Expenses and Revenues for the Fiscal Year following the anticipated completion of the acquisition or construction and which states that, on the basis of such projection, the Authority has rates in effect (or approved by the Authority to go into effect) sufficient to meet the requirements of Section 602. If the Consulting Engineer bases such projections on an increase in the System's customer base, such projection may be computed solely on actual parties waiting to be served by the System and customers to be acquired from other water systems.

(e) If such Additional Bonds are issued to refund any of the Bonds, either the consent of the Bondholders of two-thirds in aggregate principal amount of the Bonds then outstanding or

(1) Evidence satisfactory to the Trustee that the Authority has made provision as required by this Master Trust Agreement for the payment or redemption of all Bonds to be refunded;

(2) A written determination by the Trustee that the proceeds (excluding accrued interest) of such Additional Bonds, together with any other moneys deposited with the Trustee for such purpose and the investment income to be earned on funds held for the payment or redemption of Bonds, shall be sufficient to pay, whether at redemption or maturity, the principal of and premium, if any, and interest on the Bonds to be refunded and the estimated expenses incident to such refunding; and

(3) A written determination by the Trustee that after the issuance of such Additional Bonds and the provision for payment or redemption of all Bonds to be refunded the Annual Debt Service Requirements for each Fiscal Year in which there will be outstanding Bonds of any series not to be refunded shall be not more than the Annual Debt Service Requirements for such Fiscal Year would have been on all Bonds outstanding immediately prior to the issuance of such Additional Bonds, including the Bonds to be refunded; provided, however, that if it is determined that after the issuance of such Additional Bonds and the provision for payment of the Bonds to be refunded the Annual Debt Service Requirements for any Fiscal Year in which there will be outstanding Bonds of any series not to be refunded is greater than the Annual Debt Service Requirements for such Fiscal Year would have been on all Bonds outstanding immediately prior to the issuance of such Additional Bonds, including the Bonds to be refunded, Additional Bonds may be issued if the Trustee receives a written report of the Consulting Engineer which projects the Authority's Operating Expenses and Revenues for the Fiscal Year following the issuance of such Additional Bonds and which states that, on the basis of such projection, the Authority has rates in effect (or scheduled to go into effect) sufficient to meet its Operating Expenses and the Annual Debt Service Requirements of Section 602 (taking into account the issuance of such Additional Bonds). For purposes of this Section 403(e)(3), the term "Annual Debt Service Requirements" means any interest payable in the Fiscal Year in question and any principal payable in such Fiscal Year as a result of (i) any optional redemption of outstanding Bonds to occur in such Fiscal Year with respect to which the Authority has given the Trustee directions to give notice in accordance with Section 302, (ii) mandatory sinking fund redemption of any Bonds, or (iii) maturity of any Bonds.

(f) The opinion of an attorney or firm of attorneys recognized on the subject of municipal bonds that the issuance of such Additional Bonds is permitted under the terms of this Master Trust Agreement and has been duly authorized.

(g) A request and authorization of the Authority, signed by its Chairman or Vice Chairman, to the Trustee to authenticate and deliver such Additional Bonds to such purchaser or purchasers named therein and upon payment to the Trustee for the account of the Authority of a specified sum plus accrued interest, if any, to the date of delivery.

**Section 404. Use of Proceeds of Additional Bonds for Additional Construction.** The proceeds of Additional Bonds (including accrued interest) issued for the purpose of additional construction described in Section 402(a) shall be applied by the Trustee simultaneously with the delivery of such Additional Bonds as follows:

(a) If so provided by the Supplemental Trust Agreement required by Section 403(c), for deposit in the Construction Fund an amount to be used to pay the interest on such Additional Bonds (i) which will accrue from the date of delivery of such Additional Bonds to any date on or before the estimated date of completion of such construction and (ii) if so provided by such resolution, for a period not exceeding one year after the date of completion of such construction, as estimated by the Consulting Engineer;

(b) For deposit in the Debt Service Reserve Fund an amount which, together with the amount then on deposit in the Debt Service Reserve Fund, will equal the Debt Service Reserve;

(c) For deposit in the Interest Account in the Bond Fund an amount equal to the accrued interest received as part of the proceeds of such Additional Bonds; and

(d) For deposit in the Construction Fund the balance of such proceeds for the purpose of paying the cost of such construction.

**Section 405. Use of Proceeds of Additional Bonds for Refunding.** The proceeds of Additional Bonds (including accrued interest) issued for the purpose of refunding any Bonds as described in Section 402(b) shall be applied by the Trustee simultaneously with the delivery of such Additional Bonds as follows:

(a) For deposit in a special checking account to be held by the Authority or the Trustee an amount specified in a certificate of the Authority signed by its Chairman or Vice Chairman and filed with the Trustee to be used within one year after the issuance of such Additional Bonds for the payment of expenses incident to such refunding;

(b) For deposit in the Interest Account in the Bond Fund an amount equal to the accrued interest, if any, received as part of the proceeds of such Additional Bonds; and

(c) For deposit in an escrow account held by the Trustee an amount which, together with any other moneys on deposit in such escrow account and the investment income to be earned on moneys therein, will be sufficient to pay the principal of and premium, if any, and interest on the Bonds to be refunded, to be used for the sole purpose of paying such principal, premium and interest.

Moneys held by the Trustee as set forth in subsection (c) of this section shall be, as nearly as may be practicable, invested and reinvested by the Trustee in investments authorized under Sections 701(a) or (c) which shall mature or be subject to redemption at the option of the holder thereof not later than the respective dates on which such moneys will be required for the payment or redemption of Bonds. Any balance in the accounts set forth in subsection (c) of this section remaining after the payment of expenses and the refunding of Bonds shall be deposited in the Interest Account in the Bond Fund.

## **ARTICLE V**

### **CONSTRUCTION FUND**

**Section 501. Creation of Construction Fund.** The Appomattox River Water Authority Construction Fund, to be held by the Trustee, is hereby established.

**Section 502. Payments into Construction Fund.** The Trustee shall (i) maintain in the Construction Fund the balance of the proceeds of the Prior Bonds still held in the Construction Fund pursuant to the resolutions authorizing the issuance of such Prior Bonds and the related Prior Supplements, and (ii) deposit in the Construction Fund the proceeds of any Additional Bonds, to the extent provided in Section 404(c).

**Section 503. Cost of the System.** The Cost of the System shall include the cost of construction of improvements, the cost of all lands, properties, rights, easements, franchises and permits acquired, the cost of all machinery and equipment, financing charges, interest prior to and during construction and for one year after completion of construction, any deposit to any bond interest and principal reserve account, the cost of engineering and legal services, plans, specifications, surveys, estimates of costs and of revenues, other expenses necessary or incident to determining the feasibility or practicability of any such acquisition, improvement or construction, administrative expenses, working capital, and such other expenses as may be necessary or incidental to the financing of the System and to the improvement of the System and placing the same in operation. Any obligation or expense incurred by the Authority in connection with any of the foregoing items of Cost may be regarded as part of the Cost of the System.

**Section 504. Payments from Construction Fund.** The Trustee shall use moneys in the Construction Fund solely to pay the Cost of the System. Before any payment shall be made from the Construction Fund, there shall be filed with the Trustee:

- (a) A requisition, signed by an Authorized Representative of the Authority, stating:
  - (1) the name of the person, firm or corporation to whom the payment is due;
  - (2) the amount to be paid; and
  - (3) the purpose in reasonable detail for which the obligation to be paid was incurred.

(b) A certificate attached to such requisition, signed by an Authorized Representative of the Authority, stating that:

(1) no written notice of any lien, right to lien or attachment upon, or claim affecting the right to receive payment of, any of the moneys payable under such requisition to any of the persons, firms or corporations named therein has been received, or if any notice of any such lien, attachment or claim has been received, such lien, attachment or claim has been released or discharged or will be released or discharged upon payment of the requisition;

(2) such requisition contains no items representing payment on account of any percentage entitled to be retained at the date of the certificate; and

(3) the obligation stated on the requisition has been incurred in or about the construction of the System, each item is a proper charge against the Construction Fund, and the obligation has not been the basis for a prior requisition which has been paid.

(c) If any requisition includes an item for payment for labor or to contractors, builders or materialmen, there shall also be attached to such requisition a certificate, signed by the Consulting Engineer, stating that such work was actually performed or such materials, supplies or equipment were actually furnished or installed in or about the construction of the System.

(d) If any requisition includes an item for payment of the cost of acquisition of any lands, easements or rights or interests in or relating to lands, there shall also be attached to such requisition:

(1) a certificate, signed by the Consulting Engineer, stating that such lands, easements, rights or interests are being acquired and are necessary or desirable for the construction of the System; and

(2) an Opinion of Counsel stating that upon payment therefor the Authority will have title in fee simple to, or easements sufficient for the purposes of, the System over and through such lands.

Upon receipt of each such requisition and accompanying certificate or certificates, the Trustee shall make payment from the Construction Fund in accordance with such requisition.

**Section 505. Disposition of Balance in Construction Fund.** When the Trustee shall have received a certificate, signed by an Authorized Representative of the Authority, stating what items of the Cost of the System, if any, have not been paid and for the payment of which moneys should be reserved in the Construction Fund, the balance of any moneys remaining in the Construction Fund in excess of the amount to be reserved for payment of unpaid items of the Cost of the System shall be transferred to the Debt Service Reserve Fund if the amount on deposit therein is less than the Debt Service Reserve, then, transferred to the Interest Account in the Bond Fund if the amount on deposit therein is less than the amount required to comply with Section 607(a), then, transferred to the ERRF if the amount on deposit therein is less than the amount required to comply with Section 609, and otherwise to a special account to be held by the Trustee

within the Bond Fund and applied to the redemption of Bonds at the earliest date Bonds may be redeemed hereunder with no premium.

## ARTICLE VI

### **REVENUES AND FUNDS**

**Section 601. Annual Budget.** (a) Prior to the beginning of each Fiscal Year, the Authority shall adopt a budget for the ensuing Fiscal Year which shall be called the Annual Budget.

(b) Prior to preparing the Annual Budget, the Authority shall obtain a report from the Consulting Engineer giving advice and making recommendations as to the proper maintenance, repair and operation of the System during the ensuing Fiscal Year and estimating the amount necessary for such purposes.

(c) The Annual Budget shall be prepared in such manner as to show in reasonable detail all Revenues projected to be derived by the Authority and the amounts of (i) the Operating Expenses estimated to be incurred in connection with the ownership or operation of the System (including the estimated Operating Capital Outlay Expenses, which shall be separately stated), (ii) the principal of and premium, if any, and interest on the Bonds, that shall become due, (iii) any amount necessary to be paid into the Debt Service Reserve Fund to restore the balance therein to the amount of the Debt Service Reserve, (iv) the amount required to be paid into the ERRF as provided in Section 609(d), and (v) any other lawful costs and expenses the Authority deems necessary or desirable. Copies of the Annual Budget shall be filed with the Trustee not later than the first day of the Fiscal Year for which it is prepared.

(d) If for any reason an Annual Budget has not been adopted within the time required by subsection (a) of this section, the last previously adopted Annual Budget shall be deemed to provide for and regulate and control expenditures during such Fiscal Year until an Annual Budget for such Fiscal Year shall have been adopted.

(e) The Authority may amend the Annual Budget at any time during the Fiscal Year. The Authority shall follow the same procedure regarding any such amendment as provided in subsection (c) of this section for the adoption of the Annual Budget. Copies of all such amendments shall be filed promptly with the Trustee.

**Section 602. Revenue Covenant.** The Authority shall fix, charge and collect such rates, fees and other charges for the use of and for the services furnished by the System, and will, from time to time and as often as shall appear necessary, revise such rates, fees and other charges, so as to produce Revenues in each Fiscal Year sufficient to pay (i) the budgeted Operating Expenses of the System, less the budgeted Operating Capital Outlay Expenses, (ii) the principal of and premium, if any, and interest on the Bonds and all other indebtedness of the Authority, as the same become due, (iii) any amount necessary to be paid into the Debt Service Reserve Fund to restore the balance therein to the amount of the Debt Service Reserve, and (iv) the amount required to be paid into the ERRF as provided in Section 609(d).

**Section 603. Billing and Enforcement of Charges.** The Authority shall bill the parties to the Service Agreements for all charges under the Service Agreements and any other user of the



services of the System no less frequently than quarterly. The Authority shall take all appropriate steps to enforce collection of any overdue charges by any remedy available at law or in equity.

**Section 604. Establishment of Funds.** The following funds are hereby established:

- (a) Appomattox River Water Authority Revenue Fund, to be held by the Trustee;
- (b) Appomattox River Water Authority Operating Fund, to be held by the Authority;
- (c) Appomattox River Water Authority Bond Fund, in which there are established an Interest Account and a Principal Account, all to be held by the Trustee;
- (d) Appomattox River Water Authority Debt Service Reserve Fund, to be held by the Trustee; and
- (e) Appomattox River Water Authority Equipment Repair and Replacement Fund or the "ERRF," to be held by the Trustee.

**Section 605. Revenue Fund.** (a) The Authority shall collect and deposit in the Revenue Fund as received all Revenues. Moneys on deposit in the Revenue Fund shall be used only in the manner and priority set forth below. As of the twenty-fifth day of any month during which there is on deposit in the Revenue Fund at least \$100,000, but not later than the last day thereof, the Trustee shall make the following deposits in the following order of priority:

(1) To the Authority for deposit in the Operating Fund such amount needed to increase the balance in the Operating Fund to the sum certified by an Authorized Representative of the Authority to be (i) the estimated amount of the Operating Expenses for the next succeeding four months as provided in the Annual Budget and (ii) the aggregate amount of all checks outstanding and unpaid drawn upon the Operating Fund; and

(2) To the Bond Fund such amount as shall be necessary to make the following deposits:

(A) first, in the Interest Account, such amount, if any, as may be required to make the total amount on deposit therein equal to the amount of interest which will become due on the Bonds within the next succeeding six months; and

(B) then, in the Principal Account, such amount, if any, as may be required to make the total amount on deposit therein equal to the amount of principal of the Bonds maturing or required to be redeemed pursuant to any sinking fund requirement with respect to Term Bonds within the next succeeding 12 months; and

(3) To the Debt Service Reserve Fund, such amount as may be necessary to increase the amount on deposit therein to the amount of the Debt Service Reserve; and

(4) To the ERRF, such amount as may be required to be deposited therein under Section 609(d) until the balance in the ERRF is equal to \$2,500,000.

(b) At least once each Fiscal Year, on the twenty-fifth day of any month following the deposits described in subsection (a) above, and provided that all of the deposits required under subsection (a) above have been made, the balance in the Revenue Fund shall be transferred to the Authority as directed by an Authorized Authority Representative, for use by the Authority for any of the following purposes:

- (1) to pay costs of completion of the System;
- (2) to pay the cost of replacements of major components of the System and the cost of acquisition or construction of improvements, extensions, additions or replacements required to be charged to capital account by generally accepted accounting principles and which constitute or will constitute a part of the System;
- (3) to purchase, for cancellation, Bonds at or below their current redemption price;
- (4) to redeem Bonds at the earliest practicable date; and
- (5) for any lawful purpose permitted by the Act and this Master Trust Agreement.

**Section 606. Operating Fund.** The Authority shall pay Operating Expenses from the Operating Fund as the same become due and in accordance with the purposes and amounts provided in the Annual Budget. If the balance in the Operating Fund is insufficient for the purposes thereof, the Trustee shall transfer to such fund such amounts as may be necessary therefor from the ERRF pursuant to Section 609.

**Section 607. Bond Fund.** The Trustee shall pay the principal of, whether upon redemption or maturity, and interest on the Bonds from the Principal Account and the Interest Account, respectively, as the same become due. The Trustee shall provide for redemption of any Bonds which may be issued as Term Bonds in accordance with the related Supplemental Trust Agreement; provided, however, that on or before the 70th day next preceding any such sinking fund payment date, the Authority may:

(a) pay to the Trustee for deposit in the Principal Account such amount as the Authority may determine, accompanied by a certificate signed by an Authorized Representative of the Authority directing the Trustee to apply such amount to the purchase of Bonds required to be redeemed on such sinking fund payment date, and the Trustee shall thereupon use all reasonable efforts to expend such funds as nearly as may be practicable in the purchase of such Bonds at a price not exceeding the principal amount thereof plus accrued interest to such sinking fund redemption date; or

(b) deliver to the Trustee for cancellation Term Bonds required to be redeemed on such sinking fund payment date in any aggregate principal amount desired; or

(c) instruct the Trustee to apply a credit against the Authority's sinking fund redemption obligation for any such Term Bonds that previously have been redeemed (other than

through the operation of the sinking fund) and canceled by the Trustee but not theretofore applied as a credit against any sinking fund redemption obligation.

Each Bond so purchased, delivered or previously redeemed shall be credited by the Trustee at 100% of the principal amount thereof against amounts required to be transferred from the Revenue Fund to the Principal Account on account of such Term Bonds. Upon the occurrence of any of the events described in subsections (a), (b) or (c) of this Section, the Trustee shall credit against the Authority's sinking fund redemption obligation on the next sinking fund payment date the amount of such Bonds so purchased, delivered or previously redeemed. Any principal amount of such Term Bonds in excess of the principal amount required to be redeemed on such sinking fund payment date shall be similarly credited in chronological order against future transfers from the Revenue Fund to the Principal Account and shall similarly reduce the principal amount of the Term Bonds to be redeemed on the next sinking fund payment date. Within seven days of receipt of such amount, Term Bonds or instructions to apply a credit, any amounts remaining in the Principal Account in excess of the amount required to fulfill the sinking fund redemption obligation on the next sinking fund payment date shall be paid to the Authority for use by the Authority for any of the purposes described in Section 605(b).

If the balances on deposit in the Principal Account or the Interest Account are insufficient for the purposes thereof on the day immediately preceding any principal or interest payment date, the Trustee shall transfer to such accounts such amounts as may be necessary therefor first from the ERRF pursuant to Section 609 and then from the Debt Service Reserve Fund pursuant to Section 608. If the balance on deposit in the Interest Account on any April 1 or October 1 or the balance in the Principal Account on any October 1 shall exceed the amount payable on account of interest or principal on the Bonds on such date, the excess may be paid to the Authority for use by the Authority for any of the purposes described in Section 605(b).

**Section 608. Debt Service Reserve Fund.** The Debt Service Reserve Fund shall be used to make transfers to the Bond Fund to the extent necessary to pay the principal of (whether at maturity or by mandatory sinking fund redemption) and interest on the Bonds as the same become due if the amounts on deposit therein are insufficient therefor. If the amount on deposit in the Debt Service Reserve Fund is less than the Debt Service Reserve, the Trustee shall transfer funds to the Debt Service Reserve Fund to restore the Debt Service Reserve, to the extent and in the manner provided in Section 605(a)(3), from the Revenue Fund. If the amount on deposit in the Debt Service Reserve Fund is less than the Debt Service Reserve after such transfers from the Revenue Fund, the Trustee shall transfer from the ERRF pursuant to Section 609 funds sufficient to restore the Debt Service Reserve Fund to the amount of the Debt Service Reserve, or such lesser amount as may be available. If the amount on deposit in the Debt Service Reserve Fund shall exceed the Debt Service Reserve, the Trustee shall transfer such excess not less frequently than annually to the Bond Fund to be deposited, as directed by an Authorized Representative of the Authority, in the Interest Account or the Principal Account to the extent amounts in such accounts are less than the amounts required to be paid on the next interest payment date and principal payment date respectively, and then any excess remaining shall be deposited in the Revenue Fund.

**Section 609. Equipment Repair and Replacement Fund.** (a) The Trustee shall use amounts in the ERRF as needed in the following order of priority:

(1) to pay to the Authority for payment of Operating Expenses for which the balance, as certified by an Authorized Representative of Authority, in the Operating Fund may be insufficient;

(2) to make transfers to the Bond Fund to the extent and in the manner provided in Section 607; and

(3) to make transfers to the Debt Service Reserve Fund to make up a deficiency in the Debt Service Reserve.

(b) The Trustee shall use amounts in the ERRF not needed for the uses described in subsection (a) of this Section as and when directed by an Authorized Representative of the Authority for any of the following purposes:

(1) to pay reasonable and necessary expenses with respect to the System for major repairs, replacements or maintenance items of a type not recurring annually or at shorter intervals;

(2) to pay the costs of reconstruction of parts of the System; or

(3) to pay the costs of construction of additions to, or extensions of, the System.

(c) When the balances in the Bond Fund, the Debt Service Reserve Fund and the ERRF are sufficient to redeem all the Bonds then outstanding, the balances in the Bond Fund, the ERRF and the Debt Reserve Service Fund shall be transferred to a special account in the Bond Fund to be held by the Trustee for redemption of the Bonds at the earliest practicable date and for no other purpose.

(d) If at any time the Trustee determines that the balance in the ERRF is less than \$2,500,000, the Authority agrees to include in each of its Annual Budgets following such determination at least such amount as may be necessary to restore the balance in the ERRF to \$2,500,000 in substantially equal monthly installments starting with the first complete Fiscal Year following such determination and ending by not later than the end of the fifth complete Fiscal Year following such determination.

**Section 610. Pledge of Revenues and Funds.** All Revenues derived from the ownership or operation of the System and all moneys in the Construction Fund, the Revenue Fund, the Operating Fund, the Bond Fund, the Debt Service Reserve Fund and the ERRF shall be trust funds and are hereby pledged to the payment of the principal of and interest on the Bonds, subject only to the right of the Authority to make application thereof to other purposes as provided herein. The lien and trust hereby created are for the benefit of the Bondholders and for their additional security until all the Bonds have been paid.

**Section 611. Disposition of Balances in Funds and Accounts after Payment of Bonds.** After the principal of and premium, if any, and interest on all of the Bonds and all expenses and charges herein required have been paid or provision therefor has been made, the Trustee shall pay to the Authority any balance remaining in any fund or account then held by it.

**Section 612. Bond Anticipation Notes.** Notwithstanding any other provisions of this article, Bond Anticipation Notes shall not be secured by moneys in the Bond Fund or the Debt Service Reserve Fund, and any transfer required to be made to such funds pursuant to Sections 607 and 608 upon the issuance of Bonds shall not be required upon the issuance of Bond Anticipation Notes.

**Section 613. Acceptance of Other Monies.** The Trustee is authorized to accept any monies the Authority may transfer to the Trustee from any reserve, surplus or other funds or accounts maintained by the Authority outside of this Master Trust Agreement. The Trustee shall deposit into any of the funds and accounts established under this Master Trust Agreement and apply such monies for the purposes of such funds or accounts as may be directed by an Authorized Representative of the Authority.

## ARTICLE VII

### **INVESTMENTS AND SECURITY FOR DEPOSITS**

**Section 701. Bank Accounts.** All amounts held by the Authority or the Trustee under this Master Trust Agreement in excess of the amount guaranteed by the Federal Deposit Insurance Corporation or other federal agency shall be continuously held in savings accounts, time deposits, demand deposits or other transaction accounts, or certificates of deposit of qualified public depositories provided that the amounts are secured in the manner required by the Virginia Security for Public Deposits Act, Chapter 44 of Title 2.2 of the Code of Virginia of 1950, as amended, or any successor provision of law; provided, however, that this provision shall not apply to amounts used to purchase investments permitted under Section 702 below.

**Section 702. Investment of Moneys in Funds.** (a) Any moneys held in the Construction Fund, the Revenue Fund, the Operating Fund and the ERRF may be separately invested and reinvested by the Authority, or if the holder of such fund is the Trustee, by the Trustee as directed by an Authorized Representative of the Authority in the following, so long as such investments are at the time legal investments for public funds of the type to be invested under Virginia law, including without limitation the Investment of Public Funds Act, Chapter 45 of Title 2.2 of the Code of Virginia of 1950, as amended:

(1) bonds, treasury notes and other evidences of indebtedness of the United States of America and securities unconditionally guaranteed as to the timely payment of principal and interest by the United States of America;

(2) obligations of the Federal Home Loan Banks, Federal Farm Credit Banks, Federal Intermediate Credit Banks and Federal Banks for Cooperatives;

(3) bonds, notes and other evidences of indebtedness of the Commonwealth of Virginia and securities unconditionally guaranteed as to the timely payment of principal and interest by the Commonwealth of Virginia;

(4) commercial paper with a maturity of 270 days or less that complies with the requirements of Section 2.2-4502 of the Code of Virginia of 1950, as amended;

(5) investments pursuant to the Local Government Investment Pool Act, Chapter 46 of Title 2.2 of the Code of Virginia of 1950, as amended;

(6) investments pursuant to the Government Non-Arbitrage Investment Act, Chapter 47 of Title 2.2 of the Code of Virginia of 1950, as amended; and

(7) such other investment as may be permitted for public funds of the type to be invested under Virginia law, including without limitation the Investment of Public Funds Act, Chapter 45 of Title 2.2 of the Code of Virginia of 1950, as amended; provided at the time of purchase the investment is rated in one of the two highest debt rating categories by at least one of the nationally-recognized rating agencies.

(b) Any amounts held in the Bond Fund or the Debt Service Reserve Fund shall be separately invested and reinvested by the Trustee as directed by an Authorized Representative of the Authority in investments described in subsection (a)(1), (3), (5), (6) and (7) of this section so long as such investments are authorized for investment of public sinking funds by Section 2.2-4500 of the Code of Virginia of 1950, as amended, or any other provision of Virginia law.

(c) Any investments described in subsection (a)(1), (2) and (3) of this section may be purchased by the Authority or the Trustee pursuant to a repurchase agreement with any bank, including an affiliate of the Trustee, within or without the Commonwealth of Virginia having a combined capital, surplus and undivided profits of not less than \$50,000,000 and acceptable to the Authority or the Trustee, as the case may be, provided that the obligation of the bank to repurchase is within 12 months at the date the investment is purchased. Such repurchase agreement shall be considered a purchase of such securities even if title to and/or possession of such securities is not transferred to the Authority or the Trustee, as the case may be, so long as (i) the repurchase obligation of the bank is collateralized by the securities themselves, (ii) such investments have on the date of the repurchase agreement a fair market value equal to at least 100% of the amount of the repurchase obligation of the bank, including principal and interest, (iii) such securities are held by a third party as agent for the benefit of the Trustee as fiduciary for the holders of the Bonds and not as agent for the bank serving as Trustee in its commercial capacity or any other party and are segregated from securities owned generally by such third party, and (iv) a perfected security interest in such securities is created for the benefit of the holders of the Bonds under the Uniform Commercial Code of Virginia or book entry procedures prescribed at 31 C.F.R. 306.1 et seq. or 31 C.F.R. 350.0 et seq. In addition, investments in a money market or other fund, investments of which fund are exclusively in obligations or securities described in subsection (a)(1), (2) and (3) of this section, shall be considered investments in obligations described in subsection (a)(1), (2) and (3) of this section.

(d) Any such investments shall be held by or under the control of the Authority or the Trustee, as the case may be, and while so held shall be deemed a part of the fund in which such moneys were originally held. The interest accruing thereon and any profit realized therefrom shall be credited to such fund, and any loss resulting from such investments shall be charged to such fund. The Authority or the Trustee shall sell and reduce to cash a sufficient amount of such investments whenever the cash balance in any fund is insufficient for the purposes thereof.

(e) Investments held in the following funds shall have the following maximum terms to maturity:

(1) Construction Fund - not later than the dates on which such moneys will be needed to pay the Costs of the System;

(2) Revenue Fund - not later than the 25th day of the month in which such moneys shall be transferred pursuant to Section 605;

(3) Operating Fund - not later than the date on which such moneys will be needed to pay Operating Expenses;

(4) Bond Fund - not later than the date on which such moneys will be needed to pay principal of or interest on the Bonds;

(5) Debt Service Reserve Fund - not to exceed ten years from the date of acquisition of the investment; and

(6) ERRF - not to exceed ten years from the date of acquisition of the investment.

(f) For purposes of subsection (e) investments shall be considered as maturing on the date on which they are redeemable without penalty at the option of the holder or the date on which the Authority or the Trustee may require their repurchase pursuant to a repurchase agreement.

**Section 703. Valuation of Investments.** In computing the amount in any fund created by this Master Trust Agreement, the Trustee shall value investments on deposit in the fund at cost or the market value thereof, whichever is lower, exclusive of unpaid accrued interest, except for investments in the Debt Service Reserve Fund and the ERRF. The Trustee shall value investments in the Debt Service Reserve Fund and the ERRF at par, exclusive of unpaid accrued interest; provided, however, that any investment purchased at a price of less than 98% of par or in excess of 102% of par shall be valued at its market value, exclusive of unpaid accrued interest. The Trustee shall make such valuations semiannually and at such other times as the Authority may reasonably request.

**Section 704. Investments Made By Trustee.** The Trustee may make investments permitted by Section 702 through its own bond department.

## ARTICLE VIII

### **PARTICULAR COVENANTS**

**Section 801. Payment of Bonds; Limited Obligations.** The Authority shall promptly pay when due the principal of (whether at maturity or call for redemption or otherwise) and premium, if any, and interest on the Bonds at the places, on the dates and in the manner provided herein and in the Bonds according to the true intent and meaning thereof; provided, however, that such obligations are payable solely from the net revenues of the Authority and other funds pledged thereto, and the claim for such principal and premium, if any, and interest shall be a valid claim

solely against the revenues and funds pledged. Neither the faith and credit of the Commonwealth of Virginia nor the faith and credit of any county, city, town or other subdivision of the Commonwealth of Virginia are pledged to the payment of the principal of or interest on the Bonds. The Bonds do not directly or indirectly or contingently obligate the Commonwealth or any county, city, town or other subdivision of the Commonwealth to levy any taxes whatever therefor or to make any appropriations for their payment except from the funds pledged hereunder.

**Section 802. Covenants and Representations of Authority.** The Authority shall faithfully observe and perform all covenants, conditions and agreements on its part contained in this Master Trust Agreement, in every Bond executed, authenticated and delivered hereunder and in all proceedings of the Authority pertaining thereto. The Authority represents that it is duly authorized under the Constitution and laws of the Commonwealth of Virginia, including particularly and without limitation the Act, to issue the Bonds, to execute this Master Trust Agreement, and to pledge revenues in the manner and to the extent herein set forth; that all action on its part for the issuance of the Bonds and the execution and delivery of this Master Trust Agreement has been duly and effectively taken (or, if Additional Bonds are issued hereafter pursuant to Article IV, will be duly taken as provided therein); and that the Bonds appertaining thereto are and will be valid and enforceable obligations of the Authority according to the import thereof.

**Section 803. Operation and Maintenance.** The Authority shall establish and enforce reasonable rules and regulations governing the use of and the services furnished by the System, shall maintain and operate the System in an efficient and economical manner pursuant to the Annual Budget, shall maintain the same in good repair and sound operating condition and shall make all necessary repairs, replacements and renewals. All compensation, salaries, fees and wages paid by the Authority in connection with the operation and maintenance of the System shall be reasonable. The Authority shall observe and perform all of the terms and conditions contained in the Act and comply with all valid acts, rules, regulations, orders and directions of any legislative, executive, administrative or judicial body applicable to the System or the Authority.

**Section 804. Consulting Engineer.** The Authority shall at all times employ as Consulting Engineer an engineering firm or individual engineer of recognized standing and experience in the field of public water systems registered in the Commonwealth of Virginia, whose duties shall include inspection of the System, advice as to proper operation, maintenance and repair of the System and providing the report required pursuant to Section 601(b).

**Section 805. Sale or Encumbrance.** Neither the System nor any integral part thereof shall be leased, sold, encumbered or otherwise disposed of without the prior consent of the Bondholders of two-thirds in aggregate principal amount of Bonds then outstanding unless the proceeds of such disposition are sufficient to pay the principal of and premium, if any, and interest on all of the Bonds then outstanding and the proceeds are used for such purpose; provided, however, that the Authority may grant easements, licenses or permits across, over or under parts of the System for streets, roads and utilities as will not adversely affect the use of the System and provided, further, that upon compliance with the provisions of this section the Authority may sell or otherwise dispose of any property constituting a part of the System which is either no longer needed or useful therefor or is replaced from the proceeds of such disposition and any other necessary moneys with property serving the same or similar function. No such property shall be



sold or otherwise disposed of unless there is filed with the Trustee a certificate of the Authority, signed by its Chairman or Vice Chairman, stating that such property is no longer needed or useful in the operation of the System and, if the proceeds to be received for such property shall exceed \$100,000, there shall also be filed with the Authority and the Trustee a certificate of the Consulting Engineer stating that such property is no longer needed or useful in the operation of the System. Any proceeds to be received from such sale or disposition not used to replace such property shall be, if the amount on deposit in the Debt Service Reserve Fund is less than the Debt Service Reserve, deposited in the Debt Service Reserve Fund, and otherwise any such proceeds shall be deposited in the ERRF.

**Section 806. Creation of Liens.** The Authority shall not create or suffer to be created any lien or charge upon the System or any part thereof or any lien or charge upon the revenues and other funds pledged herein ranking equally with or prior to the lien and charge of the Bonds, except as hereinafter provided. The Authority shall pay or cause to be discharged, or shall make adequate provision to satisfy and discharge, all lawful claims and demands for labor, materials and supplies within 60 days after the same become due and all governmental charges when the same become due which, if unpaid, might by law become a lien upon the System, its revenues or any part thereof. Anything herein to the contrary notwithstanding, the Authority may contest in good faith any such lien or charge, in which event it may permit such lien or charge to remain unsatisfied and undischarged during the period of such contest and any appeal therefrom unless by such action in the opinion of the Trustee the lien of this Master Trust Agreement on any part of the revenues pledged herein shall be endangered or any part of the System shall be subject to loss or forfeiture, in either of which events such lien or charge shall be promptly satisfied or secured by posting with the Trustee or an appropriate court of record a bond in form satisfactory to the Trustee.

**Section 807. Insurance.** To the extent such insurance is available at reasonable costs, the Authority shall continuously maintain insurance against such risks as are customarily insured against by other public bodies owning and operating similar systems, paying as the same become due all premiums with respect thereto, including without limitation:

(a) Insurance in the amount of the full replacement cost of all insurable portions of the System against loss or damage by fire and lightning, with broad form extended coverage including damage by windstorm, explosion, aircraft, smoke, sprinkler leakage, vandalism, malicious mischief and such other risks as are normally included within such coverage (limited only as may be provided in the standard form for such coverage at the time in use in the Commonwealth of Virginia). The determination of replacement cost shall be made by the Consulting Engineer upon the issuance or renewal of any policy of insurance required by this subsection.

(b) Comprehensive general liability insurance with a combined single limit of \$1,000,000 per year against liability for bodily injury, including death resulting therefrom, and for damage to property, including loss of use thereof, arising out of the ownership, maintenance or use of the System.

(c) Comprehensive automobile liability insurance with a combined single limit of \$1,000,000 per year against liability for bodily injury, including death resulting therefrom, and for damage to property, including loss of use thereof, arising out of the ownership or operation of motor vehicles by the Authority.

(d) Unless the Authority qualifies as a self-insurer under the laws of the Commonwealth of Virginia, workers' compensation insurance with respect to the System.

(e) Fidelity bonds on all members and employees of the Authority who have access to or custody of revenues, receipts or other funds appertaining to the System, such bonds to be in such amounts as are customarily carried by other public bodies owning and operating similar facilities.

All such insurance shall be taken out and maintained with generally recognized responsible insurers selected by the Authority and acceptable to the Trustee and may be written with deductible amounts comparable to those on similar policies carried by other public bodies owning and operating similar facilities. If any such insurance is not maintained with an insurer licensed to do business in Virginia or placed pursuant to the requirements of the Virginia Surplus Lines Insurance Law (Chapter 48, Title 38.2, Code of Virginia of 1950, as amended) or any successor provision of law, the Authority shall provide evidence reasonably satisfactory to the Trustee that such insurance is enforceable under the laws of the Commonwealth of Virginia. In each policy, other than policies of workers' compensation insurance, the Trustee shall be named as an additional insured. The policies of insurance required by subsection (a) above shall require that all Net Proceeds resulting from any claims be paid to the Trustee.

All such policies shall be deposited with the Trustee, provided that in lieu of such policies there may be deposited with the Trustee a certificate or certificates of the respective insurers attesting the fact that the insurance required by this section is in full force and effect. Prior to the expiration of any such policy, the Authority shall furnish the Trustee evidence satisfactory to the Trustee that the policy has been renewed or replaced or is no longer required by this Master Trust Agreement. Unless a policy with such an undertaking is available only at a cost which the Authority, with the approval of the Trustee, determines to be unreasonable, each policy shall contain an undertaking by the insurer that such policy shall not be modified adversely to the interests of the Trustee or cancelled without at least 30 days' prior notice to the Trustee.

In lieu of separate policies the Authority may maintain blanket or umbrella policies having the same coverage required herein, in which event it shall deposit with the Trustee a certificate or certificates of the respective insurers evidencing such coverage and stating the amount of coverage provided with respect to the System or any part thereof.

To the extent losses for any damage to the System, however caused, are paid from the Net Proceeds of any insurance required by this section, no claim shall be made and no suit shall be brought against the Authority by the Trustee or anyone else claiming by, through or under it.

**Section 808. Notice in Event of Damage, Destruction, Condemnation and Loss of Title.** In case of any material damage to or destruction of any part of the System, the Authority shall give prompt notice thereof to the Trustee. In case of a taking of all or any part of the System or any right therein under the exercise of the power of eminent domain or any loss thereof because of failure of title thereto or the commencement of any proceedings or negotiations which might result in such a taking or loss, the Authority shall give prompt notice to the Trustee. Each such notice shall describe generally the nature and extent of such damage, destruction, taking, loss, proceedings or negotiations.

**Section 809. Damage, Destruction, Condemnation and Loss of Title.** If all or any part of the System is destroyed or damaged by fire or other casualty, condemned or lost by failure of title, the Authority shall restore promptly the property damaged or destroyed to substantially the same condition as before such damage, destruction, condemnation or loss of title with such alterations and additions as the Authority may determine and which will not impair the capacity or character of the System for the purpose for which it then is being used or is intended to be used. The Trustee shall apply so much as may be necessary of the Net Proceeds received on account of any such damage, destruction, condemnation or loss of title to payment of the cost of such restoration, either on completion or as the work progresses. If such Net Proceeds are not sufficient to pay in full the cost of such restoration, the Authority shall pay so much of the cost as may be in excess of such Net Proceeds. Any balance of such Net Proceeds remaining after payment of the cost of such restoration shall be deposited in the Revenue Fund.

**Section 810. Records and Accounts; Inspections and Reports.** The Authority shall keep proper books of records and accounts, separate from any of its other records and accounts, showing complete and correct entries of all transactions relating to the System, and the Trustee shall have the right at all reasonable times to inspect the System and all records, accounts and data relating thereto. The Authority shall also cause a certified audit of its records and accounts to be made by an independent certified public accountant at the end of each Fiscal Year which shall reflect in reasonable detail the financial condition and record of operation of the System. At the request of the Trustee, the Authority shall also cause an unaudited interim report reflecting in reasonable detail the financial condition and record of operation of the System to be made at the end of the quarter of the Fiscal Year following such request. Promptly upon receipt of each audit and interim report, copies thereof shall be filed with the Trustee and in the office of the Authority. In preparing all such reports and statements, the accountant may rely on reports of funds held by the Trustee furnished by the Trustee, without verification or independent audit thereof.

**Section 811. Arbitrage Covenant.** The Authority covenants with the holders of the Bonds that (i) it shall take no action, nor shall it authorize any investment or use of the proceeds of the Bonds or take any other action, which will cause any Bond to be an "arbitrage bond" within the meaning of Section 148 of the Internal Revenue Code of 1986, as amended, and the applicable regulations thereunder and (ii) barring unforeseen circumstances, it will not approve the use of the proceeds from the sale of the Bonds otherwise than in accordance with the Authority's "arbitrage" certificate given immediately prior to the issuance of the Bonds.

**Section 812. Reports by Trustee.** The Trustee shall make monthly and annual reports to the Authority of all moneys received and expended by it in connection with the powers and trusts of this Master Trust Agreement. Such reports shall include all investment transactions made by the Trustee for the account of the Authority.

**Section 813. Enforcement of Service Agreements.** The Authority shall faithfully observe and perform all covenants, conditions and agreements on its part contained in the Service Agreements and the rules and regulations of the Authority and shall enforce the covenants, conditions and agreements of the other parties to the Service Agreements for the benefit of the Bondholders.

## ARTICLE IX

### **DISCHARGE OF MASTER TRUST AGREEMENT AND PARTICULAR BONDS**

**Section 901. Discharge of Agreement.** If (a) all Bonds secured hereby shall have become due and payable in accordance with their terms or otherwise as provided in this Master Trust Agreement or have been duly called for redemption or irrevocable instructions to call the Bonds or to pay them at maturity have been given by the Authority to the Trustee and (b) the Trustee holds cash or obligations registered in the name of the Trustee that are (1) noncallable direct obligations of the United States of America or (2) noncallable obligations the timely payment of which is guaranteed by the United States of America (collectively, "Government Obligations") the principal of and the interest on which at maturity will be sufficient (A) to redeem in accordance with the relevant section hereof all Bonds that have been called for redemption, or for which irrevocable instructions for call for redemption have been given, on the date set for such redemption, (B) to pay at maturity all Bonds not irrevocably called for redemption, (C) to pay interest accruing on all Bonds prior to their redemption or payment at maturity, and (D) to pay to the Trustee its reasonable fees and expenses of cancelling and discharging this Master Trust Agreement, then the Trustee shall, at the expense of the Authority, cancel and discharge this Master Trust Agreement and execute and deliver to the Authority such instruments in writing as shall be requisite to cancel the lien hereof, and assign and deliver to the Authority any property at the time subject to this Master Trust Agreement that may then be in its possession, except funds or securities in which such funds are invested which are held by the Trustee for the payment of principal of or premium, if any, or interest on the Bonds.

Bonds for payment or redemption of which cash or Government Obligations the principal of and premium, if any, and interest on which will be sufficient therefor shall have been deposited with the Trustee (whether upon or prior to the date of their maturity or their redemption date) shall be deemed to be paid and no longer outstanding; provided, however, that if such Bonds are to be redeemed prior to the maturity thereof, notice of such redemption shall have been duly given or arrangements satisfactory to the Trustee shall have been made for the giving thereof.

## ARTICLE X

### **DEFAULT PROVISIONS AND REMEDIES OF TRUSTEE AND BONDHOLDERS**

**Section 1001. Events of Default.** Each of the following events shall be an Event of Default:

- (a) Default by the Authority in the due and punctual payment of any interest on any Bond;
- (b) Default by the Authority in the due and punctual payment of the principal of or premium, if any, on any Bond (whether at maturity, by acceleration, call for redemption or otherwise);

(c) Failure of the Authority to observe and perform any of its other covenants, conditions or agreements under this Master Trust Agreement or in the Bonds for a period of 30 days after notice, either from the Trustee to the Authority or from the Bondholders of 25% in aggregate principal amount of Bonds then outstanding to the Trustee and the Authority (unless the Trustee shall agree in writing to an extension of such time prior to its expiration), specifying such failure and requesting that it be remedied, or in the case of any such default that cannot with due diligence be cured within such 30 day period, failure of the Authority to proceed promptly to cure the same and thereafter prosecute the curing of such default with due diligence;

(d) Abandonment of the System by the Authority;

(e) Destruction or damage to any substantial part of the System to the extent of impairing its efficient operation or adversely affecting to a substantial degree its revenues and for any reason the same shall not be promptly repaired, replaced or reconstructed (whether such failure promptly to repair, replace or reconstruct the same be due to the impracticability of such repair, replacement or reconstruction or to lack of funds therefor or for any other reason);

(f) (1) Failure of the Authority to pay generally its debts as they become due, (2) commencement by the Authority of a voluntary case under the Federal bankruptcy laws, as now or hereafter constituted, or any other applicable Federal or state bankruptcy, insolvency or other similar law, (3) consent by the Authority to the appointment of a receiver, liquidator, assignee, trustee, custodian, sequestrator or other similar official for the Authority or any substantial part of its property, or to the taking possession by any such official to any substantial part of the property of the Authority, (4) making by the Authority of any assignment for the benefit of creditors, or (5) taking of corporate action by the Authority in furtherance of any of the foregoing;

(g) The entry of any (1) decree or order for relief by a court having jurisdiction over the Authority or its property in an involuntary case under the Federal bankruptcy laws, as now or hereafter constituted, or any other applicable Federal or state bankruptcy, insolvency or other similar law, (2) appointment of a receiver, liquidator, assignee, trustee, custodian, sequestrator or similar official for the Authority or any substantial part of its property, or (3) order for the termination or liquidation of the Authority or its affairs; and

(h) Failure of the Authority within 60 days after the commencement of any proceedings against it under the Federal bankruptcy laws or any other applicable Federal or state bankruptcy, insolvency or similar law, to have such proceedings dismissed or stayed.

The provisions of subsections (c), (d) and (e) of this section are subject to the limitation that if by reason of force majeure the Authority is unable in whole or in part to observe and perform any of its covenants, conditions or agreements hereunder, other than its obligations contained in Sections 602, 801, 807, 811 and 813, the Authority shall not be deemed in default during the continuance of such disability. The term "force majeure" as used herein shall include without limitation acts of God; strikes, lockouts or other industrial disturbances; acts of public enemies; orders of any kind of the government of the United States or of the Commonwealth of Virginia or any of their departments, agencies, political subdivisions or officials, or any civil or military authority; insurrections; riots; epidemics; landslides; lightning; earthquakes; fires; hurricanes;

storms; floods; washouts; droughts; arrests; restraint of government and people; civil disturbances; explosions; breakage or accident to machinery, transmission pipes or canals; partial or entire failure of utilities; or any other cause or event not reasonably within the control of the Authority. The Authority shall, however, remedy with all reasonable dispatch the cause or causes preventing it from carrying out its agreements, provided that the settlement of strikes, lockouts and other industrial disturbances shall be entirely within the discretion of the Authority, and the Authority shall not be required to make settlement of strikes, lockouts and other industrial disturbances by acceding to the demands of the opposing party or parties when such course is in the judgment of the Authority unfavorable to it.

**Section 1002. Acceleration.** Upon the occurrence and continuation of an Event of Default, the Trustee may, and if requested by the Bondholders of 25% in aggregate principal amount of Bonds then outstanding shall, by notice to the Authority, declare the entire unpaid principal of and premium, if any, and interest on the Bonds due and payable and, thereupon, the entire unpaid principal of and premium, if any, and interest on the Bonds shall forthwith become due and payable. Upon any such declaration the Authority shall forthwith pay to the Bondholders of the Bonds the entire unpaid principal of and premium, if any, and accrued interest on the Bonds, but only from the revenues herein specifically pledged for such purpose.

**Section 1003. Other Remedies; Rights of Bondholders.** Upon the occurrence and continuation of an Event of Default the Trustee may proceed to protect and enforce its rights and the rights of the Bondholders by mandamus or other suit, action or proceeding at law or in equity including an action for specific performance of any agreement herein contained.

Upon the occurrence and continuation of an Event of Default, if requested to do so by the Bondholders of 25% in aggregate principal amount of Bonds then outstanding and if indemnified as provided in Section 1101(1), the Trustee shall exercise such one or more of the rights and powers conferred by this article as the Trustee, upon being advised by counsel, shall deem most expedient in the interests of the Bondholders; provided, however, that nothing herein contained shall be construed to give the Trustee or any Bondholder authority to compel a foreclosure or sale of the System or any part thereof.

No remedy conferred by this Master Trust Agreement upon or reserved to the Trustee or to the Bondholders is intended to be exclusive of any other remedy, but each such remedy shall be cumulative and shall be in addition to any other remedy given to the Trustee or to the Bondholders hereunder or now or hereafter existing at law or in equity or by statute.

No delay or omission to exercise any right or power accruing upon any default or Event of Default shall impair any such right or power or shall be construed to be a waiver of any such default or Event of Default or acquiescence therein, and every such right and power may be exercised from time to time and as often as may be deemed expedient.

No waiver of any default or Event of Default hereunder, whether by the Trustee pursuant to Section 1010 or by the Bondholders, shall extend to or shall affect any subsequent default or Event of Default or shall impair any rights or remedies resulting therefrom.

**Section 1004. Right of Bondholders To Direct Proceedings.** Anything in this Master Trust Agreement to the contrary notwithstanding, the Bondholders of a majority in aggregate principal amount of Bonds then outstanding shall have the right, at any time, by an instrument or instruments in writing executed and delivered to the Trustee, to direct the method and place of conducting all proceedings to be taken in connection with the enforcement of the terms and conditions of this Master Trust Agreement or any other proceedings hereunder; provided, however, that such direction shall not be otherwise than in accordance with the provisions of law and of this Master Trust Agreement.

**Section 1005. Application of Moneys.** All moneys received by the Trustee pursuant to any right given or action taken under the provisions of this article shall, after payment of the costs and expenses of the proceedings resulting in the collection of such moneys, the expenses, liabilities and advances incurred or made by the Trustee and its fees and the expenses of the Authority in carrying out this Master Trust Agreement, be deposited in the Bond Fund and applied as follows and for no other purpose:

(a) Unless the principal of all the Bonds shall become due or shall have been declared due and payable, all moneys shall be applied:

First – To the payment to the persons entitled thereto of all installments of interest then due on the Bonds, in the order of the maturity of the installments of such interest and, if the amount available shall not be sufficient to pay in full any particular installment, then to the payment ratably, according to the amounts due on such installment, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in the Bonds;

Second – To the payment to the persons entitled thereto of the unpaid principal of and premium, if any, on any of the Bonds which shall have become due (other than Bonds called for redemption for the payment of which moneys are held pursuant to the provisions of this Master Trust Agreement), in the order of their due dates, with interest on such Bonds at the respective rates specified therein from the respective dates upon which they become due and, if the amount available shall not be sufficient to pay in full Bonds due on any particular date, together with such interest, then first to the payment of such interest, ratably, according to the amount of such interest due on such date, and then to the payment of such principal and premium, if any, ratably, according to the amount of such principal due on such date, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in the Bonds; and

Third – To the extent permitted by law, to the payment to the persons entitled thereto of the unpaid interest on overdue installments of interest ratably, according to the amounts of such interest due on such date, without any discrimination or preference except as to any difference in the respective rates of interest specified in the Bonds.

(b) If the principal of all the Bonds shall have become due or shall have been declared due and payable, all such moneys shall be applied to the payment of the principal and interest then due and unpaid upon the Bonds, including, to the extent permitted by law, interest on overdue installments of interest, without preference or priority of principal over interest or of interest over principal, or of any installment of interest over any other installment of interest, or of any Bond over any other Bond, ratably, according to the amounts due respectively for principal and interest, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in the Bonds.

(c) If the principal of all the Bonds shall have been declared due and payable and if such declaration shall thereafter have been rescinded under the provisions of this article, then, subject to the provisions of subsection (b) of this section in the event that the principal of all the Bonds shall later become due or be declared due and payable, the moneys shall be applied in accordance with the provisions of subsection (a) of this section.

Whenever moneys are to be applied pursuant to the provisions of this section, such moneys shall be applied at such times and from time to time as the Trustee shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future. Whenever the Trustee shall apply such moneys, it shall fix the date (which shall be an interest payment date unless it shall deem another date more suitable) on which such application is to be made and on such date interest on the amounts of principal to be paid on such dates shall cease to accrue. The Trustee shall give such notice as it may deem appropriate of the deposit with it of any such moneys and of the fixing of any such date.

Whenever the principal of and premium, if any, and interest on all Bonds have been paid under the provisions of this section and all expenses and charges of the Trustee have been paid, any balance remaining in the several funds and accounts created by this Master Trust Agreement shall be paid to the Authority as provided in Section 611.

**Section 1006. Remedies Vested in Trustee.** All rights of action (including the right to file proof of claims) under this Master Trust Agreement or under any of the Bonds may be enforced by the Trustee without the possession of any of the Bonds or the production thereof in any trial or other proceeding relating thereto and any such suit or proceeding instituted by the Trustee may be brought in its name as Trustee without the necessity of joining as plaintiffs or defendants any Bondholders of the Bonds, and any recovery of judgment shall be for the equal benefit of the Bondholders of the outstanding Bonds.

**Section 1007. Limitation on Suits.** Except to enforce the rights given under Sections 1002 or 1008, no Bondholder of any Bond shall have any right to institute any action, suit or proceeding at law or in equity for the enforcement of this Master Trust Agreement or for the execution of any trust thereof or any other remedy hereunder, unless (a) a default has occurred and is continuing of which the Trustee has been notified as provided in Section 1101(h), or of which by such section it is deemed to have notice, (b) such default has become an Event of Default and the Bondholders of 25% in aggregate principal amount of Bonds then outstanding have made written request to the Trustee and offered it reasonable opportunity either to proceed to exercise the powers hereinbefore granted or to institute such action, suit or proceeding in its own name,



(c) such requesting Bondholders have offered to the Trustee indemnity as provided in Section 1101(1), (d) the Trustee has thereafter failed or refused to exercise the powers hereinbefore granted, or to institute such action, suit or proceeding in its, his or their own name or names, (e) no direction inconsistent with such written request has been given to the Trustee by the Bondholders of a majority in aggregate principal amount of Bonds then outstanding, and (f) notice of such action, suit or proceeding is given to the Trustee; it being understood and intended that no one or more Bondholders of the Bonds shall have any right in any manner whatsoever to affect, disturb or prejudice this Master Trust Agreement by its, his or their action or to enforce any rights hereunder except in the manner herein provided, and that all proceedings at law or in equity shall be instituted and maintained in the manner herein provided and for the equal benefit of the Bondholders of all Bonds then outstanding. The notification, request and offer of indemnity set forth above, at the option of the Trustee, shall be conditions precedent to the execution of the powers and trusts of this Master Trust Agreement and to any action or cause of action for the enforcement of this Master Trust Agreement or for any other remedy hereunder.

**Section 1008. Unconditional Right To Receive Principal, Premium and Interest.**

Nothing in this Master Trust Agreement shall, however, affect or impair the right of any Bondholder to enforce, by action at law, payment of the principal or premium, if any, or interest on any Bond at and after the maturity thereof, or on the date fixed for redemption or (subject to the provisions of Section 1002) upon the same being declared due prior to maturity as herein provided, or the obligation of the Authority to pay the principal of and premium, if any, and interest on each of the Bonds issued hereunder to the respective holders thereof at the time, place, from the source and in the manner herein and in the Bonds expressed.

**Section 1009. Termination of Proceedings.** In case the Trustee shall have proceeded to enforce any right under this Master Trust Agreement and such proceedings shall have been discontinued or abandoned for any reason or shall have been determined adversely to the Trustee, then and in every such case the Authority and the Trustee shall be restored to their former positions and rights hereunder, and all rights, remedies and powers of the Trustee shall continue as if no such proceedings had been taken.

**Section 1010. Waivers of Events of Default.** The Trustee may in its discretion waive any Event of Default hereunder or any action taken pursuant to any Event of Default and rescind any declaration of maturity of principal of and interest on the Bonds, and shall do so on the request of the Bondholders of (a) a majority in aggregate principal amount of Bonds then outstanding in respect of which default in the payment of principal and/or premium, if any, and/or interest exists, or (b) a majority in aggregate principal amount of Bonds then outstanding in the case of any other default; provided, however, that:

(1) there shall not be waived without the consent of the Bondholders of all Bonds then outstanding (A) any Event of Default in the payment of the principal of any outstanding Bonds (whether at maturity or by sinking fund redemption) or (B) any default in the payment when due of the interest on any such Bonds unless, prior to such waiver or rescission,

(i) there shall have been paid or provided for all arrears of interest with interest (to the extent permitted by law) at the rate borne by the Bonds on overdue

installments of interest, all arrears of principal and premium, if any, and all expenses of the Trustee in connection with such default, and

(ii) in case of any such waiver or rescission or in the case of any discontinuance, abandonment or adverse determination of any proceeding taken by the Trustee on account of any such default, the Authority, the Trustee and the Bondholders shall be restored to their former positions and rights hereunder respectively, and

(2) no declaration of maturity under Section 1002 made at the request of the Bondholders of 25% in aggregate principal amount of Bonds then outstanding shall be rescinded unless requested by the Bondholders of at least 25% in aggregate principal amount of Bonds then outstanding.

No such waiver or rescission shall extend to any subsequent or other default or impair any right resulting therefrom.

## **ARTICLE XI**

### **THE TRUSTEE**

**Section 1101. Acceptance of Trusts and Obligations.** The Trustee hereby accepts the trusts and obligations imposed upon it by this Master Trust Agreement and agrees to perform such trusts and obligations, but only upon and subject to the following express terms and conditions and no implied covenants or obligations shall be read into this Master Trust Agreement against the Trustee:

(a) The Trustee, prior to the occurrence of an Event of Default and after the curing of all Events of Default which may have occurred, undertakes to perform such duties and only such duties as are specifically set forth in this Master Trust Agreement and as a corporate trustee ordinarily would perform such duties under a corporate indenture. Upon the occurrence and continuation of an Event of Default (which has not been cured or waived), the Trustee shall exercise such of the rights and powers vested in it by this Master Trust Agreement and use the same degree of care and skill in their exercise as a prudent person ordinarily would exercise and use under the circumstances in the conduct of his or her own affairs.

(b) The Trustee may execute any of the trusts or powers hereof and perform any of its duties by or through attorneys, agents, receivers or employees but shall be answerable for the conduct of the same in accordance with the standard specified above, and shall be entitled to act upon the opinion or advice of its counsel concerning all matters of trust hereof and the duties hereunder, and may in all cases pay reasonable compensation to all such attorneys, agents, receivers and employees as may reasonably be employed in connection with the trust hereof. The Trustee may act on an Opinion of Counsel and shall not be responsible for any loss or damage resulting from any action or nonaction by it taken or omitted to be taken in good faith and in reliance on such Opinion of Counsel.

(c) The Trustee shall not be responsible for any recital herein or in the Bonds (except in respect to the certificate of the Trustee endorsed on the Bonds) or for the recording, re-recording,

filing or re-filing of any financing or continuation statement or any other document or instrument, or for insuring the System, collecting any insurance moneys, or for the validity of the execution by the Authority of this Master Trust Agreement or of any Supplemental Trust Agreements hereto or instruments of further assurance, or for the sufficiency of the security for the Bonds issued hereunder or intended to be secured hereby, and the Trustee shall not be bound to ascertain or inquire as to the observance or performance of any covenants, conditions or agreements on the part of the Authority except as hereinafter set forth. The Trustee shall not be responsible or liable for any loss suffered in connection with any investment of moneys made by it in accordance with Article VII.

(d) The Trustee shall not be accountable for the use of any Bonds authenticated or delivered hereunder. The bank or trust company acting as Trustee and its directors, officers, employees or agents may in good faith buy, sell, own, hold and deal in the Bonds and may join in any action which any Bondholder may be entitled to take with like effect as if such bank or trust company were not the Trustee. To the extent permitted by law, such bank or trust company may also receive tenders and purchase in good faith Bonds from itself, including any department, affiliate or subsidiary, with like effect as if it were not the Trustee.

(e) The Trustee shall be protected in acting on any notice, request, consent, certificate, order, affidavit, letter, telegram or other paper or document reasonably believed by it to be genuine and correct and to have been signed or sent by the proper person or persons. Any action taken by the Trustee pursuant to this Master Trust Agreement on the request or authority or consent of any persons who at the time of making such request or giving such authority or consent is the Bondholder of any Bond shall be conclusive and binding upon all future Bondholders of the same Bond and upon Bonds issued in exchange therefor or in place thereof.

(f) As to the existence or non-existence of any fact or as to the sufficiency or validity of any instrument, paper or proceeding, the Trustee shall be entitled to rely on a certificate signed on behalf of the Authority by its Chairman or Vice-Chairman and attested by its Secretary under its seal, or such other person or persons as may be designated for such purposes by resolution of the Authority, as sufficient evidence of the facts therein contained, and prior to the occurrence of a default of which the Trustee has been notified as provided in subsection (h) of this section, or of which by said subsection it is deemed to have notice, may also accept a similar certificate to the effect that any particular dealing, transaction or action is necessary or expedient, but may at its discretion secure such further evidence deemed necessary or advisable, but shall in no case be bound to secure the same. The Trustee may accept a certificate of the Secretary of the Authority under its seal to the effect that a resolution in the form therein set forth has been adopted by the Authority as conclusive evidence that such resolution has been duly adopted and is in full force and effect.

(g) The permissive right of the Trustee to do things set forth in this Master Trust Agreement shall not be construed as a duty, and the Trustee shall not be answerable for other than its negligence or willful default.

(h) The Trustee shall not be required to take notice or be deemed to have notice of any default hereunder, except failure by the Authority to cause to be made any of the payments to the Trustee required to be made by Article VI or failure by the Authority to file with the Trustee any

document required by this Master Trust Agreement to be so filed, unless the Trustee shall be notified of such default by the Authority or by the Bondholders of 25% in aggregate principal amount of Bonds then outstanding.

(i) At any and all reasonable times the Trustee and its duly authorized agents, attorneys, experts, engineers, accountants and representatives shall have the right, but shall not be required, to inspect the System and all books, papers and records of the Authority pertaining to the System and the Bonds, and to make such memoranda from and in regard thereto as may be desired.

(j) The Trustee shall not be required to give any bond or surety with respect to the execution of its rights and obligations hereunder.

(k) Notwithstanding any other provision of this Master Trust Agreement, the Trustee shall have the right, but shall not be required, to demand, as a condition of any action by the Trustee in respect of the authentication of any Bonds, the withdrawal of any cash, the release of any property, or any action whatsoever within the purview of this Master Trust Agreement, any showings, certificates, opinions, appraisals or other information, or corporate action or evidence thereof, in addition to that required by the terms hereof.

(l) Before taking any action under this Master Trust Agreement the Trustee may require that satisfactory indemnity be furnished to it for the reimbursement of all expenses to which it may be put and to protect it against all liability by reason of any action so taken, except liability which is adjudicated to have resulted from its negligence or willful default.

(m) All moneys received by the Trustee shall, until used or applied or invested as herein provided, be held in trust in the manner and for the purposes for which they were received but need not be segregated from other funds except to the extent required by this Master Trust Agreement or law. The Trustee shall not be under any liability for interest on any moneys received hereunder except such as may be agreed upon.

**Section 1102. Fees, Charges and Expenses of Trustee.** The Trustee shall be entitled to payment of and reimbursement for reasonable fees for its services and all expenses reasonably incurred by it hereunder, including the reasonable fees and disbursements of its counsel.

**Section 1103. Intervention by Trustee.** In any judicial proceeding to which the Authority is a party and which in the opinion of the Trustee has a substantial bearing on the interests of the Bondholders, the Trustee may intervene on behalf of Bondholders and, subject to Section 1101(1), shall do so if requested by the Bondholders of 25% in aggregate principal amount of Bonds then outstanding.

**Section 1104. Merger or Consolidation of Trustee.** Any corporation or association into which the Trustee may be converted or merged, or with which it may be consolidated, or to which it may sell or transfer its trust business and assets as a whole or substantially as a whole, or any corporation or association resulting from any such conversion, sale, merger, consolidation or transfer to which it is a party shall be and become successor Trustee hereunder and vested with all the trusts, powers, discretion, immunities, privileges and all other matters as was its predecessor, without the execution or filing of any instrument or any further act, deed or conveyance on the part of any of the parties hereto, anything herein to the contrary notwithstanding.

**Section 1105. Resignation by Trustee.** The Trustee may at any time resign from the trusts hereby created by giving 30 days' notice to the Authority and each Bondholder of Bonds then outstanding. Such resignation shall take effect upon the appointment of a successor or temporary Trustee by the Bondholders, the Authority or a court of competent jurisdiction.

**Section 1106. Removal of Trustee.** The Trustee may be removed at any time by an instrument or concurrent instruments in writing delivered to the Trustee and to the Authority and signed by the Bondholders of a majority in aggregate principal amount of Bonds then outstanding, but such removal shall take effect upon the appointment of a successor Trustee or the earlier appointment of a temporary Trustee by the Bondholders, the Authority or a court of competent jurisdiction.

**Section 1107. Appointment of Successor Trustee by Bondholders; Temporary Trustee.** In case the Trustee hereunder shall resign, be removed, be dissolved, be in course of dissolution or liquidation or otherwise become incapable of acting hereunder, or in case it shall be taken under the control of any public officer or officers or of a receiver appointed by a court, a successor may be appointed by the Bondholders of a majority in aggregate principal amount of Bonds then outstanding, by an instrument or concurrent instruments in writing signed by such Bondholders; provided, however, that in case of such vacancy the Authority, by an instrument signed by its Chairman or Vice-Chairman and attested by its Secretary under its seal, may appoint a temporary Trustee to fill such vacancy until a successor Trustee shall be appointed by the Bondholders in the manner provided above; and any such temporary Trustee so appointed by the Authority shall immediately and without further act be superseded by the Trustee so appointed by such Bondholders. Every such Trustee appointed pursuant to this section shall be, if there be such an institution willing, qualified and able to accept the trust upon reasonable or customary terms (a) a bank or trust company in the Commonwealth of Virginia, in good standing and having a combined capital, surplus and undivided profits of not less than \$50,000,000, or (b) a subsidiary trust company under the Trust Subsidiary Act, Article 3.1, Chapter 2, Title 6.1, Code of Virginia of 1950, as amended, whose parent Virginia bank or bank holding company has undertaken to be responsible for the acts of such subsidiary trust company pursuant to the provisions of Section 6.1-32.7(a) of the Trust Subsidiary Act, or any successor provision of law, and whose combined capital, surplus and undivided profits, together with that of its parent Virginia bank or bank holding company, as the case may be, is not less than \$50,000,000.

**Section 1108. Concerning any Successor Trustee.** Every successor Trustee appointed hereunder shall execute, acknowledge and deliver to its predecessor and also to the Authority an instrument in writing accepting such appointment hereunder, and thereupon such successor, without any further act, deed or conveyance, shall become fully vested with all the properties, rights, powers, trusts, duties and obligations of its predecessor; but such predecessor shall, nevertheless, on the request of the Authority or its successor, execute and deliver an instrument transferring to such successor Trustee all the properties, rights, powers and trusts of such predecessor hereunder; and every predecessor Trustee shall deliver all securities and moneys held by it as Trustee hereunder to its successor. Should any instrument in writing from the Authority be required by any successor Trustee for more fully and certainly vesting in such successor the properties, rights, powers and duties hereby vested or intended to be vested in the predecessor, any and all such instruments in writing shall, on request, be executed, acknowledged and delivered by the Authority.

**Section 1109. Trustee Protected in Relying on Resolutions, etc.** The resolutions, opinions, certificates and other instruments provided for in this Master Trust Agreement may be accepted by the Trustee as conclusive evidence of the facts and conclusions stated therein and shall be full protection and authority to the Trustee for the release of property and the withdrawal of cash hereunder or the taking of any other action by the Trustee as provided hereunder.

**Section 1110. Successor Trustee as Paying Agent, Registrar and Custodian of Funds.** In the event of a change in the office of Trustee the predecessor Trustee which has resigned or been removed shall cease to be paying agent and registrar for the Bonds and custodian of the funds created hereunder, and the successor Trustee shall become such paying agent and custodian.

## ARTICLE XII

### **SUPPLEMENTAL TRUST AGREEMENTS**

**Section 1201. Supplemental Trust Agreements Not Requiring Consent of Bondholders.** The Authority and the Trustee may, without the consent of, or notice to, any of the Bondholders, enter into such Supplemental Trust Agreement or Agreements for any one or more of the following purposes:

- (a) To cure any ambiguity or formal defect or omission in this Master Trust Agreement;
- (b) To grant to or confer upon the Trustee for the benefit of the Bondholders any additional rights, remedies, powers or authority that may lawfully be granted to or conferred on the Bondholders or the Trustee or either of them;
- (c) To add to the covenants and agreements of the Authority in this Master Trust Agreement other covenants and agreements to be observed by the Authority;
- (d) To modify, amend or supplement this Master Trust Agreement in such manner as required to permit the qualification hereof under the Trust Indenture Act of 1939, as amended, or any similar Federal statute hereafter in effect or any state securities (Blue Sky) law, and, if they so determine, to add to this Master Trust Agreement such other terms, conditions and provisions as may be required by the Trust Indenture Act of 1939, as amended, or similar Federal statute or state securities law;
- (e) To authorize the issuance of and to secure one or more series of Additional Bonds as provided in and upon compliance with Article IV to provide for (1) the deposit and disbursement of the proceeds of such Additional Bonds, to pay the expenses of the issuance of such Additional Bonds and to pay the cost of all or any part of the facilities to be financed by means of such Additional Bonds or to refund all or part of another series of Bonds, as the case may be, (2) the payment of the principal, premium, if any, and interest on such Additional Bonds, and (3) such other changes necessary in connection with the issuance of such Additional Bonds as shall not, in the opinion of the Trustee, prejudice in any material respect the rights of the Bondholders of the Bonds then outstanding; and

(f) To make any other change herein which, in the opinion of the Trustee, shall not prejudice in any material respect the rights of the Bondholders of the Bonds then outstanding.

**Section 1202. Supplemental Trust Agreements Requiring Consent of Bondholders.**

Exclusive of Supplemental Trust Agreements covered by Section 1201 and subject to the terms and provisions contained in this section, the Bondholders of a majority in aggregate principal amount of Bonds then outstanding shall have the right from time to time, notwithstanding any other provision of this Master Trust Agreement, to consent to the execution by the Authority and the Trustee of such other Supplemental Trust Agreement or Agreements as shall be deemed necessary or desirable by the Authority for the purpose of modifying, altering, amending, adding to or rescinding, in any particular, any of the terms or provisions contained in this Master Trust Agreement or in any supplemental agreement; provided, however, that nothing in this Master Trust Agreement shall permit, or be construed as permitting, (a) an extension of the maturity of the principal of or the interest on any Bond, or (b) a reduction in the principal amount of, or premium, if any, on any Bond, or the rate of interest thereon, or (c) an extension of time or a reduction in amount of any payment required by any sinking fund redemption provision that may be applicable to any Bond, or (d) a privilege or priority of any Bond or Bonds over any other Bond or Bonds, or (e) a reduction in the aggregate principal amount of Bonds required for consent to such Supplemental Trust Agreement without the consent and approval of the Bondholders of all of the Bonds then outstanding.

If at any time the Authority shall request the Trustee to enter into any such Supplemental Trust Agreement for any of the purposes of this section, the Trustee shall, upon being satisfactorily indemnified with respect to expenses, cause notice of the proposed execution of such Supplemental Trust Agreement to be sent by registered or certified mail to the Bondholder of each Bond outstanding at his address as it appears on the registration books. Such notice shall briefly set forth the nature of the proposed Supplemental Trust Agreement and shall state that copies thereof are on file at the corporate trust office of the Trustee for inspection by all Bondholders. If, within 60 days or such longer period as shall be prescribed by the Authority following the giving of such notice, the Bondholders of a majority in aggregate principal amount of Bonds then outstanding, or in the case of (a) through (e) of this section, the Bondholders of all the Bonds outstanding shall have consented to and approved the execution thereof, or to enjoin or restrain the Trustee or the Authority from executing such Supplemental Trust Agreement or from taking any action pursuant to the provisions thereof. Upon the execution of any such Supplemental Trust Agreement as in this section permitted and provided, this Master Trust Agreement shall be and be deemed to be modified and amended in accordance therewith.

Bonds owned or held by or for the account of the Authority shall not be deemed outstanding for the purpose of consent or any calculation of outstanding Bonds provided for in this Master Trust Agreement. At the time of any such calculation, the Authority shall furnish the Trustee a certificate of an officer of the Authority, upon which the Trustee may rely, describing all Bonds so to be excluded.

Notwithstanding any other provision of this Master Trust Agreement, the Authority and the Trustee may enter into any Supplemental Trust Agreement to this Master Trust Agreement upon receipt of the consent of the Bondholders of all Bonds then outstanding.

**Section 1203. Opinion of Counsel Required.** The Trustee shall not execute any Supplemental Trust Agreement to this Master Trust Agreement unless there shall have been filed with the Trustee an Opinion of Counsel stating that such Supplemental Trust Agreement is authorized or permitted by this Master Trust Agreement and complies with its terms and that upon execution it will be a valid and binding obligation of the Authority.

**Section 1204. Trustee's Obligation Regarding Supplemental Trust Agreements.** The Trustee shall not unreasonably refuse to enter into any Supplemental Trust Agreement permitted by this article.

## ARTICLE XIII

### **AMENDMENTS TO SERVICE AGREEMENTS**

**Section 1301. Limitation on Amendments.** The Service Agreements shall not be amended, modified or otherwise altered in any manner which causes the Authority to be in violation of any applicable statutes, regulations or rulings applicable to the System or, without the consent of the Bondholders of all Bonds then outstanding, if such change prejudices in any material respect the rights of the Bondholders of the Bonds.

**Section 1302. Consent of Trustee to Amendments.** The Trustee shall consent to any amendment of the Service Agreements which does not violate Section 1301 of this Master Trust Agreement. The Trustee shall not consent to any amendment to the Service Agreements which would permit amendments thereto without the consent of the Trustee.

## ARTICLE XIV

### **MISCELLANEOUS**

**Section 1401. Consents, etc., of Bondholders.** Any consent, request, direction, approval, objection or other instrument (collectively, a "Consent") required by this Master Trust Agreement to be executed by the Bondholders may be in any number of concurrent writings of similar tenor and may be executed by such Bondholders in person or by agent appointed in writing. Proof of the execution of a Consent or of the writing appointing any such agent shall be sufficient for any of the purposes of this Master Trust Agreement and shall be conclusive in favor of the Trustee with regard to any action taken under the Consent if the fact and date of the execution by any person of any such writing is proved by a certificate of any officer in any jurisdiction who by law has power to take acknowledgements within such jurisdiction that the person signing such writing acknowledged before him the execution thereof, or by affidavit of any witness to such execution.

**Section 1402. Limitation of Rights.** With the exception of rights herein expressly conferred, nothing expressed or mentioned in or to be implied from this Master Trust Agreement or the Bonds is intended or shall be construed to give to any person other than the parties hereto and the Bondholders of the Bonds any legal or equitable right, remedy or claim under or in respect to this Master Trust Agreement or any covenants, conditions and agreements herein contained since this Master Trust Agreement and all of the covenants, conditions and agreements hereof is



intended to be and is for the sole and exclusive benefit of the parties hereto and the Bondholders of the Bonds as herein provided.

**Section 1403. Limitation of Liability of Members, etc., of Authority.** No covenant, agreement or obligation contained herein shall be deemed to be a covenant, agreement or obligation of any present or future member, officer, employee or agent of the Authority in his individual capacity, and neither the members of the Authority nor any officer thereof executing the Bonds shall be liable personally on the Bonds or be subject to any personal liability or accountability by reason of the issuance thereof. No member, officer, employee, agent or advisor of the Authority shall incur any personal liability with respect to any other action taken by him pursuant to this Master Trust Agreement or the Act, provided such member, officer, employee, agent or adviser does not act in bad faith.

**Section 1404. Notices.** Unless otherwise provided herein, all demands, notices, approvals, consents, requests, opinions and other communications hereunder shall be in writing and shall be deemed to have been given when delivered in person or mailed by first class registered or certified mail, postage prepaid, addressed (a) if to the Authority, at 21300 Chesdin Road, South Chesterfield, Virginia 23803, or (b) if to the Trustee, at 1021 East Cary Street, 18<sup>th</sup> Floor, Richmond, Virginia 23219, Attention: Corporate Trust Department. The Authority and the Trustee may, by notice given hereunder, designate any further or different addresses to which subsequent demands, notices, approvals, consents, requests, opinions or other communications shall be sent or persons to whose attention the same shall be directed.

**Section 1405. Successors and Assigns.** This Master Trust Agreement shall be binding upon, inure to the benefit of and be enforceable by the parties and their respective successors and assigns.

**Section 1406. Severability.** If any provision of this Master Trust Agreement shall be held invalid by any court of competent jurisdiction, such holding shall not invalidate any other provision hereof.

**Section 1407. Applicable Law.** This Master Trust Agreement shall be governed by the applicable laws of the Commonwealth of Virginia.

**Section 1408. Counterparts.** This Master Trust Agreement may be executed in several counterparts, each of which shall be an original and all of which together shall constitute but one and the same instrument.

[Signature Page Follows]

**IN WITNESS WHEREOF**, the Authority and the Trustee have caused this Master Trust Agreement to be executed in their respective corporate names as of the date first above written.

**APPOMATTOX RIVER WATER  
AUTHORITY**

By: \_\_\_\_\_  
Name: Douglas E. Smith  
Title: Chairman

By: \_\_\_\_\_  
Name: Robert B. Wilson, P.E.  
Title: Executive Director

**U.S. BANK NATIONAL ASSOCIATION**, as  
Trustee

By: \_\_\_\_\_  
Name: Nancy H. Taylor  
Title: Vice President

## **EXHIBIT A**

### **PRIOR BONDS**

- 1. Name of Prior Bond:** Appomattox River Water Authority,  
Water Revenue Bond, Series 2012

**Date of Prior Bond:** May 30, 2012

**Bondholder on Effective Date:** Carter Bank & Trust
- 2. Name of Prior Bond:** Appomattox River Water Authority,  
Water Revenue Bond, Series 2017

**Date of Prior Bond:** December 21, 2017

**Bondholder on Effective Date:** U.S. Bancorp Government Leasing and Finance, Inc.
- 3. Name of Prior Bond:** Appomattox River Water Authority,  
Water Revenue Refunding Bond, Series 2019

**Date of Prior Bond:** October 20, 2019

**Bondholder on Effective Date:** Virginia Resources Authority

**RESOLUTION OF THE BOARD OF THE  
APPOMATTOX RIVER WATER AUTHORITY  
ADOPTING UPDATED FINANCIAL POLICIES AND PROCEDURES AND  
APPROVING AND AUTHORIZING THE EXECUTION AND DELIVERY OF AN  
AMENDED AND RESTATED AGREEMENT OF TRUST**

**A.** The Appomattox River Water Authority ("ARWA") is a public body politic and corporate created in 1960 upon agreement of the governing bodies of the County of Chesterfield, Virginia, the City of Colonial Heights, Virginia, the County of Dinwiddie, Virginia, the City of Petersburg, Virginia, and the County of Prince George, Virginia (collectively, the "Participating Jurisdictions"), and in accordance with the Virginia Water and Waste Authorities Act, Virginia Code § 15.2-5100, et seq. (the "Act"), for the purpose of serving the water supply needs of the Participating Jurisdictions.

**B.** On May 21, 2015, ARWA's Board (the "Board") adopted a statement of guidelines and goals to influence and guide ARWA's financial management practices (the "2015 Financial Policies"), which provided that effective financial policies would:

- (a) Contribute significantly to ARWA's ability to prepare for and insulate itself from financial crisis by being able to better manage stressful financial internal and external events;
- (b) Enhance ARWA's ability to obtain short-term and long-term credit financing by helping to achieve the highest credit and bond ratings possible;
- (c) Promote ARWA's long-term financial stability by establishing clear and consistent guidelines;
- (d) Direct attention to ARWA's total financial picture rather than single-issue areas; and
- (e) Promote the view of linking ARWA's long-run financial planning with day-to-day operations.

**C.** The 2015 Financial Policies also stated that a part of the foundation of sound financial management is an undertaking to regularly review financial policies and, pursuant to the Board's direction, ARWA staff, financial advisor and bond counsel have undertaken a comprehensive revision of the 2015 Financial Policies to align them more closely with ARWA's current and historical billing and collection patterns, to update the requirements for the establishment and maintenance of various reserves to accommodate current and projected future needs and to provide clear guidance for the disposition of excess revenues.

**D.** Following extensive consultation with the Board and finance staffs of the Participating Jurisdictions, ARWA staff, financial advisor and bond counsel are recommending the Board's adoption of the updated Financial Policies and Procedures (the "2022 Financial Policies") in the form presented to this meeting.

**E.** ARWA staff, financial advisor and bond counsel advisor have also recommended that ARWA make certain amendments to ARWA's current Agreement of Trust dated as of August 15, 1986, as previously supplemented and amended (the "Original Trust Agreement"), between ARWA and U.S. Bank National Association, as trustee (the "Trustee"), to align with the 2022 Financial Policies and to remove a number of provisions that are no longer effective.

**F.** The amendments to the Original Trust Agreement will be made and the Original Trust Agreement will be restated in full as set forth in the Amended and Restated Agreement of Trust dated as of January 15, 2022 (the "Amended Trust Agreement"), between ARWA and the Trustee the most recent draft of which has been presented to this meeting.

**G.** ARWA has solicited and received preliminary approval of the Amended Trust Agreement from the Trustee and the Bondholders of each Bond currently outstanding.

**H.** Unless otherwise defined, each capitalized term used in this Resolution shall have the meaning set forth in the Amended Trust Agreement.

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

1. Findings; Adoption of 2022 Financial Policies. The Board hereby (i) finds that the adoption of the 2022 Financial Policies will promote the health, safety, welfare, morals and prosperity of the residents of the Participating Jurisdictions served by ARWA and will promote the governmental purposes for which ARWA was formed and (ii) adopts the 2022 Financial Policies to become effective immediately.

2. Periodic Review of Financial Policies. In order to promote the sound financial management of ARWA, the Board directs the ARWA staff to review the 2022 Financial Policies and any subsequent versions thereof and to report any recommended changes to the Board at least biennially commencing in January 2024.

3. Approval of Amended Trust Agreement. The draft Amended Trust Agreement presented to this meeting is approved. The Chairman and the Executive Director are each authorized to execute and deliver the final Amended Trust Agreement in substantially the form of the draft presented to this meeting, with such completions, deletions, insertions and changes not inconsistent with this Resolution as may be approved by the Chairman or the Executive Director, whose approval shall be evidenced conclusively by the execution and delivery of the final Amended Trust Agreement.

4. Further Actions. Such officers and agents of ARWA as may be designated by the Chairman or the Executive Director are authorized and directed to take such further actions as may be necessary or appropriate regarding the implementation of the 2022 Financial Policies and execution and delivery of the Amended Trust Agreement, including the execution and delivery on behalf of ARWA of such instruments, documents or certificates as the Chairman or the Executive Director shall deem necessary or appropriate to carry out the transactions contemplated by this Resolution. Any authorization or direction to the Chairman or the Executive Director under this Resolution shall also be deemed to be an authorization or a direction to the Vice Chairman or the Assistant Executive Director, respectively. All actions

previously taken by officers and agents of ARWA in connection with the transactions contemplated by this Resolution are ratified and confirmed.

5. Effective Date. This Resolution shall take effect immediately.

The undersigned Secretary-Treasurer of the Appomattox River Water Authority hereby certifies that the foregoing resolution was duly adopted by a recorded affirmative vote of a majority of all members of the Board of the Appomattox River Water Authority at a regular meeting duly called and held on January 20, 2022, at which meeting a quorum was present and acting throughout. The resolution has not been repealed, revoked, rescinded or amended.

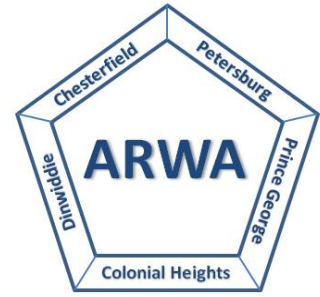
Date: January \_\_, 2022

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Secretary-Treasurer  
Appomattox River Water Authority

[SEAL]

# Appomattox River Water Authority



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

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## EXHIBIT E

TO: Appomattox River Water Authority Board of Directors

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

DATE: January 20, 2022

SUBJECT: Proposed Meeting Schedule for Calendar Year 2022

Staff is proposing the following calendar year 2022 meeting schedule:

January 20 <sup>th</sup>	Appomattox River Water Authority
March 17 <sup>th</sup>	Appomattox River Water Authority
May 19 <sup>th</sup>	Appomattox River Water Authority
July 28 <sup>th</sup>	South Central Wastewater Authority
September 22 <sup>nd</sup>	South Central Wastewater Authority
November 17 <sup>th</sup>	South Central Wastewater Authority

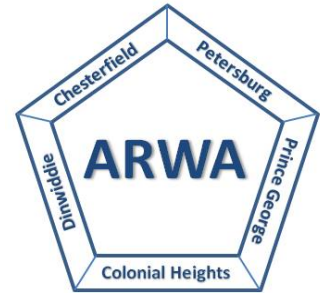
Meetings will be scheduled for 2:00 pm at the stated plant location. The Appomattox River Water Authority is located at 21300 Chesdin Road, South Chesterfield, VA and the South Central Wastewater Authority is located at 900 Magazine Road, Petersburg, VA.

The July 28<sup>th</sup> meeting is one week later than normal to accommodate the award for the Nutrient Project. One member has a conflict for July 28<sup>th</sup>. Please check your calendars for July 29<sup>th</sup> and first week of August.

### **Board Action Requested:**

Staff requests that the Board approve the proposed meeting schedule for regular scheduled meetings for calendar year 2022 as presented above.

# Appomattox River Water Authority



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

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## EXHIBIT F

TO: Appomattox River Water Authority Board of Directors

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

SUBJECT: Award of Professional Engineering Services Contract

DATE: January 20, 2022

Staff solicited proposals for professional engineering services on September 1<sup>st</sup> with a due date of September 30<sup>th</sup>. Three proposals were received: Hazen and Sawyer, W|W Associates, and Wiley|Wilson. The executive director and assistant executive director reviewed the proposals and are recommending award to Hazen and Sawyer and W|W Associates. Both Hazen and Sawyer and W|W Associates are currently providing professional engineering services to both ARWA and SCWWA. The current contract expires on November 30, 2021.

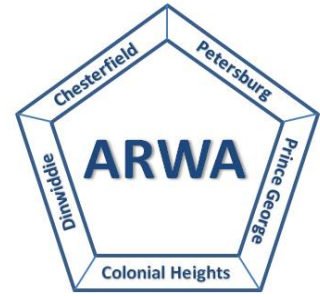
The new contract would start January 21, 2022 and run through January 21, 2024. This contract has two, one year extensions for a total of five years. The Authority still has the ability to issue requests for proposals for any project that is outside the professional engineering services vendor's expertise or per the Virginia Procurement Act.

### Board Action Requested:

Staff requests that the Board award the three year professional engineering services contract to both Hazen and Sawyer and W|W Associates. The two, one year extensions will be evaluated at the completion of year three and year four. The initial contract will be from January 21, 2022 to January 21, 2024.



# Appomattox River Water Authority



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

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## EXHIBIT G

TO: Appomattox River Water Authority Board of Directors

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

DATE: January 20, 2022

SUBJECT: FY23 Budget

Attachment 1 is the “draft” rates for each member for FY23. Members have requested preliminary rates to begin to prepare their respective FY23 utility budgets. We still have work to do before we make our formal presentation to the Board. The current schedule is to meet with member utility directors in February to go through the budget detail. After that meeting and incorporation of everyone’s comments in a budget narrative, present the budget to the member financial representatives. After the review by the financial representatives and incorporation of their comments to the narrative, present the draft budget to the Board at the March 17<sup>th</sup> meeting. At that same meeting we have our Compensation and Classification Study consultant, The Archer Company, scheduled to present the findings from the referenced study.

At the March 17<sup>th</sup> meeting we will request the Board set a public hearing date for the May 19<sup>th</sup> meeting for the FY23 Budget. Between March 17<sup>th</sup> and May 19<sup>th</sup>, we will answer any questions raised at the March 17<sup>th</sup> meeting. Based on the discussion at the May 19<sup>th</sup> meeting, the Board will have the option of approving the budget. The budget will need to be approved prior to July 1<sup>st</sup>.

### Board Action Requested:

No Board action is requested at this time. This item was presented to provide preliminary rates and detail the proposed budget schedule.

ATTACHMENT #1

**Appomattox River Water Authority**

Preliminary FY23 Budget Information

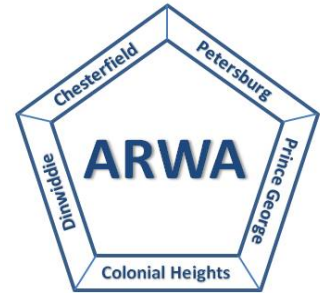
		Chesterfield	Colonial Heights	Dinwiddie	Petersburg	Prince George	Total / Average
Estimated daily flow <sup>(1)</sup>	mgd	22.045	1.663	1.173	4.664	0.740	30.285
Calculated Annual usage	bg	8.046	0.607	0.428	1.702	0.270	11.054
Base Rate	\$/1000 gal	1.0023	1.0023	1.0023	1.0023	1.0023	1.0023
Expansion Rate	\$/1000 gal	0.0031	0.0305	0.4324	0.0000	0.3426	0.1617
Total Rate	\$/1000 gal	1.0055	1.0328	1.4347	1.0023	1.3449	1.1641
% change from FY22 <sup>(2)</sup>	%	0.74%	0.73%	-0.76%	0.77%	-0.64%	0.05%

Note(s)

1) Estimated Daily flow is based on Running Annual Average. For FY23 this was average of FY17 thru FY21

2) FY22 average rate is 1.1635/1000 gal. This was used to calculate the average % change from FY22

# Appomattox River Water Authority



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

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## EXHIBIT H

TO: Appomattox River Water Authority Board of Directors

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

DATE: January 20, 2022

SUBJECT: Construction of docks, bulkheads, and beaches on the reservoir

The permitting process to construct docks, bulkheads and beaches on the reservoir has changed. Any of these three types of construction now requires a JPA (Joint Permit Application) through the Corps of Engineers and VMRC (Virginia Marine Resource Commission).

At the November 16<sup>th</sup> meeting with residents of Chesdin Landing, staff provided a presentation on the necessary permitting for construction of facilities on the reservoir on Authority property. The question was raised if there is an approval process through the Corps for contractors to try to streamline the permitting process. The Corps does not have a contractor approval process and a permit is required for each type of construction. The executive director has provided a copy of the presentation and necessary forms to the three dock builders currently working on the lake: Mike Sidney, Elvin Floyd and Deck-Tech.

Currently staff is working with a resident in Chesdin Landing to permit a dredging operation in the back of a cove and another resident on Oak River Court to complete the permits for a new dock installation.

A copy of the information presented to the Chesdin Landing residents is included as Attachment 1. A copy of the notification and the necessary permits sent to three dock builders is included as Attachment 2.

### Board Action Requested:

There is no Board action requested. This item was presented to show the new permit requirements and to advise members to have residents contact the Authority if they need assistance completing the permits.

# Appomattox River Water Authority

## Necessary Permits for working in the lake

### ☐ Building a Dock

- ✓ Permitting Authority – Virginia Marine Resource Commission (VMRC) and Corps of Engineers (Corps)
- ✓ Request a copy of the permit package at either [info@arwava.org](mailto:info@arwava.org) or [rwilson@arwava.org](mailto:rwilson@arwava.org)
- ✓ Permit is the Joint Permit Application (JPA)
- ✓ Complete sections 1-11, RP-17 checklist, and forward to VMRC
- ✓ ARWA review fee is \$30
- ✓ Provide an insurance certificate for \$500K to ARWA

# Appomattox River Water Authority

## ☐ Building a Bulkhead or Placing Rip Rap < 500 linear feet

- ✓ Permitting Authority – Corps of Engineers
- ✓ Permit – <500 linear feet and below the high water mark, NWP 13 and non-reporting.
- ✓ Permit - <500 linear feet and above the high water mark, permit is not needed.
- ✓ Send letter to ARWA detailing project with a cross section for bulkhead or rip rap.
- ✓ Bulkhead or rip rap cannot extend into water beyond 156' contour, 2' below normal pool elevation. Normal pool 158'.
- ✓ ARWA review fee - \$30

# Appomattox River Water Authority

## ☐ Building a Bulkhead or Placing Rip Rap > 500 linear feet

- ✓ Permitting Authority – Corps of Engineers
- ✓ Permit - >500 linear feet and below the high water mark, JPA
- ✓ Permit Sections – complete sections 1 – 9, 15, and Appendix A.
- ✓ Permit contact – Ms. Julie Hamilton, Corps of Engineers
- ✓ Permit fee - \$0
- ✓ Bulkhead or rip rap cannot extend into water beyond 156' contour, 2' below normal pool elevation.



# Appomattox River Water Authority

## ☐ Dredging < 25 cubic yards

- Permitting Authority – Corps of Engineers
- Permit - NWP-19, nationwide permit, non-reporting
- Letter to ARWA detailing project with a drawing illustrating the dimensions for the amount of material to be removed.  
Location on property where dredge material will be deposited and stabilized. Details for the construction.
- Contact Weedon Cloe with Chesterfield County Environmental Engineering, to review land disturbance associated with where spoils will be placed on property.

# Appomattox River Water Authority

## ☐ Dredging > 25 cubic yards

- ✓ Permitting Authority – Corps of Engineers
- ✓ Permit – JPA, RP-2, regional permit
- ✓ Permit Sections – complete sections 1 – 9, 17, Appendix A.
- ✓ For sections 6 and 7 choose “uncertain”. The Corps will make those determinations.
- ✓ Provide a drawing for the limits of construction and a typical cross section for depth to be dredged
- ✓ Survey from a licensed surveyor is required before and after construction.
- ✓ Provide Weedon Cloe with Environmental Engineering spoils location details.



# Appomattox River Water Authority

## ☐ Creating a beach front

- ✓ Permit Authority – Corps of Engineers
- ✓ Permit – JPA
- ✓ Contact Ms. Hamilton with Corps before starting.

# Appomattox River Water Authority

## ❑ Contact Information for Permits

- ARWA – Robert Wilson  
(804) 590-1145 ext. 101  
[rwilson@arwava.org](mailto:rwilson@arwava.org)
- Corps of Engineers – Julie Hamilton  
(804) 436-4725  
[julie.s.hamilton@usace.army.mil](mailto:julie.s.hamilton@usace.army.mil)
- Environmental Engineering – Weedon Cloe  
(804) 768-7797  
[cloew@chesterfield.gov](mailto:cloew@chesterfield.gov)

**APPOMATTOX RIVER WATER AUTHORITY  
21300 CHESDIN ROAD  
SOUTH CHESTERFIELD, VIRGINIA 23803**

**CONSTRUCTION AND USE PERMIT AGREEMENT**

You have requested that Appomattox River Water Authority agree to your construction and use of a dock/boat house (herein called Facility) on Authority owned lands in Chesterfield County, Virginia and Dinwiddie County, Virginia at the location shown on the attached print. The Authority hereby agrees to your request, provided such construction and use is in accordance with the following conditions:

1. You shall construct such Facility substantially in accordance with the attached sketch and in such a manner as not to interfere with the use of the reservoir by your neighbor or others.
2. You shall not permit any nuisance on Authority property nor permit an unsightly structure to be placed or maintained on Authority property during or following the performance of any work or use authorized pursuant to this Agreement. If the Facility is not maintained in good condition, as determined by the Authority, you must repair or remove the Facility at your expense. If the Facility is not repaired or removed within thirty days after written notice by the Authority, the Authority may remove or cause the Facility to be removed and all costs incidental to the removal will be borne by you.
3. You hereby agree to indemnify and save harmless the Authority, its officers, agents, and employees from any and all claims, demands, actions, causes of action, injury or death to persons or damages to property arising out of or resulting directly or indirectly from any action taken by you, your agents, employees, contractors (including presence upon Authority property) pursuant to this Agreement. You further agree to carry a minimum of \$500,000 liability insurance on this Facility as part of your home owners insurance; the Authority will be named as an additional insured and proof of this coverage will be sent to the Authority annually.
4. The work to be performed by you shall comply with all applicable Federal, State, and local laws, ordinances, or regulations. Specifically, you shall obtain all necessary permits for any work performed pursuant to this Agreement, including a building permit from the County.
5. All work performed on Authority property under this Agreement shall be at your sole cost and expense.
6. You shall construct such facility between property lines extended into the water and generally at right angles to the shoreline.
7. This permit shall not constitute an interest in Authority property and the activity herein agreed to shall not in any way interfere with the Authority's lawful operation of its Reservoir and Water Treatment Plant, including flooding Authority land and maintaining the Reservoir in a manner consistent with all rights and privileges conferred upon the Authority. To the extent that any alteration of Authority property, including the erection of a structure thereon, is determined by the Authority to be inconsistent with the safe and efficient operation of the Reservoir and Water Treatment Plant, you shall restore such property to its original condition, or remove such structures when requested to do so, and at your own cost and expense.
8. All structures erected by you on Authority property shall constitute structures appurtenant to your real property. You shall be exclusively responsible for their maintenance, proper repair and upkeep. (See Condition #2)

9. The structure constructed pursuant to this Agreement, shall not be sold separate from the real property to which it is appurtenant. In the event your property is sold, the purchase shall assume in writing, all conditions and responsibilities of this Agreement. This will be done by the purchase completing a new Agreement with the Authority. In the event a subsequent purchaser should not accept the terms of this Agreement, the Authority may elect to remove any structure erected pursuant to this Agreement, and/or restore Authority property to its approximate original condition at your expense.
10. You shall not use this Facility for human habitation.
11. You shall agree to comply with the Authority's August 1991 Policy on use of its land by adjacent property owners. A copy is attached. Any trees, limbs, or other debris which may be cut will be removed from the site.
12. The slopes of any area to be excavated by you or any excavation or dredging activity undertaken pursuant to this Agreement shall comply with the applicable standards, Criteria and Guidelines published in the Virginia Erosion and Sediment Control Handbook, under the authority of the Virginia Soil and Water Conservation Commission.
13. This permit is revocable by the Authority with ninety (90) days written notice.
14. If any provision of this permit, or the application of any provision of Agreement to any person or circumstance is held unenforceable for any reason, the application of such provision to any other person or circumstance, and the remainder of the permit, shall not be affected thereby.
15. In the event the Authority brings suit or retains an attorney to enforce the terms of this Agreement against you, you hereby agree to pay the Authority's court costs and reasonable attorneys fees in connection therewith.
16. Any utilities installed to the structure will be installed underground.

To evidence your acceptance of this Agreement upon the conditions stated above, please sign and return both copies of this Agreement letter.

Yours very truly,

Appomattox River Water Authority

BY: \_\_\_\_\_

We, the undersigned, hereby agree to and accept the conditions set forth in this letter.

Date: \_\_\_\_\_

Permittee: \_\_\_\_\_

APPLICATIONS:

1. Complete the "Basic" Application - Pages 1-5
2. Complete the appropriate appendix (ES)
  - A) Piers Appendix "A" & RP-17 Certificate
  - B) Boathouses Appendix "B" & RP-17 Certificate
  - C) Bulkheads Appendix "F"
  - D) Riprap Appendix "H"
  - E) Dredging Appendix "J"
3. Complete the "Authorized Agent" form, if applicable (someone else is doing the application for you).
4. Have adjacent owners complete the "Adjacent Property Owner's Acknowledgment form"
5. Sketch the work location on a plat of the lot
6. On the Lake Chesdin map - circle the work location
7. Check with local County building inspector and planning department for any special requirement of the County (Chest Co residents get County sign off by Planning Dept and Environmental Engineering)
8. A check for \$30.00 payable to Appomattox River Water Authority
9. Sign and return two copies of Construcion and Use Permit Agreement - To ARWA only
10. Send copy to ARWA (items 1-9)  
Send copy to appropriate Corps office (items 1-6) for Bulkheads, Riprap and/or Dredging (not necessary forr Piers or Boathouses).

SUBMITTALS:

1. Complete the appropriate application and appendix
2. Send one copy to:

Appomattox River Water Authority  
21300 Chesdin Road  
Petersburg, Virginia 23803

3. Send one copy to U.S. Army Corps of Engineers

Julie Hamilton  
Environmental Specialist  
US Army Corps of Engineers  
Norfolk District  
Southern Virginia Regulatory Office  
Richmond Field Office  
9100 Arboretum Parkway, Suite 235  
Richmond, VA 23236  
(804) 436-4725

## **POLICY – USE OF AUTHORITY PROPERTY BY ADJACENT PROPERTY OWNERS**

By virtue of their deeds to land adjacent to Lake Chesdin (the Lake), all property owners have the right of ingress and egress across Appomattox River Water Authority (ARWA) property from their land to the Lake. Normally, this right is from the 164' contour down to the water.

The ARWA wishes to continue to allow property owners the benefits of access to and use of the Lake and also wants to prevent degradation of water quality within the Lake. The Counties of Chesterfield and Dinwiddie typically require buffers around the Lake as property is developed to further assist in the protection of the Lake. All property owners should maintain ARWA property and adjacent buffers in as much of a natural state as possible.

Upon written approval of the ARWA and Chesterfield or Dinwiddie County, property owners may install water dependent facilities such as boat docks, boat houses, bulkheads, etc. on ARWA property provided that:

1. No trees greater than six (6) inches in diameter may be removed except for dead and/or diseased trees and then only the minimum number of trees necessary to be removed for the construction of any approved water dependent facility.
2. Trees greater than six (6) inches in diameter may have lower branches removed to improve views.
3. Underbrush may be removed to permit better views and passage to the water, however, forest bottom ground cover and root mat may not be removed.
4. Chemicals, fertilizers, pesticides, etc. shall not be applied on ARWA property.
5. Erosion and sedimentation control plans shall be submitted to and approved by the appropriate County agency prior to any site disturbance.
6. Dredging will be considered on an individual case basis.

Special site or case conditions varying from the above may be granted by the Authority Board.

*\*\*In October 1990, Chesterfield County adopted the Chesapeake Bay Preservation Ordinance requiring the establishment of 100-foot Resource Protection Areas (RPAs) to protect environmentally sensitive surface waters. The 100-foot RPA located adjacent to the Chesdin Reservoir must be maintained in a manner "that retards runoff, prevents erosion, and filters nonpoint source pollution from runoff." Before ANY removal of vegetation or the installation of paths, sitting areas, docks or other structural features, contact the Chesterfield County Department of Environmental Engineering to ensure compliance with the RPA requirements and avoid violations.*

NOTE: This policy applies to all future development or new uses of Authority property after August 21, 1991.

**Appomattox  
River  
Water  
Authority**

C:structpm

*ARWA will complete  
when submitted*

Received: \_\_\_\_\_

**Structure - check list**

**1 Application**

\_\_\_\_\_ a) Name: \_\_\_\_\_

\_\_\_\_\_ b) Address \_\_\_\_\_

\_\_\_\_\_ c) Phone No \_\_\_\_\_ (H)

\_\_\_\_\_ (W)

\_\_\_\_\_ **2 Plans** \_\_\_\_\_ dock \_\_\_\_\_ boat house \_\_\_\_\_ sea wall \_\_\_\_\_ dredging \_\_\_\_\_ other

\_\_\_\_\_ **3** Plat with location of structure

\_\_\_\_\_ **4** Location on lake sketch

\_\_\_\_\_ Agent agreement

\_\_\_\_\_ **5** ARWA letter agreements signed

\_\_\_\_\_ **6** Abutting property owners approval

\_\_\_\_\_ **7** Chest Co approval (Chest side only)

\_\_\_\_\_ **8** Permit fee

\_\_\_\_\_ **9** Corps of Engineers approval

\_\_\_\_\_ **10** ARWA site visit: \_\_\_\_\_

\_\_\_\_\_ **11** ARWA approval: \_\_\_\_\_

Notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# Lake Chesdin

## BASIC APPLICATION FORM

### JOINT PERMIT APPLICATION FOR ACTIVITIES IN WATERS AND WETLANDS OF THE COMMONWEALTH OF VIRGINIA

**PLEASE PRINT OR TYPE ALL ANSWERS:**

*If a question does not apply to your project please print N/A (not applicable) in the block or space provided. If additional space is needed, attach extra 8-1/2" x 11" sheets of paper. If you are unsure of a particular term, please refer to the definitions section.*

1a. Applicant's name and complete address:  
Mr., Mrs., Ms. (circle one)

Telephone numbers:

Home(A/C \_\_\_\_\_)

Work (A/C \_\_\_\_\_)

1b. Property Owner's name and complete address:  
(if different from above)

Telephone numbers:

Home(A/C \_\_\_\_\_)

Work (A/C \_\_\_\_\_)

2. Authorized agent's name  
and complete address (if applicable):

Telephone numbers:

Home(A/C \_\_\_\_\_)

Work (A/C \_\_\_\_\_)

3. Have you obtained a contractor for the project? ☐ Yes ☐ No If your answer is "yes" complete the remainder of this question and submit the Applicant's and Contractor's Acknowledgement Form on page 46 with your application.

Contractor's name and complete address:

Telephone numbers:

Home A/C \_\_\_\_\_

Work (A/C \_\_\_\_\_)

4. List the name, address, and telephone number of the newspaper having general circulation in the area of the project. Failure to complete this question may delay Local and State processing.

Name and complete address:

Telephone number:

(A/C \_\_\_\_\_)

**Not Applicable**



5. Please give the name of the waterbody at the project site, the county or city the project is located in, and directions to the site:

Lake Chesdin a tributary to N/A

located in \_\_\_\_\_  
County

Give descriptive directions to the project site from the nearest intersection of two state roads within that county or city and visible points of reference :

**IF THE PROJECT SITE IS LOCATED IN AN UNDEVELOPED SUBDIVISION OR PROPERTY, CLEARLY STAKE AND IDENTIFY PROPERTY LINES AND LOCATION OF PROPOSAL. A SUPPLEMENTAL MAP THAT SHOWS HOW THE PROPERTY IS TO BE DIVIDED SHOULD ALSO BE PROVIDED**

6. State the project purpose and provide a brief description of the project:

7. Please place a checkmark next to as many of the following that describe your project site:

<input type="checkbox"/> Tidal waters	<input type="checkbox"/> 100 year floodplain	<input type="checkbox"/> Natural
<input type="checkbox"/> Tidal wetlands	<input checked="" type="checkbox"/> Lake or Pond	<input checked="" type="checkbox"/> Man-made
<input checked="" type="checkbox"/> Nontidal waters	<input type="checkbox"/> Mudflats	<input type="checkbox"/> Unknown
<input type="checkbox"/> Nontidal wetlands	<input type="checkbox"/> River	
<input type="checkbox"/> Vegetated Shallows		
<input type="checkbox"/> Other (explain - e.g. Intermittent stream, vernal pool, etc.)		

8. Proposed use (check one):

<input type="checkbox"/> Private	<input type="checkbox"/> Community	<input type="checkbox"/> Commercial
<input type="checkbox"/> Industrial	<input type="checkbox"/> Government	
<input type="checkbox"/> Other (explain):		

9. Will the project impact (flood, drain, excavate, dredge, fill, shade, etc.) wetlands ?  
\_\_\_\_ Yes ☒ No \_\_\_\_ Uncertain

If your answer is "YES":

A. vegetated wetlands area(s) to be impacted?

tidal \_\_\_\_ square feet nontidal \_\_\_\_ square feet

B. nonvegetated tidal wetlands area(s) to be impacted? \_\_\_\_ square feet

10. Will the project be located at the site of any historic property? (Note: historic properties include but are not limited to archeological sites, Civil War earthworks, graveyards, buildings, bridges, canals, etc.)  
\_\_\_\_ Yes \_\_\_\_ No If "Yes", please provide a map showing the location.

11. Have you previously contacted the Department of Historic Resources concerning this project?  
\_\_\_\_ Yes \_\_\_\_ No If "Yes", please provide the following information:

a. VDHR file number: \_\_\_\_\_

b. Response date: \_\_\_\_\_

c. Type of response (no effect/no adverse effect, additional information requested, survey requested, further consultation needed): \_\_\_\_\_

12. Is your project located within a historic district? \_\_\_\_ Yes \_\_\_\_ No \_\_\_\_ Uncertain

If "Yes", please indicate which district: \_\_\_\_\_

13. Has a survey to locate archeological sites and/or historic structures been carried out on the property?  
\_\_\_\_ Yes \_\_\_\_ No If "Yes", please provide the following information:

a. Date of survey: \_\_\_\_\_

b. Name of firm: \_\_\_\_\_

c. Is there a report on file with the Virginia Department of Historic Resources? \_\_\_\_\_

d. Was any historic property located? \_\_\_\_\_

14. Have you previously had a site visit, applied to, or obtained a permit from any agency (Federal, State, or Local) for any portion of the project described in this application or any other project at the site?  
\_\_\_\_ Yes \_\_\_\_ No If your answer is "Yes", provide the following information:

Name of Representative: \_\_\_\_\_

Agency

Activity

Application Number

Action Taken (check  
the appropriate box)

\_\_\_\_ Issued \_\_\_\_ Denied

\_\_\_\_ Withdrawn \_\_\_\_ Site Visit

Date Action taken \_\_\_\_\_

15. a) Has any work commenced or has any portion of the project for which you are seeking a permit been completed? \_\_\_\_\_ Yes \_\_\_\_\_ No

b) Are you submitting this application at the direction of any state, local or federal agency? \_\_ Yes \_\_ No  
If your answer to either question above is "YES", give details below stating when the work was completed, who performed the work, and which agency (if any) directed you to submit the application. (Please clearly differentiate on your application drawings that portion of the work which has been completed from that which is proposed.)

16. Approximately how long will it take to complete the project after all required permits have been issued?  
\_\_\_\_\_ months

17. Approximate cost of the entire project (materials, labor, etc): \$ \_\_\_\_\_ Approximate cost of only that portion of the project which affects State Waters (below mean low water in tidal areas or ordinary high water in nontidal areas): \$ \_\_\_\_\_

18. List the name and complete mailing address of each adjacent property owner to the project.

19. List the name and complete mailing address of each waterfront property owner across the waterway from the project, if the water body is less than 500 feet wide. Also, if the project is within a cove, list the name and address of each property owner located on the cove.

20. All affected property owners must be notified of the proposed plans. If you do this yourself, it will assist us in processing your application. Have you discussed this project with all affected parties and had them sign an Adjacent Property Owner's Acknowledgement Form? \_\_\_\_\_ Yes \_\_\_\_\_ No If your answer is yes, the acknowledgement forms must be included with this application.



21. Check the appendices below which apply to your project. NOTE: Applicable appendices must be completed and submitted with your application. If you are proposing multiple activities, you may submit one plan view drawing provided all the required information for each activity is included (e.g., if your proposal includes a pier, boathouse and dredging, you may show all activities on a single plan view drawing). A sample drawing for each activity is located in back of the corresponding appendix. Although the sample drawings are condensed so that the plan view, cross section, end view, and vicinity maps are all on one page, you do not have to limit your drawings to one page. Drawings submitted need not be prepared by a professional draftsman.

#### LIST OF APPENDICES AND ADDENDA

_____ Appendix A	Private Piers & Marginal Wharves (include completed RP-17)
_____ Appendix B	Boathouses
_____ Appendix C	Marinas & Commercial Piers
_____ Appendix D	Dolphins-Mooring Piles-Buoys Not Associated w/Piers
_____ Appendix E	Boat Ramps
_____ Appendix F	Bulkheads & Associated Backfill
_____ Appendix G	Fill
_____ Appendix H	Riprap & Associated Backfill
_____ Appendix I	Marsh Toe Stabilization
_____ Appendix J	Dredging/Mining/Excavating
_____ Appendix K	Groins & Jetties
_____ Appendix L	Breakwaters
_____ Appendix M	Beach Nourishment
_____ Appendix N	Intake - Outfall Structures
_____ Appendix O	Stream Channel Modifications
_____ Appendix P	Impoundments/Dams
_____ Appendix Q	Utility Crossings
_____ Appendix R	Road Crossings (Bridges-Tunnels-Culverts)
_____ Addendum	Department of Environmental Quality Additional Requirements

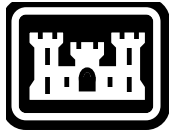
**PRIVACY ACT STATEMENT:** The Department of the Army permit program is authorized by Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972. These laws require that individuals obtain permits that authorize structures and work in or affecting navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters prior to undertaking the activity. Information provided in the joint permit application will be used in the permit review process and is a matter of public record once the application is filed. Disclosure of the requested information is voluntary; but it may not be possible to evaluate the permit application or issue a permit if the information requested is not provided.

**ALL APPLICANTS MUST SIGN BELOW** I hereby apply for all necessary permits for the activities I have described herein. I agree to allow the duly authorized representatives of any regulatory or advisory agency to enter upon the premises of the project site at reasonable times to inspect and photograph site conditions. I certify that the information submitted in this application is true and accurate to the best of my knowledge.

\_\_\_\_\_  
APPLICANT'S SIGNATURE

\_\_\_\_\_  
APPLICANT'S NAME (PRINTED/TYPED)

\_\_\_\_\_  
DATE



U.S. Army Corps  
Of Engineers  
Norfolk District

## APPENDIX B

### REGIONAL PERMIT 17 CHECKLIST

Expires: September 5, 2023

Please review the 18-RP-17 enclosure before completing this form and note 18-RP-17 can only be used for proposed **PRIVATE USE** structure(s) that comply with the terms and conditions of 18-RP-17. Copies can be obtained online at <http://www.nao.usace.army.mil/Missions/Regulatory/RBregional/>.

- |     |    |     |  |
|-----|----|-----|--|
| YES | NO |     | (1) Has the permittee reviewed the 18-RP-17 enclosure and verified that the proposed structure(s) is in compliance with all the terms, conditions, and limitations of 18-RP-17?  |
| YES | NO |     | (2) Does the proposed structure(s) extend no more than one-fourth of the distance across the waterway measured from either mean high water (MHW) to MHW (including all channelward wetlands) or ordinary high water (OHW) to OHW (including all channelward wetlands)?   |
| YES | NO |     | (3) Does the proposed structure(s) extend no more than 300 feet from MHW or OHW (including all channelward wetlands)?  |
| YES | NO | N/A | (4) Does the proposed structure(s) attach to the upland at a point landward of MHW or OHW (including all channelward wetlands)?  |
| YES | NO | N/A | (5) If the proposed structure(s) crosses wetland vegetation, is it an open-pile design that has a <u>maximum</u> width of five (5) feet and a <u>minimum</u> height of four (4) feet between the decking and the wetland substrate?  |
| YES | NO | N/A | (6) Does the proposed structure(s) include no more than two (2) boatlifts and no more than two (2) boat slips?   |
| YES | NO | N/A | (7) Is the open-sided roof structure designed to shelter a boat $\leq 700$ square feet and/or is the open sided roof structure or gazebo structure designed to shelter a pier $\leq 400$ square feet?  |
| YES | NO | N/A | (8) Are all piles associated with the proposed structure(s) non-steel, less than or equal to 12" in diameter, and will less than or equal to 25 piles be installed channelward of MHW?   |
| YES | NO | N/A | (9) Is all work occurring behind cofferdams, turbidity curtains, or other methods to control turbidity being utilized when operationally feasible and federally listed threatened or endangered species may be present?  |
| YES | NO | N/A | (10) If the proposed structure(s) is to be located within an anadromous fish use area, the prospective permittee will adhere to the anadromous fish use area time of year restriction (TOYR) prohibiting in-water work from occurring between February 15 through June 30 of any given year if (1) piles are to be installed with a cushioned impact hammer and there is less than 492 feet between the most channelward pile and mean low water (MLW) on the opposite shoreline or (2) piles are to be installed with a vibratory hammer and there is less than 384 feet between the most channelward pile and MLW on the opposite shoreline. |
| YES | NO |     | (11) Is all work occurring outside of submerged aquatic vegetation (SAV) mapped by the Virginia Institute of Marine Sciences' (VIMS) most recent survey year and 5 year composite?   |
| YES | NO |     | (12) Has the permittee ensured the construction and/or installation of the proposed structure(s) will not affect federally listed threatened or endangered species or designated critical habitat?   |
| YES | NO |     | (13) Will the proposed structure be located outside of Broad Creek in Middlesex County, Fisherman's Cove in Norfolk, or the Salt Ponds in Hampton?   |
| YES | NO |     | (14) Will the proposed structure(s) be located outside of the waterways containing a Federal Navigation Project listed in Permit Specific Condition 12 of 18-RP-17 and/or will all portions of the proposed structure(s) be located more than 85 feet from the Federal Navigation Project?   |

- YES NO (15) Will the proposed structure(s) be located outside a USACE Navigation and Flood Risk Management project area?
- YES NO (16) Will the proposed structure(s) be located outside of any Designated Trout Waters?
- YES NO N/A (17) If the proposed structure(s) includes flotation units, will the units be made of materials that will not become waterlogged or sink if punctured?
- YES NO N/A (18) If the proposed structure(s) includes flotation units, will the floating sections be braced so they will not rest on the bottom during periods of low water?
- YES NO (19) Is the proposed structure(s) made of suitable materials and practical design so as to reasonably ensure a safe and sound structure?
- YES NO (20) Will the proposed structure(s) be located on the property in accordance with the local zoning requirements?
- YES NO N/A (21) If the proposed structure(s) includes a device used for shellfish gardening, will the device be attached directly to a pier and limited to a total of 160 square feet?
- YES NO N/A (22) If the proposed structure(s) includes a device used for shellfish gardening, does the permittee recognize this RP does not negate their responsibility to obtain an oyster gardening permit (General Permit #3) from Virginia Marina Resources Commission's Habitat Management Division?
- YES NO (23) Does the permittee recognize this RP does not authorize any dredging or filling of waters of the United States (including wetlands) and does not imply that future dredging proposals will be approved by the Corps?
- YES NO (24) Does the permittee understand that by accepting 18-RP-17, the permittee accepts all of the terms and conditions of the permit, including the limits of Federal liability contained in the 18-RP-17 enclosure? Does the permittee acknowledge that the structures permitted under 18-RP-17 may be exposed to waves caused by passing vessels and that the permittee is solely responsible for the integrity of the structures permitted under 18-RP-17 and the exposure of such structures and vessels moored to such structures to damage from waves? Does the permittee accept that the United States is not liable in any way for such damage and that it shall not seek to involve the United States in any actions or claims regarding such damage?

**IF YOU HAVE ANSWERED "NO" TO ANY OF THE QUESTIONS ABOVE, REGIONAL PERMIT 17 (18-RP-17) DOES NOT APPLY AND YOU ARE REQUIRED TO OBTAIN WRITTEN AUTHORIZATION FROM THE CORPS PRIOR TO PERFORMING THE WORK.**

**IF YOU HAVE ANSWERED "YES" (OR "N/A", WHERE APPLICABLE) TO ALL OF THE QUESTIONS ABOVE, YOU ARE IN COMPLIANCE WITH REGIONAL PERMIT 17 (18-RP-17). PLEASE SIGN BELOW, ATTACH, AND SUBMIT THIS CHECKLIST WITH YOUR COMPLETED JOINT PERMIT APPLICATION (JPA). THIS SIGNED CERTIFICATE SERVES AS YOUR LETTER OF AUTHORIZATION FROM THE CORPS. YOU WILL NOT RECEIVE ANY OTHER WRITTEN AUTHORIZATION FROM THE CORPS; HOWEVER, YOU MAY NOT PROCEED WITH CONSTRUCTION UNTIL YOU HAVE OBTAINED ALL OTHER NECESSARY STATE AND LOCAL PERMITS.**

**I CERTIFY THAT I HAVE READ AND UNDERSTAND ALL CONDITIONS OF THE REGIONAL PERMIT 17 (18-RP-17), DATED SEPTEMBER 2018, ISSUED BY THE US ARMY CORPS OF ENGINEERS, NORFOLK DISTRICT REGULATORY BRANCH (CENAO-WRR), NORFOLK, VIRGINIA.**

**Proposed work to be located at:**

\_\_\_\_\_  
**Signature of Property Owner(s) or Agent**

**Date** \_\_\_\_\_

\_\_\_\_\_  
**VMRC Number:** \_\_\_\_\_



U.S. Army Corps  
Of Engineers  
Norfolk District

Fort Norfolk, 803 Front Street  
Norfolk, VA 23510-1011

CENAO-WRR  
18-RP-17

## REGIONAL PERMIT

Effective Date: September 5, 2018

Expiration Date: September 5, 2023

### I. AUTHORIZED ACTIVITIES:

18-RP-17, Regional Permit 17 (RP), authorizes the installation and/or construction of open-pile piers, mooring structures/devices, fender piles, covered boathouses/boat slips, boatlifts, osprey pilings/platforms, accessory pier structures, and certain devices associated with shellfish gardening, for **private use**, subject to strict compliance with all conditions and limitations further set out herein.

For the purpose of this RP, private use is defined as non-commercial, residential use only and does not include community or government structures (e.g. structures to be used by the residents of a condominium complex, members of a specific homeowners association, commercial piers, military piers, etc.).

All activities authorized by this RP are non-reporting. Written verification from the Corps is not required before proceeding with the proposed work provided the permittee follows the procedures outlined herein.

### II. AUTHORITIES:

For projects located within the Commonwealth of Virginia, project proponents are hereby authorized by the Secretary of the Army and the Chief of Engineers pursuant to Section 10 of the River and Harbors Act of 1899 (33 U.S.C. § 403) to perform the aforementioned work in navigable waters of the United States of the Commonwealth as further described herein and pursuant to the terms and conditions herein.

Activities authorized under this RP do not require further authorization under the provisions contained in 33 CFR Part 325 unless the District Engineer determines, on a case-by-case basis, that additional review is in the public interest. All work undertaken outside the following conditions, terms, and limitations will require separate Department of the Army authorization.

### III. STATE AND LOCAL APPROVALS:

1. Prospective permittees may be required to obtain additional state and/or local approvals prior to commencement of work in waters of the United States from

the Virginia Department of Environmental Quality (DEQ), the Virginia Marine Resources Commission (VMRC) and/or the local wetlands board. You may contact the DEQ at (804) 698-4000, the VMRC at (757) 247-2200 and/or local government office for further information concerning permit requirements.

2. The State Water Control Board provided conditional §401 Water Quality Certification for the 18-RP-17. As such, the activities that qualify for this RP meet the requirements of Department of Environmental Quality's (DEQ) Virginia Water Protection Permit Regulation, provided that the permittee abides by the §401 Water Quality Certification condition, below, and all of the terms and conditions of 18-RP-17.

§401 Water Quality Certification Conditions:

- a) The discharge shall not include structures such as pilings to construct a platform to mount a pump for water withdrawals unless otherwise excluded from surface water withdrawal permitting per 9VAC-25-210-310.
  - b) The impact(s) shall not exceed 2 acres of wetlands or 1,500 linear feet of stream bed.
  - c) Any compensatory mitigation shall meet the requirements in the Code of Virginia, Section 62.1-44.15:23 A through C, except in the absence of same river watershed alternatives in Hydrologic Unit Codes (HUC) 02040303 and 02040304, single family dwellings or locality projects may use compensatory mitigation in HUC 02080102, 02080108, 02080110, or 02080111 in Virginia.
  - d) For water-based energy projects using similar structures, the discharge shall not include water withdrawals, such as the construction of an intake structure, weir, water diversion structure, or other structure transporting no-potable raw surface water.
3. Those activities on the Potomac River extending channelward of the mean low water line may require authorization by the Virginia Marine Resources Commission (VMRC) and/or the Maryland Department of Natural Resources.
  4. Authorization may also be needed from the Tennessee Valley Authority for projects constructed on the Clinch and Holston Rivers.
  5. Pursuant to the Coastal Zone Management Act (CZMA) of 1972, the Virginia Department of the Environmental Quality, Virginia Coastal Zone Management Program completed its review of the Federal Consistency Determination and issued its conditional concurrence on August 16, 2018. Specifically, DEQ concurs that the RPs and General Conditions are consistent to the maximum extent practicable with the Virginia CZM Program provided that the following conditions are satisfied:



- a. Prior to construction, applicants shall obtain all required permits and approvals for the activities to be performed that are applicable to the enforceable policies and that applicants adhere to all conditions contained therein.
  - b. The activities that qualify for the RPs meet the requirements of DEQ's Virginia Water Protection Permit Regulation and the permittee abides by the conditions of the RP as certified under Section 401 of the Clean Water Act.
6. Permittees should ensure that their projects are designed and constructed in a manner consistent with all state and local requirements pursuant to the Chesapeake Bay Preservation Act and the Chesapeake Bay Preservation Area Designation and Management Regulations.
7. Authorizations under this RP do not supersede state or local government authority or responsibilities pursuant to the Chesapeake Bay Preservation Act, the Virginia Tidal Wetlands Act or to any State or local laws or regulations.

#### IV. **PROCEDURES:**

Prospective permittees **must** submit a Joint Permit Application (JPA) to the Virginia Marine Resources Commission (VMRC) prior to initiating any work in navigable waters of the United States that may be authorized by this RP. The JPA is also used to apply for corresponding permits from the Virginia Department of Environmental Quality (DEQ), and/or Local Wetlands Boards (LWB). The JPA process and JPA forms are used by the Corps, the VMRC, the DEQ, and the LWB for permitting purposes involving tidal and/or non-tidal waters, tidal and/or non-tidal wetlands, and/or dune/beach resources, including, but not limited to, construction, dredging, filling, or excavation. Read the directions on the application carefully to determine how many copies must be submitted to the VMRC, who acts as the clearinghouse for permit applications. Prospective permittees may obtain paper copies of the JPA by calling the Corps at (757) 201-7652, or by downloading the form from the Norfolk District Regulatory Webpage: <http://www.nao.usace.army.mil/Missions/Regulatory/JPA.aspx>.

In addition to the information required in the JPA, prospective permittees seeking authorization under this RP **must** complete and submit the most current 'Regional Permit 17 Checklist' with their JPA. If the prospective permittee answers "yes" (or "N/A", where applicable) to all of the questions on the most current 'Regional Permit 17 Checklist', the permittee is in compliance with 18-RP-17 and will not receive any other written authorization from the Corps; however, the permittee may not proceed with construction until they have obtained all necessary state and local permits.

Note: If the proposed structure(s) includes a device used for shellfish gardening attached directly to a pier and limited to a total of 160 square feet, prospective permittees should refer to Appendix D of the Tidewater JPA. If the prospective permittee qualifies for VMRC's General Permit #3 then the 'Abbreviated Joint

Permit Application For Noncommercial Riparian Shellfish Aquaculture Structures', available at <http://www.mrc.virginia.gov/forms/abbrjpa.pdf>, should be used in lieu of the JPA to apply for VMRC's General Permit #3. In addition, prospective permittees seeking authorization under this 18-RP-17 **must** complete and submit the most current 'Regional Permit 17 Checklist' to the Corps. If the prospective permittee answers "yes" (or "N/A", where applicable) to all of the questions on the most current 'Regional Permit 17 Checklist', the permittee is in compliance with 18-RP-17 and will not receive any other written authorization from the Corps; however, the permittee may not proceed with construction until they have obtained all necessary state and local permits.

If the prospective permittee answers "no" to any of the questions on the most current 'Regional Permit 17 Checklist' then their proposed structure(s) does not meet the terms and conditions of this RP. As such, the prospective permittee must submit a Pre-construction Notification (see General Condition 33) to the Corps for written verification prior to commencement of any work.

#### **V. PERMIT SPECIFIC CONDITIONS:**

This RP shall not be interpreted as authorizing any work other than that which strictly meets all terms and conditions set out herein. All work undertaken that does not strictly comply with all terms and conditions will require separate Department of the Army authorization.

1. The proposed structure(s) may not extend greater than one-fourth of the distance across the waterway measured from either mean high water to mean high water (including all channelward wetlands) or ordinary high water to ordinary high water (including all channelward wetlands). The measurement should be based on the narrowest distance across the waterway regardless of the orientation of the proposed structure(s).
2. The proposed structure(s) may not extend greater than 300 feet from mean high water or ordinary high water (including all channelward wetlands).
3. For proposed structures being constructed in and/or over wetland areas:
  - a. The proposed structure(s) must attach to the upland at a point landward of mean high water or ordinary high water (including all channelward wetlands).
  - b. If the proposed structure(s) crosses wetland vegetation, the structure(s) must be an open-pile design, no greater than five (5) feet wide, and have a minimum elevation of four (4) feet between the decking and the vegetated wetlands substrate.
  - c. If the proposed structure(s) is/are being constructed for the purpose of boat mooring, sufficient water depths must exist to float the vessel during periods of lower water without alteration of the wetland.
4. The proposed structure(s) must include no more than two (2) boatlifts and no more than two (2) boat slips.

5. An open-sided roof structure designed to shelter a single boat must not exceed 700 square feet and/or the open-sided roof structure or gazebo structure designed to shelter a pier must not exceed 400 square feet.
6. All piles associated with the proposed structure(s) must be non-steel and no more than 12" in diameter, and no more than 25 piles may be installed channelward of mean high water or ordinary high water.
7. All work must occur behind cofferdams, turbidity curtains, or other methods utilized to control turbidity when operationally feasible and ESA-listed species may be present. ESA-listed species information and maps are available on NOAA Fisheries' website at <https://www.greateratlantic.fisheries.noaa.gov/protected/section7/listing/index.html>.
8. If the proposed structure(s) is to be located within an anadromous fish use area, the prospective permittee must adhere to the anadromous fish use area time of year restriction (TOYR) prohibiting in-water work from occurring between February 15 through June 30 of any given year if: 1) piles are to be installed with a cushioned impact hammer and there will be less than 492 feet between the most channelward pile and mean low water on the opposite shoreline, or 2) piles are to be installed with a vibratory hammer and there will be less than 384 feet between the most channelward pile and mean low water on the opposite shoreline.

The anadromous fish use area maps are available at <http://www.nao.usace.army.mil/Missions/Regulatory>.

9. All work must occur outside of submerged aquatic vegetation beds (SAV) mapped by the Virginia Institute of Marine Sciences' (VIMS) most recent survey year and 5 year composite. The VIMS' SAV maps are available at <http://www.vims.edu/bio/sav/>.
10. The construction and/or installation of the proposed structure(s) must not affect a federally listed threatened or endangered species or designated critical habitat. The U.S. Fish and Wildlife Service (FWS) has developed an online system that allows users to find information about sensitive resources that may occur within the vicinity of a proposed project. This system is named "Information, Planning and Conservation System," (IPaC), and is located at: <http://ecos.fws.gov/ipac/>. The prospective permittee may use IPaC to determine if any federally listed species or designated critical habitat may be affected by their proposed project. Further information about the Virginia Field Office "Project Review Process" may be found at: <http://www.fws.gov/northeast/virginiafield/endangered/projectreviews.html>.
11. The proposed structure(s) must not be located in Broad Creek in Middlesex County, Fisherman's Cove in Norfolk, or the Salt Ponds in Hampton which

were the subject of navigational studies which concluded that these waterways are not suitable for this RP.

12. The proposed structure(s) must not be located within any of the following waterways which contain Federal Navigation Channels:
  - a. Lower North Landing River from Blackwater Creek to the North Carolina State Line (Atlantic Intracoastal Waterway)
  - b. Hampton Roads (Channel to Newport News, Norfolk Harbor and anchorages)
  - c. Chincoteague Channel and Inlet
  - d. The Elizabeth River, the Eastern Branch of the Elizabeth River to the Norfolk and Western Railroad Bridge, the Southern Branch of the Elizabeth River to a point 0.8 miles upstream of the I-64 Bridge, and the Western Branch of the Elizabeth River to a point 0.34 miles upstream of the West Norfolk Bridge
  - e. The James River from Richmond to Hopewell and including Richmond Harbor and the Richmond Deepwater Terminal
  - f. Little River (Creek) except the Northwest Branch and Pretty Lake
  - g. Norfolk Harbor Channel, all reaches
  - h. The York River from the Poropotank River to the Virginia Highway 33 Bridge at West Point
  - i. Baltimore Harbor Channel reaches (Cape Henry, York Spit, Rappahannock Shoal)

If the proposed structure(s) is/are to be located within any other waterways that contain a Federal Navigation Project (including a Federal Navigation Channel and/or Dredged Material Placement Area), the proposed structure(s) must be located more than 85 feet from the Federal Navigation Project.

Norfolk District Federal Navigation Project locations are available online at: [http://www.nao.usace.army.mil/Portals/31/docs/regulatory/RPSPdocs/RP-17\\_Corps\\_Project\\_Maps.pdf](http://www.nao.usace.army.mil/Portals/31/docs/regulatory/RPSPdocs/RP-17_Corps_Project_Maps.pdf).

13. The proposed structure(s) must not be located within a Corps Navigation and Flood Risk Management project area. Corps Navigation and Flood Risk management project area locations are available online at: [http://www.nao.usace.army.mil/Portals/31/docs/regulatory/RPSPdocs/RP-17\\_Corps\\_Project\\_Maps.pdf](http://www.nao.usace.army.mil/Portals/31/docs/regulatory/RPSPdocs/RP-17_Corps_Project_Maps.pdf).
14. The proposed structure(s) must not be located within Designated Trout Waters, as defined by the Virginia State Water Control Board and the Virginia Department of Game and Inland Fisheries (VDGIF). See *General Condition 25: Trout Waters* for additional information.
15. If the proposed structure(s) includes floatation units:
  - a. The units must be made of materials that will not become waterlogged or sink if punctured.

- b. Floating sections must be braced so they will not rest on the bottom during periods of low water.
- 16. The proposed structure(s) must be made of suitable materials and practical design so as to reasonably ensure a safe and sound structure.
- 17. The proposed structure(s) (including any moored vessels) must be located on the property in accordance with the local zoning requirements.
- 18. If the proposed structure(s) includes a device used for shellfish gardening:
  - a. The device must be attached directly to a pier and limited to a total of 160 square feet.
  - b. The permittee must recognize this RP does not negate their responsibility to obtain an oyster gardening permit from the Virginia Marina Resources Commission's Habitat Management Division for their shellfish gardening device.
- 19. The RP does not authorize any dredging or filling of waters of the United States (including wetlands) and does not imply that future dredging proposals will be approved by the Corps.
- 20. By accepting this RP, the permittee accepts all of the terms and conditions of this permit, including the limits of Federal liability contained herein. The permittee acknowledges that the structures permitted herein may be exposed to waves caused by passing vessels and that the permittee is solely responsible for the integrity of the structures permitted and the exposure of such structures (and vessels moored to such structures) to damage from waves. The permittee accepts that the United States is not liable in any way for such damage and that it shall not seek to involve the United States in any actions or claims regarding such damage.

## **VI. GENERAL CONDITIONS:**

- 1. Navigation:
  - a. No activity may cause more than a minimal adverse effect on navigation.
  - b. Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the U.S. The U.S. Coast Guard may be contacted at the following address: Commander (oan), Fifth Coast Guard District, Federal Building, 431 Crawford Street, Portsmouth, Virginia 23704 or by telephone: (757) 398-6230.
  - c. The permittee understands and agrees that if future operations by the United States require the removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his/her authorized representative, said structure or work shall cause

unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements: No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species which normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.
3. Spawning Areas: Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.
4. Migratory Bird Breeding Areas: Activities in waters of the U.S. that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.
5. Shellfish Beds: No activity may occur in areas of concentrated shellfish populations.
6. Submerged Aquatic Vegetation (SAV) Beds: Activities in SAV beds must be avoided and minimized to the maximum extent practicable. Avoidance and minimization measures, such as relocating a structure and/or the implementation of a time-of-year restriction for work in waters, may be required to reduce impacts to the SAV habitat. Information regarding SAV may be found at the Virginia Institute of Marine Science's website at: <http://web.vims.edu/bio/sav/>.
7. Suitable Material: No activity may use unsuitable material (e.g. trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).
8. Water Supply Intakes: No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public waters supply intake structures or adjacent bank stabilization.
9. Adverse Effects from Impoundments: If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

10. Management of Water Flows: To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound waters or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).
11. Fills Within 100-Year Floodplains: The activity must comply with applicable FEMA-approved state or local floodplain management requirements.
12. Equipment: Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.
13. Soil Erosion and Sediment Controls: Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the U.S. during periods of low-flow or no-flow, or during low tides.
14. Invasive Species: Plant species listed by the most current version of Virginia Department of Conservation and Recreation's (DCR) Invasive Alien Plan List shall not be used for re-vegetation for activities authorized by these regional permits. The list of invasive plants in Virginia may be found at: <http://www.dcr.virginia.gov/natural-heritage/invspdflist>. The DCR recommends the use of regional native species for re-vegetation as identified in the DCR Native Plants for Conservation, Restoration and Landscaping brochures: <http://www.dcr.virginia.gov/natural-heritage/nativeplants#brochure> or by using the DCR native plant finder: <http://www.dcr.virginia.gov/natural-heritage/native-plants-finder>.
15. Removal of Temporary Fills and Impacts: The soils of any temporarily impacted areas located in wetlands that are cleared, grubbed, and/or filled, must be restored once these areas are no longer needed for their authorized purpose, no later than completion of project construction, and not to exceed twelve (12) months after commencing the temporary impacts. To restore, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations, the soil surface loosened by ripping or chisel plowing to a depth of 8-12", and then seeded using native wetland species. See *General Condition 14: Invasive Species* for more information on vegetation recommendations.

Fill or dredged material into waters of the U.S. that are not removed within the 12 month period will be considered a permanent impact, unless otherwise



determined by the Corps. This additional impact to waters of the U.S. may result in the Corps initiating a permit non-compliance action which may include, but not limited to, a restoration order, after-the-fact permitting, and/or compensatory mitigation.

16. Proper Maintenance: Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable RP conditions, as well as any activity-specific conditions added by the District Engineer to an RP authorization.
17. Single and Complete Project: The activity must be a single and complete project. The same RP cannot be used more than once for the same single and complete project. *For purposes of this RP, a single and complete project means the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area.*
18. Wild and Scenic Rivers: Currently, there are no designated Wild and Scenic Rivers in the Commonwealth of Virginia. No RP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system, while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river has determined, in writing, that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).
19. Tribal Rights: No RP activity may cause more than minimal adverse effects on tribal rights (including treaty rights), protected tribal resources, or tribal lands.
20. Endangered Species:
  - a. No activity is authorized under this RP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under this RP which “may affect” a listed species or critical habitat, unless ESA Section 7 consultation addressing the effects of the proposed activity has been completed. Direct effects are the immediate effects on listed species and critical habitat caused by the RP activity. Indirect effects are those effects on listed species and critical habitat that are caused by the RP activity and are later in time, but still reasonably certain to occur.



- b. Federal permittees should follow their own procedures for complying with the requirements of the ESA. The Federal permittee must provide the District Engineer with the appropriate documentation to demonstrate compliance with those requirements. The District Engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.
- c. Non-federal permittees shall submit a pre-construction notification to the District Engineer if any proposed or listed species or proposed or designated critical habitat may be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the District Engineer that the requirements of the ESA have been satisfied and that the activity is authorized. Information on the location proposed/listed species and proposed/designated critical habitat can be obtained directly from the U.S. Fish and Wildlife (USFWS) online project review process at:  
<https://www.fws.gov/northeast/virginiafield/endangered/projectreviews.html>  
and from the National Marine Fisheries Service (NMFS) at:  
<http://www.nmfs.noaa.gov/pr/species/>.

The District Engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species or designated critical habitat and will notify the non-Federal permittee of the Corps' determination. In cases where the non-Federal permittee identified listed species or designated critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the permittee shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or designated critical habitat, or until Section 7 consultation has been completed.

If the District Engineer determines that the proposed activity may affect a listed species or designated critical habitat, the Corps will initiate consultation with the USFWS. The USFWS developed an online system to allow permittees and agencies to find information about sensitive resources that may occur within the vicinity of a proposed project. This system is named "Information, Planning and Conservation System," (IPaC), and is located at:  
<https://ecos.fws.gov/ipac/>.

Additional consultation may also be required with the NMFS for species or critical habitat under their jurisdiction, including sea turtles, marine mammals, Shortnose Sturgeon, and Atlantic Sturgeon. For additional information about their jurisdiction in Virginia, please visit:  
<https://www.greateratlantic.fisheries.noaa.gov/protected/index.html>.

- d. As a result of formal or informal consultation with the USFWS or NMFS the District Engineer may add species-specific regional endangered species conditions to the RP.
- e. Authorization of an activity by this RP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the USFWS or NMFS, the ESA prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.
- f. If the non-federal permittee has a valid ESA Section 10(a)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed RP activity, the non-federal permittee should provide a copy of that ESA Section 10(a)(1)(B) permit in the Joint Permit Application. The District Engineer will coordinate with the agency that issued the ESA Section 10(a)(1)(B) permit to determine whether a separate ESA Section 7 consultation is needed.

21. Migratory Birds and Bald and Golden Eagle Protection Act: The Bald Eagle (*Haliaeetus leucocephalus*) is no longer a federally listed threatened or endangered species; therefore, the Endangered Species Act provisions are not applicable to this species. The Bald and Golden Eagle Protection Act (BGEPA) does not require that a federal agency involved in permitting the proposed action conduct coordination. The permittee is responsible for obtaining any "take" permits required under the U.S. Fish and Wildlife Service's regulations governing compliance with the Migratory Bird Treaty Act or the BGEPA. The permittee should either obtain "take" permit or a letter of concurrence from USFWS indicating that a permit is not necessary prior to initiating construction activities. You should contact USFWS concerning this matter at U.S. Fish and Wildlife Service, Virginia Field Office, 6669 Short Lane, Gloucester, VA 23061. Information on active bald eagle nests and concentration areas can be obtained in Step 6 of the U.S. Fish and Wildlife Service's online project review system available at:  
<https://www.fws.gov/northeast/virginiafield/endangered/projectreviewprocess.html>.

22. Essential Fish Habitat: The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-297; 11 October 1996), requires all Federal agencies to consult with the NOAA Fisheries Service Habitat Conservation Division (NOAA HCD) on all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH). The EFH

Designations within the Northeast Region (Maine to Virginia), dated March 1, 1999, has identified EFH for a number of species and their life stages within Virginia waters. If EFH consultation is required with NOAA HCD, the permittee shall not begin work until the Corps has provided notification that the EFH consultation has concluded.

23. Anadromous Fish: Authorizations associated with this RP shall not adversely affect documented spawning habitat or a migratory pathways for anadromous fish. Areas of anadromous fish use are indicated on the Virginia Department of Game and Inland Fisheries (VDGIF) information system at: <http://vafwis.org/fwis/>. If a project is located within an area documented as an anadromous fish use area (confirmed or potential), all in-stream work is prohibited from occurring between February 15 through June 30 of any given year or other time of year restriction (TOYR) specified by the VDGIF and/or the Virginia Marine Resources Commission (VMRC). Should the Norfolk District determine that the work is minimal and no TOYR is needed the District will initiate consultation with NOAA Fisheries Service for their concurrence.

A TOYR is not required for dredging activities in the Elizabeth River upstream of the Mid-Town Tunnel on the main-stem and the West Norfolk Bridge (Route 164, Western Freeway) on the Western Branch of the Elizabeth River.

24. Designated Critical Resource Waters and National Estuarine Research Reserves: This RP does not authorize the discharge of dredged or fill material into the Chesapeake Bay National Estuarine Research Reserve (Reserve) in Virginia. This Reserve is a multi-site system along a salinity gradient of the York River, which includes Sweet Hall Marsh, Taskinas Creek, Catlett Islands, and Goodwin Islands. Additional information may be found at: <http://www.vims.edu/cbnerr/>.

25. Trout Waters: Designated Trout Waters, as defined by the Virginia State Water Control Board and the Virginia Department of Game and Inland Fisheries (VDGIF), occurring specifically within the mountains of Virginia, are within the following river basins:

- Potomac-Shenandoah Rivers
- James River
- Roanoke River
- New River
- Tennessee and Big Sandy Rivers
- Rappahannock River

The Virginia Department of Game and Inland Fisheries (VDGIF) recommends the following time-of-year restrictions (TOYR) for any in-stream work within waters identified as wild trout waters. The recommended TOYRs for trout species are:

- Brook Trout: October 1 through March 31
- Brown Trout: October 1 through March 31
- Rainbow Trout: March 15 through May 15

This requirement applies to all waters of the U.S. within the following counties and cities: Albemarle, Allegheny, Amherst, Augusta, Bath, Bedford, Bland, Botetourt, Bristol, Buchanan, Buena Vista, Carroll, Clarke, Covington, Craig, Dickenson, Floyd, Franklin, Frederick, Giles, Grayson, Greene, Henry, Highland, Lee, Loudoun, Madison, Montgomery, Nelson, Page, Patrick, Pulaski, Rappahannock, Roanoke City, Roanoke Co., Rockbridge, Rockingham, Russell, Scott, Shenandoah, Smyth, Staunton, Tazewell, Warren, Washington, Waynesboro, Wise, and Wythe.

The Corps will coordinate the permit request with the Virginia Department of Environmental Quality (DEQ) and/or the VDGIF. Comments from DEQ and VDGIF will be fully considered before the Corps makes a final decision on the project. Additional information regarding trout waters can be found at:

<https://www.dgif.virginia.gov/>.

## 26. Historic Properties:

- a. In cases where the activity may affect properties listed, or eligible for listing on the National Register of Historic Places, the activity is not authorized until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.
- b. Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the Corps with the appropriate documentation to demonstrate compliance with those requirements. The Corps will review the documentation and determine whether it is sufficient to address Section 106 compliance for the RP activity, or whether additional Section 106 consultation is necessary.
- c. Non-federal permittees must submit a statement to the Corps regarding the authorized activity's potential to cause effects to any historic properties listed, or determined to be eligible for listing on the National Register of Historic Places, including previously unidentified properties. The statement must say which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location or potential for the presence of historic resources can be sought from the Virginia Department of Historic Resources (VDHR) at: <http://www.dhr.virginia.gov/> or Tribal Historic Preservation Officer (THPO), as appropriate, and the National Register of Historic Places. Where a permittee has identified historic properties which the proposed activity may have the potential to affect, the permittee shall not begin the activity until notified by

the Corps that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

- d. Prospective permittees should be aware that Section 110(k) of the NHPA (16 U.S.C. § 470(h)-2(k)) prevents the Corps from granting a permit or other assistance to an permittee who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effects created or permitted by the permittee. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the permittee, SHPO/ THPO, appropriate Indian tribes if the undertaking occurs on or affect historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have legitimate interest in the impacts to the permitted activity on historic properties.

27. Discovery of Previously Unknown Remains and Artifacts: If you discover any previously unknown historic, cultural, or archaeological remains and artifacts while accomplishing activities authorized by this permit, you must immediately stop work and notify the Corps of what has been found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The Corps will initiate Federal, Tribal, and State coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
28. Mitigation: Mitigation in all its forms (avoiding, minimizing, or compensating for resource losses) may be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal. The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the U.S. to the maximum extent practicable at the project site (i.e., on site).
29. Use of Multiple Regional Permits: This RP may be combined with any Corps general permits (including Nationwide (NWP) or Regional Permits (RP)) for a single and complete project, as long as the acreage loss of waters of the U.S. authorized by the NWPs/RPs does not exceed the acreage limit of the NWP/RP with the highest specified acreage limit.
30. Transfer of Regional Permit Verifications: If the permittee sells the property associated with the RP verification, the permittee may transfer the verification to the new owner by submitting a letter to the appropriate Corps District Office to

validate the transfer. A copy of the RP verification must be attached to the letter, and the letter must contain the following statement and signature:

“When the structures or work authorized by the Regional Permit are still in existence at the time the property is transferred, the terms and conditions of this regional permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of the Regional Permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

\_\_\_\_\_  
(Transferee)

\_\_\_\_\_  
(Date)

31. Compliance Certification: A Certificate of Compliance, enclosed with the Corps' written authorization for the activity, must be completed and a copy retained for your records. The original Certificate of Compliance shall be mailed to, U. S. Army Corps of Engineers, Regulatory Branch, 803 Front Street, Norfolk, Virginia 23510-1011, or to the Regulatory Field Office listed on the Certificate of Compliance, within 30 days of completion of the authorized activity.
32. Activities Affecting Structures or Works Built by the United States: If the RP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a Corps federally authorized Civil Works project, the activity that requires section 408 permission is not authorized by the RP until the appropriate Corps District office issues the section 408 permission to alter, occupy, or use the Corps Civil Works project, and the District Engineer issues a written RP verification.

Contact a Norfolk District Regulatory Project Manager to assist in determining if your proposed activity might alter or temporarily or permanently occupy or use a Corps of Engineers Civil Works project.

Locations of Norfolk District Civil Works projects can be found at:  
[http://www.nao.usace.army.mil/Portals/31/docs/regulatory/RPSPdocs/RP-17\\_Corps\\_Project\\_Maps.pdf](http://www.nao.usace.army.mil/Portals/31/docs/regulatory/RPSPdocs/RP-17_Corps_Project_Maps.pdf).

For projects located within the Civil Works boundary of the Baltimore, Huntington, Nashville or Wilmington District, please contact a Norfolk District Project Manager for assistance.

33. Pre-Construction Notification: Prior to commencing the activity, prospective permittees (“permittees”) must submit a Pre-construction Notification (PCN) to the District Engineer, unless otherwise specified in the RP, and must receive written notification from the Corps acknowledging that the project is authorized pursuant to this RP.



Notification to the Corps must be in writing (the Joint Permit Application may also be used, as described below) and must include the following information:

- Name, address and telephone number of the prospective permittee;
- Name, address and telephone number of the property owner, if different from the prospective permittee;
- Location of the project (including Tax Parcel ID Number, if available);
- Vicinity map, aerial photograph, and/or drawing accurately showing the extent of proposed activity and the extent of waters of the U.S., including wetlands. Drawings, plans and/or sketches should contain sufficient detail to project an illustrative description of the proposed activity;
- Identify the specific RP or RPs the prospective permittee wants to use to authorize the proposed activity;
- A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expect to result from the RP activity, in acres, linear feet or other appropriate unit of measure; a description of any proposed mitigation measures; and any other Corps permit used or intended to be used to authorize any part of the proposed project or any related activity.
- A delineation of special aquatic sites and other waters of the U.S. on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters of the U.S., but there may be a delay if the Corps does the delineation.
- If compensatory mitigation is required, the prospective permittee must submit a statement describing how any required compensatory mitigation will be provided. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan. In accordance with 33 CFR 332.3 (a) the Corps will consider what is environmentally preferable. Factors considered will be likelihood of success, sustainability, location relative to the impact site and significance within the watershed, and the costs of the compensatory mitigation project. The Corps will require the most appropriate and practicable mitigation pursuant to 33 CFR 320.4(r).

A JPA may be obtained by writing to the U.S. Army Corps of Engineers, Norfolk District, Regulatory Branch, 803 Front Street, Norfolk, Virginia 23510-1011; by telephoning the Norfolk District Regulator of the Day at (757) 201-7652 or via the following link to the Norfolk District Regulatory Branch website:

<http://www.nao.usace.army.mil/Missions/Regulatory/JPA/>.

The Corps must determine if the PCN is complete. If the PCN is determined to be incomplete, the Corps will request the prospective permittee to provide the additional information necessary to make the request complete. The request must specify the information needed to make the PCN complete. As a general rule, the Corps will request additional information necessary to make the PCN

complete only once. However, if the prospective permittee does not provide all of the requested information, then the Corps will notify the prospective permittee that the PCN is still incomplete and the review process will not commence until all of the requested information has been received by the Corps. The prospective permittee shall not begin the activity until he or she is notified in writing by the Corps that the activity may proceed under the RP, subject to any additional conditions imposed by the Corps.

If, after reviewing the request, the Corps determines that the proposed activity would have more than minimal individual or cumulative adverse impacts on the aquatic environment or otherwise may be contrary to the public interest, then the Corps will notify the project proponent that the activity is not authorized by the regional permit and will provide instructions for seeking authorization under an Individual Permit. The Corps may revoke this Regional Permit for an individual activity by following the procedures set forth in 33 CFR 325.7.

34. Environmental Justice: Activities authorized under this RP must comply with Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations".
35. Inspections: The permittee must provide a copy of this permit and any verification letter to the contractor(s) and made available at the project site to any regulatory representative. The permittee shall allow the Corps to make periodic inspections at any time deemed necessary in order to assure that the activities being performed under authority of this permit are in accordance with the terms and conditions prescribed herein. The Corps reserves the right to require post-construction engineering drawings and/or surveys of any work authorized under this RP, as deemed necessary on a case-by-case basis.

## **VII. DISTRICT ENGINEER'S DECISION:**

1. In reviewing the PCN for the proposed activity, the District Engineer will determine whether the activity authorized by the RP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific RP, the District Engineer should issue the RP verification for that activity if it meets the terms and conditions of that RP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual or cumulative adverse effects on the aquatic environment and other aspects of the public interest and require an Individual Permit for the proposed activity.
2. When making minimal adverse environmental effects determinations the District Engineer will consider the direct and indirect effects caused by the RP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by the RP and whether those cumulative adverse environmental effects are no more than minimal. The District Engineer will also consider site specific factors, such as the environmental setting in the vicinity of



the RP activity, the type of resource that will be affected by the RP activity, the functions provided by the aquatic resources that will be affected by the RP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the RP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the District Engineer. The District Engineer may add case-specific special conditions to the RP authorization to address site-specific environmental concerns.

3. If the District Engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the District Engineer will notify the permittee that the activity does not qualify for authorization under the RP and instruct the permittee on the procedures to seek authorization under an Individual Permit or process to modify the proposed activity and/or the mitigation plan to reduce the adverse environmental effects so that they are no more than minimal. In addition, if the District Engineer determines on a case-by-case basis that concerns for the aquatic environment so indicate, the District Engineer may exercise discretionary authority to override the Regional Permit and require an Individual Permit application and review.

#### **VIII. ADDITIONAL INFORMATION:**


1. District Engineers have the authority to determine if an activity complies with the terms and conditions of the RP.
2. Limits of This Authorization:
  - a. Regional permits do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
  - b. Regional permits do not grant any property rights or exclusive privileges.
  - c. Regional permits do not authorize any injury to the property or rights of others.
  - d. Regional permits do not authorize interference with any existing or proposed Federal project (see General Condition 32).
  - e. Regional permits do not authorize the impingement upon Federal Lands.
  - f. Regional permits do not grant any Corps or Federal real estate rights. If real estate rights are needed from the Corps, you must contact the appropriate U.S. Army Corps of Engineers District's Real Estate Office.
3. Limits of Federal Liability: In issuing this RP, the Federal government does not assume any liability for the following:
  - a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes;
  - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest;

- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this RP;
  - d. Design or construction deficiencies associated with the permitted work;
  - e. Damage claims associated with any future modification, suspension, or revocation of this permit.
4. Reliance on Permittee's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
5. Reevaluation of Permit Decision: The District Engineer may reevaluate the decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
- a. The permittee fails to comply with the terms and conditions of this permit.
  - b. The information provided by the permittee in support of your PCN proves to have been false, incomplete, or inaccurate.
  - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Binding Effect: The provisions of the permit authorization shall be binding on any assignee or successor in interest of the original permittee.
7. Expiration: Unless further modified, suspended, or revoked, this RP will be in effect until September 5, 2023. Activities which have commenced (i.e. under construction) or are under contract to commence in reliance upon this RP will remain authorized provided the activity is completed within twelve (12) months of the date of the RP's expiration, modification, or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization. Activities completed under the authorization of the RP which was in effect at the time the activity was completed continue to be authorized by that RP.

5 SEPT 2018  
Date

  
Patrick V. Kinsman, PE  
Colonel, U.S. Army  
Commanding

**ADJACENT PROPERTY OWNER'S ACKNOWLEDGEMENT FORM**

I, \_\_\_\_\_, own land next to or across the water from  
(ADJACENT PROPERTY OWNER'S NAME PRINTED)

the land of \_\_\_\_\_ I have reviewed the applicant's project drawings dated  
(APPLICANT'S NAME)

\_\_\_\_\_ to be submitted for all necessary Local, State, and Federal permits.  
(DATE)

I \_\_\_\_\_ HAVE NO COMMENT \_\_\_\_\_ DO NOT OBJECT \_\_\_\_\_ DO OBJECT to the project.

The applicant has agreed to contact me for additional comments if the proposal changes prior to construction of the project.

(Before signing this form, please be sure you have checked the appropriate box above.)

\_\_\_\_\_  
ADJACENT PROPERTY OWNER'S SIGNATURE

\_\_\_\_\_  
DATE

**NOTE: IF YOU OBJECT TO THE PROPOSAL - THE REASONS YOU OPPOSE THE PROJECT MUST BE SUBMITTED IN WRITING. AN OBJECTION WILL NOT NECESSARILY RESULT IN DENIAL OF THE PROJECT, BUT, VALID COMPLAINTS WILL BE GIVEN FULL CONSIDERATION DURING THE PERMIT REVIEW PROCESS.**

NAO FM 1020, Rev. 15 APR 93

**NOTE: Please photocopy this form if additional copies are needed.**

NAO FM 1021, Rev 30 APR 93

***AGENT CERTIFICATION OF AUTHORIZATION***

I \_\_\_\_\_ hereby certify that I have authorized \_\_\_\_\_ to act on my behalf and  
(APPLICANT'S NAME) (AGENT'S NAME)

take all actions necessary to the processing, issuance, and acceptance of this permit and any and all standard and special conditions attached.

We hereby certify that the information submitted in this application is true and accurate to the best of our knowledge.

\_\_\_\_\_  
APPLICANT'S SIGNATURE

\_\_\_\_\_  
AGENT'S SIGNATURE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
DATE

**Completion of this form will allow the agent to sign all future application correspondence. Also, please provide the name(s) and complete address(es) of all legal property owner(s) as shown on your recorded deed.**

***APPLICANT'S AND CONTRACTOR'S ACKNOWLEDGEMENT FORM***

I, \_\_\_\_\_ have contracted \_\_\_\_\_  
(APPLICANT'S NAME) (CONTRACTOR/COMPANY NAME)

to perform the work described in the application signed and dated \_\_\_\_\_.  
(DATE)

We will read and abide by all conditions as set forth in all Local, State, and Federal permits as required for this project. We understand that failure to follow the conditions of the permits may constitute a violation of applicable Local, State, and Federal statutes and that we will be liable for any civil and/or criminal penalties imposed by these statutes. **SEE FEDERAL PENALTIES FOR VIOLATIONS AND RELATED STATE CODES.**

In addition, we agree to make available a copy of any permit to any regulatory representative visiting the project site to ensure permit compliance. If we fail to provide the applicable permit upon request, we understand that the representative will have the option of stopping our operation until it has been determined that we have a properly signed and executed permit and are in full compliance with all terms and conditions.

\_\_\_\_\_  
APPLICANT'S SIGNATURE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
CONTRACTOR'S SIGNATURE AND TITLE  
(if applicable)

\_\_\_\_\_  
DATE

\_\_\_\_\_  
CONTRACTOR'S NAME (PRINTED/TYPED)  
OR NAME OF FIRM

\_\_\_\_\_  
CONTRACTOR'S OR FIRM'S ADDRESS





Department of the Army  
U.S. Army Corps of Engineers  
Norfolk District  
Southside Field Office  
Post Office Box 121  
Nottoway, Virginia 23955

Facsimile Header

FROM:	Edward Graham	OFFICE SYMBOL:	
PHONE:	804-645-8986	FAX:	804-645-8783

TO: DEE HARTMAN	OFFICE SYMBOL:
PHONE:	FAX:

TOTAL PAGES (Incl Header)	#PAGES	DATE	PRECEDENCE
1		6-2-97	

RELEASER'S SIGNATURE:
<i>Edward Graham</i>

REMARKS

THE CORPS WILL NOT REQUIRE A PERMIT FOR  
THE CONSTRUCTION OF ANY BOAT DOCK OR PIER WITHIN  
LAKE CHESDIN.

HOPE THIS HELPS.

*edg*

## PIERS AND DOCKS

### SPECIFICATIONS:

A. Structures shall be built between property lines extended into the water and generally at right angles to the shoreline. If this does not effect fair division of space with your neighbor, this consent will be revised to mutually agreed lines.

B. Structures must be located no closer than 15 feet from adjoining property lines unless written permission is obtained from such adjoining property owner and attached to the agreement between the property owner and Authority as being a part thereof.

C. Structures, whether permanent, floating or a combination of both may generally be up to 30 feet in length provided in the opinion of the Authority they do not interfere with navigation or rights of others. In some locations such as narrow coves, the maximum length may not be permitted or piers and docks may not be permitted at all. In unusual circumstances, longer piers may be allowed. In coves a dock or pier cannot extend more than  $\frac{1}{4}$  of the cove width. Piers or dock must not interfere with normal navigation.

D. Wood used in construction must be pressure-treated.

E. Decking, pilings and beams of structures must be of adequate construction to accommodate load requirements of the local building code.

F. For all new or replacement of floating piers or docks, floatation units shall be constructed of material which will not become waterlogged or sink when punctured.

G. Piers and Docks shall not be used for human habitation. Household furnishings such as sinks, toilets, showers, etc., are not permitted on these structures.

H. Metal pilings or beams must be designed by a structural engineer and include a stamps design.

I. These structures will not normally require Corps of Engineer inspection if signed RP-17 is included with the application.



## APPENDIX A – PRIVATE PIERS AND MARGINAL WHARVES

**PLEASE COMPLETE THE CHECKLIST AND ANSWER THE QUESTIONS. THE DRAWINGS MUST CONTAIN THE FOLLOWING INFORMATION OR THEY WILL BE RETURNED AS INCOMPLETE:**

### Plan View Drawing

- \_\_\_\_\_ north arrow
- \_\_\_\_\_ waterway name
- \_\_\_\_\_ existing structures
- \_\_\_\_\_ benchmarks showing distances to fixed points of reference
- \_\_\_\_\_ mean low water and mean high water lines (tidal)
- \_\_\_\_\_ ordinary high water line (nontidal)
- \_\_\_\_\_ location of vegetated wetlands at the project site
- \_\_\_\_\_ shoreline, property lines, and location of adjacent property owners (if in a cove or the waterway is less than 500 feet wide, also show the location of the property owner across from the site)
- \_\_\_\_\_ distance the proposed structure will be located from the adjoining property lines
- \_\_\_\_\_ width of the waterway (measuring from mean high water to mean high water (tidal) or ordinary high water to ordinary high water (nontidal))
- \_\_\_\_\_ ebb and flood (tidal) or direction of flow (nontidal)
- \_\_\_\_\_ location and distance from existing channels (marked and/or unmarked)
- \_\_\_\_\_ soundings taken at mean low water (tidal) or at full pool level (nontidal) at 10-foot intervals
- \_\_\_\_\_ channelward encroachment (including mooring piles) relative to mean high and mean low water lines
- \_\_\_\_\_ dimensions of pier and all L/T-head section, platform, or deck
- \_\_\_\_\_ distance between the structure and mooring piles

Note: The sample drawing on the next page shows the kinds of information required for the Plan View and Section View. They do not both have to be shown on the same piece of paper. Drawings must be clear, but need not be prepared by a draftsman.

### Side View Drawing

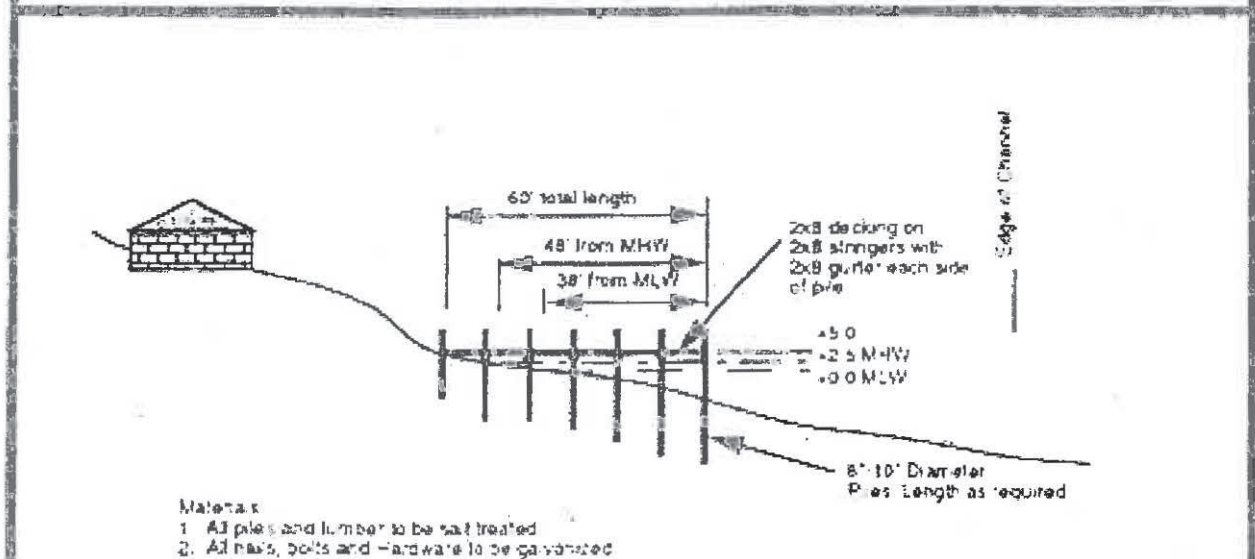
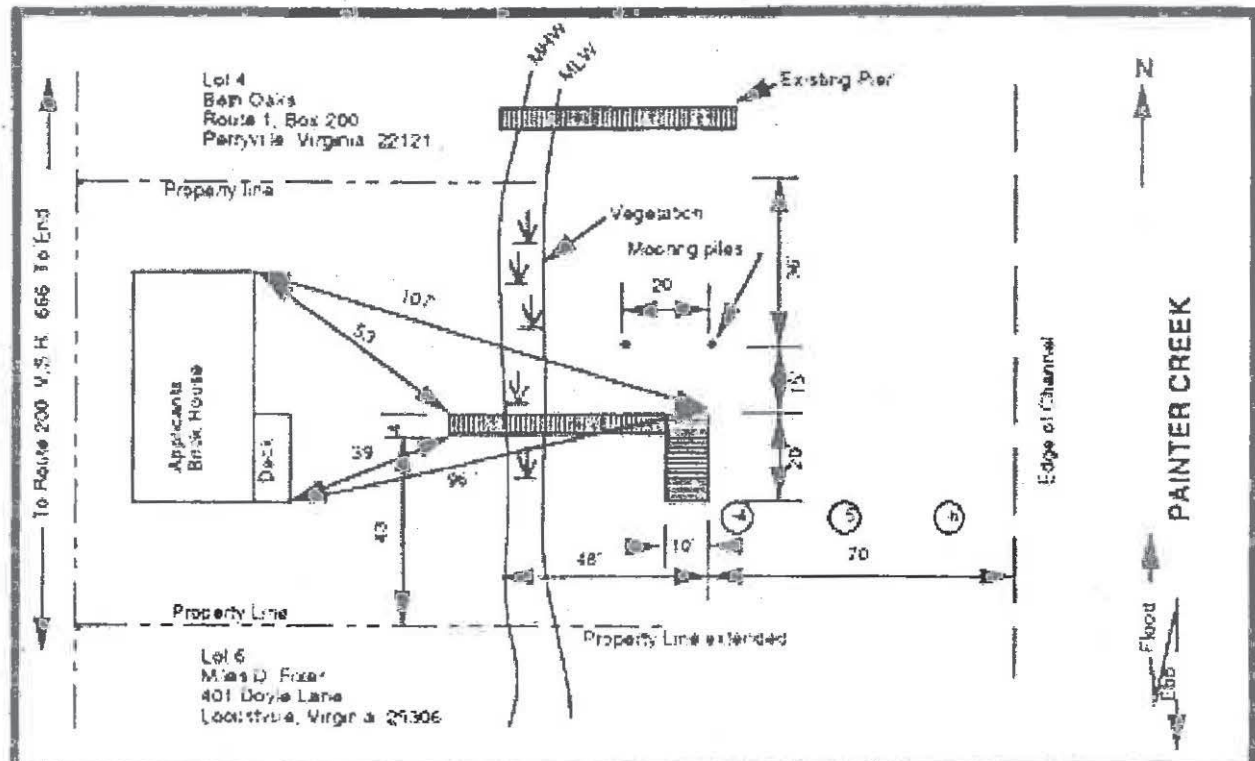
- \_\_\_\_\_ existing contours of the bottom and marsh peat surface
- \_\_\_\_\_ mean high and mean low water levels (tidal areas)
- \_\_\_\_\_ ordinary high water level (nontidal areas)
- \_\_\_\_\_ height of pier over existing bottom or marsh peat surface

\_\_\_\_\_ **Vicinity Map** The name of the map from which the vicinity map was taken and the exact location of the project site must be included (U.S.G.S. quad sheet, street map, or county map is preferred).

1. Number of vessels to be moored at the pier: \_\_\_\_\_
2. Provide the registration number of vessel(s):  
registration \_\_\_\_\_ type of vessel \_\_\_\_\_  
registration \_\_\_\_\_ type of vessel \_\_\_\_\_  
registration \_\_\_\_\_ type of vessel \_\_\_\_\_
3. Give type (e.g. sail, power, skiff, etc.) and size of vessel(s) to be moored at the pier:  
\_\_\_\_\_ type \_\_\_\_\_ length \_\_\_\_\_ width \_\_\_\_\_ draft \_\_\_\_\_  
\_\_\_\_\_ type \_\_\_\_\_ length \_\_\_\_\_ width \_\_\_\_\_ draft \_\_\_\_\_  
\_\_\_\_\_ type \_\_\_\_\_ length \_\_\_\_\_ width \_\_\_\_\_ draft \_\_\_\_\_



# APPENDIX A, Private Piers & Marginal Wharves



Adjacent Property Owners:	Plan & Cross Sectional View	Proposed private pier project in Painter Creek at Marsh Bay
1. Belt Oaks	Evans Pier Project	County of West
2. Miss D. Fox	Scale 1" = 40'	Applicant: J. Evans Sheet 1 of 1 Date: 1-29-92

## BOAT-HOUSES AND BOAT-SHELTERS

### SPECIFICATIONS:

A. Structures shall be built between property lines extended into the water and generally at right angles to the shoreline. If this does not effect fair division of space with your neighbor, this consent will be revised to mutually agreed lines.

B. Structures must be located no closer than 15 feet from adjoining property lines unless written permission is obtained from such adjoining property owner and attached to the agreement between the property owner and Authority as being a part thereof.

C. Boat-houses and Boat-shelters, may generally be up to 400 sq. feet in overall size provide they do not interfere with navigation. In some locations such as narrow coves, the maximum length may not be permitted or boat-houses and boat-shelters may not be permitted at all. Normally structures extending more than fifteen feet above the normal water line (158' above mean sea level) will not be allowed. In coves a dock or pier cannot extend more than  $\frac{1}{4}$  of the cove width. Piers or dock must not interfere with normal navigation.

D. Wood used in construction must be pressure treated.

E. Metal pilings or beams which may be used shall have a minimum section thickness of 3/16 inch. Local building codes prevail on structural member sizes and loading requirements.

F. Boat-houses and Boat-shelters shall not be used for human habitation. Household furnishing such as sinks, toilets, showers, etc., are not permitted inside or on top of these structures.

G. These structures will not normally require Corps of Engineer inspection if signed RP-17 is included with the application.

## APPENDIX B-BOATHOUSES

PLEASE COMPLETE THE CHECKLIST AND ANSWER THE QUESTIONS. THE DRAWINGS MUST CONTAIN THE FOLLOWING INFORMATION OR THEY WILL BE RETURNED AS INCOMPLETE:

### Plan View Drawing

- \_\_\_\_\_ north arrow
- \_\_\_\_\_ waterway name
- \_\_\_\_\_ existing structures
- \_\_\_\_\_ benchmarks showing distances to fixed points of reference
- \_\_\_\_\_ mean low water and mean high water lines (tidal)
- \_\_\_\_\_ ordinary high water line (nontidal)
- \_\_\_\_\_ location of vegetated wetlands at the project site
- \_\_\_\_\_ shoreline, property lines, and location of adjacent property owners (if in a cove or the waterway is less than 500 feet wide, also show the location of the property owner across from the site)
- \_\_\_\_\_ width of the waterway (measuring from mean high water to mean high water (tidal) or ordinary high water to ordinary high water (nontidal))
- \_\_\_\_\_ ebb and flood (tidal) or direction of flow (nontidal)
- \_\_\_\_\_ location and distance from existing channels
- \_\_\_\_\_ channelward encroachment (including mooring piles) relative to mean high and mean low water lines
- \_\_\_\_\_ dimensions of the boathouse, catwalks, or other structures
- \_\_\_\_\_ distance between the structure and mooring piles
- \_\_\_\_\_ soundings taken at mean low water (tidal) or at ordinary high water (nontidal) at 10-foot intervals

Note: The sample drawing on the next page shows the kinds of information required for the Plan View and Section View. They do not both have to be shown on the same piece of paper. Drawings must be clear, but need not be prepared by a draftsman.

### End View Drawing

- \_\_\_\_\_ mean high and mean low water levels (tidal)
- \_\_\_\_\_ ordinary high water level (nontidal)
- \_\_\_\_\_ dimensions of the proposed boathouse
- \_\_\_\_\_ height above mean high and mean low water level
- \_\_\_\_\_ material to be used for construction

\_\_\_\_\_ **Vicinity Map** The name of the map from which the vicinity map was taken and the exact location of the project site must be included (U.S.G.S. quad sheet, street map, or county map is preferred).

1. Give type (e.g. sail, power, skiff, etc.) and size of vessel(s) to be moored at the boathouse:

\_\_\_\_\_ type \_\_\_\_\_ length \_\_\_\_\_ width \_\_\_\_\_ draft  
\_\_\_\_\_ type \_\_\_\_\_ length \_\_\_\_\_ width \_\_\_\_\_ draft  
\_\_\_\_\_ type \_\_\_\_\_ length \_\_\_\_\_ width \_\_\_\_\_ draft

2. Will the sides of the boathouse be enclosed? \_\_\_\_\_ Yes \_\_\_\_\_ No

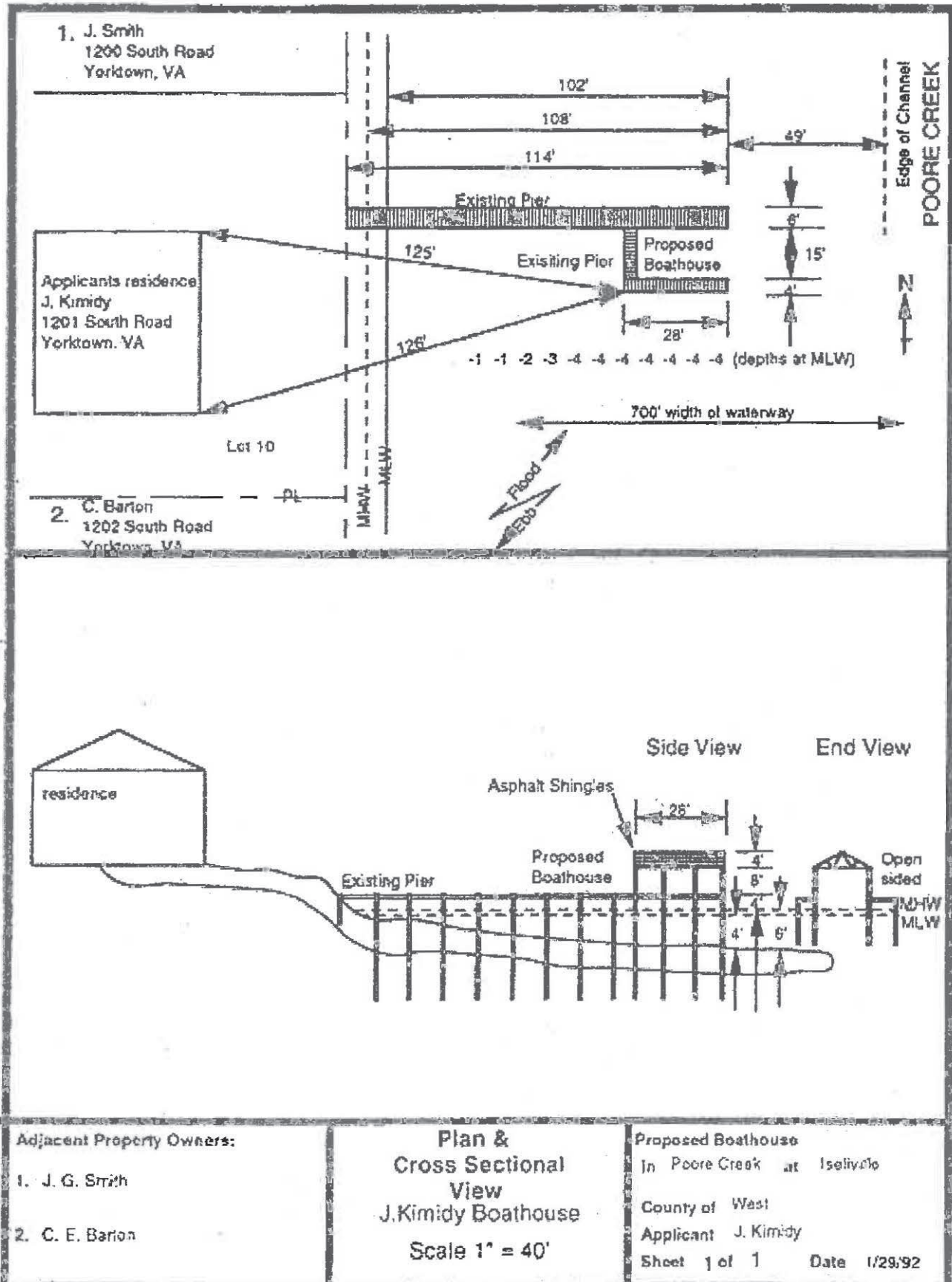
3. Provide the registration number of vessel(s):

registration \_\_\_\_\_  
registration \_\_\_\_\_  
registration \_\_\_\_\_

type of vessel \_\_\_\_\_  
type of vessel \_\_\_\_\_  
type of vessel \_\_\_\_\_



## APPENDIX B, Boathouses



## APPENDIX C --MARINAS AND COMMUNITY PIERS

PLEASE COMPLETE THE CHECKLIST AND ANSWER THE QUESTIONS. THE DRAWINGS MUST CONTAIN THE FOLLOWING INFORMATION OR THEY WILL BE RETURNED AS INCOMPLETE:

### Plan View Drawing

- ☐ north arrow
- ☐ waterway name
- ☐ existing structures
- ☐ benchmarks showing distances to fixed points of reference
- ☐ mean low water and mean high water lines (tidal)
- ☐ ordinary high water line (nontidal)
- ☐ location of vegetated wetlands at the project site
- ☐ shoreline, property lines, and location of adjacent property owners (if in a cove or the waterway is less than 500 feet wide, also show the location of the property owner across from the site)
- ☐ width of the waterway (measuring from mean high water to mean high water (tidal) or ordinary high water to ordinary high water (nontidal))
- ☐ ebb and flood (tidal) or direction of flow (nontidal)
- ☐ location and distance from existing channels
- ☐ channelward encroachment (including mooring piles) relative to mean high and mean low water lines
- ☐ length, width and other pertinent dimensions of the structures
- ☐ distance between the structures and mooring piles
- ☐ soundings taken at mean low water (tidal) or at ordinary high water (nontidal) at 10-foot intervals
- ☐ proposed structures for collection and handling of hazardous material (include settling tanks for collection of travel lift washdown water, paint chips, etc.)
- ☐ location of gasoline storage tanks

### Cross Section Drawing

- ☐ dimensions of covered structures including roof height above mean high and mean low water level
- ☐ material to be used for construction
- ☐ existing contours of the bottom
- ☐ mean high and mean low water levels (tidal)
- ☐ ordinary high water level (nontidal)
- ☐ height above mean high/mean low/ordinary high water line
- ☐ height of structure(s) over the bottom or marsh peat surface

☐ **Vicinity Map** The name of the map from which the vicinity map was taken and the exact location of the project site must be included (U.S.G.S. quad sheet, street map, or county map is preferred).

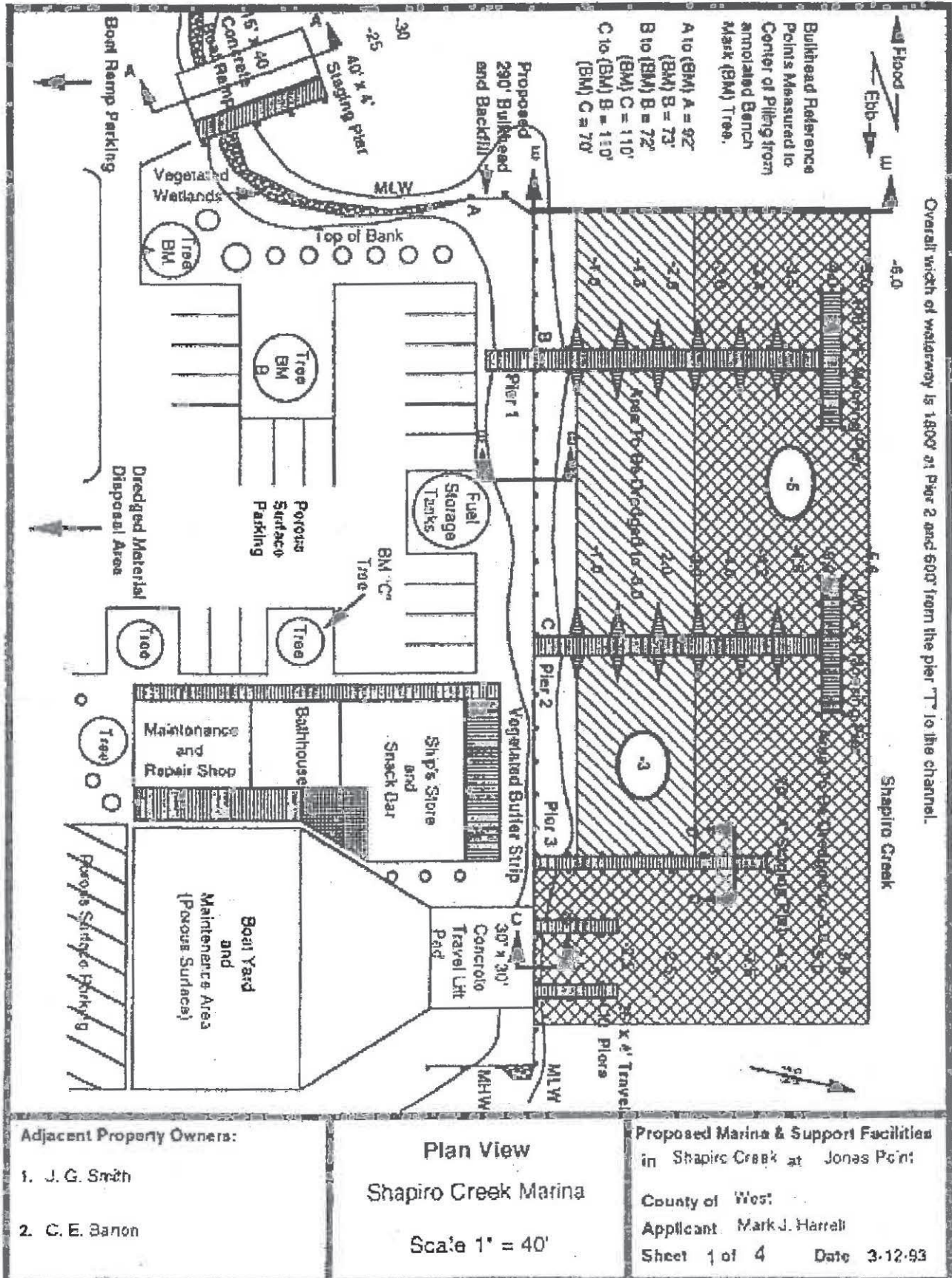
1. Have you obtained the State Health Department's approval for sanitary facilities?  
☐ Yes ☐ No (You are required to obtain this approval or a variance before a VMRC permit can be issued.)
2. Will petroleum products or other hazardous materials be stored or handled at the facility?  
☐ Yes ☐ No If your answer is yes, please include your spill contingency plan
3. Will the facility be equipped to offload sewage from boats? ☐ Yes ☐ No
4. Indicate the number and type of slips:

	Wet Slips	Dry Storage
Existing		
Proposed		

THE DEPARTMENT OF ENVIRONMENTAL QUALITY REQUIRES APPLICANTS TO SUBMIT THE ADDENDUM LOCATED AT THE END OF THIS APPLICATION



## APPENDIX C, Marinas





## APPENDIX E - BOAT RAMPS

**PLEASE COMPLETE THE CHECKLIST AND ANSWER THE QUESTIONS. THE DRAWINGS MUST CONTAIN THE FOLLOWING INFORMATION OR THEY WILL BE RETURNED AS INCOMPLETE:**

### Plan View Drawing

- \_\_\_\_\_ north arrow
- \_\_\_\_\_ waterway name
- \_\_\_\_\_ existing structures
- \_\_\_\_\_ benchmarks showing distances to fixed points of reference
- \_\_\_\_\_ mean low water and mean high water lines (tidal)
- \_\_\_\_\_ ordinary high water line (nontidal)
- \_\_\_\_\_ location of vegetated wetlands at the project site
- \_\_\_\_\_ shoreline, property lines, and location of adjacent property owners
- \_\_\_\_\_ width of the waterway (measuring from mean high water to mean high water (tidal) or ordinary high water to ordinary high water (nontidal))
- \_\_\_\_\_ ebb and flood (tidal) or direction of flow (nontidal)
- \_\_\_\_\_ dimensions of ramp
- \_\_\_\_\_ location and distance from existing channels
- \_\_\_\_\_ channelward encroachment relative to mean high and mean low water lines

Note: The sample drawing on the next page shows the kinds of information required for the Plan View and Section View. They do not both have to be shown on the same piece of paper. Drawings must be clear, but need not be prepared by a draftsman.

### Cross Section Drawing

- \_\_\_\_\_ material to be used for construction
- \_\_\_\_\_ existing contours of the bank and surface
- \_\_\_\_\_ mean high and mean low water levels (tidal)
- \_\_\_\_\_ ordinary high water level (nontidal)

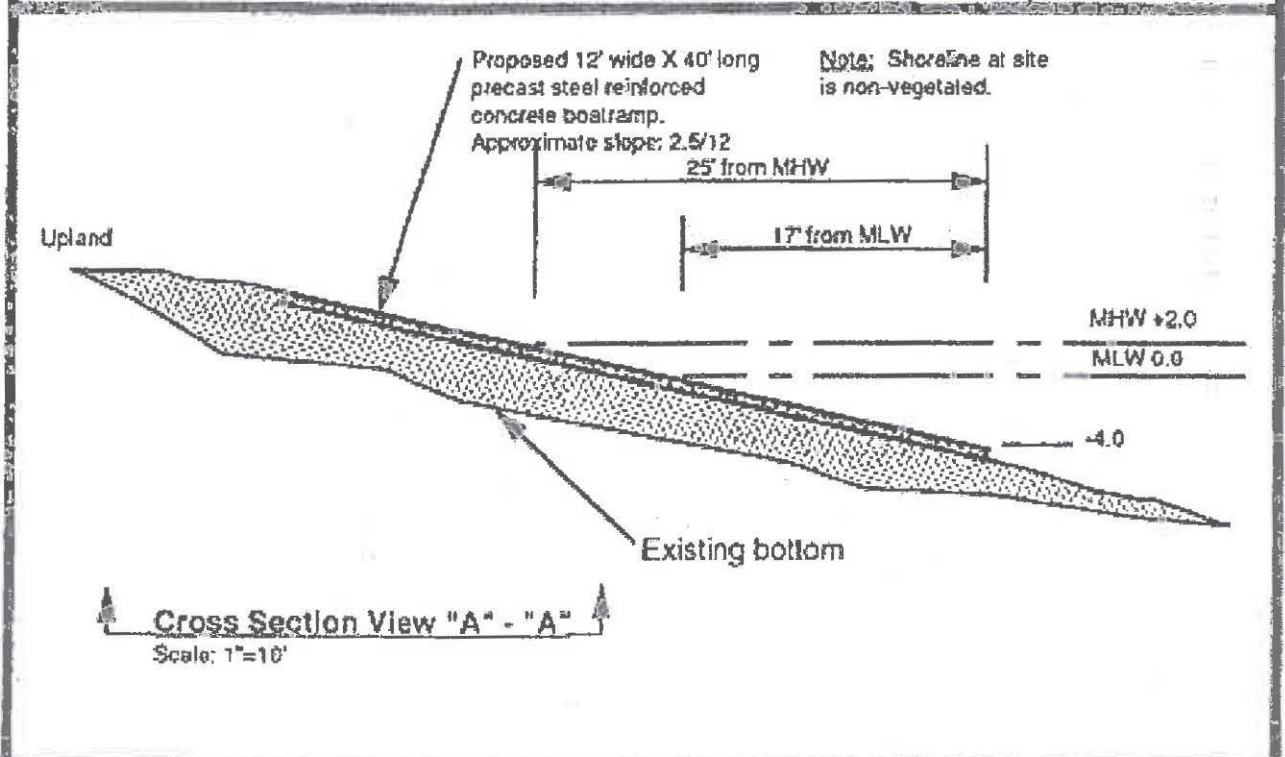
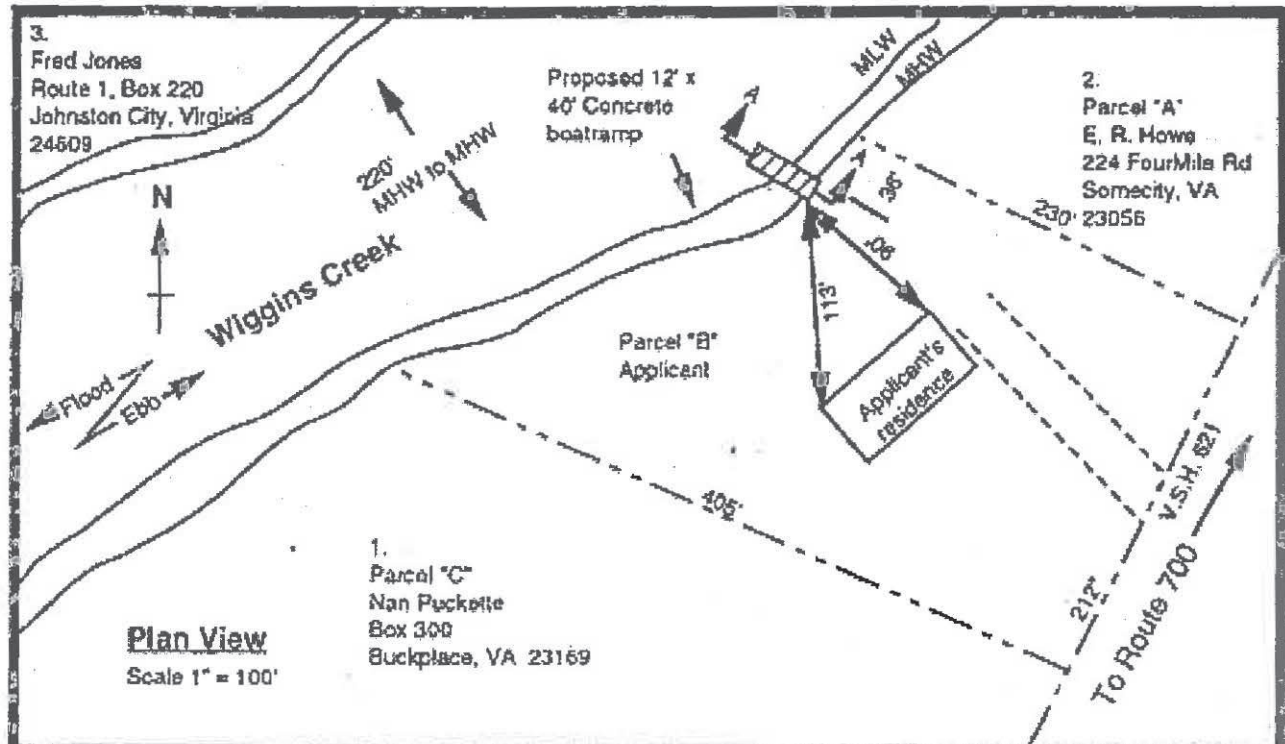
\_\_\_\_\_ **Vicinity Map** The name of the map from which the vicinity map was taken and the exact location of the project site must be included (U.S.G.S. quad sheet, street map, or county map is preferred).

1. Will any excavation be required to construct the boat ramp? \_\_\_\_ Yes \_\_\_\_ No  
If yes, explain how and where you plan on disposing of the excavated material: \_\_\_\_\_  
\_\_\_\_\_
2. What type of design and materials will be used (e.g. open pile design with salt treated lumber or concrete slab on gravel bedding, etc.)? \_\_\_\_\_  
\_\_\_\_\_
3. Please give the location of the nearest public boatramp: \_\_\_\_\_  
\_\_\_\_\_
4. Will any other structures be installed concurrent with the boatramp installation (e.g. tending pier, groin, etc.)? \_\_\_\_ Yes \_\_\_\_ No If "Yes", please include the appropriate appendices.
5. Will any portion of the project be placed on wetlands? \_\_\_\_ Yes \_\_\_\_ No  
If your answer is yes, indicate the square footage and type of area(s) to be impacted:

	Tidal	Nontidal
Vegetated wetlands	sf	sf
Non-vegetated wetlands	sf	-----
Subaqueous land	sf	sf

**FOR COMMERCIAL BOATRAMPS, THE DEPARTMENT OF ENVIRONMENTAL QUALITY REQUIRES APPLICANTS TO SUBMIT THE ADDENDUM LOCATED AT THE END OF THIS APPLICATION**

## APPENDIX E, Boat Ramps



### Adjacent Property Owners:

1. Nan Puckette
2. Elizabeth R. Howe
3. Fred Jones

### Plan & Cross Sectional View

Hill Boatramp Project

Proposed boatramp project  
In Wiggins Creek at Lewisville Bay  
County of West  
Applicant Carlton L. Hill  
Sheet 1 of 1 Date 3-19-93



## BULKHEAD AND RIPRAP

### SPECIFICATIONS

- A. Bulkhead or riprap material may be placed between property lines extended into the water. If this does not effect fair division of space with your neighbor, this consent will be revised to mutually agreed lines.
- B. Bulkhead or riprap may be located up to the adjoining property lines.
- C. Bulkhead and riprap material must be positioned to extend into lake no more than the normal elevation contour line (158 feet above mean seal level, the dam spill way top elevation).
- D. The bulkhead must be constructed prior to any backfilling activities.
- E. All bulkhead backfill and riprap materials must be obtained from an upland source.
- F. The bulkhead must be a solid structure constructed of treated wood, concrete slabs, metal sheet piles, or similar materials. A structure made of tires, riprap rubble, asphalt, car bodies, tree limbs, or similar materials is not considered a bulkhead and are not allowed within the project boundaries of the Lake.
- G. The bulkhead must be structurally tight so as to prevent seepage of backfill material through the bulkhead or filter cloth and gravel may be used.
- H. Riprap material must consist of clean rock or masonry materials such as marl, brick, or broken concrete. Materials such as tires, car bodies, scrap metal, paper products, tree limbs, wood debris or similar material are not considered riprap and are not allowed within the project boundaries of the Lake.
- I. No excavation is permitted except for that which may be required for installation of the bulkhead wall, deadmen, cables, etc.
- J. This type of structure will require Corp of Engineer inspection and approval.

## Dee Hartman

---

**From:** Graham, Edward B NAO02 [Edward.B.Graham@NAO02.USACE.ARMY.MIL]  
**Sent:** Wednesday, May 29, 2002 3:08 PM  
**To:** Dee Hartman  
**Subject:** Conditions

**Bank stabilization activities necessary for erosion prevention provided the activity meets all of the following criteria:**

- a. No material should be placed in excess of the minimum needed for erosion protection;
- b. The bank stabilization activity should be less than 500 feet in length;
- c. The activity will not exceed an average of one cubic yard per running foot placed along the bank below the plane of the ordinary high water mark;
- d. No material should be placed in any special aquatic site, including wetlands;
- e. No material is of the type or is placed in any location or in any manner so as to impair surface water flow into or out of any wetland area;
- f. No material is placed in a manner that will be eroded by normal or expected high flows (properly anchored trees and treetops may be used in low energy areas); and,
- g. The activity is part of a single and complete project.
- h. Provide a detailed plan for approval with cross sections and dimensions for evaluation. The plan should identify jurisdictional waters and wetlands.

<<~AUT0013.jpg>>

### Dredging

- a. Provide a detailed plan for approval with cross sections, dimensions and quantities for evaluation. The plan should identify jurisdictional waters and/or wetlands.
- b. Any proposed dredge areas are to connect to existing lake bottoms.
- c. Dead end canals are considered undesirable.
- d. All excavated materials must be removed entirely to an approved high ground location and secured to prevent reentering the water.
- e. Wetlands dredging is considered undesirable.
- f. The activity is part of a single and complete project.

<<~AUT0014.jpg>>

## APPENDIX F -BULKHEADS & ASSOCIATED BACKFILL

**PLEASE COMPLETE THE CHECKLIST AND ANSWER THE QUESTIONS. THE DRAWINGS MUST CONTAIN THE FOLLOWING INFORMATION OR THEY WILL BE RETURNED AS INCOMPLETE:**

### Plan View Drawing

- \_\_\_\_\_ north arrow
- \_\_\_\_\_ waterway name
- \_\_\_\_\_ existing structures
- \_\_\_\_\_ benchmarks showing distances to fixed points of reference
- \_\_\_\_\_ mean low water and mean high water lines (tidal)
- \_\_\_\_\_ ordinary high water line (nontidal)
- \_\_\_\_\_ channelward encroachment relative to mean high/mean low/ordinary high water lines
- \_\_\_\_\_ location of vegetated wetlands at the project site
- \_\_\_\_\_ shoreline, property lines, and location of adjacent property owners
- \_\_\_\_\_ ebb and flood (tidal) or direction of flow (nontidal)
- \_\_\_\_\_ return walls (if applicable)
- \_\_\_\_\_ connection with existing bulkhead(s) (if applicable)
- \_\_\_\_\_ proposed riprap scour protection (if applicable)
- \_\_\_\_\_ proposed backfill
- \_\_\_\_\_ length of bulkhead

Note: The sample drawing on the next page shows the kinds of information required for the Plan View and Section View. They do not both have to be shown on the same piece of paper. Drawings must be clear, but need not be prepared by a draftsman.

### Cross Section Drawing

- \_\_\_\_\_ design & dimensions including all structural components (i.e. deadmen, knee braces, sheeting, etc.)
- \_\_\_\_\_ material to be used for construction
- \_\_\_\_\_ existing contours of the bottom and marsh peat surface
- \_\_\_\_\_ mean high and mean low water levels (tidal)
- \_\_\_\_\_ ordinary high water level (nontidal)
- \_\_\_\_\_ proposed backfill
- \_\_\_\_\_ base width and height of proposed riprap scour protection (if applicable)
- \_\_\_\_\_ filter cloth

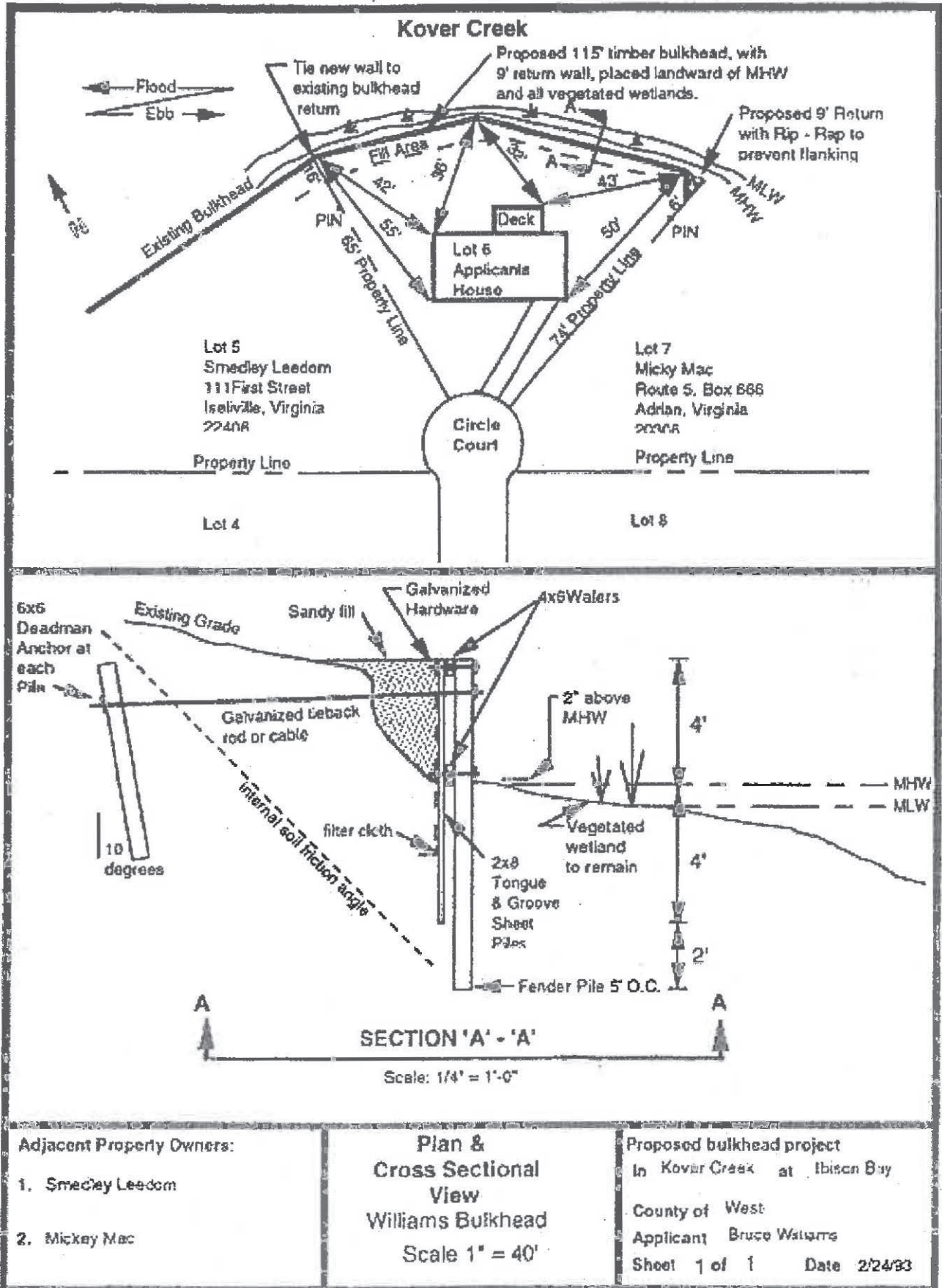
\_\_\_\_\_ **Vicinity Map** The name of the map from which the vicinity map was taken and the exact location of the project site must be included (U.S.G.S. quad sheet, street map, or county map is preferred).

1. a) Is any portion of the project maintenance or replacement of an existing and currently serviceable bulkhead and/or backfill? \_\_\_\_\_ Yes \_\_\_\_\_ No    Linear feet existing: \_\_\_\_\_  
 b) If yes, is it possible to construct the new bulkhead no greater than 2 feet channelward of the existing bulkhead? \_\_\_\_\_ Yes \_\_\_\_\_ No    If your answer is "No", explain: \_\_\_\_\_  
 \_\_\_\_\_
2. Describe type of construction and materials to be used, including source of backfill material and its composition (e.g. 80% sand, 15% clay and 5% silt), and all fittings for the bulkhead: \_\_\_\_\_  
 \_\_\_\_\_
3. Will any portion of the project be placed on wetlands or subaqueous land? \_\_\_\_\_ Yes \_\_\_\_\_ No  
 If your answer is yes, indicate the square footage and type of area(s) to be impacted:

	Tidal	Nontidal
Vegetated wetlands	sf	sf
Non-vegetated wetlands	sf	sf
Subaqueous land	sf	sf



# APPENDIX F, Bulkheads & Associated Backfill



## APPENDIX H -- RIPRAP REVETMENT & ASSOCIATED BACKFILL

**PLEASE COMPLETE THE CHECKLIST AND ANSWER THE QUESTIONS. THE DRAWINGS MUST CONTAIN THE FOLLOWING INFORMATION OR THEY WILL BE RETURNED AS INCOMPLETE:**

### Plan View Drawing

- \_\_\_\_\_ north arrow
- \_\_\_\_\_ waterway name
- \_\_\_\_\_ existing structures
- \_\_\_\_\_ benchmarks showing distances to fixed points of reference
- \_\_\_\_\_ mean low water and mean high water lines (tidal)
- \_\_\_\_\_ ordinary high water line (nontidal)
- \_\_\_\_\_ location of vegetated wetlands at the project site
- \_\_\_\_\_ shoreline, property lines, and location of adjacent property owners
- \_\_\_\_\_ ebb and flood (tidal) or direction of flow (nontidal)
- \_\_\_\_\_ channelward encroachment relative to mean high/mean low/ordinary high water lines
- \_\_\_\_\_ connection with existing bulkhead or riprap structures (if applicable)
- \_\_\_\_\_ proposed backfill
- \_\_\_\_\_ length of revetment

Note: The sample drawing on the next page shows the kinds of information required for the Plan View and Section View. They do not both have to be shown on the same piece of paper. Drawings must be clear, but need not be prepared by a draftsman.

### Cross Section Drawing

- \_\_\_\_\_ proposed backfill
- \_\_\_\_\_ mean high and mean low water levels (tidal)
- \_\_\_\_\_ ordinary high water (nontidal)
- \_\_\_\_\_ existing contours of the shoreline and/or bank
- \_\_\_\_\_ dimensions of proposed revetment
- \_\_\_\_\_ filter cloth
- \_\_\_\_\_ buried toe or riprap apron
- \_\_\_\_\_ proposed grading of existing bank relative to mean high/ordinary high water

\_\_\_\_\_ **Vicinity Map** The name of the map from which the vicinity map was taken and the exact location of the project site must be included (U.S.G.S. quad sheet, street map, or county map is preferred).

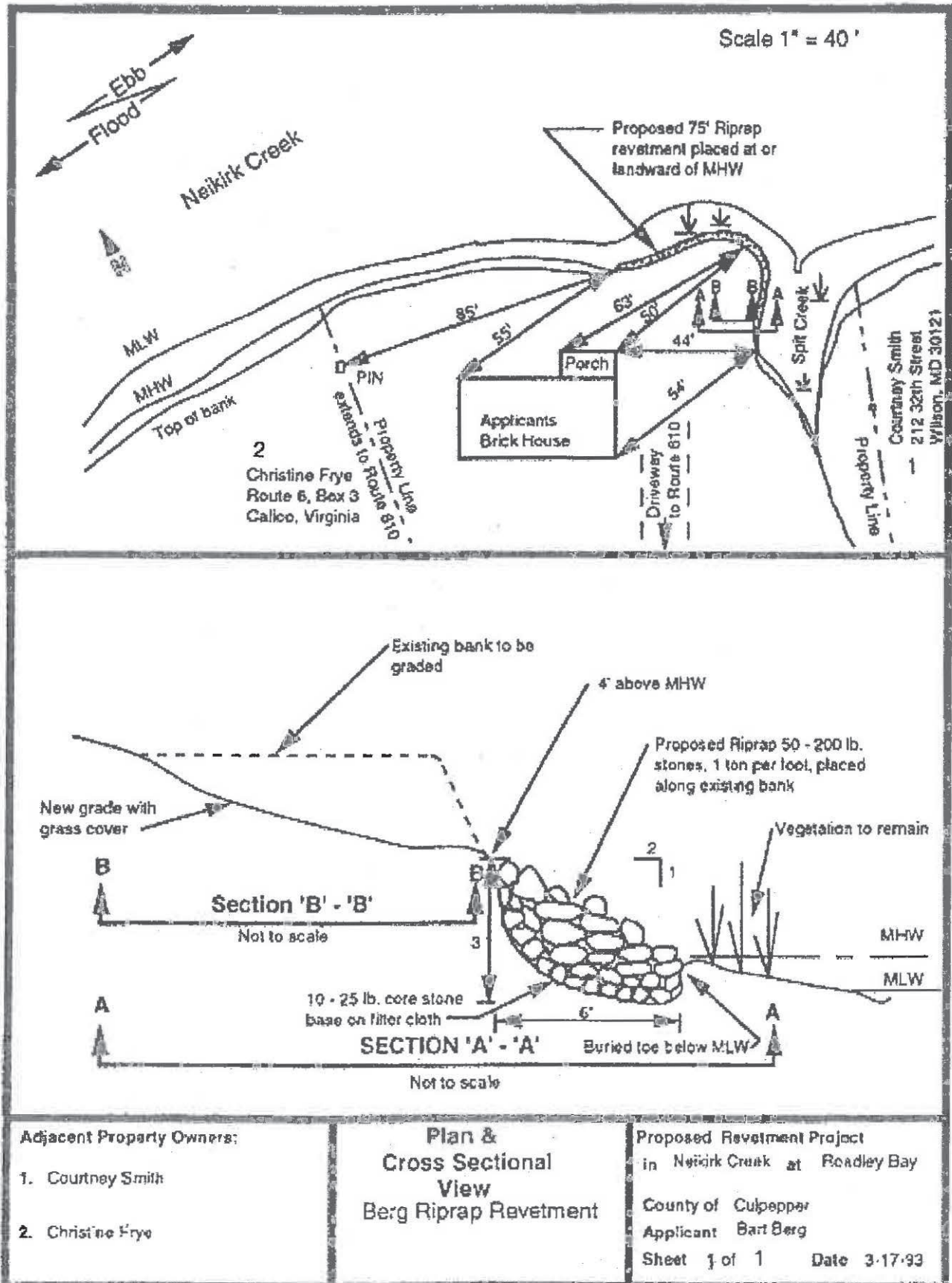
1. What will be the average amount of material (placed below the plane of mean high water or ordinary high water) per linear foot of shoreline? \_\_\_\_\_ cu.yd(s).per ft. **OR** \_\_\_\_\_ ton(s) per ft.
2. What type of material will be used for construction of the riprap revetment (e.g. quarry stone, cinder blocks, etc.)?  
\_\_\_\_\_
3. What will be the average weight of the: Core material (bottom layers) \_\_\_\_\_ pounds per stone  
Armor material (top 2 layers ) \_\_\_\_\_ pounds per stone
4. If the revetment will be backfilled, describe the composition of the material to be used (e.g. 80% sand, 15% clay and 5% silt):  
\_\_\_\_\_
5. What is the source of the backfill material? \_\_\_\_\_
6. Will any portion of the project be placed on wetlands or subaqueous land? \_\_\_\_\_ Yes \_\_\_\_\_ No  
If your answer is yes, indicate the square footage and type of area(s) to be impacted:

	Tidal	Nontidal
Vegetated wetlands	_____ sf.	_____ sf.
Non-vegetated wetlands	_____ sf.	_____ sf.
Subaqueous land	_____ sf.	_____ sf.

**THE DEPARTMENT OF ENVIRONMENTAL QUALITY REQUIRES APPLICANTS TO SUBMIT THE ADDENDUM LOCATED AT THE END OF THIS APPLICATION**



# APPENDIX H, Riprap Revetment & Associated Backfill



## APPENDIX J – DREDGING/MINING/EXCAVATING

**PLEASE COMPLETE THE CHECKLIST AND ANSWER THE QUESTIONS. THE DRAWINGS MUST CONTAIN THE FOLLOWING INFORMATION OR THEY WILL BE RETURNED AS INCOMPLETE:**

### Plan View Drawing

- ☐ north arrow
- ☐ waterway name
- ☐ existing structures
- ☐ width of the waterway, measuring from mean high water to mean high water (tidal) or ordinary high water to ordinary high water (nontidal)
- ☐ ebb and flood (tidal) or direction of flow (nontidal)
- ☐ location and dimensions of area proposed to be dredged
- ☐ benchmarks showing distances to fixed points of reference
- ☐ mean low water and mean high water lines (tidal), or ordinary high water line (nontidal)
- ☐ location and aerial extent of vegetated wetlands at the project site
- ☐ shoreline, property lines, and location of adjacent property owners
- ☐ location of existing channels
- ☐ location of dredged material disposal area if located on-site\*\*
- ☐ location and dimensions of buffer zone between dredge cut and vegetated wetlands
- ☐ existing depths in the project area based on mean low water (tidal) or ordinary high water (nontidal)

Note: The sample drawing on the next page shows the kinds of information required for the Plan View and Section View. They do not both have to be shown on the same piece of paper. Drawings must be clear, but need not be prepared by a draftsman.

### Cross Section Drawing for Dredge Area

- ☐ existing contours of the bottom
- ☐ dredge cut - slopes, average depth, bottom & top width
- ☐ existing depths based on mean low water (tidal)
- ☐ existing depths based on ordinary high water (nontidal)
- ☐ proposed project depths (after dredging)

### Cross Section Drawing for Disposal Area

- ☐ proposed berms
- ☐ proposed spillways
- ☐ ponding depth of dredged material

**Vicinity Map** The name of the map from which the vicinity map was taken and the exact location of the project site must be included (U.S.G.S. quad sheet, street map, or county map is preferred).

**\*\*For off-site disposal areas provide a drawing that includes the location, dimensions, benchmarks, berms and/or spillways, and how the material will be transported.**

1. How many cubic yards of material will be dredged by/from:

	NEW			
	Hydraulic	Dragline	Clamshell	Other
Vegetated Wetlands				
Non-Veg. Wetlands				
Subaqueous Land				
Total				

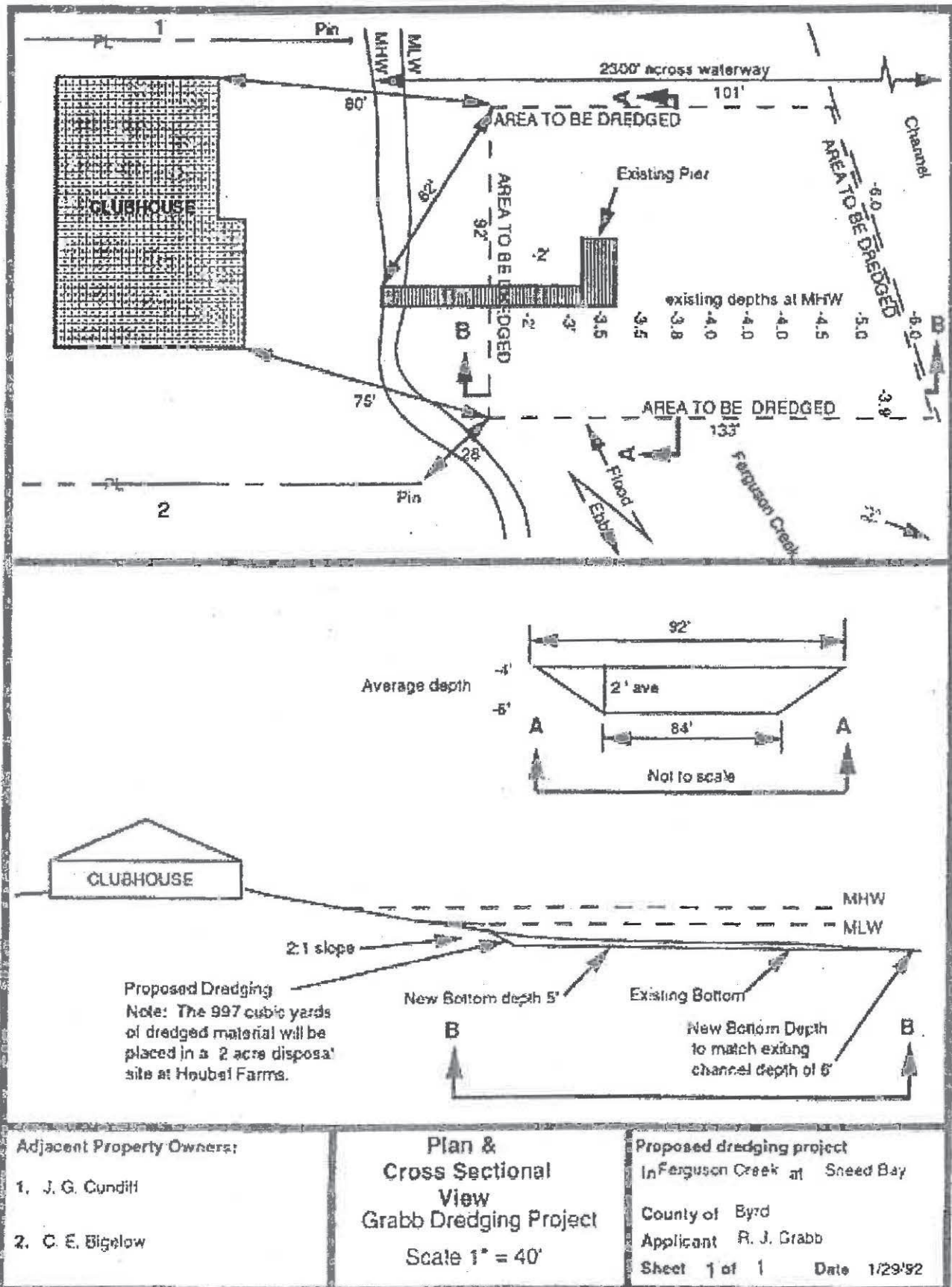
	MAINTENANCE			
	Hydraulic	Dragline	Clamshell	Other

2. State the composition of the material (e.g. clay 25%, sand 25%, silt 50%): \_\_\_\_\_
3. How will the dredged material be retained to prevent re-entry into the waterway? \_\_\_\_\_
4. Will the dredged material be used for any commercial purpose? \_\_\_\_ Yes \_\_\_\_ No
5. For mining projects: a. Explain the operation plans on a separate sheet of paper. e.g. frequency (e.g. every 6 wks), duration (Apr - Sep), cubic yards to be removed per operation, temporary storage, handling of dredged material, how equipment will access the dredge site.  
b. have you applied for a permit from the VA Dept of Mines, Minerals, & Energy? \_\_\_\_ Yes \_\_\_\_ No
6. What is the approximate drainage area and average stream flow? \_\_\_\_\_ square miles \_\_\_\_\_ cfs
7. If maintenance dredging, when was dredging last performed? \_\_\_\_\_ (provide documentation).

**THE DEPARTMENT OF ENVIRONMENTAL QUALITY REQUIRES APPLICANTS TO SUBMIT THE ADDENDUM LOCATED AT THE END OF THIS APPLICATION**



# APPENDIX J, Dredging/ Mining/Excavating





A. The drawing or map must be drawn with dark pencil or ink on standard or legal size white paper and must include but not be limited to showing the following on one or more sheets as necessary:

- 1) A detailed plan showing the full scope of the work to be accomplished to include the length, width and depth of the area to be dredged, total number of cubic yards of materials to be removed and any existing or proposed man-made and natural features.
- 2) All property boundaries and names of adjacent property owners.
- 3) Designated spoil disposal areas for dredged material.
- 4) Fill areas to include the type and quantity of estimated fill material.
- 5) Location and type construction of any fill or dredged material retaining structure (dikes, bulkhead, etc.)

B. A typical cross-sectional diagram of the proposed work must be furnished. The depth or elevation of the proposed excavation, fill or structure relative to existing ground level and normal pool elevation must be shown.

C. An overall location map must be furnished. This map must show the location of the project relative to major waterways, roads and towns or communities in the area. This map may be drawn as an insert map in a corner or the detailed plan.

D. All dredging will be done in such a manner as to allow the existing shoreline contours to remain as they are, unless specifically allowed.

E. Boat slips dredged landward of the normal, 158' contour, water level are required to be bulkhead with material to prevent shoreline erosion.

F. Dredging will not be allowed below 154 feet above m.s.l. or four feet below the dam spillway elevation.

G. The proximity of the shoreline and existing or future structures may limit the depth and/or slope of proposed dredging.

H. All dredging shall be sloped at a minimum of 1 to 1 tying back to existing contours.

I. All dredging spoils, temporary or permanent, will be contained by an approved erosion control method and will not be stored on Authority lands. An erosion control plan shall be submitted with the application. The plan must contain a final spoil disposal site.

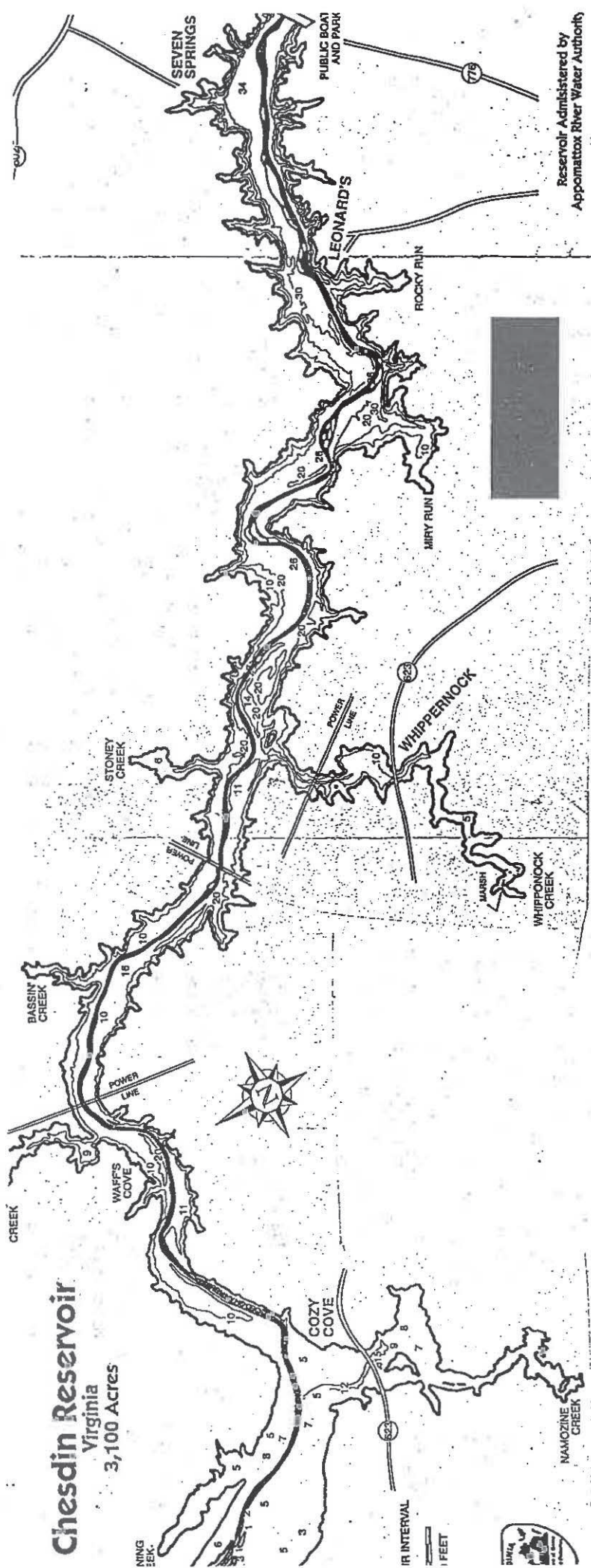
J. Dredge spoils may be used as backfill for bulkheads that have been approved.

K. If Wood is used in construction must be pressure-treated. L. See individual requirements for piers, boat houses, bulkheads, etc., placed in conjunction with dredging activity, listed under separate cover.

M. Structures placed in conjunction with dredging activity shall not be used for human habitation. Household furnishing such as sinks, toilets, showers, etc., are not permitted on these structures.



# **Chesdin Reservoir** Virginia 3,100 Acres



Reservoir Administered by  
Appomattox River Water Authority



# CHESTERFIELD COUNTY

BOARD OF SUPERVISORS

P.O. Box 40

CHESTERFIELD, VIRGINIA 23832-0040

C. F. CURRIN, JR., CHAIRMAN  
BERMUDA DISTRICT

MAURICE B. SULLIVAN, VICE CHAIRMAN  
MIGLOTHIAN DISTRICT

G. H. APPLGATE  
CLOVER HILL DISTRICT

HARRY G. DANIEL  
DALE DISTRICT

JESSE J. MAYES  
MATOACA DISTRICT



LANE B. RAMSEY  
COUNTY ADMINISTRATOR

October 18, 1990

## CHESTERFIELD COUNTY RESIDENTS:

In addition to the requirements of the Appomattox River Water Authority, various departments of Chesterfield County must review plans for construction to assure compliance with applicable codes and conditions. Therefore, the attached form must be presented to the noted County Departments along with a sketch locating the proposed construction site.

With your assistance, we can continue to preserve both the water quality and beauty of Chesterfield County for the future.

CTR/OCT86/dmm



THE FOLLOWING INFORMATION PERTAINS TO PROPERTIES LOCATED IN CHESTERFIELD COUNTY:

Confirmation of building permit requirements must be directed to the Chesterfield County Department of Building Inspections at (804) 748-1057. If a building permit is not required for the proposed structure, plans must be submitted directly to the Departments of Planning (748-1050) and Environmental Engineering (748-1035) for approval. The information noted below must be completed by representatives of these departments prior to submittal to the Appomattox River Water Authority. Please contact these departments in advance to schedule a review meeting with an appropriate staff member.

1. The Department of Environmental Engineering has reviewed the attached plans for compliance with applicable codes and ordinances and offers the following comments:

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☒ Approved ☐ Disapproved

\_\_\_\_\_  
Signature of Environmental  
Engineering Official

STAMP

2. The Department of Planning has reviewed the attached plans for compliance with applicable codes and ordinances and offers the following comments:

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☒ Approved ☐ Disapproved

\_\_\_\_\_  
Signature of Planning Official

STAMP

# STANDARD JOINT PERMIT APPLICATION



United States Army Corps of Engineers (USACE) - Norfolk District  
803 Front Street, ATTN: CENAO-WR-R  
Norfolk, Virginia 23510-1011  
Phone: (757) 201-7652, Fax: (757) 201-7678  
Website: <http://www.nao.usace.army.mil/Missions/Regulatory.aspx>



Virginia Marine Resources Commission (VMRC)  
Habitat Management Division  
380 Fenwick Road, Building 96  
Fort Monroe, VA 23651  
Phone: (757) 247-2200, Fax: (757) 247-8062  
Website: <http://www.mrc.virginia.gov/hmac/hmoverview.shtm>



Virginia Department of Environmental Quality (DEQ)  
Virginia Water Protection Permit Program  
Post Office Box 1105  
Richmond, Virginia 23218  
Phone: (804) 698-4000  
Websites: <http://www.deq.virginia.gov/>  
<http://www.deq.virginia.gov/Locations.aspx>

The following instructions and information are designed to assist you in applying for permits from federal, state, and local regulatory agencies for work in waters and/or wetlands within the Commonwealth of Virginia. The intent is to provide general information on the permit process, not to act as a complete legal and technical reference. Refer to the applicable laws, regulations, and/or guidance materials of each agency for a complete understanding of each agency's application requirements.

## JOINT PERMIT APPLICATION PROCESS

The Joint Permit Application (JPA) process and Standard JPA form are used by the United States Army Corps of Engineers (USACE), the Virginia Marine Resources Commission (VMRC), the Virginia Department of Environmental Quality (DEQ), and the Local Wetlands Boards (LWB) for permitting purposes involving water, wetlands, and dune/beach resources, including water supply and water withdrawals projects (as defined in DEQ Regulation 9 VAC 25-210).

The Tidewater Joint Permit Application form is used for proposed private or commercial aquaculture projects and most commercial and noncommercial projects in **tidal waters, tidal wetlands, and coastal primary sand dunes and beaches in Virginia** that require the review and/or authorization by the LWB, the VMRC, the DEQ, and/or the USACE. The Tidewater JPA may be downloaded from the same web page on which the Standard JPA is located: <http://www.nao.usace.army.mil/Missions/Regulatory/JPA.aspx>. *If using the Tidewater JPA, follow the instructions provided with that form.*

Please note that some health departments and local agencies, such as local building officials and erosion and sediment control authorities, do not use the Joint Permit Application process or forms and may have different informational requirements. The applicant is responsible for contacting these agencies for information regarding those permitting requirements.

**REGULATORY AUTHORITIES OF PARTICIPATING AGENCIES:** The USACE regulates activities in waters of the United States, including wetlands, under Section 404 of the Clean Water Act (33 U.S.C. §1344), Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. §403), and Section 103 of the Marine Protection Research and Sanctuaries Act of 1972 (33 U.S.C. §1413).

The VMRC regulates activities on state-owned submerged lands, tidal wetlands, and dunes/beaches under Code of Virginia Title 28.2, Chapters 12, 13, and 14.

The DEQ regulates activities in state surface waters and wetlands under Section 401 of the Clean Water Act (33 U.S.C. §1341), under State Water Control Law (Code of Virginia Title 62.1), and Virginia Administrative Code Regulations 9VAC25-210 et seq., 9VAC25-660 et seq., 9VAC25-670 et seq., 9VAC25-680 et seq., and 9VAC25-690 et seq.

The LWBs regulate activities in tidal wetlands and dunes/beaches under Code of Virginia Title 28.2, Chapters 13 and 14.

**LOCAL WETLANDS BOARD CONTACT INFORMATION:** Links to LWB information on the Web can be found at [http://ccrm.vims.edu/permits\\_web/guidance/local\\_wetlands\\_boards.html](http://ccrm.vims.edu/permits_web/guidance/local_wetlands_boards.html).

**USACE FIELD OFFICE INFORMATION AND DEQ REGIONAL OFFICE INFORMATION:** Answers to technical questions and detailed information about specific aspects of the various permit programs may be obtained from the USACE field office in your project area (please refer to the Contact Information on the Regulatory web page at: <http://www.nao.usace.army.mil/Missions/Regulatory.aspx> or call 757-201-7652), or from the DEQ regional office in your project area (please refer to <http://www.deq.virginia.gov/Locations.aspx> or call 804-698-4000). Applicants may also seek assistance with completing the informational requirements and/or submittals from private consulting and/or engineering firms for hire.

**CHESAPEAKE BAY PRESERVATION ACT INFORMATION:** Development within the 84 Counties, Cities, and Towns of "Tidewater Virginia" (as defined in §62.1-44.15:68 of the Code of Virginia) is subject to the requirements of the Chesapeake Bay Preservation



Act. If your project is located in a Bay Act locality and will involve activities, including land disturbance or removal of vegetation, within a designated Resource Protection Area (RPA), these actions will require approval from your local government and completion of Appendix C. The individual localities, not the DEQ, USACE, or Local Wetlands Boards, are responsible for enforcing Bay Act requirements and, therefore, local approval for any activity in an RPA is not granted through this JPA process. Each Tidewater locality has adopted a program based on the Chesapeake Bay Preservation Act and the [Chesapeake Bay Preservation Area Designation & Management Regulations](#).

The Act and regulations require Bay Act local governments to administer specific criteria for the use, development and redevelopment of land within locally designated Chesapeake Bay Preservation Areas. Since the requirements of the Bay Act may affect the ultimate design and construction of projects, applicants should contact their local government as early in the process as possible, in order to ensure that these requirements are considered early in the permitting process, and to avoid unnecessary and costly delays. Individual localities will request information regarding existing vegetation within the RPA as well as a description and site drawings of any proposed activity within the RPA. This information will be used by local staff charged with ensuring compliance with the Bay Act during the local approval process. Any use, development and redevelopment or land disturbance within the RPA must receive local approval PRIOR to the initiation of any land disturbance.

To determine if your project is located in a Bay Act locality (see map on page 31 or <http://www.deq.virginia.gov/Programs/Water/ChesapeakeBay/ChesapeakeBayPreservationAct/LocalGovernmentOrdinances.aspx>), learn more about Bay Act requirements, or find local government contacts, please visit the Virginia Department of Environmental Quality at <http://www.deq.virginia.gov/Programs/Water/ChesapeakeBay/ChesapeakeBayPreservationAct.aspx>.

### **HOW TO APPLY**

Sections A through D below provide a general list of information and drawings that are required, depending on the type of project being proposed. Prepare all required drawings or sketches as detailed in the lists provided in Appendix D (Drawings) and according to the sample drawings provided in Appendix D.

#### ***Application materials should be submitted to VMRC:***

1. ***If by mail or courier, use the address on page 1.***
2. ***If by electronic mail, address the package to: [JPA.permits@mrc.virginia.gov](mailto:JPA.permits@mrc.virginia.gov). The application must be provided in the .pdf format.***

When completing this form, use the legal name of the applicant, agent, and/or property owner. For DEQ application purposes, *legal name* means the full legal name of an individual, business, or other organization. For an individual, the legal name is the first name, middle initial, last name, and suffix. For an entity authorized to do business in Virginia, the legal name is the exact name set forth in the entity's articles of incorporation, organization or trust, or formation agreement, as applicable. Also provide the name registered with the State Corporation Commission, if required to register. DEQ issues a permit or grants coverage to the so-named individual or business, who becomes the 'permittee'. Correspondence from some agencies, including permits, authorizations, and/or coverage, may be provided via electronic mail. If the applicant and/or agent wish(es) to receive their permit via electronic mail, please remember to include an e-mail address at the requested place in the application.

#### **A. APPLICATIONS FOR PROJECTS INVOLVING IMPACTS TO TIDAL WATERS, WETLANDS, AND DUNES/BEACHES (INCLUDING SHORELINE STABILIZATION, PIERS, MARINAS, BEACH NOURISHMENT, BOATHOUSES, BOAT LIFTS, BREAKWATERS, AQUACULTURE ACTIVITIES, DREDGING, ETC.) SHOULD INCLUDE THE FOLLOWING:**

- ❖ All *applicable* portions of Sections 1 through 26 of the JPA, including necessary attachments, information required for projects located in CBPA localities as required in Appendix C (a map of CBPA localities can be found on page 31).
- ❖ Adjacent Property Owner's Acknowledgement Forms<sup>(1)</sup>, as detailed in Appendix A or the name and address of the adjacent landowners.
- ❖ An analysis of the functions of wetlands proposed to be impacted may be required by DEQ. <sup>(3)</sup>
- ❖ A set of 8 ½ x 11 inch drawings. If you cannot include all of your project site on one page at a scale no smaller than 1" = 200', you **must** submit a set of 8 ½ x 11 inch match-line drawings **and** a set of large-sized drawings at a scale no smaller than 1" = 200'. If oversized drawings are used, attach **five** copies of the oversized drawings to your application.
- ❖ In order for projects requiring LWB authorization to be considered complete, applications must include the following information (per Virginia Code 28.2-1302): *"The permit application shall include the following: the name and address of the applicant; a detailed description of the proposed activities; a map, drawn to an appropriate and uniform scale, showing the area of wetlands directly affected, the location of the proposed work thereon, the area of existing and proposed fill and excavation, the location, width, depth and length of any proposed channel and disposal area, and the location of all existing and proposed structures, sewage collection and treatment facilities, utility installations, roadways, and other related appurtenances of facilities, including those on the adjacent uplands; a description of the type of equipment to be used and the means of access to the activity site; the names and addresses of record of adjacent land and known claimants of water rights in or adjacent to the wetland of whom the applicant has notice; an estimate of cost; the primary purpose of the project; and secondary purpose of the proposed project; a complete description of measures to be taken during and after alteration to reduce detrimental offsite effects; the completion date of the proposed work, project, or structure; and such additional materials and documentation as the wetlands board may require."*

#### **B. APPLICATIONS FOR PROJECTS INVOLVING IMPACTS TO NONTIDAL WATERS AND/OR WETLANDS AND:**

- 1) **WHERE AUTHORIZATION UNDER STATE PROGRAM GENERAL PERMIT (SPGP) IS REQUESTED:**



Programmatic general permits may be issued by the USACE in situations where a state, regional, or local authority has a regulatory program in place that provides similar review and regulation of activities in waters as does the USACE. In such cases, the programmatic general permit allows the state, region, or locality to provide the federal authorization, thus avoiding unnecessary duplication of effort by multiple regulatory authorities. In Virginia, DEQ provides authorization for certain activities regulated by the USACE through the State Program General Permit (SPGP). DEQ's authorization under the SPGP is a separate action from that providing coverage under any Virginia Water Protection permit. Certain Residential/Commercial/Institutional Development activities and Linear Transportation activities will be considered for coverage under the current SPGP. Details about the current SPGP can be found at <http://www.nao.usace.army.mil/Missions/Regulatory/RBregional.aspx>.

- ❖ Mark the "SPGP" checkbox on page 7 of this application.
- ❖ All *applicable* portions of Sections 1 through 26 of the JPA, including necessary attachments.
- ❖ A conceptual compensatory mitigation plan<sup>(2)</sup>.
- ❖ A copy of the confirmed jurisdictional determination or confirmed delineation, including a waters and wetlands boundary map and data sheets<sup>(3)</sup>.
- ❖ All information required for projects located in CBPA localities as required in Appendix C (a map of CBPA localities can be found on page 31).
- ❖ A copy of the FEMA flood insurance rate map or FEMA-approved local floodplain map for the project site (not applicable to <0.1 acre and < 300 linear feet projects by either USACE or DEQ).
- ❖ A set of 8 ½ x 11 inch drawings. If you cannot include all of your project site on one page at a scale no smaller than 1" = 200', you **must** submit a set of 8 ½ x 11 inch match-line drawings **and** a set of large-sized drawings at a scale no smaller than 1" = 200'. If oversized drawings are used, attach **five** copies of the oversized drawings to your application.

2) **WHERE NO SPGP IS REQUESTED:**

- ❖ All *applicable* portions of Sections 1 through 26 of the JPA, including necessary attachments.
- ❖ A conceptual compensatory mitigation plan<sup>(2)</sup>.
- ❖ A copy of the confirmed jurisdictional determination or confirmed delineation, including a waters and wetlands boundary map and data sheets<sup>(3)</sup>.
- ❖ All information required for projects located in CBPA localities as required in Appendix C (a map of CBPA localities can be found on page 31), and a copy of the FEMA flood insurance rate map or FEMA-approved local floodplain map for the project site.
- ❖ An analysis of the functions of wetlands proposed to be impacted may be required by DEQ <sup>(4)</sup>.
- ❖ A set of 8 ½ x 11 inch drawings. If you cannot include all of your project site on one page at a scale no smaller than 1" = 200', you **must** submit a set of 8 ½ x 11 inch match-line drawings **and** a set of large-sized drawings at a scale no smaller than 1" = 200'. If oversized drawings are used, attach **five** copies of the oversized drawings to your application.

**C. APPLICATIONS FOR PROJECTS INVOLVING SURFACE WATER WITHDRAWALS or FERC LICENSE OR RELICENSE ASSOCIATED WITH A SURFACE WATER WITHDRAWAL:**

- ❖ Mark the "DEQ Reapplication" checkbox on page 7 of this application and provide the current/existing permit number.
- ❖ All *applicable* portions of Sections 1 through 26 of the JPA, including necessary attachments.
- ❖ All *applicable* portions of Part A and B above if the project involves wetland and/or stream impacts.
- ❖ Copy of any pre-application review panel documentation and summary of the issues raised
- ❖ For new or expanded surface water withdrawals proposing to withdraw 90 million gallons a month or greater, a summary of the steps taken to seek public input as required by 9VAC25-210-320 and an identification of the issues raised during the course of the public information meeting process.

**D. ANY APPLICATIONS USING THE JPA FORM AS A PRE-CONSTRUCTION NOTIFICATION (PCN) FOR A USACE NATIONWIDE PERMIT:**

- ❖ Mark the "PCN" checkbox on page 7 of this application and insert the number of the intended Nationwide permit. If you fail to mark this box, the PCN will be deemed incomplete and the USACE 45-day time clock will not start.
- ❖ All *applicable* portions of Sections 1 through 26 of the JPA, including necessary attachments and all information required for projects located in CBPA localities as required in Appendix C (a map of CBPA localities can be found on page 31).
- ❖ A set of 8 ½ x 11 inch drawings. If you cannot include all of your project site on one page at a scale no smaller than 1" = 200', you **must** submit a set of 8 ½ x 11 inch match-line drawings **and** a set of large-sized drawings at a scale no smaller than 1" = 200'. If oversized drawings are used, attach **five** copies of the oversized drawings to your application.

**WHAT HAPPENS NEXT**

Upon receipt of an application, VMRC will assign a permit application number to the JPA and will then distribute a copy of the application and any plan copies submitted to the other regulatory agencies that are involved in the JPA process. All agencies will conduct separate but concurrent reviews of your project. Please be aware that each agency must issue a separate permit (or a notification that no permit is required). Note that in some cases, DEQ may be taking an action on behalf of the USACE, such as when the State Program General Permit (SPGP) applies. Make sure that you have received all necessary authorizations, or documentation that no permit is required, from each agency prior to beginning the proposed work.

During the JPA review process, site inspections may be necessary to evaluate a proposed project. Failure to allow an authorized representative of a regulatory agency to enter the property, or to take photographs of conditions at the project site, may result in either the withdrawal or denial of your permit application.

For certain federal and state permit applications, a public notice is published in a newspaper having circulation in the project area, is mailed to adjacent and/or riparian property owners, and/or is posted on the agency's web page. The public may comment on the project during a designated comment period, if applicable, which varies depending upon the type of permit being applied for and the issuing agency. In certain circumstances, the project may be heard by a governing board, such as a Local Wetlands Board, the State Water Control Board, or VMRC in cases where a locality does not have a wetlands board. You may be responsible for bearing the costs for advertisement of public notices.

Public hearings that are held by VMRC occur at their regularly scheduled monthly commission meetings under the following situations: Protested applications for VMRC permits which cannot be resolved; projects costing over \$500,000 involving encroachment over state-owned subaqueous land; and all projects affecting tidal wetlands and dunes/beaches in localities without a LWB. All interested parties will be officially notified regarding the date and time of the hearing and Commission meeting procedures. The Commission will usually make a decision on the project at the meeting unless a decision for continuance is made. If a proposed project is approved, a permit or similar agency correspondence is sent to the applicant. In some cases, notarized signatures, as well as processing fees and royalties, are required before the permit is validated. If the project is denied, the applicant will be notified in writing.

### **PERMIT APPLICATION OR OTHER FEES**

**DO NOT send any fees with the JPA.** VMRC is not responsible for accounting for fees required by other agencies. Please consult agency websites or contact agencies directly for current fee information and submittal instructions.

- ❖ USACE: Permit application fees are required for USACE Individual (Standard) permits. A USACE project manager will contact you regarding the proper fee and submittal requirements.
- ❖ DEQ: Permit application fees required for Virginia Water Protection permits – while detailed in 9VAC25-20 – are conveyed to the applicant by the applicable DEQ office (<http://www.deq.virginia.gov/Locations.aspx>). Complete the Permit Application Fee Form and submit it per the instructions listed on the form. Instructions for submitting any other fees will be provided to the applicant by DEQ staff.
- ❖ VMRC: An application fee of \$300 may be required for projects impacting tidal wetlands, beaches and/or dunes when VMRC acts as the LWB. VMRC will notify the applicant in writing if the fee is required. Permit fees involving subaqueous lands are \$25.00 for projects costing \$10,000 or less and \$100 for projects costing more than \$10,000. Royalties may also be required for some projects. The proper permit fee and any required royalty is paid at the time of permit issuance by VMRC. VMRC staff will send the permittee a letter notifying him/her of the proper permit fees and submittal requirements.
- ❖ LWB: Permit fees vary by locality. Contact the LWB for your project area or their locality website for fee information and submittal requirements. Contact information for LWB may be found at [http://ccrm.vims.edu/permits\\_web/guidance/local\\_wetlands\\_boards.html](http://ccrm.vims.edu/permits_web/guidance/local_wetlands_boards.html).

### **INFORMATION REGARDING THREATENED OR ENDANGERED SPECIES**

In order to find preliminary information regarding federal or state threatened or endangered species on your project site, you may contact the following four agencies:

United States Fish and Wildlife Service 6669 Short Lane Gloucester, Virginia 23061 Voice: (804) 693-6694 Fax: (804) 693-9032 <a href="http://virginiafieldoffice.fws.gov/">http://virginiafieldoffice.fws.gov/</a>	NOAA Fisheries Greater Atlantic Region Fisheries Office National Marine Fisheries Service 55 Great Republic Drive Gloucester, MA 01930 Voice: (978) 281-9300 <a href="https://www.greateratlantic.fisheries.noaa.gov/contact_us/index.html">https://www.greateratlantic.fisheries.noaa.gov/contact_us/index.html</a>
Project Review Coordinator Virginia Department of Conservation and Recreation Natural Heritage Division 217 Governor Street Richmond, Virginia 23219 Voice: (804) 786-7951 Fax: (804) 371-2674 <a href="http://www.dcr.virginia.gov/natural_heritage/index.shtml">http://www.dcr.virginia.gov/natural_heritage/index.shtml</a>	Virginia Department of Game and Inland Fisheries Environmental Services Section 4010 West Broad Street Richmond, Virginia 23230-1104 (804) 367-1000 <a href="http://www.dgif.virginia.gov/wildlife/">http://www.dgif.virginia.gov/wildlife/</a>

### **INFORMATION REGARDING FEMA-MAPPED FLOODPLAINS**

You may obtain "Online Hazard Maps" for FEMA-mapped floodplains by visiting <https://hazards.fema.gov/femaportal/wps/portal>. Local governments also keep paper copies of FEMA maps on hand.

## **FOOTNOTES**

**(1) Adjacent Property Owner Notification:** When determining whether to grant or deny any permit for the use of state-owned submerged lands, the VMRC must consider, among other things, effects of a proposed project on adjacent or nearby properties. Discussing the proposed project with these property owners can be done on your own using the forms in Appendix A of this package. Local Wetlands Boards (LWB) must also consider the effects on adjacent properties and notify adjoining property owners of the required public hearings for all applications. The completed forms will assist VMRC and LWB in processing the application. The forms in Appendix A may be photocopied if more copies are needed. This information will not be used by DEQ to meet the requirements of notifying riparian land owners.

**(2) Compensatory mitigation plans. Conceptual** compensatory mitigation plans, when required, should include all information stipulated in Sections 80 B and 116 F of DEQ Regulation 9VAC25-210 for Virginia Water Protection individual permit applicants, or in Sections 60 B and/or 70 of DEQ Regulations 9VAC25-660, 9VAC25-670, 9VAC25-680, or 9VAC25-690 for Virginia Water Protection general permit coverage applicants. Regulations may be obtained from DEQ's web site at <http://www.deq.virginia.gov/Programs/Water/WetlandsStreams.aspx>. Information on wetland and stream compensatory mitigation is available at <http://www.deq.virginia.gov/Programs/Water/WetlandsStreams/Mitigation.aspx>. The SPGP applicant is required to provide a conceptual mitigation plan in accordance with the current SPGP (<http://www.nao.usace.army.mil/Missions/Regulatory/RBregional.aspx>). **Final** compensatory mitigation plans will be required *prior to commencement of impacts to waters and/or wetlands* on your project site. If no mitigation is planned, submit a detailed statement as to why no mitigation is planned. For projects requiring a LWB or VMRC tidal wetlands permit, please consult the VMRC Wetlands Mitigation-Compensation Policy and Supplemental Guidelines: 4 VAC 20-390 at <http://www.mrc.virginia.gov/regulations/regindex.shtml>.

**(3) Wetland and waters boundary delineation map:** Wetlands/waters delineations must be performed using the USACE "Wetland Delineation Manual, Technical Report Y-87-1, January 1987, Final Report" (Federal Manual) and if applicable, the current version of the Regional Supplement to the Corps of Engineers Wetlands Delineation Manual (Atlantic and Gulf Coastal Plain Region or Eastern Mountains and Piedmont Region). The SPGP applicant is required to provide a Corps-confirmed jurisdictional determination or Corps-confirmed delineation approved for use with a permit application, in accordance with the current SPGP (<http://www.nao.usace.army.mil/Missions/Regulatory/RBregional.aspx>). Contact the appropriate USACE District office or field office to obtain a delineation confirmation by referencing the Contact Information on the Regulatory web page at: <http://www.nao.usace.army.mil/Missions/Regulatory.aspx> or call the Regulator of the Day (ROD) at 757-201-7652. If a USACE confirmation is not available at the time of application, it must be submitted as soon as it becomes available during the DEQ permit review. For DEQ application purposes, the requirements for delineations apply to all applications, regardless of the amount of impacts. The information to be submitted is detailed in 9VAC25-210-80 B 1 h and is the same regardless of the type of VWP permit being sought.

**(4) An analysis of the functions of wetlands,** when required for DEQ permitting purposes, shall assess water quality or habitat metrics and shall be coordinated with DEQ in advance of conducting the analysis. For DEQ permitting purposes, please refer to the requirements in 9VAC25-210-80 C, which are the same regardless of the type of VWP permit being sought.

## TABLE OF CONTENTS

<b>Section 1:</b>	Applicant, Agent, Property Owner, and Contractor Information.....	7
<b>Section 2:</b>	Project Location Information.....	8
<b>Section 3:</b>	Description of Project, Purposes, Need, Use(s), and Alternatives.....	9
<b>Section 4:</b>	Project Costs.....	10
<b>Section 5:</b>	Public Notification.....	10
<b>Section 6:</b>	Threatened and Endangered Species Information.....	10
<b>Section 7:</b>	Historic Resources Information.....	10
<b>Section 8:</b>	Wetlands, Waters, and Dunes/Beaches Impact Information.....	11
<b>Section 9:</b>	Applicant, Agent, Property Owner and Contractor Certifications.....	12
<b>Section 10:</b>	Private Piers, Marginal Wharves, and Uncovered Boatlifts.....	14
<b>Section 11:</b>	Boathouses, Gazebos, Covered Boat Lifts, and Other Roofed Structures Over Waterways.....	14
<b>Section 12:</b>	Marinas and Commercial, Governmental, and Community Piers.....	14
<b>Section 13:</b>	Free Standing Mooring Piles, Osprey Nesting Poles, Mooring Buoys, and Dolphins.....	15
<b>Section 14:</b>	Boat Ramps.....	15
<b>Section 15:</b>	Tidal/Nontidal Shoreline Stabilization Structures .....	15
<b>Section 16:</b>	Beach Nourishment.....	16
<b>Section 17:</b>	Dredging, Mining, and Excavating.....	17
<b>Section 18:</b>	Fill and Other Structures in Wetlands or Waters, or on Dunes/Beaches.....	18
<b>Section 19:</b>	Nontidal Stream Channel Modifications for Restoration or Enhancement, or Temporary or Permanent Relocations .....	18
<b>Section 20:</b>	Utility Crossings.....	19
<b>Section 21:</b>	Road Crossings.....	20
<b>Section 22:</b>	Impoundments, Dams, and Stormwater Management Facilities.....	20
<b>Section 23:</b>	Outfalls Not Associated with Proposed Water Withdrawal Activities.....	21
<b>Section 24:</b>	Intakes, Outfalls, and Water Control Structures.....	22
<b>Section 25:</b>	Water Withdrawal Use(s), Need, and Alternatives.....	24
<b>Section 26:</b>	Public Comments/Issues for Major Water Withdrawals or Interbasin Transfers.....	26
<b>Appendix A:</b>	Adjacent Property Owner's Acknowledgement Forms.....	27
<b>Appendix B:</b>	Regional Permit 17 Checklist.....	29
<b>Appendix C:</b>	Chesapeake Bay Preservation Act Information.....	30
<b>Appendix D:</b>	Sample Drawings.....	32

**FOR AGENCY USE ONLY**

	Notes:
JPA#	

**APPLICANTS**

**PLEASE PRINT OR TYPE ALL ANSWERS.** If a question does not apply to your project, please print N/A (not applicable) in the space provided. ***If additional space is needed, attach extra 8 ½ x 11 inch sheets of paper.***

**Check all that apply**

Pre-Construction Notification (PCN) NWP # _____ RP # 05 (For NWP's & RP 05 ONLY - No DEQ-VWP permit writer will be assigned)	SPGP	DEQ Reapplication Existing permit number: _____	Receiving federal funds Agency providing funding: _____
Regional Permit 17 Checklist (RP-17)			

**PREVIOUS ACTIONS RELATED TO THE PROPOSED WORK (Include all federal, state, and local pre application coordination, site visits, previous permits, or applications whether issued, withdrawn, or denied)**

Historical information for past permit submittals can be found online with VMRC - <https://webapps.mrc.virginia.gov/public/habitat/> - or VIMS - <http://ccrm.vims.edu/perms/newpermits.html>

Agency	Action / Activity	Permit/Project number, including any non-reporting Nationwide permits previously used (e.g., NWP 13)	Date of Action	If denied, give reason for denial

**1. APPLICANT, AGENT, PROPERTY OWNER, AND CONTRACTOR INFORMATION**

The applicant(s) is/are the legal entity to which the permit may be issued (see How to Apply at beginning of form). The applicant(s) can either be the property owner(s) or the person/people/company(ies) that intend(s) to undertake the activity. The agent is the person or company that is representing the applicant(s). If a company, please also provide the company name that is registered with the State Corporation Commission (SCC), or indicate no registration with the SCC.

Legal Name(s) of Applicant(s)				Agent (if applicable)		
Mailing address				Mailing address		
City	State	ZIP Code	City	State	ZIP Code	
Phone number w/area code	Fax		Phone number w/area code	Fax		
Mobile	E-mail		Mobile	E-mail		
State Corporation Commission Name and ID number (if applicable)			State Corporation Commission Name and ID number (if applicable)			
<b><i>Certain permits or permit authorizations may be provided via electronic mail. If the applicant wishes to receive their permit via electronic mail, please provide an e-mail address here:</i></b> _____						

**1. APPLICANT, AGENT, PROPERTY OWNER, AND CONTRACTOR INFORMATION (Continued)**

Property owner(s) legal name, if different from applicant			Contractor, if known		
Mailing address			Mailing address		
City	State	ZIP code	City	State	ZIP code
Phone number w/area code	Fax		Phone number w/area code	Fax	
Mobile	E-mail		Mobile	E-mail	
State Corporation Commission Name and ID number (if applicable)			State Corporation Commission Name ID number (if applicable)		

**2. PROJECT LOCATION INFORMATION**

(Attach a copy of a detailed map, such as a USGS topographic map or street map showing the site location and project boundary, so that it may be located for inspection. Include an arrow indicating the north direction. Include the drainage area if the SPGP box is checked on Page 7.)

Street Address (911 address if available)		City/County/ZIP Code	
Subdivision		Lot/Block/Parcel #	
Name of water body(ies) within project boundaries and drainage area (acres or square miles).			
Tributary(ies) to: _____ Basin: _____ Sub-basin: _____ (Example: Basin: <u>James River</u> Sub-basin: <u>Middle James River</u> )			
Special Standards (based on DEQ Water Quality Standards 9VAC25-260 et seq.): _____			
Project type (check one) _____ _____ Single user (private, non-commercial, residential) _____ Multi-user (community, commercial, industrial, government) _____ Surface water withdrawal			
Latitude and longitude at center of project site (decimal degrees): _____ / - _____ (Example: 37.33164/-77.68200)			
USGS topographic map name: _____			
8-digit USGS Hydrologic Unit Code (HUC) for your project site (See <a href="http://cfpub.epa.gov/surf/locate/index.cfm">http://cfpub.epa.gov/surf/locate/index.cfm</a> ): _____ If known, indicate the 10-digit and 12-digit USGS HUCs (see <a href="http://consapps.dcr.virginia.gov/htdocs/maps/HUEExplorer.htm">http://consapps.dcr.virginia.gov/htdocs/maps/HUEExplorer.htm</a> ): _____			
Name of your project (Example: <u>Water Creek driveway crossing</u> ) _____			
Is there an access road to the project? __ Yes __ No. If yes, check all that apply: __ public __ private __ improved __ unimproved			
Total size of the project area (in acres): _____			



## 2. PROJECT LOCATION INFORMATION (Continued)

Provide driving directions to your site, giving distances from the best and nearest visible landmarks or major intersections:

Does your project site cross boundaries of two or more localities (i.e., cities/counties/towns)? ☐ Yes ☐ No

If so, name those localities:

## 3. DESCRIPTION OF THE PROJECT, PROJECT PRIMARY AND SECONDARY PURPOSES, PROJECT NEED, INTENDED USE(S), AND ALTERNATIVES CONSIDERED (Attach additional sheets if necessary)

- The purpose and need must include any new development or expansion of an existing land use and/or proposed future use of residual land.
- Describe the physical alteration of surface waters, including the use of pilings (#, materials), vibratory hammers, explosives, and hydraulic dredging, when applicable, and whether or not tree clearing will occur (include the area in square feet and time of year).
- Include a description of alternatives considered and measures taken to avoid or minimize impacts to surface waters, including wetlands, to the maximum extent practicable. Include factors such as, but not limited to, alternative construction technologies, alternative project layout and design, alternative locations, local land use regulations, and existing infrastructure
- For utility crossings, include both alternative routes and alternative construction methodologies considered
- For surface water withdrawals, public surface water supply withdrawals, or projects that will alter in stream flows, include the water supply issues that form the basis of the proposed project.

Date of proposed commencement of work (MM/DD/YYYY)

Date of proposed completion of work (MM/DD/YYYY)

Are you submitting this application at the direction of any state, local, or federal agency? ☐ Yes ☐ No

Has any work commenced or has any portion of the project for which you are seeking a permit been completed?  
☐ Yes ☐ No

If you answered "yes" to either question above, give details stating when the work was completed and/or when it commenced, who performed the work, and which agency (if any) directed you to submit this application. In addition, you will need to clearly differentiate between completed work and proposed work on your project drawings.

Are you aware of any unresolved violations of environmental law or litigation involving the property? ☐ Yes ☐ No  
(If yes, please explain)

#### 4. PROJECT COSTS

Approximate cost of only the portion of the project affecting state waters (channelward of mean low water in tidal areas and below ordinary high water mark in nontidal areas): \$ \_\_\_\_\_

**5. PUBLIC NOTIFICATION** (Attach additional sheets if necessary)

**Failure to provide this information may result in a delay in the processing of your application by VMRC.**

Property owner's name	Mailing address	City	State	ZIP code

Address and phone number (including area code) of newspaper

Have adjacent property owners been notified with forms in Appendix A? \_\_\_\_\_ Yes \_\_\_\_\_ No (attach copies of distributed forms)

## 6. THREATENED AND ENDANGERED SPECIES INFORMATION

Please provide any information concerning the potential for your project to impact state and/or federally threatened and endangered species (listed or proposed). Attach correspondence from agencies and/or reference materials that address potential impacts, such as database search results or confirmed waters and wetlands delineation/jurisdictional determination. Include information when applicable regarding the location of the project in Endangered Species Act-designated or -critical habitats. Contact information for the U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, Virginia Dept. of Game and Inland Fisheries, and the Virginia Dept. of Conservation and Recreation-Division of Natural Heritage can be found on page 4 of this package.

## 7. HISTORIC RESOURCES INFORMATION

*Note: Historic properties include but are not limited to archeological sites, battlefields, Civil War earthworks, graveyards, buildings, bridges, canals, etc. Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the USACE from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the USACE, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant.*

If Yes, please provide a map showing the location of the historic property within or adjacent to the project site.

If Yes, please provide a map showing the location of these buildings or structures on the project site.

If Yes, please indicate which district: \_\_\_\_\_

## 7. HISTORIC RESOURCES INFORMATION (Continued)

Has a survey to locate archeological sites and/or historic structures been carried out on the property?

\_\_\_ Yes \_\_\_ No \_\_\_ Uncertain

If Yes, please provide the following information: Date of Survey: \_\_\_\_\_

Name of firm: \_\_\_\_\_

Is there a report on file with the Virginia Department of Historic Resources? \_\_\_ Yes \_\_\_ No \_\_\_ Uncertain

Title of Cultural Resources Management (CRM) report: \_\_\_\_\_

Was any historic property located? \_\_\_ Yes \_\_\_ No \_\_\_ Uncertain

## 8. WETLANDS, WATERS, AND DUNES/BEACHES IMPACT INFORMATION

Report each impact site in a separate column. If needed, attach additional sheets using a similar table format. Please ensure that the associated project drawings clearly depict the location and footprint of each numbered impact site. For dredging, mining, and excavating projects, use Section 17.

	Impact site number 1	Impact site number 2	Impact site number 3	Impact site number 4	Impact site number 5
Impact description (use all that apply): F=fill EX=excavation S=Structure T=tidal NT=non-tidal TE=temporary PE=permanent PR=perennial IN=intermittent SB=subaqueous bottom DB=dune/beach IS=hydrologically isolated V=vegetated NV=non-vegetated MC=Mechanized Clearing of PFO (Example: F, NT, PE, V)					
Latitude / Longitude (in decimal degrees)					
Wetland/waters impact area (square feet / acres)					
Dune/beach impact area (square feet)					
Stream dimensions at impact site (length and average width in linear feet, and area in square feet)					
Volume of fill below Mean High Water or Ordinary High Water (cubic yards)					

**8. WETLANDS/WATERS IMPACT INFORMATION (Continued)**

Cowardin classification of impacted wetland/water or geomorphological classification of stream <i>Example wetland: PFO;</i> <i>Example stream: 'C' channel and if tidal, whether vegetated or non-vegetated wetlands per Section 28.2-1300 of the Code of Virginia</i>					
Average stream flow at site (flow rate under normal rainfall conditions in cubic feet per second) and method of deriving it (gage, estimate, etc.)					
Contributing drainage area in acres or square miles (VMRC cannot complete review without this information)					
DEQ classification of impacted resource(s): Estuarine Class II Non-tidal waters Class III Mountainous zone waters Class IV Stockable trout waters Class V Natural trout waters Class VI Wetlands Class VII <a href="https://law.lis.virginia.gov">https://law.lis.virginia.gov</a>					
<b>For DEQ permitting purposes, also submit as part of this section a wetland and waters boundary delineation map – see (3) in the Footnotes section in the form instructions.</b>					
<b>For DEQ permitting purposes, also submit as part of this section a written disclosure of all wetlands, open water, or streams that are located within the proposed project or compensation areas that are also under a deed restriction, conservation easement, restrictive covenant, or other land-use protective instrument.</b>					

**9. APPLICANT, AGENT, PROPERTY OWNER, AND CONTRACTOR CERTIFICATIONS****READ ALL OF THE FOLLOWING CAREFULLY BEFORE SIGNING**

**PRIVACY ACT STATEMENT:** The Department of the Army permit program is authorized by Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection Research and Sanctuaries Act of 1972. These laws require that individuals obtain permits that authorize structures and work in or affecting navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters prior to undertaking the activity. Information provided in the Joint Permit Application will be used in the permit review process and is a matter of public record once the application is filed. Disclosure of the requested information is voluntary, but it may not be possible to evaluate the permit application or to issue a permit if the information requested is not provided.

**CERTIFICATION:** I am hereby applying for permits typically issued by the DEQ, VMRC, USACE, and/or Local Wetlands Boards for the activities I have described herein. I agree to allow the duly authorized representatives of any regulatory or advisory agency to enter upon the premises of the project site at reasonable times to inspect and photograph site conditions, both in reviewing a proposal to issue a permit and after permit issuance to determine compliance with the permit.

In addition, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**9. APPLICANT, AGENT, PROPERTY OWNER, AND CONTRACTOR CERTIFICATIONS (Continued)**

Is/Are the Applicant(s) and Owner(s) the same? \_\_\_\_ Yes \_\_\_\_ No

Legal name & title of Applicant	Second applicant's legal name & title, if applicable
Applicant's signature	Second applicant's signature
Date	Date
Property owner's legal name, if different from Applicant	Second property owner's legal name, if applicable
Property owner's signature, if different from Applicant	Second property owner's signature
Date	Date

**CERTIFICATION OF AUTHORIZATION TO ALLOW AGENT(S) TO ACT ON APPLICANT'S(S)' BEHALF (IF APPLICABLE)**

I (we), \_\_\_\_\_ (and) \_\_\_\_\_ ,  
**APPLICANT'S LEGAL NAME(S)** – complete the second blank if more than one Applicant

hereby certify that I (we) have authorized \_\_\_\_\_ (and) \_\_\_\_\_  
**AGENT'S NAME(S)** – complete the second blank if more than one Agent  
to act on my (our) behalf and take all actions necessary to the processing, issuance, and acceptance of this permit and any and all standard and special conditions attached. I (we) hereby certify that the information submitted in this application is true and accurate to the best of my (our) knowledge.

<b>Applicant's signature</b>	Second applicant's signature, if applicable
Date	Date
Agent's signature and title	Second agent's signature and title, if applicable
Date	Date

**CONTRACTOR ACKNOWLEDGEMENT (IF APPLICABLE)**

I (we), \_\_\_\_\_ (and) \_\_\_\_\_ ,  
**APPLICANT'S LEGAL NAME(S)** – complete the second blank if more than one Applicant

have contracted \_\_\_\_\_ (and) \_\_\_\_\_  
**CONTRACTOR'S NAME(S)** – complete the second blank if more than one Contractor

to perform the work described in this Joint Permit Application, signed and dated \_\_\_\_\_.

I (we) will read and abide by all conditions as set forth in all federal, state, and local permits as required for this project. I (we) understand that failure to follow the conditions of the permits may constitute a violation of applicable federal, state, and local statutes and that we will be liable for any civil and/or criminal penalties imposed by these statutes. In addition, I (we) agree to make available a copy of any permit to any regulatory representative visiting the project site to ensure permit compliance. If I (we) fail to provide the applicable permit upon request, I (we) understand that the representative will have the option of stopping our operation until it has been determined that we have a properly signed and executed permit and are in full compliance with all of the terms and conditions.

<b>Contractor's name or name of firm (printed/typed)</b>	Contractor's or firm's mailing address	
<b>Contractor's signature and title</b>	Contractor's license number	Date
Applicant's signature	Second applicant's signature, if applicable	
Date	Date	

**END OF GENERAL INFORMATION**

*The following sections are activity-specific. Fill out only the sections that apply to your particular project.*

**10. PRIVATE PIERS, MARGINAL WHARVES, AND UNCOVERED BOAT LIFTS**

Regional Permit 17 (RP-17), authorizes the installation and/or construction of open-pile piers, mooring structures/devices, fender piles, covered boathouses/boatslips, boatlifts, osprey pilings/platforms, accessory pier structures, and certain devices associated with shellfish gardening, for private use, subject to strict compliance with all conditions and limitations further set out in the RP-17 enclosure located at <http://www.nao.usace.army.mil/Missions/Regulatory/RBregional/>. In addition to the information required in this JPA, prospective permittees seeking authorization under RP-17 must complete and submit the 'Regional Permit 17 Checklist' with their JPA. A copy of the 'Regional Permit 17 Checklist' is found in Appendix B of this application package. If the prospective permittee answers "yes" (or "N/A", where applicable) to all of the questions on the 'Regional Permit 17 Checklist', the permittee is in compliance with RP-17 and will not receive any other written authorization from the Corps but may not proceed with construction until they have obtained all necessary state and local permits. **Note: If the prospective permittee answers "no" to any of the questions on the 'Regional Permit 17 Checklist' then their proposed structure(s) does not meet the terms and conditions of RP-17 and written authorization from the Corps is required before commencement of any work.**

If the prospective permittee answers "no" to any of the questions on the 'Regional Permit 17 Checklist' then their proposed structure(s) does not meet the terms and conditions of RP-17 and written authorization from the Corps is required before commencement of any work. In those circumstances, the following information must be included in the application and/or on the drawings in order for the application to be considered complete:

1. The applicant **MUST** provide written justification/need for the encroachment if the proposed structure(s) will extend greater than one-fourth of the distance across the waterway measured from either mean high water to mean high water (including all channelward wetlands) or ordinary high water to ordinary high water (including all channelward wetlands). The measurement should be based on the narrowest distance across the waterway regardless of the orientation of the proposed structure(s).
2. The applicant **MUST** provide written justification/need if the proposed structure(s) is greater than five (5) feet wide or there will be less than four (4) feet elevation between the decking and the vegetated wetlands substrate.
3. The Corps **MAY** require depth soundings across the waterway at increments designated by the Corps project manager. Inclusion of depth sounding data in the original JPA submittal is highly recommended in order to expedite permit evaluation. Depth soundings are typically taken at 10-foot increments for waterways less than 200 feet wide and 20-foot increments for waterways greater than 200 feet wide. Please include the date and time the measurements were taken, whether the data was collected at mean low water (MLW) or MHW, and how the soundings were taken (e.g., tape, range finder, etc.).

Number of vessels to be moored at the pier or wharf: \_\_\_\_\_

Do you have an existing pier on your property? \_\_\_\_ Yes \_\_\_\_ No

If yes, will it be removed? \_\_\_\_ Yes \_\_\_\_ No

Is your lot platted to the mean low water shoreline? \_\_\_\_ Yes \_\_\_\_ No

In the spaces provided below, give the type (e.g., sail, power, skiff, etc.), size, and registration number of the vessel(s) to be moored

TYPE	LENGTH	WIDTH	DRAFT	REGISTRATION #

**11. BOATHOUSES, GAZEBOS, COVERED BOAT LIFTS, AND OTHER ROOFED STRUCTURES OVER WATERWAYS**

Number of vessels to be moored at the proposed structure: \_\_\_\_\_

Will the sides of the structure be enclosed? \_\_\_\_ Yes \_\_\_\_ No

Area covered by the roof structure \_\_\_\_\_ square feet

In the spaces provided below, give the type (e.g., sail, power, skiff, etc.), size, and registration number of the vessel(s) to be moored

TYPE	LENGTH	WIDTH	DRAFT	REGISTRATION #



**12. MARINAS AND COMMERCIAL, GOVERNMENTAL, AND COMMUNITY PIERS**

Have you obtained the Virginia Department of Health's approval for sanitary facilities? \_\_\_\_Yes \_\_\_\_No

*You will need to obtain this authorization or a variance before a VMRC permit will be issued.*

Will petroleum products or other hazardous materials be stored or handled at the facility? \_\_\_\_Yes \_\_\_\_No

*If your answer is yes, please attach your spill contingency plan.*

Will the facility be equipped to off-load sewage from boats? \_\_\_\_Yes \_\_\_\_No

EXISTING: wet slips: \_\_\_\_ dry storage: \_\_\_\_ PROPOSED: wet slips: \_\_\_\_ dry storage: \_\_\_\_

**13. FREE STANDING MOORING PILES, OSPREY NESTING POLES, MOORING BUOYS, AND DOLPHINS  
(not associated with piers)**

Number of vessels to be moored: \_\_\_\_

Type and number of mooring(s) proposed: \_\_\_\_

In the spaces provided below, give the type (e.g., sail, power, skiff, etc.), size, and registration number of the vessel(s) to be moored

TYPE	LENGTH	WIDTH	DRAFT	REGISTRATION #

Give the name and complete mailing address(es) of the owner(s) of the vessel(s) if not owned by applicant (attach extra sheets if needed):

Do you plan to reach the mooring from your own upland property? \_\_\_\_Yes \_\_\_\_No

If "no," explain how you intend to access the mooring.

**14. BOAT RAMPS**

Will excavation be required to construct the boat ramp? \_\_\_\_Yes \_\_\_\_No. If "yes," will any of the excavation occur below the plane of the ordinary high water mark/mean high water line or in wetlands? \_\_\_\_Yes \_\_\_\_No. If "yes," you will need to fill out Section 17 for this excavation.

Where will you dispose of the excavated material?

What type of design and materials will be used to construct the ramp (open pile design with salt treated lumber, concrete slab on gravel bedding, etc.)?

Location of nearest public boat ramp

Driving distance to that public ramp \_\_\_\_miles

Will other structures be constructed concurrent with the boat ramp installation? \_\_\_\_Yes \_\_\_\_No

If "yes," please fill out the appropriate sections of this application associated with those other activities.

**15. TIDAL/NONTIDAL SHORELINE STABILIZATION STRUCTURES (INCLUDING BULKHEADS AND ASSOCIATED BACKFILL, RIPRAP REVETMENTS AND ASSOCIATED BACKFILL, MARSH TOE STABILIZATION, GROINS, JETTIES, AND BREAKWATERS, ETC.)** Information on non structural, vegetative alternatives (i.e., Living Shoreline) for shoreline stabilization is available at [http://ccrm.vims.edu/coastal\\_zone/living\\_shorelines/index.html](http://ccrm.vims.edu/coastal_zone/living_shorelines/index.html).

Is any portion of the project maintenance or replacement of an existing and currently serviceable structure? \_\_\_\_ Yes \_\_\_\_ No  
If yes, give length of existing structure: \_\_\_\_\_ linear feet

If your maintenance project entails replacement of a bulkhead, is it possible to construct the replacement bulkhead within 2 feet channelward of the existing bulkhead? \_\_\_\_ Yes \_\_\_\_ No If not, please explain below:

Length of proposed structure, including returns: \_\_\_\_\_ linear feet

Average channelward encroachment of the structure from Mean high water/ordinary high water mark: \_\_\_\_\_ feet

Mean low water: \_\_\_\_\_ feet

Maximum channelward encroachment of the structure from Mean high water/ordinary high water mark: \_\_\_\_\_ feet

Mean low water: \_\_\_\_\_ feet

Maximum channelward encroachment from the back edge of the Dune \_\_\_\_\_ feet

Maximum channelward encroachment from the back edge of the Beach \_\_\_\_\_ feet

Describe the type of construction including all materials to be used (including all fittings). Will filter cloth be used? \_\_\_\_ Yes \_\_\_\_ No

What is the source of the backfill material? \_\_\_\_\_

What is the composition of the backfill material? \_\_\_\_\_

If rock is to be used, give the average volume of material to be used for every linear foot of construction: \_\_\_\_\_ cubic yards

What is the volume of material to be placed below the plane of ordinary high water mark/mean high water? \_\_\_\_\_ cubic yards

For projects involving stone:

Average weight of core material (bottom layers): \_\_\_\_\_ pounds per stone (Class \_\_\_\_\_)

Average weight of armor material (top layers): \_\_\_\_\_ pounds per stone (Class \_\_\_\_\_)

Are there similar shoreline stabilization structures in the vicinity of your project site? \_\_\_\_ Yes \_\_\_\_ No

If so, describe the type(s) and location(s) of the structure(s):

If you are building a groin or jetty, will the channelward end of the structure be marked to show a hazard to navigation? \_\_\_\_ Yes \_\_\_\_ No

Has your project been reviewed by the Shoreline Erosion Advisory Service (SEAS)? \_\_\_\_ Yes \_\_\_\_ No  
If yes, please attach a copy of their comments.

**16. BEACH NOURISHMENT**

Source of material and composition (percentage sand, silt, clay): \_\_\_\_\_

Volume of material: \_\_\_\_\_ cubic yards

Area to be covered \_\_\_\_\_ square feet channelward of mean low water \_\_\_\_\_ square feet channelward of mean high water

\_\_\_\_\_ square feet landward of mean low water \_\_\_\_\_ square feet channelward of mean high water

Mode of transportation of material to the project site (truck, pipeline, etc.):

**16. BEACH NOURISHMENT (Continued)**

Describe the type(s) of vegetation proposed for stabilization and the proposed planting plan, including schedule, spacing, monitoring, etc. Attach additional sheets if necessary.

**17. DREDGING, MINING, AND EXCAVATING**

FILL OUT THE FOLLOWING TABLE FOR DREDGING PROJECTS

	NEW dredging				MAINTENANCE dredging			
	Hydraulic		Mechanical (clamshell, dragline, etc.)		Hydraulic		Mechanical (clamshell, dragline, etc.)	
	Cubic yards	Square feet	Cubic yards	Square feet	Cubic yards	Square feet	Cubic yards	Square feet
Vegetated wetlands								
Non-vegetated wetlands								
Subaqueous land								
Totals								

Is this a one-time dredging event? \_\_\_\_ Yes \_\_\_\_ No If "no", how many dredging cycles are anticipated: \_\_\_\_\_  
(\_\_\_\_ initial cycle in cu. yds.) (\_\_\_\_ subsequent cycles in cu. yds.)

**Composition of material** (percentage sand, silt, clay, rock):

Provide documentation (i.e., laboratory results or analytical reports) that *dredged* material from on-site areas is free of toxics. If not free of toxics, provide documentation of proper disposal (i.e., bill of lading from commercial supplier or disposal site).

**Please include a dredged material management plan** that includes specifics on how the dredged material will be handled and retained to prevent its entry into surface waters or wetlands. If on-site dewatering is proposed, please include plan view and cross-sectional drawings of the dewatering area and associated outfall.

Will the dredged material be used for any commercial purpose or beneficial use? \_\_\_\_ Yes \_\_\_\_ No  
If yes, please explain:

**If this is a maintenance dredging project**, what was the date that the dredging was last performed? \_\_\_\_\_  
Permit number of original permit: \_\_\_\_\_ (It is important that you attach a copy of the original permit.)

**17. DREDGING, MINING, AND EXCAVATING (Continued)**

*For mining projects:* On separate sheets of paper, explain the operation plans, including: 1) the frequency (e.g., every six weeks), duration (i.e., April through September), and volume (in cubic yards) to be removed per operation; 2) the temporary storage and handling methods of mined material, including the dimensions of the containment berm used for upland disposal of dredged material and the need (or no need) for a liner or impermeable material to prevent the leaching of any identified contaminants into ground water; 3) how equipment will access the mine site; and 4) verification that dredging: a) will not occur in water body segments that are currently on the effective Section 303(d) Total Maximum Daily Load (TMDL) priority list ([available at http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/TMDL/TMDLDevelopment/TMDLProgramPriorities.aspx](http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/TMDL/TMDLDevelopment/TMDLProgramPriorities.aspx)) or that have an approved TMDL; b) will not exacerbate any impairment; and c) will be consistent with any waste load allocation/limit/conditions imposed by an approved TMDL (see, "What's in my backyard" or subsequent spatial files at <http://www.deq.virginia.gov/ConnectWithDEQ/VEGIS.aspx> to determine the extent of TMDL watersheds and impairment segments).

Have you applied for a permit from the Virginia Department of Mines, Minerals and Energy? \_\_\_\_ Yes \_\_\_\_ No If Yes:

Existing permit number: \_\_\_\_\_ Date permit issued: \_\_\_\_\_

Contributing drainage area: \_\_\_\_\_ square miles

Average stream flow at site (flow rate under normal rainfall conditions): \_\_\_\_\_ cfs

**18. FILL (not associated with backfilled shoreline structures) AND OTHER STRUCTURES (other than piers and boathouses) IN WETLANDS OR WATERS, OR ON DUNES/BEACHES**

**Source** and composition of fill material (percentage sand, silt, clay, rock):

Provide documentation (i.e., laboratory results or analytical reports) that fill material from off-site locations is free of toxics. If not free of toxics, provide documentation of proper disposal (i.e., bill of lading from commercial supplier or disposal site). Documentation is not necessary for fill material obtained from on-site areas.

**Explain the purpose of the filling activity and the type of structure to be constructed over the filled area** (if any):

**Describe any structure that will be placed in wetlands/waters or on a beach dune and its purpose:**

**Will the structure be placed on pilings?** \_\_\_\_ Yes \_\_\_\_ No

**Total area occupied by any structure.**  
\_\_\_\_\_ Square Feet

**How far will the structure be placed channelward from the back edge of the dune?** \_\_\_\_\_ feet

How far will the structure be placed channelward from the back edge of the beach? \_\_\_\_\_ feet

**19. NONTIDAL STREAM CHANNEL MODIFICATIONS FOR RESTORATION OR ENHANCEMENT, or TEMPORARY OR PERMANENT RELOCATIONS**

*If proposed activities are being conducted for the purposes of compensatory mitigation, please attach separate sheets of paper providing all information required by the most recent version of the stream assessment methodology approved by the Norfolk District of the U.S. Army Corps of Engineers and the Virginia Department of Environmental Quality, in lieu of completing the questions below. Required information outlined by the methodology can be found at:*  
<http://www.nao.usace.army.mil/Missions/Regulatory/UnifiedStreamMethodology.aspx> or  
<http://www.deq.virginia.gov/Programs/Water/WetlandsStreams/Mitigation.aspx>.

*For all projects proposing stream restoration provide a completed Natural Channel Design Review Checklist and Selected Morphological Characteristics form. These forms and the associated manual can be located at:*  
<https://www.fws.gov/chesapeakebay/StreamReports/NCD%20Review%20Checklist/Natural%20Channel%20Design%20Checklist%20Doc%20V2%20Final%2011-4-11.pdf>

Has the stream restoration project been designed by a local, state, or federal agency? \_\_\_\_ Yes \_\_\_\_ No. If yes, please include the name of the agency here: \_\_\_\_\_.

Is the agency also providing funding for this project? \_\_\_\_ Yes \_\_\_\_ No

Stream dimensions at impact site (length and average width in linear feet, and area in square feet):

L: \_\_\_\_\_ (feet) AW: \_\_\_\_\_ (feet) Area: \_\_\_\_\_ (square feet)

Contributing drainage area: \_\_\_\_\_ acres or \_\_\_\_\_ square miles

**19. NONTIDAL STREAM CHANNEL MODIFICATIONS FOR RESTORATION OR ENHANCMENT, or TEMPORARY OR PERMANENT RELOCATIONS (Continued) 19. NONTIDAL STREAM CHANNEL MODIFICATIONS FOR RESTORATION OR ENHANCMENT, or TEMPORARY OR PERMANENT RELOCATIONS (Continued)19. NONTIDAL STREAM CHANNEL MODIFICATIONS FOR RESTORATION OR ENHANCMENT, or TEMPORARY OR PERMANENT RELOCATIONS (Continued)**

Existing average stream flow at site (flow rate under normal rainfall conditions): \_\_\_\_\_ cfs

Proposed average stream flow at site after modifications (flow rate under normal rainfall conditions): \_\_\_\_\_ cfs

Explain, in detail, the method to be used to stabilize the banks:

Explain the composition of the existing stream bed (percent cobble, rock, sand, etc.):

Will low-flow channels be maintained in the modified stream channel? \_\_\_\_ Yes \_\_\_\_ No.  
Describe how:

Will any structure(s) be placed in the stream to create riffles, pools, meanders, etc.? \_\_\_\_ Yes \_\_\_\_ No  
If yes, please explain:

**20. UTILITY CROSSINGS**

Type of crossing: \_\_\_\_ overhead \_\_\_\_ trenched \_\_\_\_ directionally-drilled

Method of clearing corridor of vegetation (check all that apply): ☐ mechanized land clearing that disturbs the soil surface  
☐ cutting vegetation above the soil surface

Describe the materials to be used in the installation of the utility line (including gravel bedding for trenched installations, bentonite slurries used during direction-drilling, etc.) and a sequence of events to detail how the installation will be accomplished (including methods used for in-stream and dry crossings).

Will the proposed utility provide empty conduits for any additional utilities that may propose to co-locate at a later date? \_\_\_\_ Yes \_\_\_\_ No.

For overhead crossings over navigable waterways (including all tidal waterways), please indicate the height of other overhead crossings or bridges over the waterway relative to mean high water, mean low water, or ordinary high water mark:

Nominal system voltage, if project involves power lines: \_\_\_\_\_

Total number of electrical circuits: \_\_\_\_\_

## 20. UTILITY CROSSINGS (Continued)

Will there be an excess of excavated material? \_\_\_\_ Yes \_\_\_\_ No

If so, describe the method that will be undertaken to dispose of, and transport, the material to its permanent disposal location and give that location:

Will any excess material be stockpiled in wetlands? \_\_\_\_ Yes \_\_\_\_ No

If so, will the stockpiled material be placed on filter fabric or some other type of impervious surface? \_\_\_\_ Yes \_\_\_\_ No

Will permanent access roads be placed through wetlands/streams? \_\_\_\_ Yes \_\_\_\_ No

If yes, will the roads be (check one) ☐ at grade ☐ above grade?

Will the utility line through wetlands/waters be continually maintained (e.g. via mowing or herbicide)? \_\_\_\_ Yes \_\_\_\_ No

If maintained, what is the maximum width? \_\_\_\_\_ feet

## 21. ROAD CROSSINGS

Have you conducted hydraulic studies to verify the adequacy of the culverts? \_\_\_\_ Yes \_\_\_\_ No

If so, please attach a copy of the hydraulic study/report.

*Virginia Department of Transportation (VDOT) standards require that the backwater for a 100 year storm not exceed 1 foot for all road, culvert, and bridge projects within FEMA-designated floodplains. Virginia Department of Environmental Quality (DEQ) requires pipes and culverts 24 inches or less in diameter to be countersunk three inches below the natural stream bed elevations, and pipes and culverts greater than 24 inches to be countersunk at least six inches below the natural stream bed elevations. Hydraulic capacity is determined based on the reduced capacity due to the countersunk position.*

Will the culverts be countersunk below the stream bottom? \_\_\_\_ Yes \_\_\_\_ No. If no, explain:

If the project entails a bridged crossing and there are similar crossings in the area, what is the vertical distance above mean high water, mean low water, or ordinary high water mark of those similar structures? \_\_\_\_\_ feet above \_\_\_\_\_  
*For all bridges proposed over navigable waterways (including all tidal water bodies), you will be required to contact the U.S. Coast Guard to determine if a permit is required of their agency.*

*On separate sheets of paper, describe the materials to be used, the method of construction (including the use of cofferdams), the sequence of construction events, and if bedrock conditions may be encountered. Include cross-sections and profile plans of the culvert crossings including wing walls or rip rap.*

## 22. IMPOUNDMENTS, DAMS, AND STORMWATER MANAGEMENT FACILITIES

***If the impoundment or dam is a component of a water withdrawal project, also complete Sections 24 through 26.***

Will the proposed impoundment, dam, or stormwater management facility be used for agricultural purposes (e.g., in the operation of a farm)? For DEQ permitting purposes, a farm is considered to be a property or operation that produces goods for market.  
\_\_\_\_ Yes \_\_\_\_ No

What type of materials will be used in the construction (earth, concrete, rock, etc.)? \_\_\_\_\_

What is the source of these materials? \_\_\_\_\_

Provide the dimensions of proposed impoundment, dam, or stormwater management facility, including the height and width of all structures.

Storage capacity\* of impoundment: \_\_\_\_\_ acre-feet

\*should be given for the normal pool of recreational or farm ponds, or design pool for stormwater management ponds or reservoirs (the elevation the pond will be at for the design storm, e.g., 10-year, 24-hour storm)

Surface area\*\* of impoundment: \_\_\_\_\_ acres

\*\*should be given for the normal pool of recreational or farm ponds, or design pool for stormwater management ponds or reservoirs (the elevation the pond will be at for the design storm, e.g., 10-year, 24-hour storm)



**22. IMPOUNDMENTS, DAMS, AND STORMWATER MANAGEMENT FACILITIES (Continued)**

Is the proposed project excluded from the Virginia Dam Safety Regulations? \_\_\_ Yes \_\_\_ No \_\_\_ Uncertain

If not excluded, does your proposed project comply with the Virginia Dam Safety Regulations? \_\_\_ Yes \_\_\_ No \_\_\_ Uncertain

Does the proposed design include a vegetation management area per §10.1-609.2? \_\_\_ Yes \_\_\_ No \_\_\_ Uncertain

*If your answer to these questions is no or uncertain, you should contact the Virginia Department of Conservation and Recreation's Dam Safety Program at (804) 371-6095, or reference the regulations on the Web at*

[http://www.dcr.virginia.gov/dam\\_safety\\_and\\_floodplains/index.shtml](http://www.dcr.virginia.gov/dam_safety_and_floodplains/index.shtml)

*For stormwater management and flood control facilities:*

Design storm event: \_\_\_\_\_ year storm                      Retention time: \_\_\_\_\_ hours

Current average flow (flow rate under normal rainfall conditions): \_\_\_\_\_ cfs

Method used to derive average flow: \_\_\_\_\_

Proposed peak outflow for the design storm provided above: \_\_\_\_\_ cfs

Has the facility been designed as an Enhanced Extended Detention Basin or an Extended Detention Basin in accordance with the Minimum Standard 3.07 of the Virginia Stormwater Management Handbook, Volume I (published by the Virginia Department of Conservation and Recreation, 1999), or in accordance with the latest version of this handbook? \_\_\_ Yes \_\_\_ No

Will the impoundment structure be designed to pass a minimum flow at all times? \_\_\_ Yes \_\_\_ No

If so, please give the minimum rate of flow: \_\_\_\_\_ cfs

What is the drainage area upstream of the proposed impoundment? \_\_\_\_\_ square miles

How much of your proposed impoundment structure will be located on the stream bed? \_\_\_\_\_ square feet

What is the area of vegetated wetlands that will be excavated and/or back-flooded by the impoundment? \_\_\_\_\_ square feet

What is the *area and length* of streambed that will be excavated and/or back-flooded by the impoundment? \_\_\_\_\_ square feet  
\_\_\_\_\_ linear feet

Are fish ladders being proposed to accommodate the passage of fish? \_\_\_ Yes \_\_\_ No

**23. OUTFALLS NOT ASSOCIATED WITH PROPOSED WATER WITHDRAWAL ACTIVITIES**

Type and size of pipe(s): \_\_\_\_\_

Daily rate of discharge: \_\_\_\_\_ mgd

If the discharge will be thermally-altered, provide the maximum temperature: \_\_\_\_\_

Contributing drainage area: \_\_\_\_\_ square miles                      Average daily stream flow at site: \_\_\_\_\_ cfs

Have you received a Virginia Discharge Elimination System (VPDES) permit for the proposed project? \_\_\_ Yes \_\_\_ No.

If yes, please provide the VPDES permit number: \_\_\_\_\_.

If no, is there a permit action pending? \_\_\_ Yes \_\_\_ No. If pending, what is the facility name? \_\_\_\_\_.

**The following sections are typically related to surface water withdrawal activities; Federal Energy Regulatory Commission license projects; or impacts likely to require instream flow limits.** Examples of such projects include, but are not limited to, reservoirs, irrigation projects, power generation facilities, and public water supply facilities that may or may not have associated features, such as dams, intake pipes, outfall structures, berms, etc.

**If completing these sections, enter “N/A” in any section that does not apply to the project.**

24. INTAKES, OUTFALLS, AND WATER CONTROL STRUCTURES (INCLUDING ALL PROPOSED WATER WITHDRAWAL ACTIVITIES)

For intakes:

Type and size of pipe(s): \_\_\_\_\_

Type and size of pump(s): \_\_\_\_\_

Average and Maximum daily rate of withdrawal: \_\_\_\_\_ and \_\_\_\_\_ mgd

Velocity of withdrawal: \_\_\_\_\_ fps

Screen mesh size: \_\_\_\_\_ inches / \_\_\_\_\_ mm

If other sizing units, please specify: \_\_\_\_\_

Contributing drainage area at withdrawal point(s): \_\_\_\_\_ square miles

Average daily stream flow at withdrawal point(s) (flow rate under normal rainfall conditions): \_\_\_\_\_ cfs

Method(s) used to derive average daily stream flow \_\_\_\_\_

Average annual stream flow at withdrawal point(s): \_\_\_\_\_ cfs

Latitude and longitude of withdrawal point(s) (degrees, minutes, seconds): \_\_\_\_\_

For outfalls:

Type, size, and hydraulic capacity (under normal conditions) of pipe(s): \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_

Daily rate of discharge: \_\_\_\_\_ mgd

If the discharge will be thermally-altered, provide the maximum temperature: \_\_\_\_\_

Contributing drainage area at discharge point(s): \_\_\_\_\_ square miles

Average daily stream flow at discharge point(s) (flow rate under normal rainfall conditions): \_\_\_\_\_ cfs

Method(s) used to derive average daily stream flow \_\_\_\_\_

Latitude and longitude of discharge point(s) (degrees, minutes, seconds): \_\_\_\_\_

For intakes and dams, use the table below to provide the median monthly stream flows in cubic feet per second (cfs) at the water intake or dam site (not at the stream gage; if there is not a gage at the intake or dam site, you will need to interpolate flows to the intake or dam site based upon the most closely related watershed in which there is an operational stream gage monitored by the United States Geologic Survey (USGS)). Median flow is the value at which half of the measurements are above and half of the measurements are below. Median is also sometimes referred to as the '50% exceedence flow'. The median flow generally must be calculated from USGS historical data. Please do not provide *mean (average)* flow.

Month	Median flow (cfs)	Month	Median flow (cfs)
January		July	
February		August	
March		September	
April		October	
May		November	
June		December	

## 24. INTAKES, OUTFALLS, AND WATER CONTROL STRUCTURES (Continued)

Describe the stream flow gages used, USGS stream flow gage site number and site name (e.g., USGS 01671100 Little River near Doswell, VA), the type of calculations used (such as drainage area correction factors), and the period of record that was used to calculate the median flows provided in the table above. Generally, the period of record should span a minimum of 30 years.

For interbasin transfer of water resources proposed from either the Chowan River, New River, Potomac River, Roanoke River, Big Sandy River, or Tennessee River basins to another river basin, provide the following information:

Destination location (discharge point) of the transfer:

8-digit USGS Hydrologic Unit Code (HUC) (See <http://cfpub.epa.gov/surf/locate/index.cfm>): \_\_\_\_\_ If known, indicate the 10-digit and 12-digit USGS HUCs (see <http://consapps.dcr.virginia.gov/htdocs/maps/HUExplorer.htm>):

Latitude and Longitude: \_\_\_\_- \_\_\_\_- \_\_\_\_/ \_\_\_\_- \_\_\_\_- \_\_\_\_

Provide any available historical low-flows at the intake or dam site.

Describe how the proposed withdrawal at the intake or dam site will impact stream flows in terms of rates, volumes, frequency, etc. (e.g., percent of the flow to be withdrawn, percent of withdrawal returned to the original source, etc.).

Describe how the withdrawal of water will vary over time. For example, will the withdrawal vary by the time of year, by the time of day, or by the time of week? Examples of projects that should describe variable withdrawals include, but are not limited to: power plant cooling withdrawals that increase and decrease seasonally; golf course irrigation; municipal water supply; nurseries; ski resorts that use water for snowmaking; and resorts with weekend or seasonal variations.

#### 24. INTAKES, OUTFALLS, AND WATER CONTROL STRUCTURES (Continued)

Provide the amount of water that will be lost due to consumptive use. For the purpose of this application, consumptive use means the withdrawal of surface waters without recycling of said waters to their source or basin of origin. Examples of consumptive uses are water that is evaporated in cooling towers or by other means in power plants; irrigation water (all types); residential water use that takes place outside of the home; and residential water use both inside and outside of homes for residences served by septic systems. Projects that propose a transfer of water from one river basin to another and/or localities that sell water to other jurisdictions, should document the portion of the withdrawal that is not returned to the originating watershed.

Proposed monthly consumptive volume (million gallons): \_\_\_\_\_

Attach a map showing the *location* of the withdrawal and of the return of flow, and provide the *amount* of the return flow (million gallons).

For withdrawals proposed on an impoundment, provide a description of flow or release control structures. Include type of structure, rate of flow, size, capacity, invert elevation of outfall pipes referenced to the normal pool elevation, and the mechanism used to control release. Provide a description of available water storage facilities. Include the volume, depth, normal pool elevation, unusable storage volume and dimensions. If applicable, stage-storage relationship at the impounding structure (the volume of water in the impoundment at varying stages of water depth) and volume or rate of withdrawals from the storage facility.

#### 25. WATER WITHDRAWAL USE(S), NEED, AND ALTERNATIVES (Attach additional sheets if needed.)

Describe the proposed use(s) and need for the surface water and information on how demand for surface water was determined. *Golf courses* must provide documentation to justify the amount of water withdrawal, such as the amount of acreage under irrigation, the acreage of fairways versus greens, type of turf grass, evapotranspiration, and irrigation efficiency. *Agricultural* users must supply documentation justifying their requested withdrawal amount, such as type of crop, livestock, or other agriculture animal, number of animals, watering needs, acres irrigated, inches of water applied, and frequency of application. *Other users* of withdrawals for purposes other than those described above must provide sufficient documentation to justify the requested withdrawal amounts.

**25. WATER WITHDRAWAL USE(S), NEED, AND ALTERNATIVES (Continued)**

Provide the following information at the water intake or dam site. Specify the units of measurement (e.g., million gallons per day, gallons per minute, cubic feet per second, etc.).

Proposed maximum instantaneous withdrawal \_\_\_\_\_

Proposed average daily withdrawal \_\_\_\_\_

Proposed maximum daily withdrawal \_\_\_\_\_

Proposed maximum monthly withdrawal \_\_\_\_\_

Proposed maximum annual withdrawal \_\_\_\_\_

Describe how the above withdrawals were calculated, including the relevant assumptions made in that calculation and the documentation or resources used to support the calculations, such as population projections, population growth rates, per-capita use, new uses, changes to service areas, and if applicable, evapotranspiration data and irrigation data.

For surface water withdrawals, public water supply withdrawals, and projects that will alter instream flows, provide information to establish the local water supply need. Attach additional sheets if needed.

EXISTING	PROJECTED
Existing supply sources, yields, and demands: _____  Peak day withdrawal: _____ Average daily withdrawal: _____ Safe yield: _____ Lowest daily flow of record: _____  Types of water uses (residential, public water supply, commercial, industrial, agricultural): _____  Existing water conservation measures and drought response plan, including what conditions trigger implementation: _____ _____	Projected demands over a minimum 30-year planning period: _____  Projected demands in local or regional water supply plan (9VAC25-780 et seq.) or demand for the project service area, if that is smaller in area: _____  Statistical population (growth) trends: _____  Projected demands by type of water use: _____  Projected demands without water conservation measures: _____ Projected demands with long-term water conservation measures: _____ _____

For surface water withdrawals other than public water supply, provide information or documentation that demonstrates alternate sources of water are available for the proposed project during times of reduced instream flow.

## 25. WATER WITHDRAWAL USE(S), NEED, AND ALTERNATIVES (Continued)

Provide information from the State Water Resources Plan

(<http://www.deq.virginia.gov/Programs/Water/WaterSupplyWaterQuantity/WaterSupplyPlanning/StateWaterResourcesPlan.aspx>) and the local or regional water supply plan that covers the area in which the proposed water withdrawal project is located (<http://www.deq.virginia.gov/Portals/0/DEQ/Water/WaterSupplyPlanning/SWRP%20Final/App%20A%20Water%20Supply%20Plans%20and%20Participating%20Localities.pdf>). Include information from the plan that pertains to projected demand, analysis of alternatives, and water conservation measures. Discuss any discrepancies between the water supply plan and the proposed project. For projects that propose a transfer of water resources from the Chowan River, New River, Potomac River, Roanoke River, Big Sandy River, or Tennessee River basins to another river basin, information should be provided from the water supply plans for both the source and receiving basins. Attach additional sheets if needed.

Provide an alternatives analysis for the proposed water withdrawal project, including the required range of alternatives to be analyzed; a narrative outlining the opportunities and status of regional efforts undertaken; and the criteria used to evaluate each alternative. The analysis must address all of the criteria contained in 9VAC25-360.

Describe any existing, flow-dependent beneficial uses along the affected stream reach. Include both instream and offstream uses. Describe the stream flow necessary to protect existing beneficial uses, how the proposed withdrawal will impact existing beneficial uses, and any measures proposed to mitigate any adverse impacts that may arise. For projects that propose a transfer of water resources from the Chowan River, New River, Potomac River, Roanoke River, Big Sandy River, or Tennessee River basins to another river basin, this analysis should include both the source and receiving basins. For the purposes of this application, beneficial instream uses include, but are not limited to, the protection of fish and wildlife habitat; maintenance of waste assimilation; recreation; navigation; and cultural and aesthetic values. Offstream beneficial uses include, but are not limited to, domestic uses (including public water supply); agricultural uses; electric power generation; commercial uses; and industrial uses.

Describe the aquatic life known to be present along the affected stream reach. Describe aquatic life that may be impacted by the proposed water withdrawal. Include the species' habitat requirements. For projects that propose a transfer of water resources from either the Chowan River, New River, Potomac River, Roanoke River, Big Sandy River, or Tennessee River basins to another river basin, this analysis should include both the source and receiving basins.



## 26. PUBLIC COMMENTS/ISSUES FOR MAJOR WATER WITHDRAWALS OR INTERBASIN TRANSFERS

For new or expanded surface water supply projects, use separate sheets of paper to summarize the steps taken to seek public input per 9VAC25-210-320, and identify the issues raised during the public information process.

For transfer of water resources proposed from either the Chowan River, New River, Potomac River, Roanoke River, Big Sandy River, or Tennessee River basins to another river basin, if public input was not required per 9VAC25-210-320, summarize on separate sheets of paper any coordination and/or notice provided to the public, local/state government, and interested parties in the affected river basins and identify any issues raised.

APPENDIX A

Adjacent Property Owner's Acknowledgement Form

I, \_\_\_\_\_, own land next to/ across the water from/ in the same cove  
(print adjacent property owner's name)

as the land of \_\_\_\_\_.  
(print applicant's name)

I have reviewed the applicant's project drawings dated \_\_\_\_\_ to be submitted for all  
(date of drawings)

necessary federal, state, and local permits.

\_\_\_\_\_ I have no comment regarding the proposal

\_\_\_\_\_ I do not object to the proposal

\_\_\_\_\_ I object to the proposal

***The applicant has agreed to contact me for additional comments if the proposal changes prior to construction of the project.***

(Before signing this form, please be sure that you have checked the appropriate option above)

\_\_\_\_\_  
Adjacent property owner's signature

\_\_\_\_\_  
Date

**NOTE:** IF YOU OBJECT TO THE PROPOSAL, THE REASON(S) YOU OPPOSE THE PROJECT MUST BE SUBMITTED TO VMRC IN WRITING. AN OBJECTION WILL NOT NECESSARILY RESULT IN A DENIAL OF A PERMIT FOR THE PROPOSED WORK. HOWEVER, VALID COMPLAINTS WILL BE GIVEN FULL CONSIDERATION DURING THE PERMIT REVIEW PROCESS.

APPENDIX A

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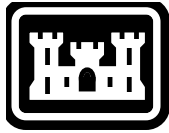
***The applicant has agreed to contact me for additional comments if the proposal changes prior to construction of the project.***

(Before signing this form, please be sure that you have checked the appropriate option above)

\_\_\_\_\_  
Adjacent property owner's signature

\_\_\_\_\_  
Date

**NOTE:** IF YOU OBJECT TO THE PROPOSAL, THE REASON(S) YOU OPPOSE THE PROJECT MUST BE SUBMITTED TO VMRC IN WRITING. AN OBJECTION WILL NOT NECESSARILY RESULT IN A DENIAL OF A PERMIT FOR THE PROPOSED WORK. HOWEVER, VALID COMPLAINTS WILL BE GIVEN FULL CONSIDERATION DURING THE PERMIT REVIEW PROCESS.



U.S. Army Corps  
Of Engineers  
Norfolk District

## APPENDIX B

### REGIONAL PERMIT 17 CHECKLIST

Expires: September 5, 2023

Please review the 18-RP-17 enclosure before completing this form and note 18-RP-17 can only be used for proposed **PRIVATE USE** structure(s) that comply with the terms and conditions of 18-RP-17. Copies can be obtained online at <http://www.nao.usace.army.mil/Missions/Regulatory/RBregional/>.

- |     |    |     |  |
|-----|----|-----|--|
| YES | NO |     | (1) Has the permittee reviewed the 18-RP-17 enclosure and verified that the proposed structure(s) is in compliance with all the terms, conditions, and limitations of 18-RP-17?  |
| YES | NO |     | (2) Does the proposed structure(s) extend no more than one-fourth of the distance across the waterway measured from either mean high water (MHW) to MHW (including all channelward wetlands) or ordinary high water (OHW) to OHW (including all channelward wetlands)?   |
| YES | NO |     | (3) Does the proposed structure(s) extend no more than 300 feet from MHW or OHW (including all channelward wetlands)?  |
| YES | NO | N/A | (4) Does the proposed structure(s) attach to the upland at a point landward of MHW or OHW (including all channelward wetlands)?  |
| YES | NO | N/A | (5) If the proposed structure(s) crosses wetland vegetation, is it an open-pile design that has a <u>maximum</u> width of five (5) feet and a <u>minimum</u> height of four (4) feet between the decking and the wetland substrate?  |
| YES | NO | N/A | (6) Does the proposed structure(s) include no more than two (2) boatlifts and no more than two (2) boat slips?   |
| YES | NO | N/A | (7) Is the open-sided roof structure designed to shelter a boat $\leq 700$ square feet and/or is the open sided roof structure or gazebo structure designed to shelter a pier $\leq 400$ square feet?  |
| YES | NO | N/A | (8) Are all piles associated with the proposed structure(s) non-steel, less than or equal to 12" in diameter, and will less than or equal to 25 piles be installed channelward of MHW?   |
| YES | NO | N/A | (9) Is all work occurring behind cofferdams, turbidity curtains, or other methods to control turbidity being utilized when operationally feasible and federally listed threatened or endangered species may be present?  |
| YES | NO | N/A | (10) If the proposed structure(s) is to be located within an anadromous fish use area, the prospective permittee will adhere to the anadromous fish use area time of year restriction (TOYR) prohibiting in-water work from occurring between February 15 through June 30 of any given year if (1) piles are to be installed with a cushioned impact hammer and there is less than 492 feet between the most channelward pile and mean low water (MLW) on the opposite shoreline or (2) piles are to be installed with a vibratory hammer and there is less than 384 feet between the most channelward pile and MLW on the opposite shoreline. |
| YES | NO |     | (11) Is all work occurring outside of submerged aquatic vegetation (SAV) mapped by the Virginia Institute of Marine Sciences' (VIMS) most recent survey year and 5 year composite?   |
| YES | NO |     | (12) Has the permittee ensured the construction and/or installation of the proposed structure(s) will not affect federally listed threatened or endangered species or designated critical habitat?   |
| YES | NO |     | (13) Will the proposed structure be located outside of Broad Creek in Middlesex County, Fisherman's Cove in Norfolk, or the Salt Ponds in Hampton?   |
| YES | NO |     | (14) Will the proposed structure(s) be located outside of the waterways containing a Federal Navigation Project listed in Permit Specific Condition 12 of 18-RP-17 and/or will all portions of the proposed structure(s) be located more than 85 feet from the Federal Navigation Project?   |

- YES NO (15) Will the proposed structure(s) be located outside a USACE Navigation and Flood Risk Management project area?
- YES NO (16) Will the proposed structure(s) be located outside of any Designated Trout Waters?
- YES NO N/A (17) If the proposed structure(s) includes flotation units, will the units be made of materials that will not become waterlogged or sink if punctured?
- YES NO N/A (18) If the proposed structure(s) includes flotation units, will the floating sections be braced so they will not rest on the bottom during periods of low water?
- YES NO (19) Is the proposed structure(s) made of suitable materials and practical design so as to reasonably ensure a safe and sound structure?
- YES NO (20) Will the proposed structure(s) be located on the property in accordance with the local zoning requirements?
- YES NO N/A (21) If the proposed structure(s) includes a device used for shellfish gardening, will the device be attached directly to a pier and limited to a total of 160 square feet?
- YES NO N/A (22) If the proposed structure(s) includes a device used for shellfish gardening, does the permittee recognize this RP does not negate their responsibility to obtain an oyster gardening permit (General Permit #3) from Virginia Marina Resources Commission's Habitat Management Division?
- YES NO (23) Does the permittee recognize this RP does not authorize any dredging or filling of waters of the United States (including wetlands) and does not imply that future dredging proposals will be approved by the Corps?
- YES NO (24) Does the permittee understand that by accepting 18-RP-17, the permittee accepts all of the terms and conditions of the permit, including the limits of Federal liability contained in the 18-RP-17 enclosure? Does the permittee acknowledge that the structures permitted under 18-RP-17 may be exposed to waves caused by passing vessels and that the permittee is solely responsible for the integrity of the structures permitted under 18-RP-17 and the exposure of such structures and vessels moored to such structures to damage from waves? Does the permittee accept that the United States is not liable in any way for such damage and that it shall not seek to involve the United States in any actions or claims regarding such damage?

**IF YOU HAVE ANSWERED "NO" TO ANY OF THE QUESTIONS ABOVE, REGIONAL PERMIT 17 (18-RP-17) DOES NOT APPLY AND YOU ARE REQUIRED TO OBTAIN WRITTEN AUTHORIZATION FROM THE CORPS PRIOR TO PERFORMING THE WORK.**

**IF YOU HAVE ANSWERED "YES" (OR "N/A", WHERE APPLICABLE) TO ALL OF THE QUESTIONS ABOVE, YOU ARE IN COMPLIANCE WITH REGIONAL PERMIT 17 (18-RP-17). PLEASE SIGN BELOW, ATTACH, AND SUBMIT THIS CHECKLIST WITH YOUR COMPLETED JOINT PERMIT APPLICATION (JPA). THIS SIGNED CERTIFICATE SERVES AS YOUR LETTER OF AUTHORIZATION FROM THE CORPS. YOU WILL NOT RECEIVE ANY OTHER WRITTEN AUTHORIZATION FROM THE CORPS; HOWEVER, YOU MAY NOT PROCEED WITH CONSTRUCTION UNTIL YOU HAVE OBTAINED ALL OTHER NECESSARY STATE AND LOCAL PERMITS.**

**I CERTIFY THAT I HAVE READ AND UNDERSTAND ALL CONDITIONS OF THE REGIONAL PERMIT 17 (18-RP-17), DATED SEPTEMBER 2018, ISSUED BY THE US ARMY CORPS OF ENGINEERS, NORFOLK DISTRICT REGULATORY BRANCH (CENAO-WRR), NORFOLK, VIRGINIA.**

**Proposed work to be located at:**

\_\_\_\_\_  
**Signature of Property Owner(s) or Agent**

**Date** \_\_\_\_\_

\_\_\_\_\_  
**VMRC Number:** \_\_\_\_\_

## APPENDIX C

### Chesapeake Bay Preservation Act Information

Please answer the following questions to determine if your project is subject to the requirements of the Bay Act Regulations:

1. Is your project located within Tidewater Virginia? \_\_\_\_ Yes \_\_\_\_ No (See map on page 31) - If the answer is "no", the Bay Act requirements do not apply; if "yes", then please continue to question #2.
2. Please indicate if the project proposes to impact any of the following Resource Protection Area (RPA) features:  
\_\_\_\_ Tidal wetlands,  
\_\_\_\_ Nontidal wetlands connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow,  
\_\_\_\_ Tidal shores,  
\_\_\_\_ Other lands considered by the local government to meet the provisions of subsection A of 9VAC25-830-80 and to be necessary to protect the quality of state waters (contact the local government for specific information),  
\_\_\_\_ A buffer area not less than 100 feet in width located adjacent to and landward of the components listed above, and along both sides of any water body with perennial flow.

If the answer to question #1 was "yes" and any of the features listed under question #2 will be impacted, compliance with the Chesapeake Bay Preservation Area Designation and Management Regulations is required. **The Chesapeake Bay Preservation Area Designation and Management Regulations** are enforced through locally adopted ordinances based on the Chesapeake Bay Preservation Act (CBPA) program. Compliance with state and local CBPA requirements mandates the submission of a **Water Quality Impact Assessment (WQIA)** for the review and approval of the local government. Contact the appropriate local government office to determine if a WQIA is required for the proposed activity(ies).

The individual localities, not the DEQ, USACE, or the Local Wetlands Boards, are responsible for enforcing the CBPA requirements and, therefore, local permits for land disturbance are not issued through this JPA process. **Approval of this wetlands permit does not constitute compliance with the CBPA regulations nor does it guarantee that the local government will grant approval for encroachments into the RPA that may result from this project.**

#### **Notes for all projects in RPAs**

Development, redevelopment, construction, land disturbance, or placement of fill within the RPA features listed above requires the approval of the locality and may require an exception or variance from the local Bay Act ordinance. Please contact the appropriate local government to determine the types of development or land uses that are permitted within RPAs.

Pursuant to 9VAC25-830-110, *on-site delineation of the RPA is required for all projects in CBPAs*. Because USGS maps are not always indicative of actual "in-field" conditions, they may not be used to determine the site-specific boundaries of the RPA.

#### **Notes for shoreline erosion control projects in RPAs**

Re-establishment of woody vegetation in the buffer will be required by the locality to mitigate for the removal or disturbance of buffer vegetation associated with your proposed project. Please contact the local government to determine the mitigation requirements for impacts to the 100-foot RPA buffer.

Pursuant to 9VAC25-830-140 5 a (4) of the Virginia Administrative Code, shoreline erosion projects are a permitted modification to RPAs provided that the project is based on the "best technical advice" and complies with applicable permit conditions. In accordance with 9VAC25-830-140 1 of the Virginia Administrative Code, the locality will use the information provided in this Appendix, in the project drawings, in this permit application, and as required by the locality, to make a determination that:

1. Any proposed shoreline erosion control measure is necessary and consistent with the nature of the erosion occurring on the site, and the measures have employed the "best available technical advice"
2. Indigenous vegetation will be preserved to the maximum extent practicable
3. Proposed land disturbance has been minimized
4. Appropriate mitigation plantings will provide the required water quality functions of the buffer (9VAC25-830-140 3)
5. The project is consistent with the locality's comprehensive plan
6. Access to the project will be provided with the minimum disturbance necessary.

# TIDEWATER VIRGINIA

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## APPENDIX D

### Sample Drawings

On the following pages, you will find lists of information required on drawings, as well as sample drawings in plan and cross-sectional views. While the lists attempt to capture all required information for drawings, please verify your submittal with the applicable agency regulations. For DEQ drawing definitions and requirements, see Sections 10 and 80 of 9VAC25-210; and in Section 60 of the general permit regulations 9VAC25-660, 9VAC25-670, 9VAC25-680, and 9VAC25-690. Please be advised that some Local Wetlands Boards (LWB) require you to have a licensed engineer certify the drawings. You should contact your LWB to determine their specific requirements. Failure to include all necessary information on your drawings may mean that your application is not considered complete by one or more agencies.

All projects will require the submittal of plan view and cross-sectional view drawings. Drawings should be drawn to a scale no smaller than 1 inch = 200 feet. The number of sets of drawings to be submitted is detailed in the HOW TO APPLY section starting on page 2 of this package. Drawings can be computer-generated or hand-drawn. The sample drawings demonstrate the **general** format necessary, *but for ease of viewing, not all of the required information is shown in the sample drawings.*

**Plan view** drawings should contain the following general informational items:

- ❖ Name of project
- ❖ North arrow
- ❖ Scale
- ❖ Waterway name, if designated
- ❖ Existing topographic or bathymetric contours
- ❖ Proposed topographic or bathymetric contours
- ❖ Width of waterway from the mean high water level to the mean high water level (tidal areas), or the ordinary high water mark to the ordinary high water mark (nontidal areas)
- ❖ Direction of flood and ebb (tidal areas), and/or direction of flow in nontidal areas (if applicable)
- ❖ Mean low water level and mean high water level (tidal areas), or ordinary high water mark (nontidal areas)
- ❖ Landward limit of the dune or beach at the site
- ❖ Limits of proposed impacts to surface waters, such as fill areas, riprap scour protection placement, and dredged areas; the amount of such impacts in square feet and acres; and the latitude/longitude (decimal degrees) at each impact site
- ❖ All delineated wetlands and all surface waters on the site, including the Cowardin classification (i.e., emergent, scrub-shrub, or forested) for those surface waters and waterway name, if designated

**AND Plan view** drawings should also contain the following specific informational items **if they apply to the project**:

Resource Impact/Protection-Specific Items:

- ❖ Limits of: existing, *non-delineated* wetlands, open water, or streams, including submerged aquatic vegetation (SAV), riffle/pool complexes, or bars; Chesapeake Bay Preservation Act Resource Protection Area(s) (RPA), including the 100-foot buffer; proposed clearing within the RPA buffer; and any areas that are under a deed restriction, conservation easement, restrictive covenant, or other land use protective instrument (i.e., protected areas)
- ❖ Location and type of existing vegetation within the 100-foot RPA buffer and location of proposed wetland planting areas (as restoration for temporary impacts or mitigation for permanent impacts)
- ❖ Historic/cultural resources
- ❖ Threatened/Endangered resources

Structure/Project-Specific Items:

- ❖ Existing and proposed structures, labeled as 'existing' and 'proposed', and their dimensions. These items may include pier(s), including L-heads, T-heads, platforms, and/or decks; roof(s) on roofed structures located over waterways, including boathouses; gasoline storage tanks and/or structures for collecting and handling hazardous material, including settling tanks for travel lift washdown water, paint chips, etc.; return walls; tie-ins to existing bulkhead(s) or riprap; utility line easement(s); utility line/road right(s)-of-way; aerial transmission line structure(s), including towers, poles, platforms, etc.; onsite or offsite dredged material disposal areas, including location of all berms, spillways, erosion and sediment control measures, outfall pipes, and aprons; temporary stockpiles of excavated material; temporary construction access facilities; risers and/or emergency spillways, labeled with their proposed invert elevations; design pool/normal pool for stormwater management ponds/impoundments/reservoirs; intakes and/or outfalls, including splash aprons, relative to mean high water, mean low water, or ordinary high water mark(s); anchoring devices and weights (mooring buoys), including the total swing radius
- ❖ Channelward encroachment of proposed structure(s) from mean high water and mean low water, or from ordinary high water mark
- ❖ For piers that cover ¼ or more of the waterway width: depth soundings, taken at the mean low water level (tidal areas) or the ordinary high water mark (nontidal areas)
- ❖ Distance(s) between structure(s) (piers, boathouses, catwalks, etc.) and mooring pile(s)
- ❖ Minimum distance between dredge cut and vegetated wetlands
- ❖ Latitude and longitude of all mooring structures, in degrees, minutes, and seconds
- ❖ End points and turning points along proposed bulkhead(s), labeled as such

## APPENDIX D (continued)

- ❖ For bulkheads, measurements from each end point and each turning point along proposed bulkhead(s) to two fixed points of reference (labeled as such)
- ❖ Structure or method used to contain fill (hay bales, silt fences, etc.)
- ❖ Dimensions of impoundment, dam, or stormwater management facility and area of any vegetative management areas

***Cross-sectional view drawings, and when required profile view\* drawings, should contain the following General Informational items:***

- ❖ Name of project
- ❖ North arrow
- ❖ Scale
- ❖ Waterway name
- ❖ Mean low water and mean high water lines (tidal areas), and/or ordinary high water mark (nontidal areas)
- ❖ Direction of flood and ebb (tidal areas), and/or direction of flow in nontidal areas (if applicable)
- ❖ Existing contours of the bottom (depths relative to mean low water or ordinary high water mark) and the bank itself
- ❖ Existing contours of the dune or beach
- ❖ Existing and proposed elevations
- ❖ Location of all existing and proposed structures
- ❖ Limits of proposed impacts to surface waters, such as fill areas, riprap scour protection placement, and dredged areas; the amount of such impacts in square feet and acres; and the latitude/longitude (decimal degrees) at each impact site

***AND Cross-sectional view drawings, and when required profile view\* drawings, should also contain the following specific informational items if they apply to the project:***

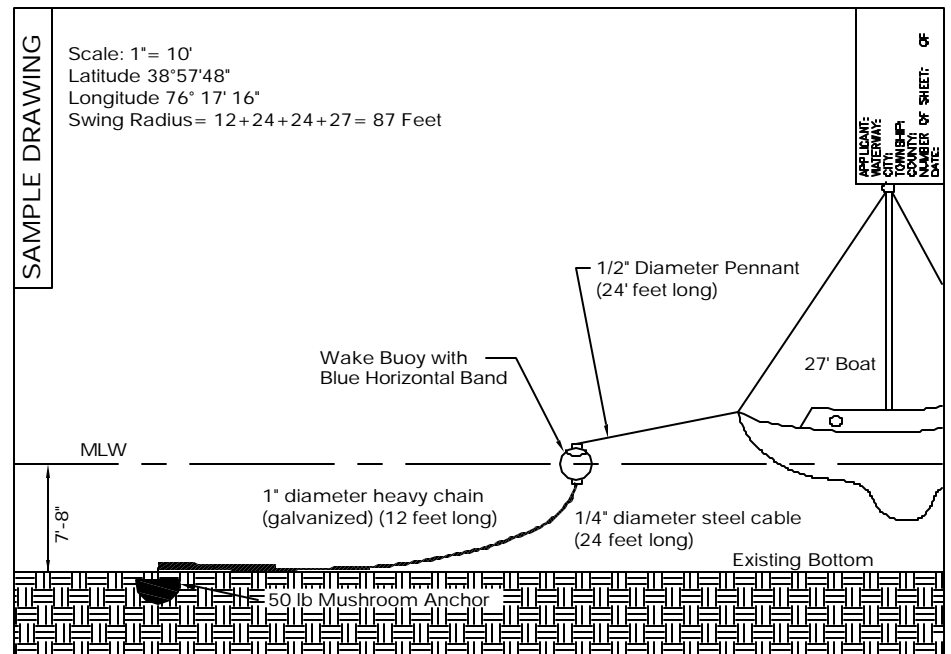
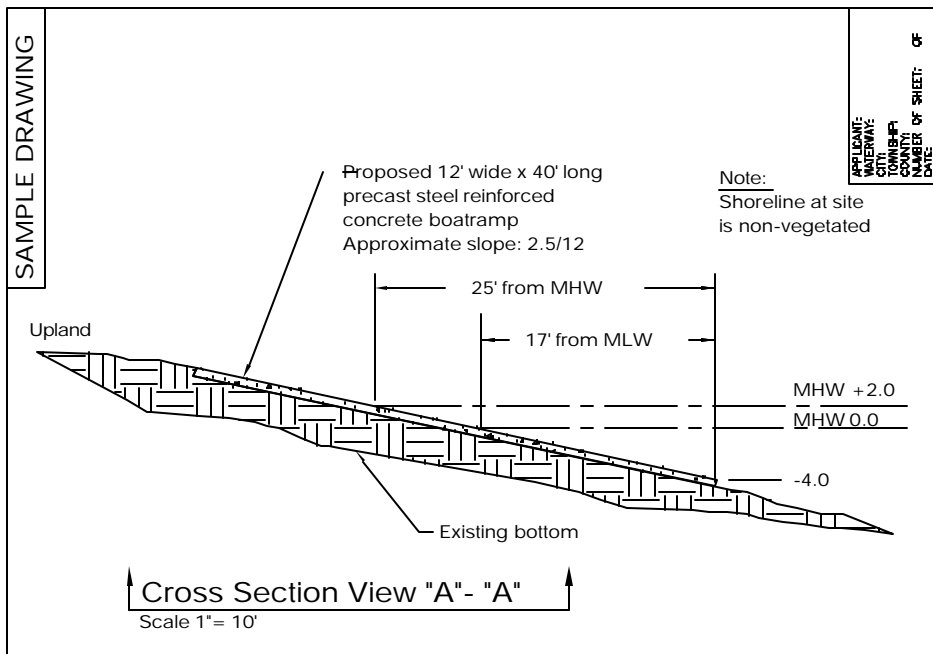
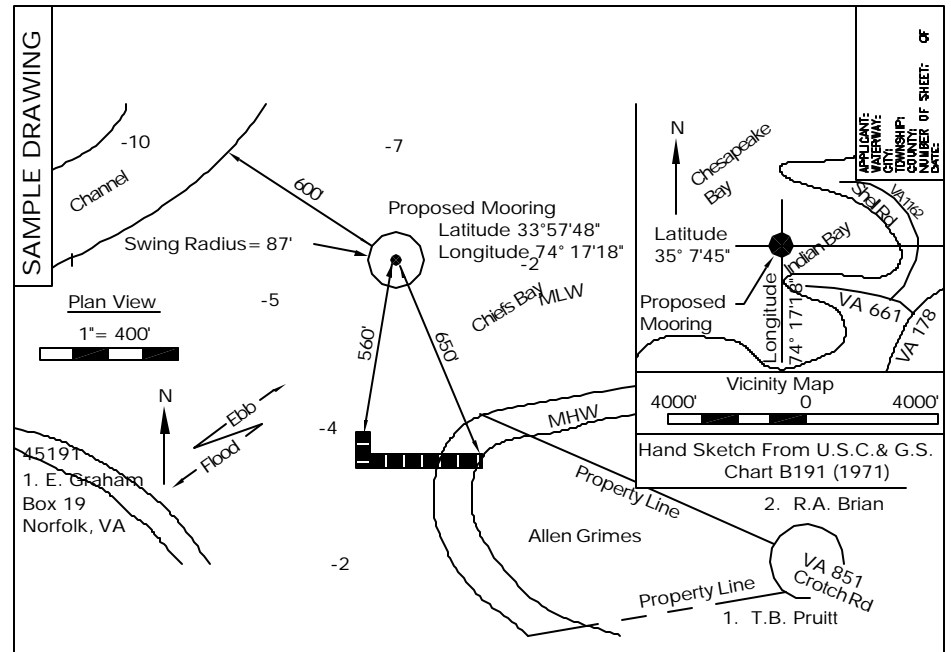
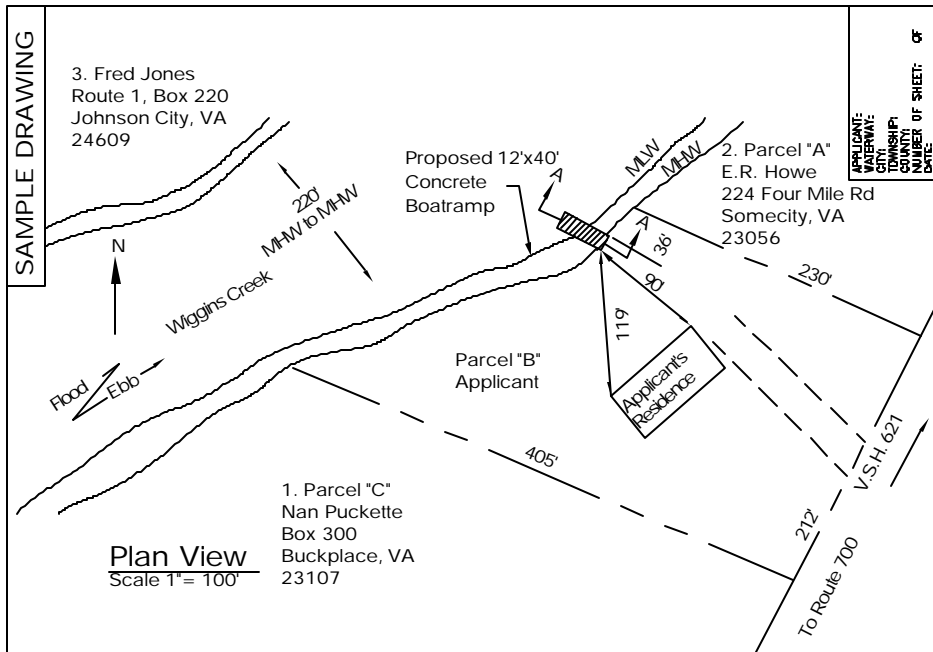
Resource impact/protection-specific Items:

- ❖ Limits of: existing, *non-delineated* wetlands, open water, or streams, including submerged aquatic vegetation (SAV), riffle/pool complexes, or bars; Chesapeake Bay Preservation Act Resource Protection Area(s) (RPA), including the 100-foot buffer; and proposed clearing within the RPA buffer
- ❖ Riprap scour protection
- ❖ Proposed wetland planting areas, relative to mean high water and mean low water (tidal areas), or ordinary high water mark (nontidal areas)
- ❖ Depth of buried toe of riprap or marsh toe stabilization
- ❖ Base width, top width, and slope of stone/concrete stabilization structures

Structure/Project-Specific Items:

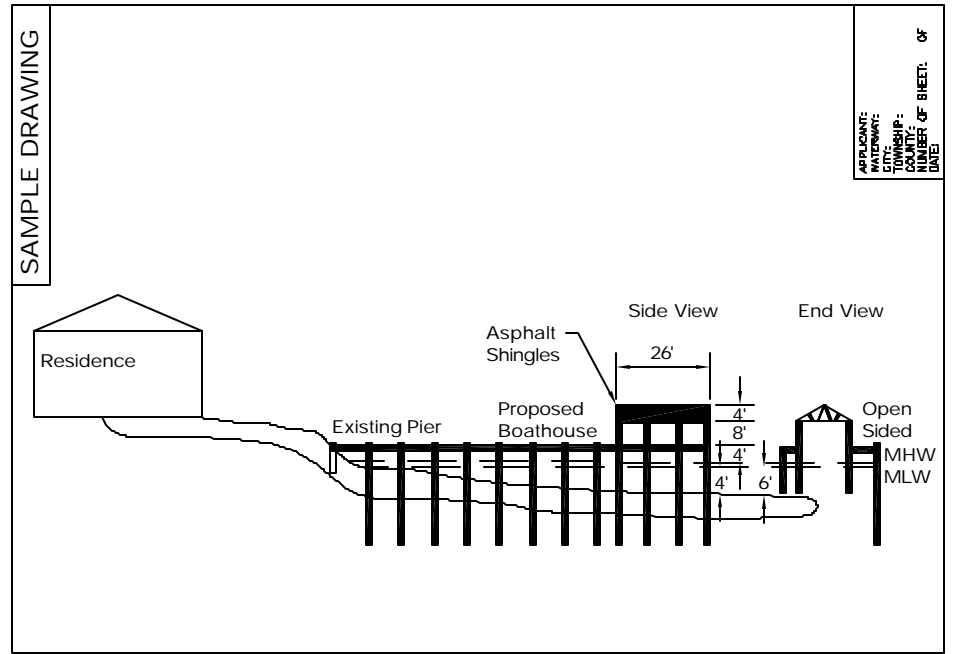
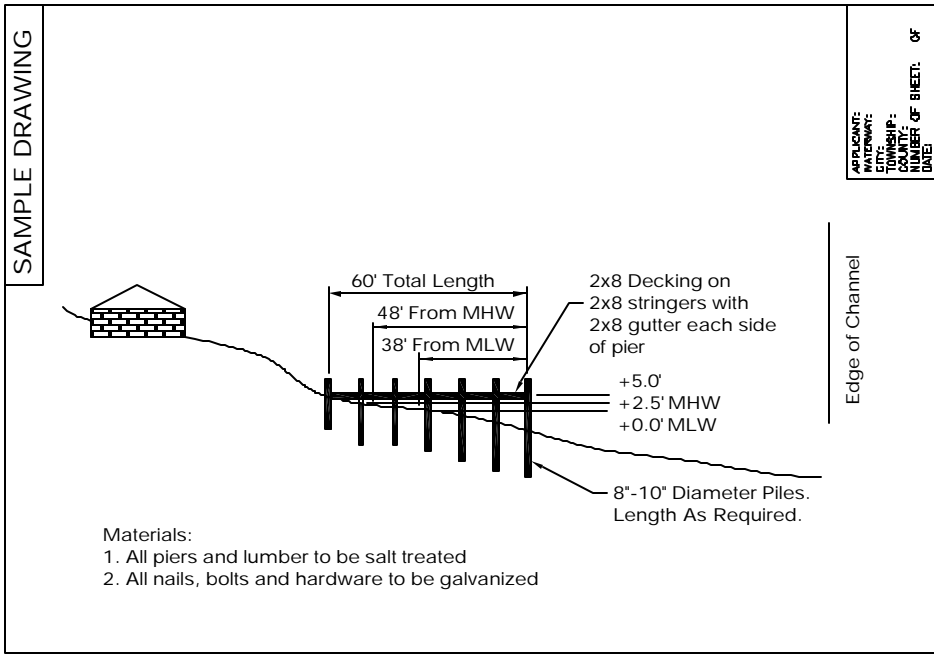
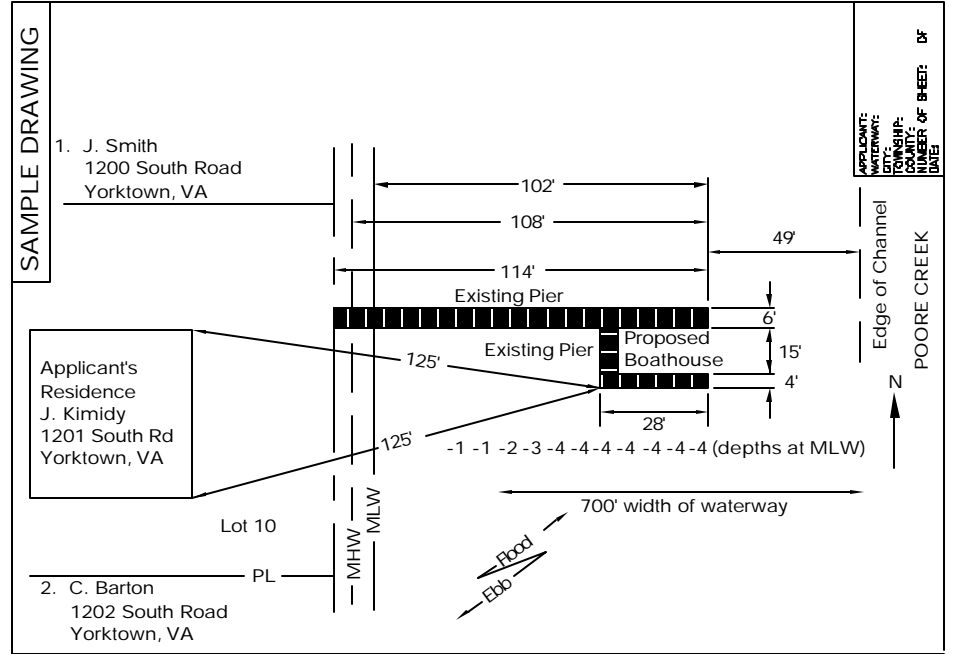
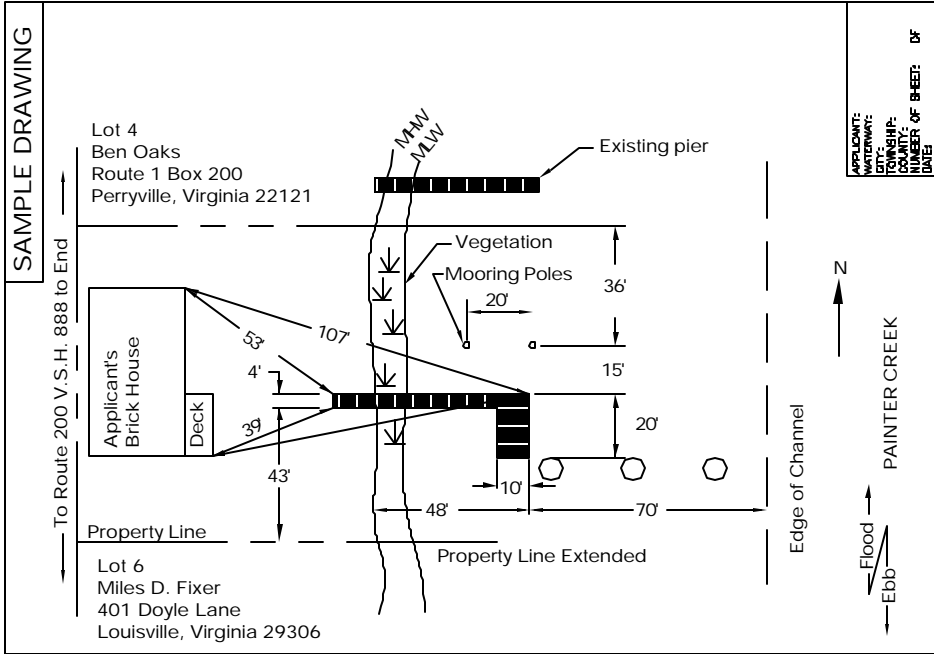
- ❖ Existing and proposed structures, labeled as 'existing' and 'proposed', and their dimensions. These items may include fill areas, labeled with square footage(s) or acreage(s) over vegetated wetlands and subaqueous bottom; berms, spillways, erosion and sediment control measures, outfall pipes, and aprons at onsite or offsite dredged material disposal area(s); bank grades; deadmen, sheeting, knee braces, etc., as used in the construction of bulkheads; filter cloth; weep holes; intakes and/or outfalls, including splash aprons, relative to mean high water, mean low water, or ordinary high water mark; risers and/or emergency spillways; low-flow channels; culverts, including their proposed invert elevations and diameters; anchoring systems for aquaculture structures; type of chain used to secure mooring buoys to subaqueous bottom
- ❖ For dredge projects, proposed contours of the bottom (depth relative to mean low water or ordinary water level)
- ❖ Bottom width of proposed dredge cut, projected side slope of cut, and estimated top width of cut
- ❖ Ponding depth of onsite or offsite dredged material disposal area
- ❖ Minimum distance between pier decking and vegetated wetland substrate (a.k.a. the "mud line")
- ❖ Water depth below mean low water at the end of proposed boat ramps
- ❖ Depth of penetration of pilings and/or sheeting (bulkheads)
- ❖ Elevation of any proposed fill (including backfill)
- ❖ Structure or method used to contain fill (hay bales, silt fences, etc.)
- ❖ Design pool/normal pool elevation for stormwater management facilities/impoundments/reservoirs
- ❖ Vertical distance from the water surface (relative to mean high water or ordinary high water mark) for all aerial crossings (bridges or overhead utility lines) over navigable water bodies
- ❖ Depth below bottom of water body for submarine utility crossings
- ❖ Dimensions of impoundment, dam, or stormwater management facility through a cross-section of the structure(s); bottom elevation(s) of basin created; depth of pool; and depth(s) to structure(s) on the bottom.

*\* Profile drawing or drawings with the information noted in Appendix D may be required by DEQ on a case-by-case basis to demonstrate minimization of impacts. When required, any application that proposes piping or culverting stream flows shall provide a longitudinal profile of the pipe or culvert position and stream bed thalweg, or shall provide spot elevations of the stream thalweg at the beginning and end of the pipe or culvert, extending to a minimum of 10 feet beyond the limits of proposed impact.*



Boat Ramps

Dolphins or Moorings

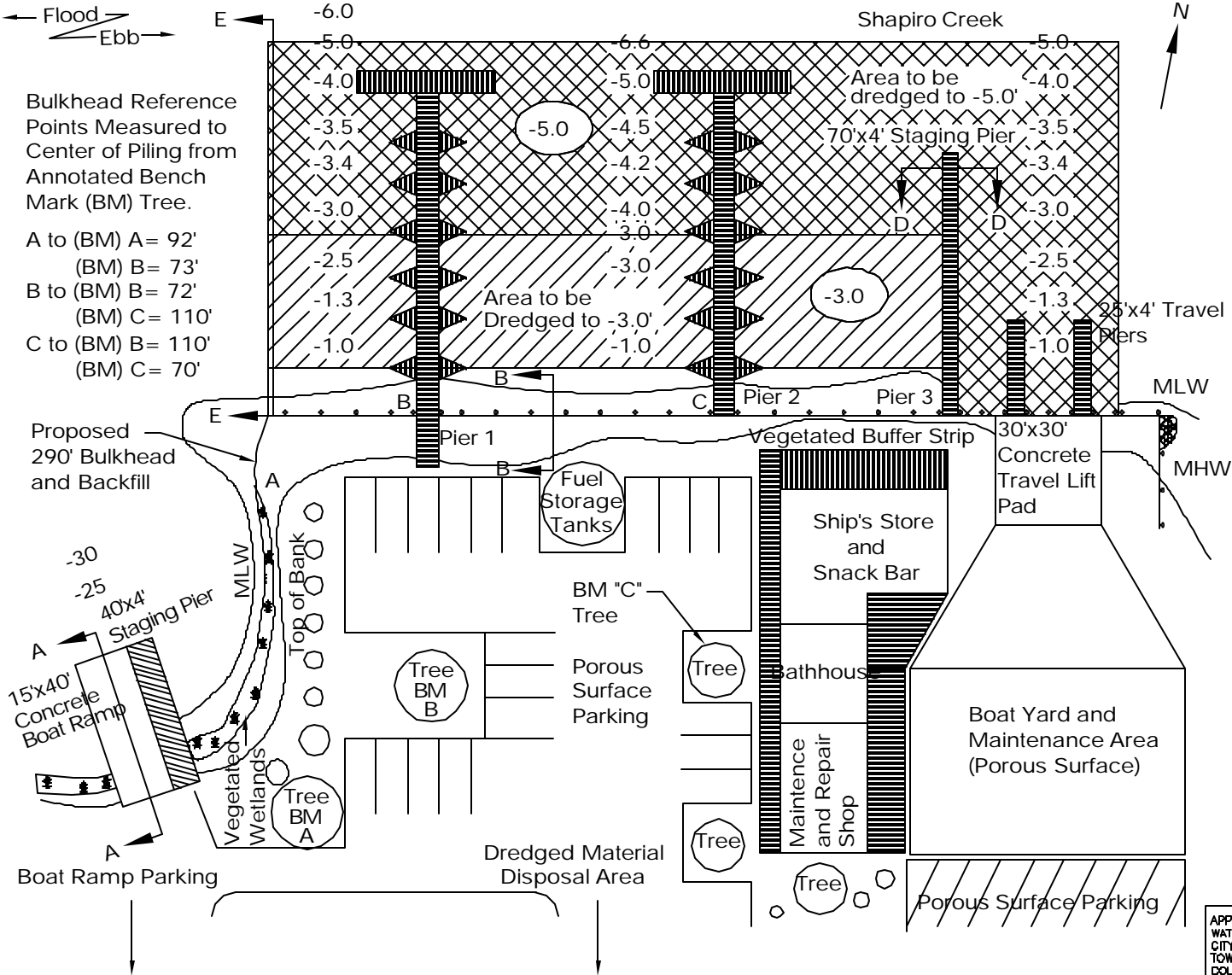


Private Piers & Marginal Wharves

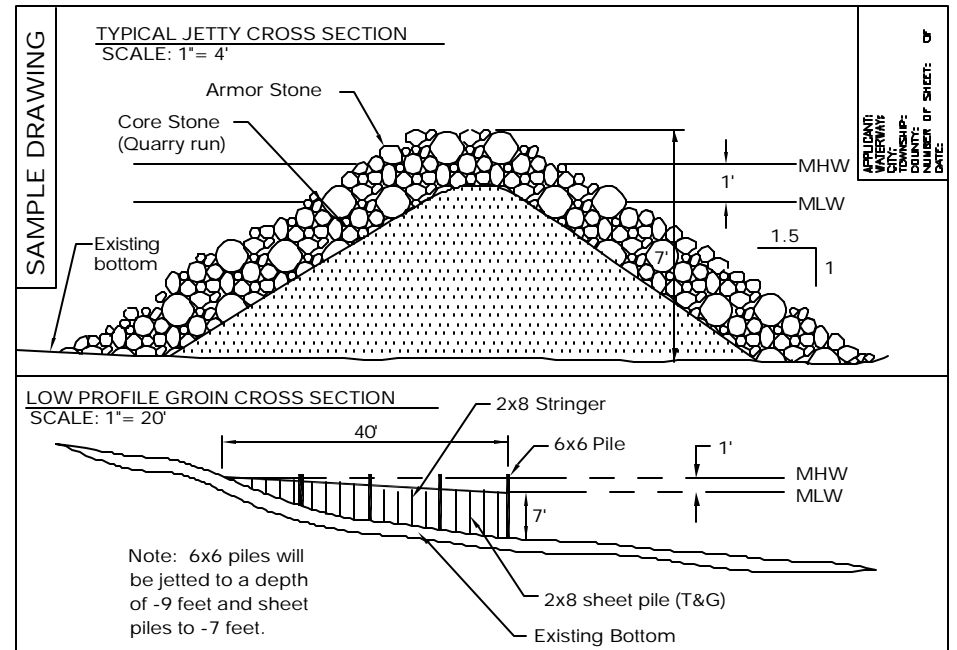
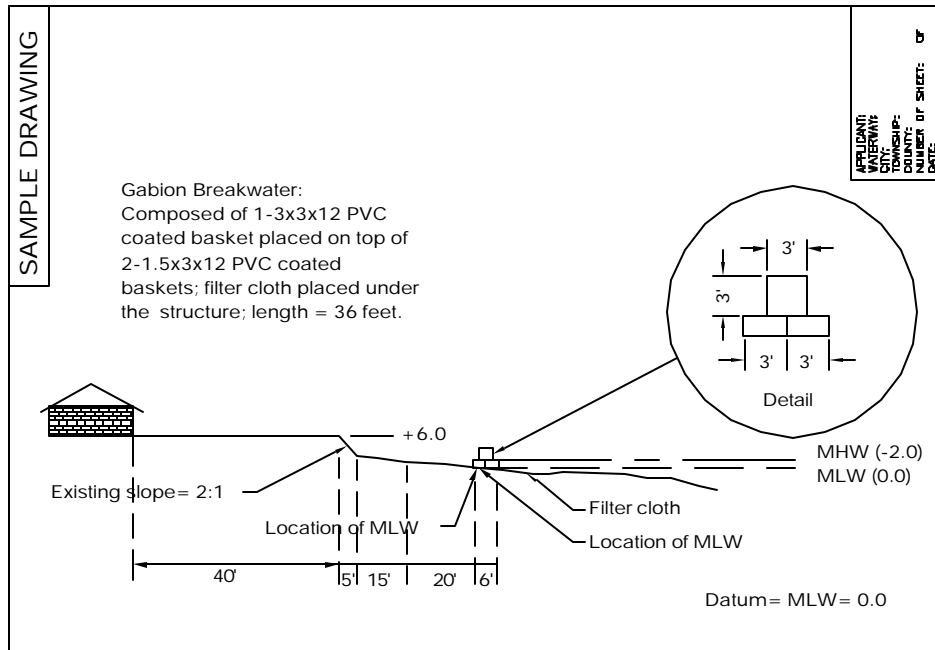
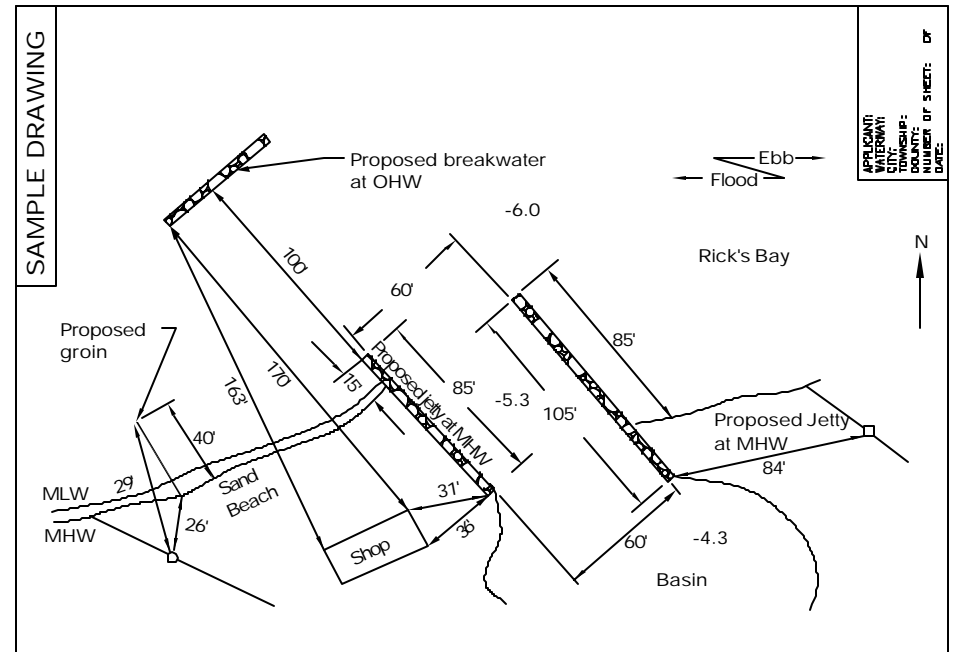
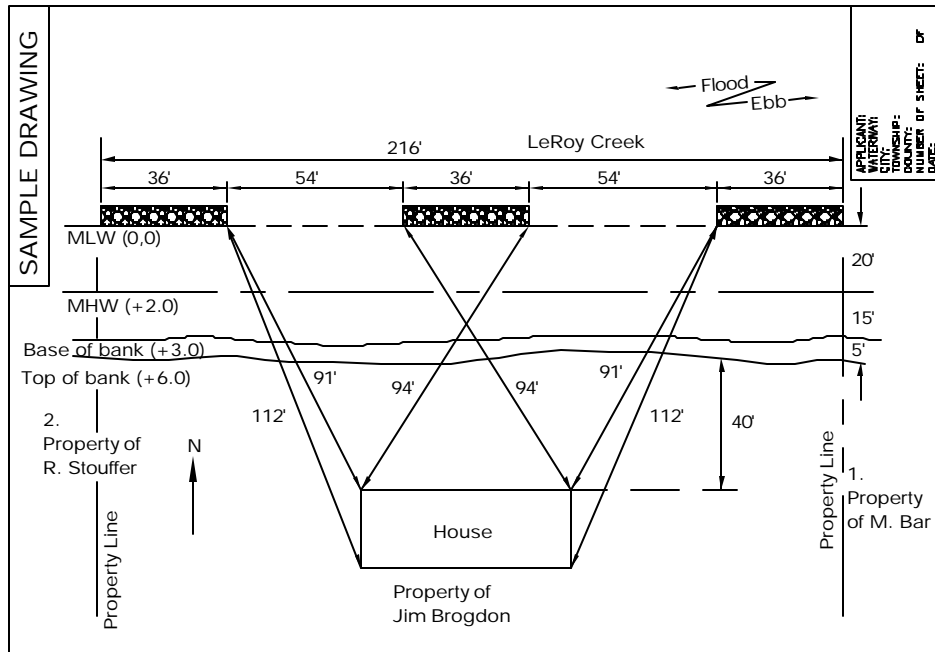
Boathouses

SAMPLE DRAWING

Overall width of waterway is 1800' at Pier 2 and 600' from pier "T" to the channel.

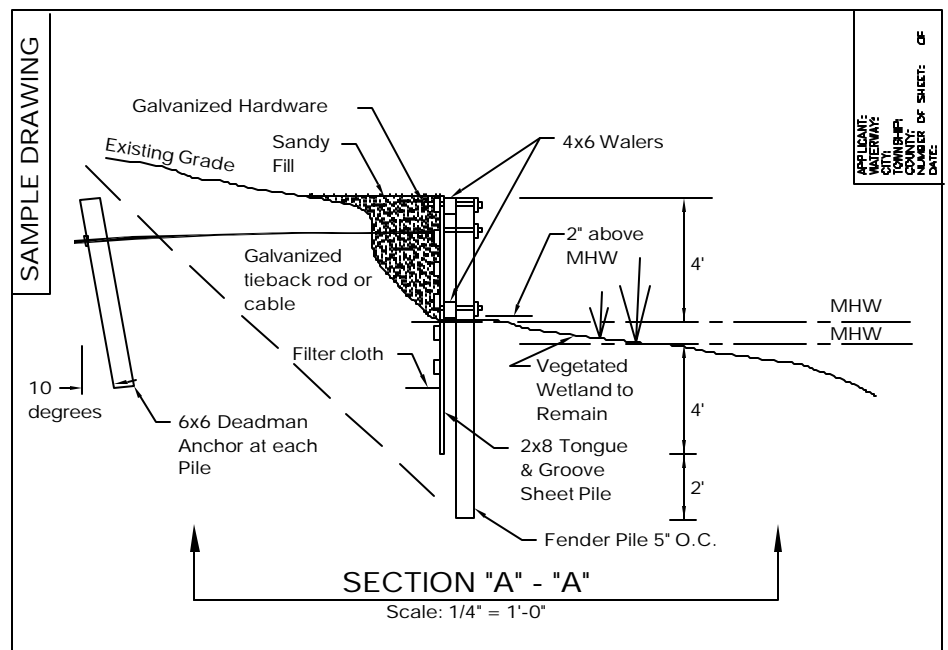
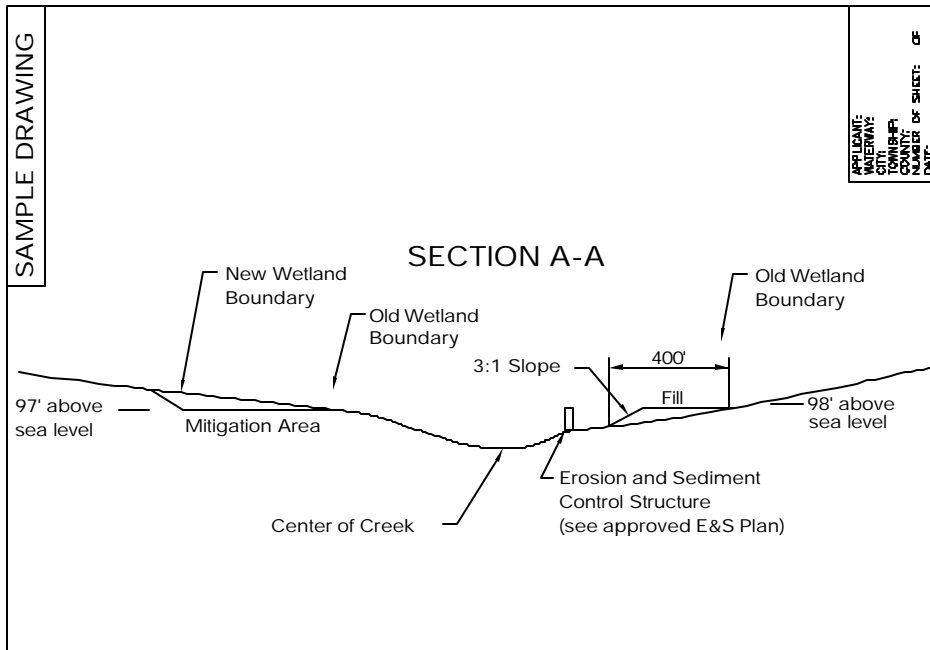
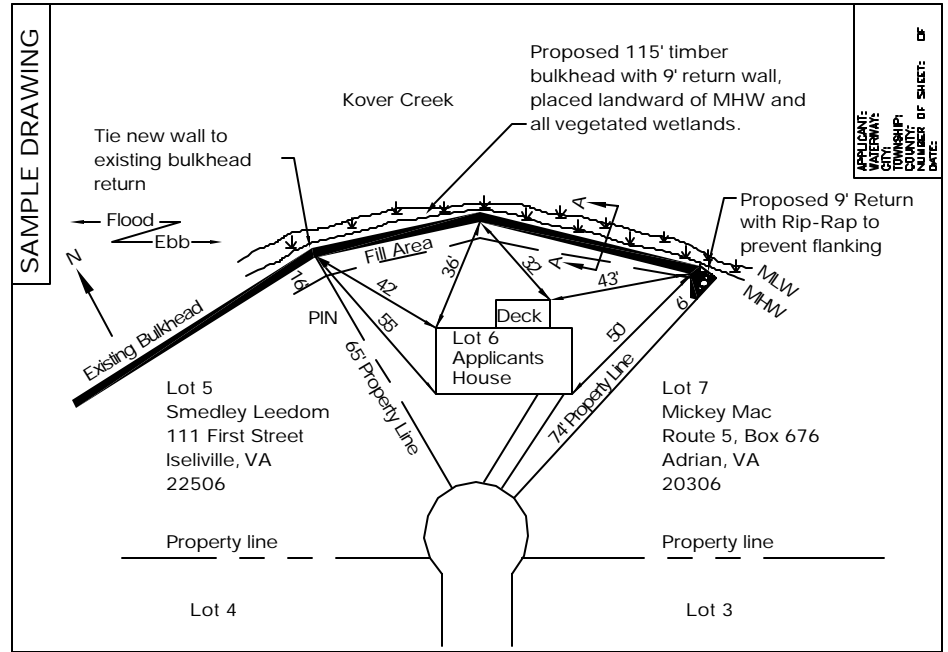
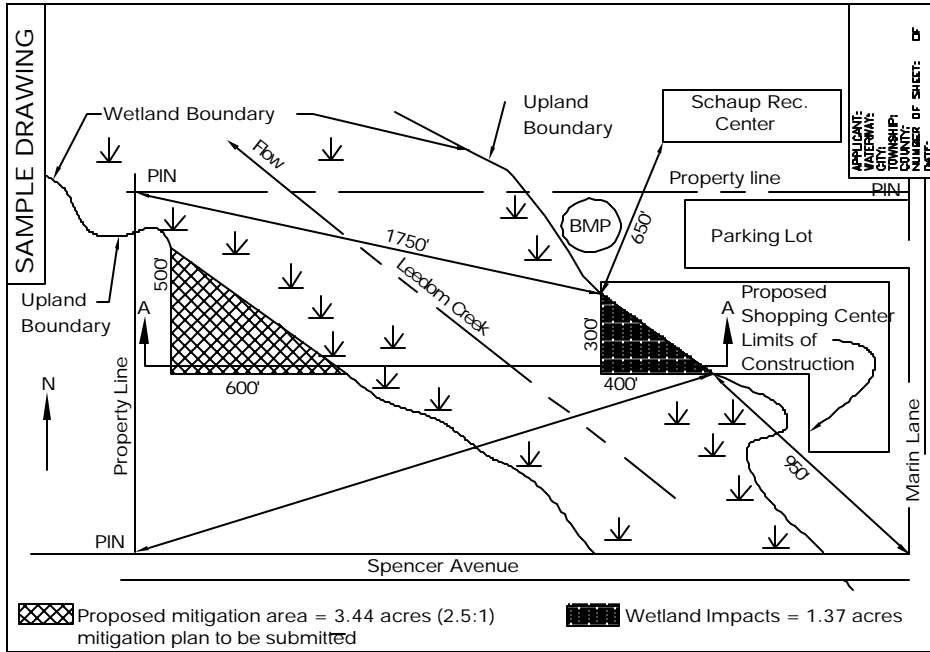


APPLICANT:  
WATERWAY:  
CITY:  
TOWNSHIP:  
COUNTY:  
NUMBER OF SHEET: OF  
DATE:



Breakwaters

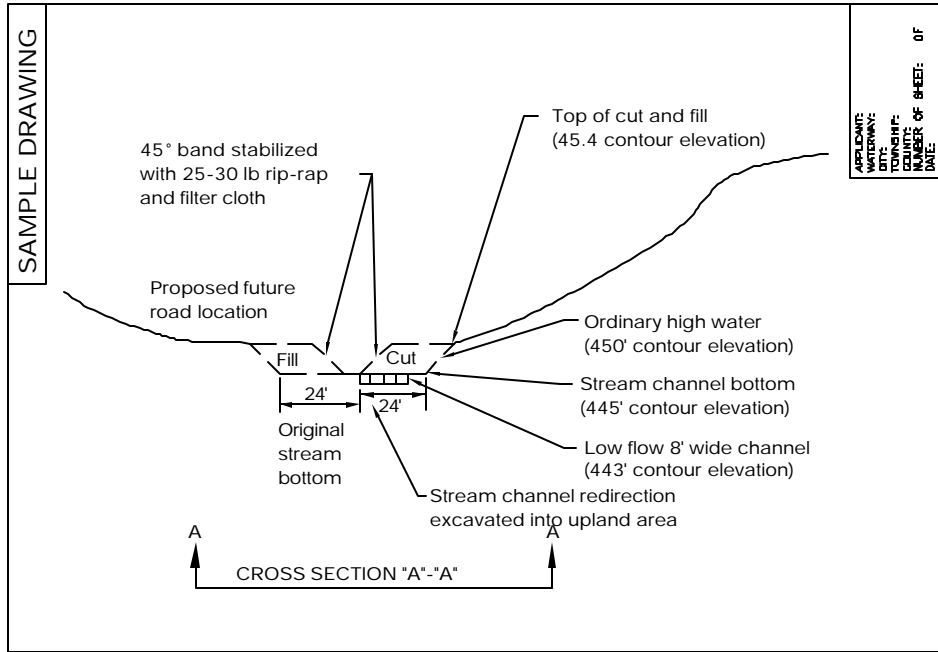
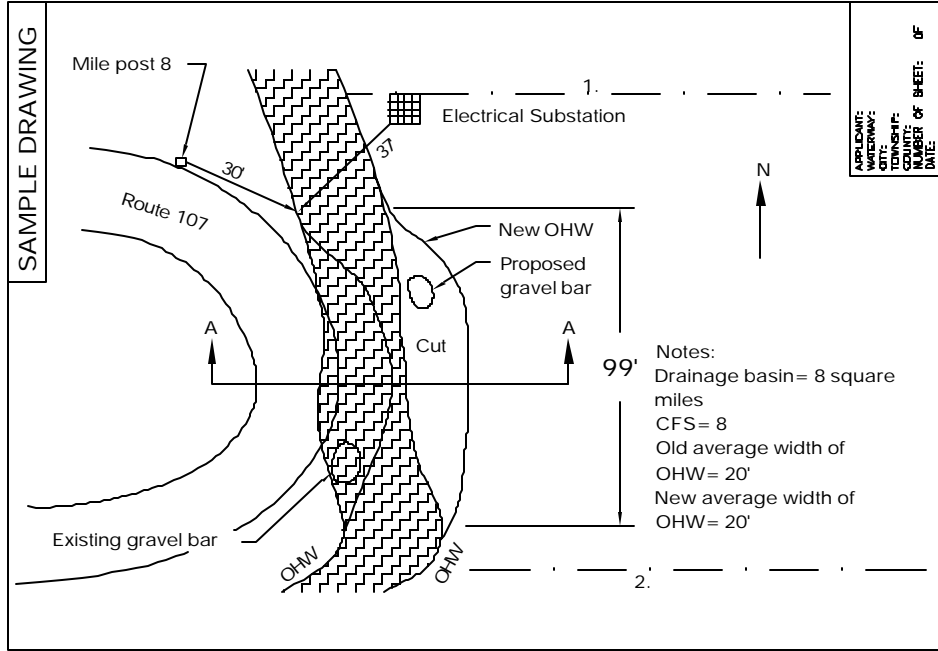
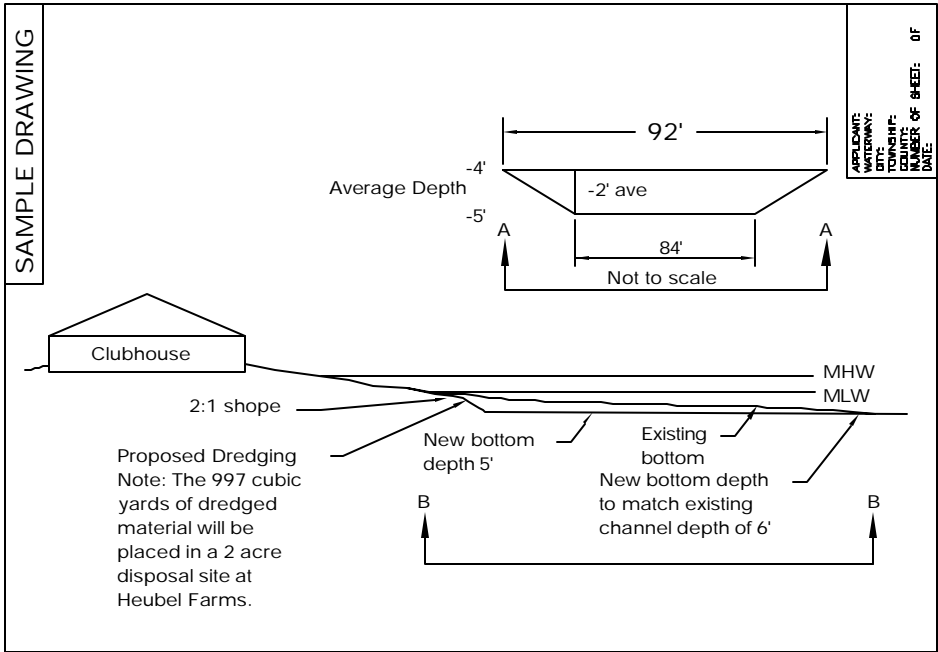
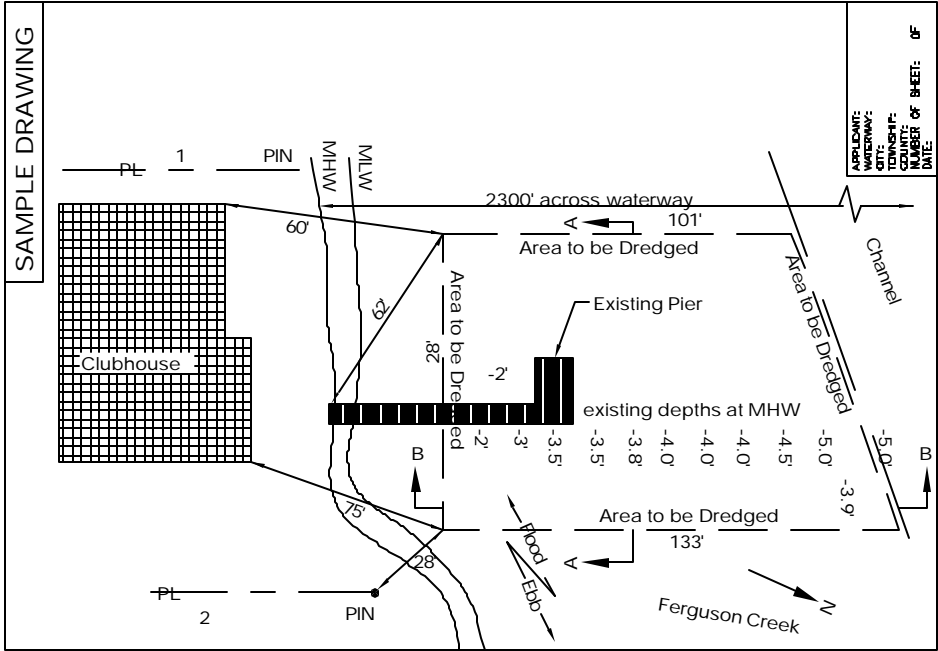
Groins & Jetties



Filling Waters/Wetlands

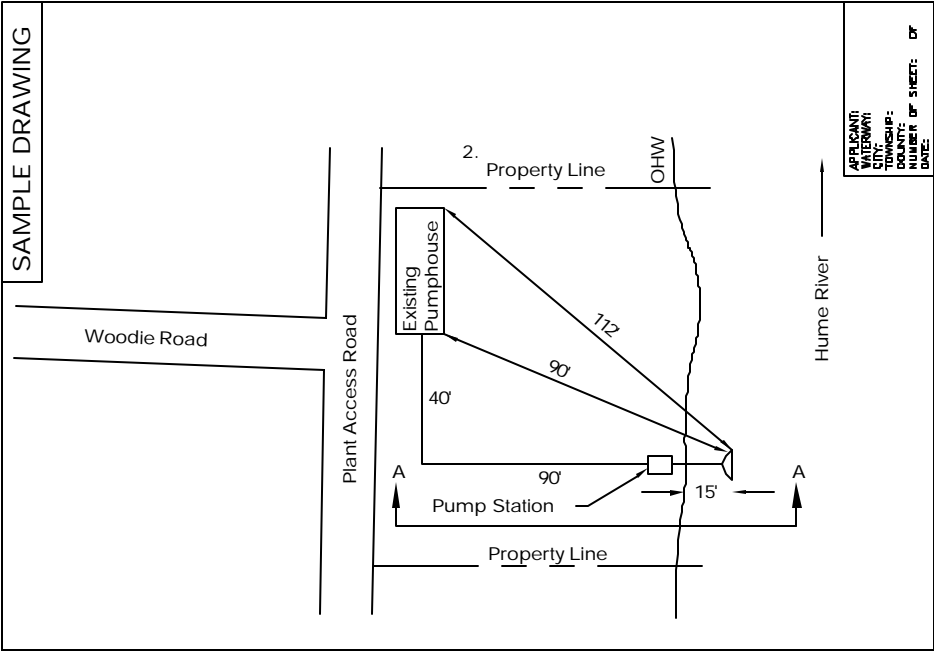
Bulkheads and Associated Backfill



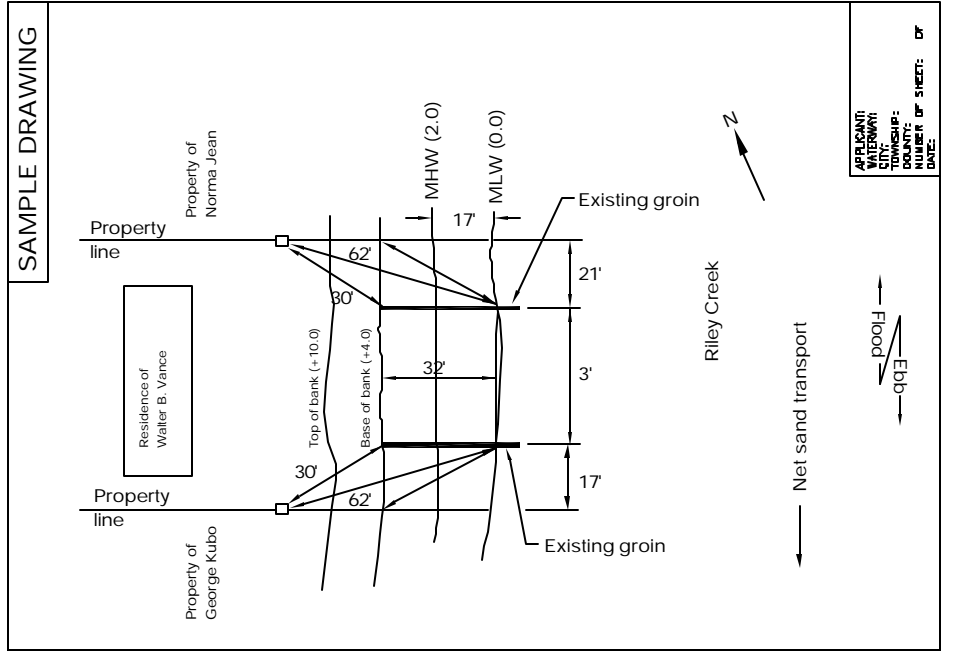


Dredging/Mining/Excavating

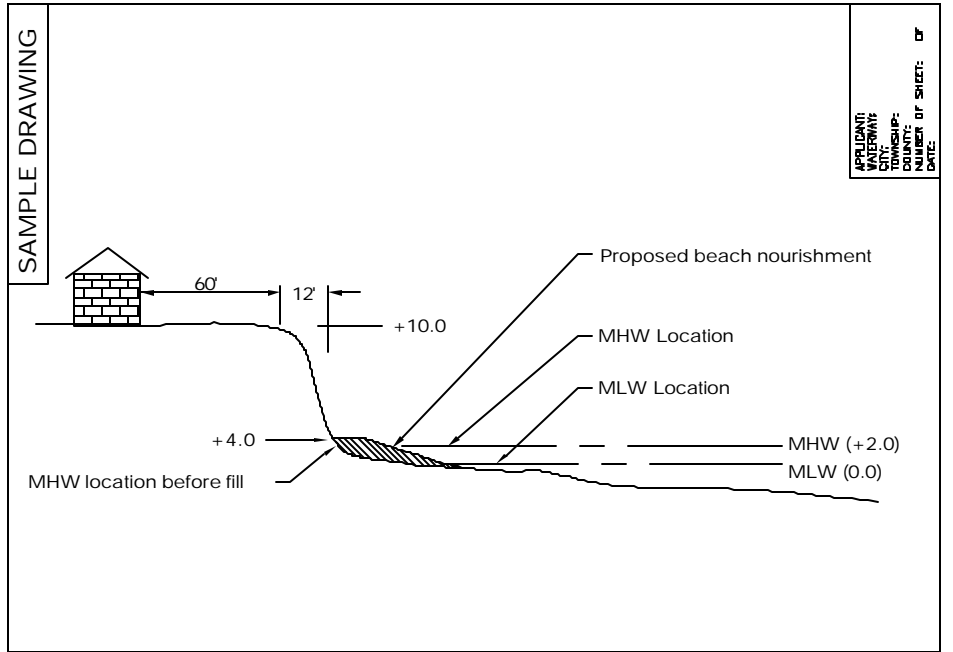
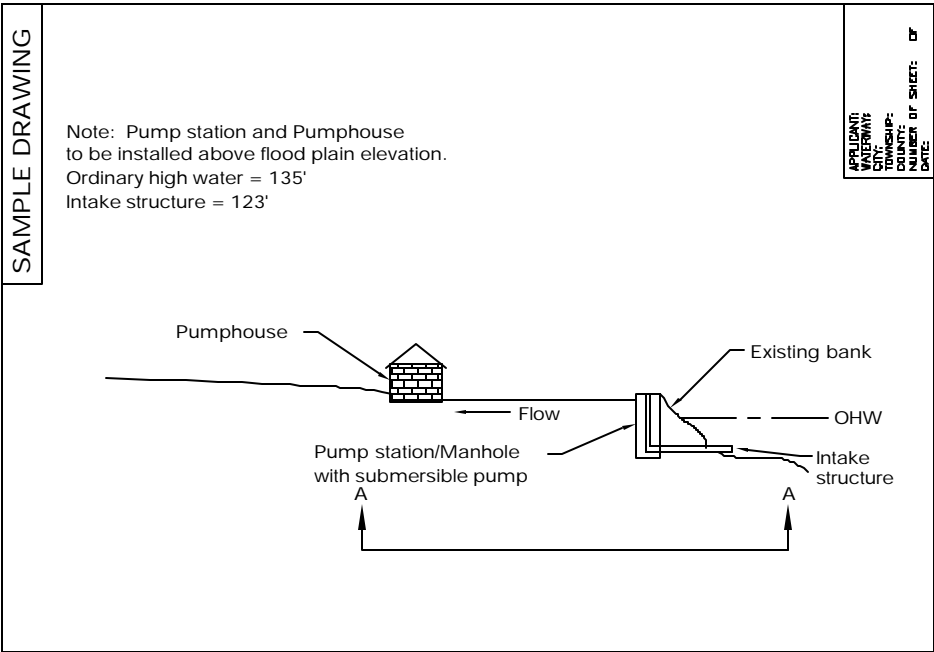
Nontidal Stream Channel Modifications

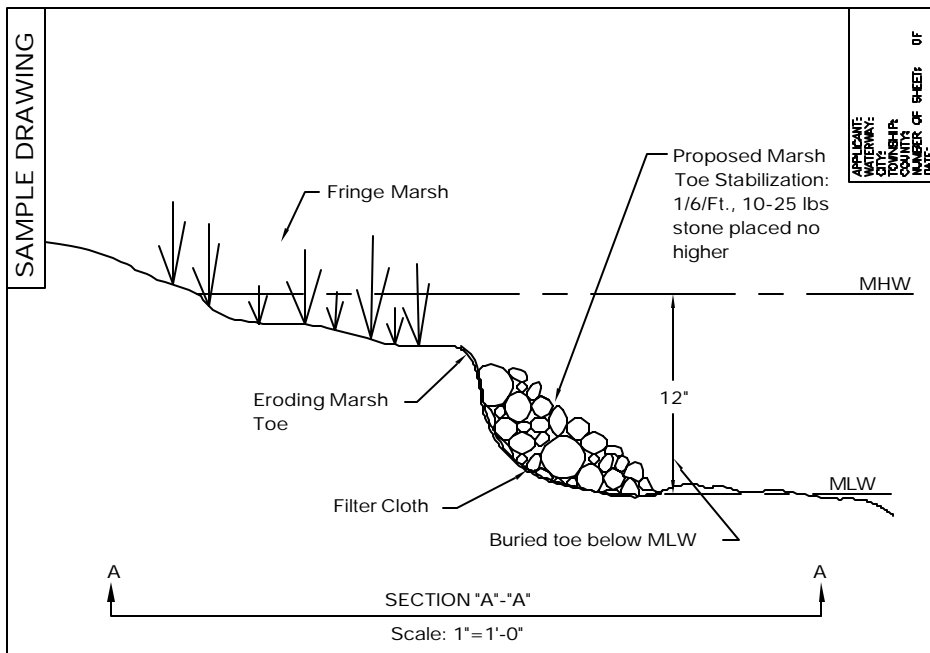
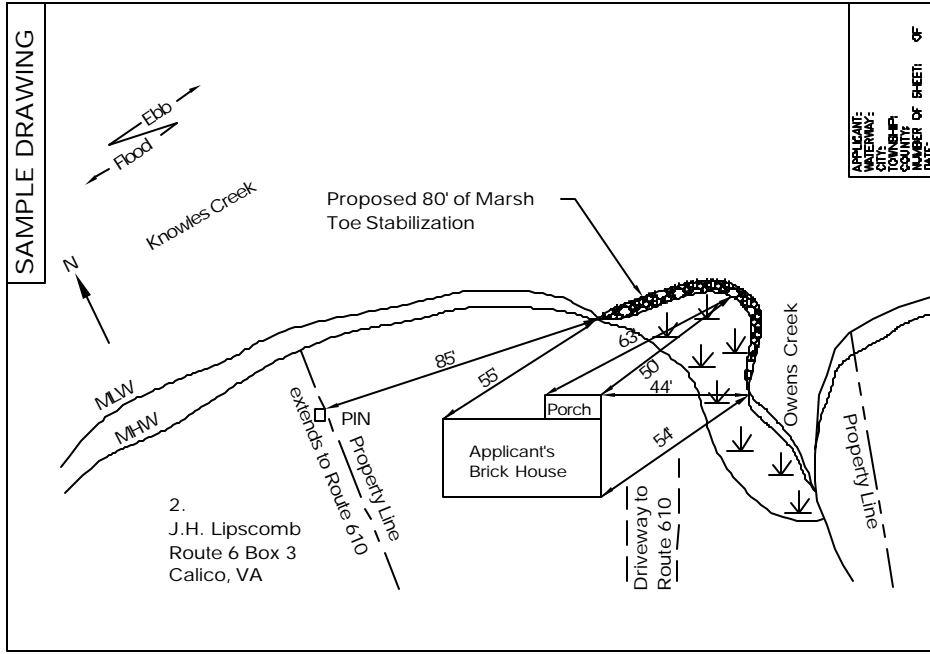


Intake/Outfall Structures

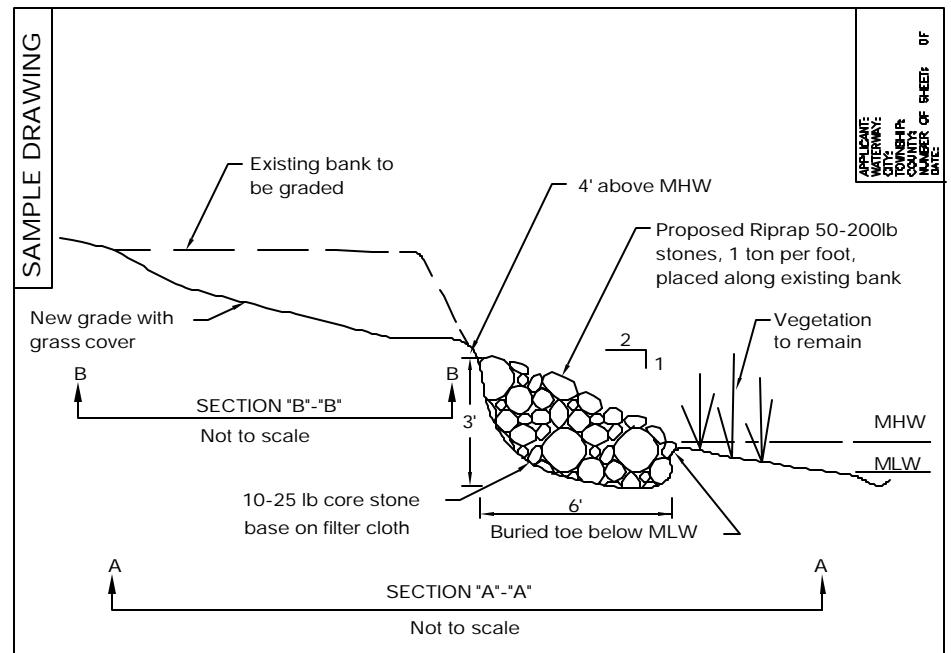
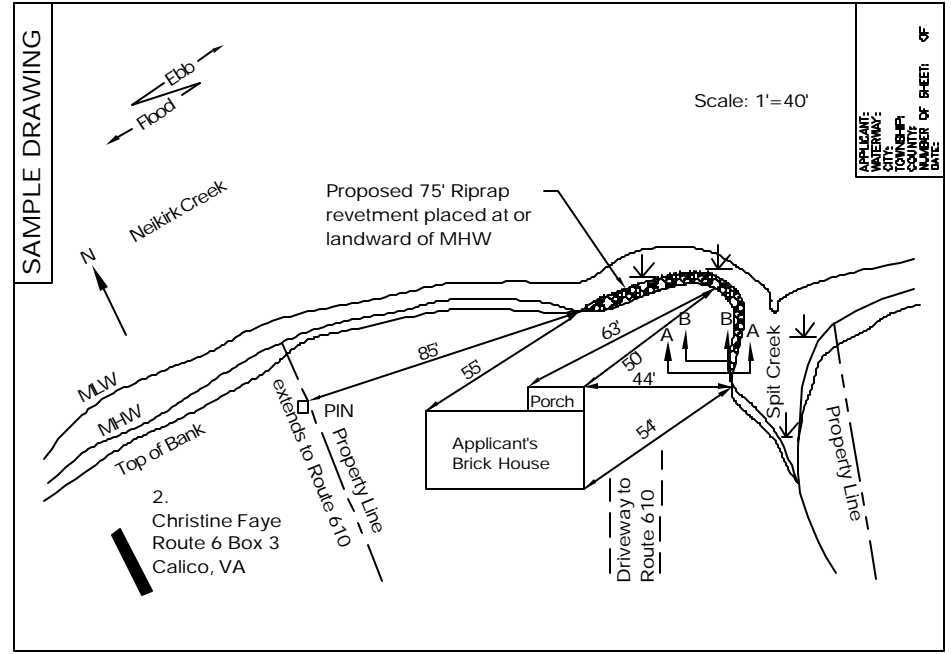


Beach Nourishment

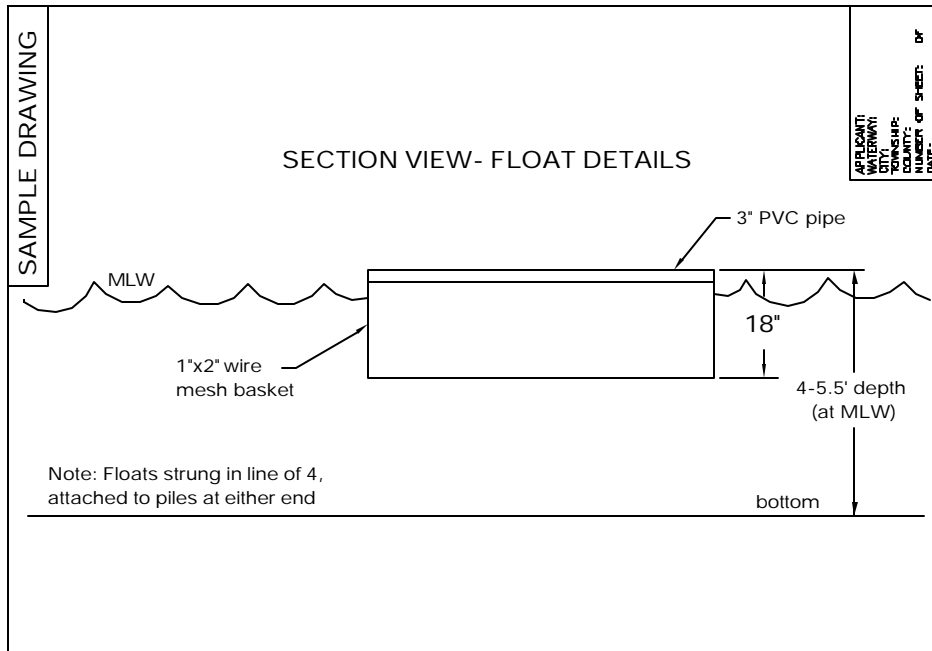
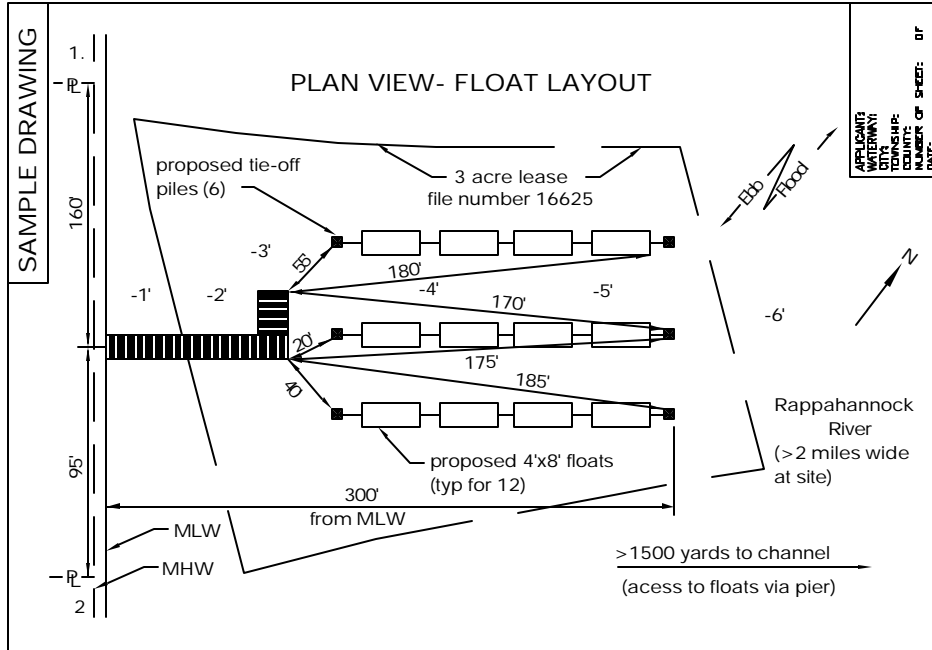




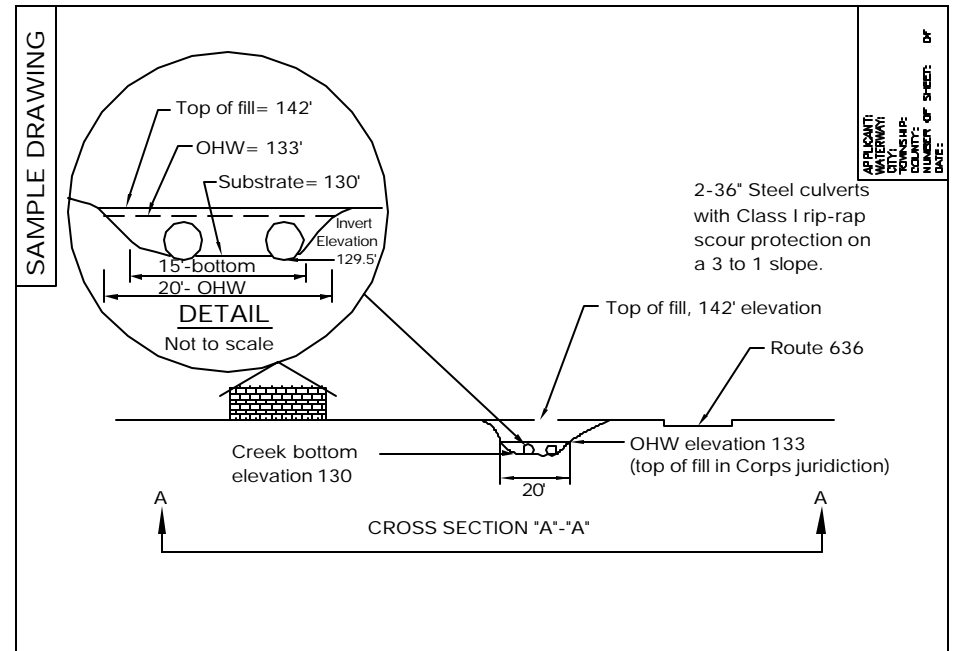
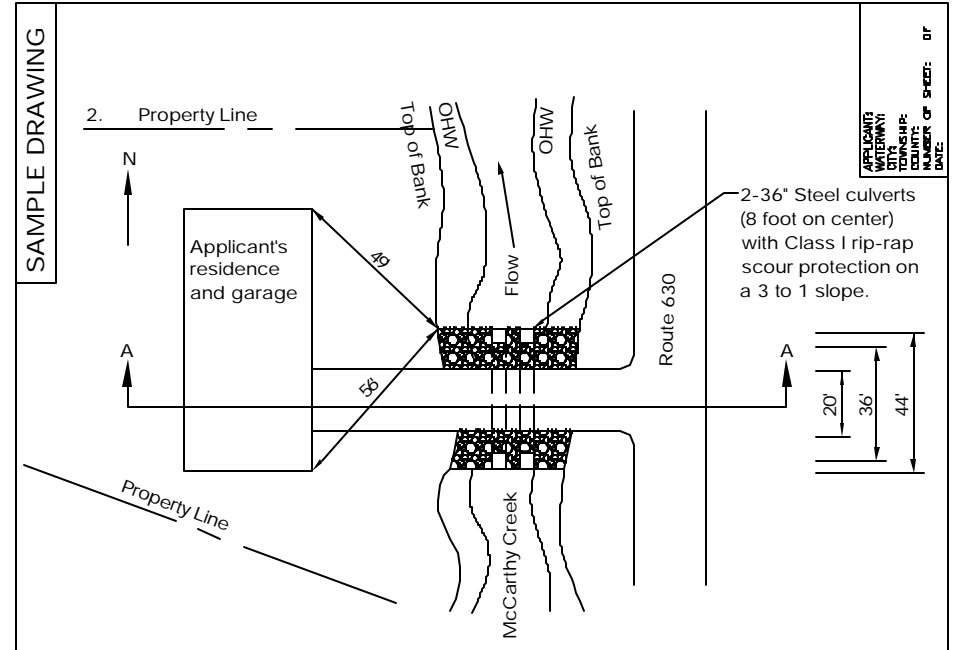
Marsh Toe Stabilization



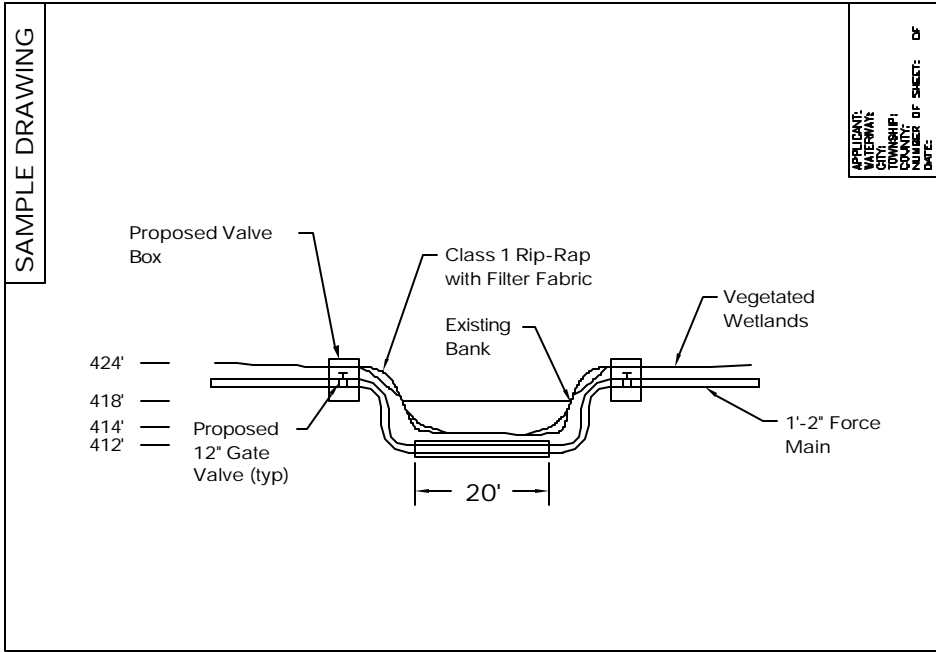
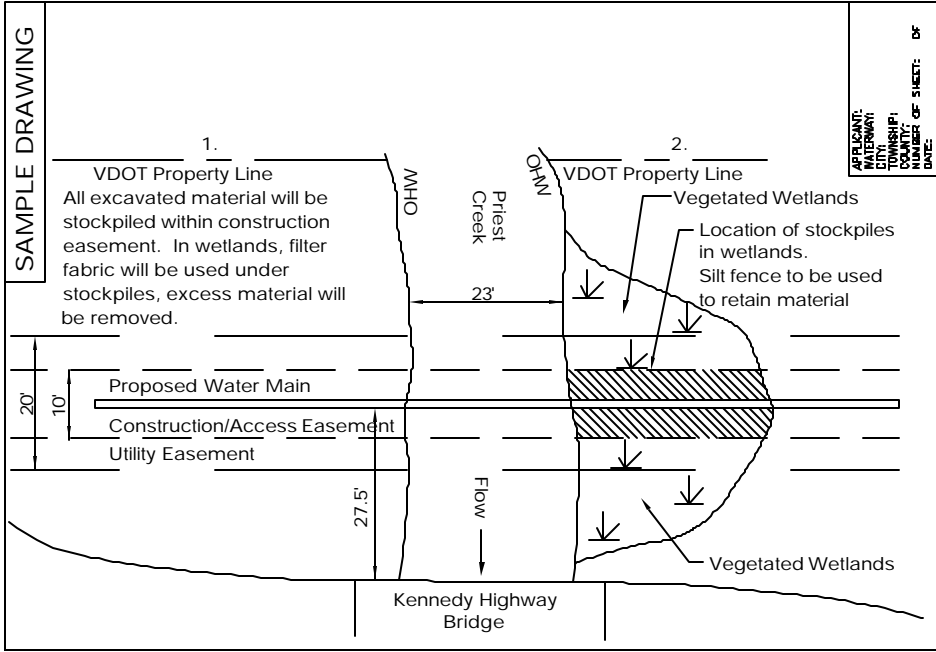
Riprap Revetment & Associated Backfill



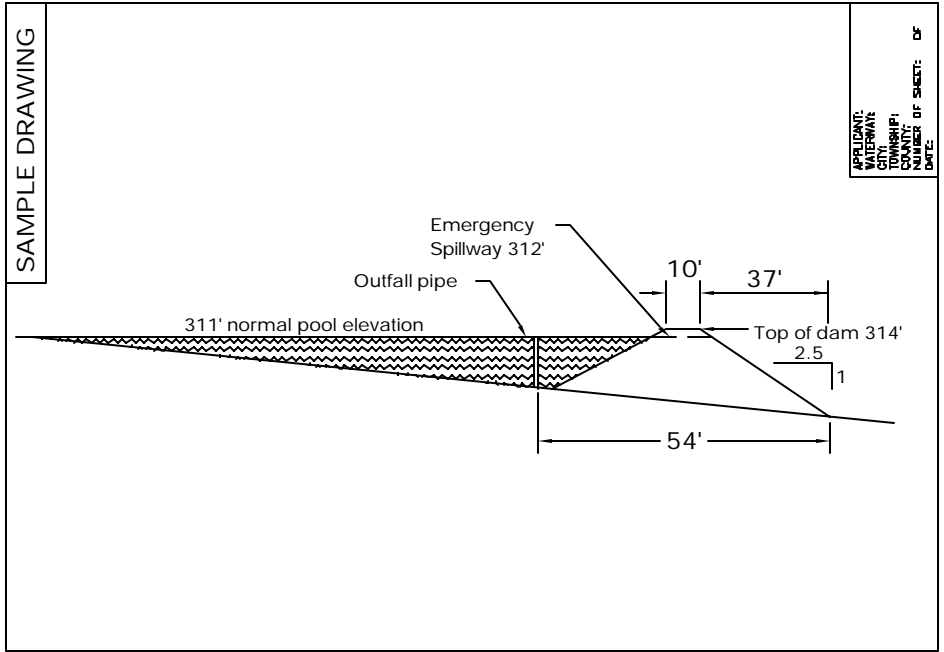
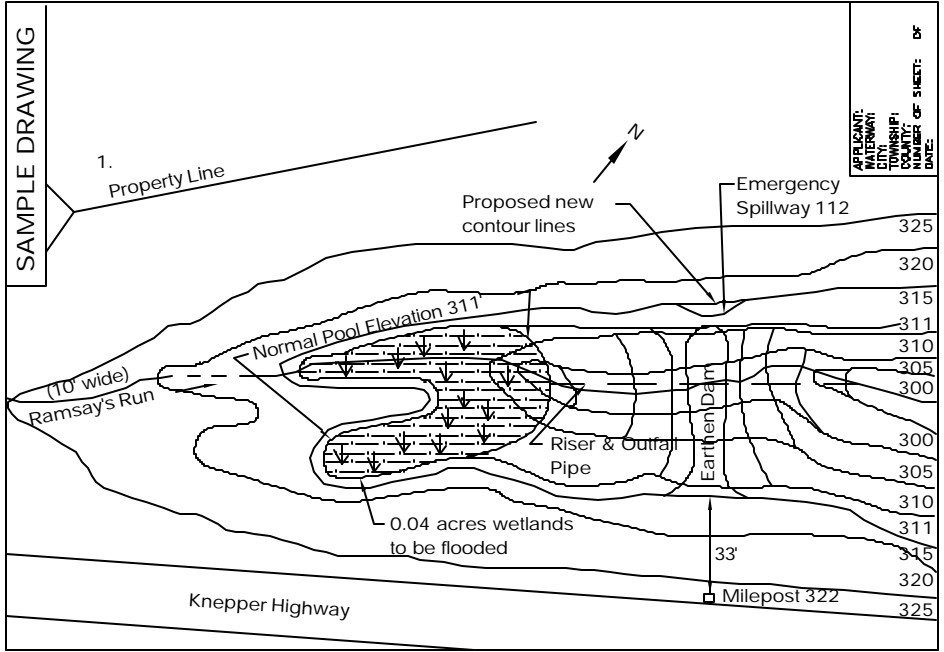
Private & Commercial Aquaculture Activities



Road Crossings



Utility Crossings



Impoundment/Dams

## James Gordon

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**From:** Robert Wilson  
**Sent:** Monday, January 10, 2022 10:31 AM  
**To:** elvinfloyd@hotmail.com  
**Cc:** James Gordon  
**Subject:** Dock Permit Changed for Lake Chesdin  
**Attachments:** ARWA Dock Application Documents\_Current (2021-5) (002).pdf; Guidance\_for\_permits\_12282021.pdf; StandardJPA\_October\_2019-highlights.pdf

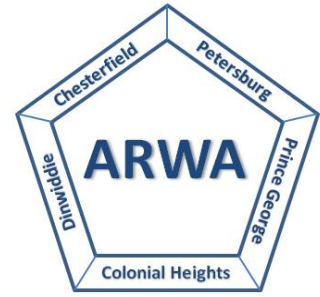
The dock permit process has changed within the last couple of months. Attached are the relevant documents:

- [Guidance\_for\_permits\_12282021.pdf] – provides a summary of the new permit process – Joint Permit Application – JPA, page 1 is for docks.
- [ARWA Dock Application Documents\_Current (2021-5).pdf]
  - Dock owner will need to sign page 2.
  - Complete pages 5-10, owner signs page 10.
  - Complete pages 11 and 12, owner signs page 12 – goes with JPA to Corps. This is RP-17.
  - Complete page 33 for each adjacent neighbor.
  - Complete pages 34 and 35 – contractor and owner sign.
- [StandardJPA\_October\_2019-highlights.pdf]
  - Complete sections 1-11, RP-17 checklist (in ARWA permit package – see above) and forward to Corps of Engineers.
  - Everything submitted to Ms. Hamilton at Corps (see page 7 of [Guidance\_for\_permits]) must be scanned and submitted, no mailed copies. Submit to Ms. Hamilton's email address.

Let me know if you have any questions.

Robert B. Wilson, P.E.  
Executive Director ARWA/SCWWA  
21300 Chesdin Road  
South Chesterfield, VA 23803  
(804) 590-1145 ext. 101 (office)  
(804) 586-7420 (mobile)  
[rwilson@arwava.org](mailto:rwilson@arwava.org)

# Appomattox River Water Authority



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

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## EXHIBIT I

TO: Appomattox River Authority Board of Directors

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

DATE: January 20, 2022

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 17, 2022 at the Appomattox River Water Authority at 2:00 pm.
- The security exercise with the Chesterfield Police Department on October 20<sup>th</sup> was a success. It provided valuable training for staff and identified areas where additional surveillance is needed.
- Comprehensive Position Questionnaires (CPQ's) completed by staff and turned into the Archer Company. Archer has presented preliminary findings and is working towards a Board presentation at the March 17<sup>th</sup> meeting.
- Preliminary rates have been provided to members that have requested. We still need to schedule a meeting with the utility directors for budget review and discussion. The budget will be formally presented to the Board at the March 17<sup>th</sup> meeting. At the March 17<sup>th</sup> meeting we will request the Board set a public hearing date for the May 19<sup>th</sup> meeting for the FY23 Budget. Between March 17<sup>th</sup> and May 19<sup>th</sup>, we will answer any questions.
- Met with engineering consultant to develop Annual Maintenance Inspection report.
- Met with the Chesdin Landing HOA to provide an update on hydrilla, permitting requirements for working on the lake and gather resident's concerns about the lake. Representatives present were myself, Mr. Gordon, and representatives from Chesterfield County – Mr. Carroll – Matoaca Board of Supervisor, Dr. Casey and George Hayes. The main topic of discussion was hydrilla. Several residents volunteered to be on the Hydrilla Management Committee.
- My 2022 vacation is scheduled for May 31<sup>st</sup> through June 10<sup>th</sup>.



➤ Operations

- Received the Partnership for Safe Water's Award for 2020. ARWA has maintained this award since 2009.
- Received the Water Fluoridation Quality Award from the Centers for Disease Control and Prevention (CDC) for 2020. CDC commends our water system for providing high-quality water fluoridation for 12 consecutive months in 2020 representing a high level of operator care and accomplishment.
- Completed washing and draining basins.
- Implementing a strategy to wash the flume for the expanded plant (2003). Flume does not have a drain or good access. Staff vacuuming sludge.
- Continue to look for a Class 1 operator and two trainees.
- Finished water met all permit requirements for September, October, November and December.
- The average daily finished water consumption for September was 42.83 mgd and the total delivered was 1.285 BG. The average daily finished water consumption for October was 42.27 mgd and the total delivered was 1.310 BG. The average daily finished water consumption for November was 29.87 mgd and the total delivered was 0.896 BG. The average daily water consumption for December was 36.03 mgd and the total delivered was 1.117 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 September 1<sup>st</sup> lake level was 1.20" and the December 31<sup>st</sup> lake level was 2.52".
  - Continue to cope with delayed chemical deliveries. Chemical companies advise that bulk chemicals could increase 40% to 50% next year. Chemical bids were advertised December 1<sup>st</sup> with a due date of January 13, 2022.
  - Continue to try to fill operator and operator trainee positions.

➤ Maintenance

- Dock proposals received and award made to Deck Tec to replace Authority dock behind Raw Water Pump Station 2.
- Ordered parts to replace opening mechanisms on Basins 4,5,6. Installation will be by maintenance staff.
- New exclusionary zone (warning for dam) buoys with strobe lights installed. We have not received any complaints for the strobe lights.
- Calibrated plant and field flow meters.
- Resolved VFD issue on finished water pump P16.
- Added new steps and platform for access to cone valve, backside of dam.
- Resolved power issue with 42" finished water mag meter.

➤ Instrumentation

- Working with SCADA vendor to replace Wonderware host system with iFix host system. Both ARWA and SCWWA will have the same SCADA platform.
- Adding additional communication paths for onsite PLC's.
- Addressing redundant server issue for backing up administrative files.
- Working with contractor to add generator control between raw water generator and plant generator for bidirectional power feed under power loss conditions.
- Adding an additional solar camera on the Dinwiddie side of the dam to monitor the boat landing and backside of the dam.
- Developing a library system to track electrical drawings and PLC (programable logic controller) programs. Developing a sequencing system to track PLC changes and who and why changes were made.

➤ Laboratory

- Met all the VPDES requirements for September, October, November and December for the outfalls.
- Training new operator trainees.
- Met monthly requirements for VDH report submittals.
- Completed background groundwater monitoring for lagoons.
- Consultant, Golder, submitted groundwater monitoring results to DEQ for further direction on lagoon monitoring and rehabilitation. The outcome of DEQ's review will determine how to address the waste lagoons.

➤ Phase II In-plant Project

- All Authority supplied valves are onsite.
- Preconstruction meeting held with contractor, MEB.
- MEB is developing a construction schedule. With Addison-Evans going offline near the end of November for ten weeks, we will not start this work before January 2022.
- MEB is scheduling pipework improvements. These improvements require scheduled shutdowns of Finished Water Pump Station 1 and Finished Water Pump Station 2.

➤ 30" Transmission Fortification

- Purchase order cancelled with contractor for nonperformance.
- Staff continue to monitor pipeline.
- Soliciting additional proposals to fortify pipeline.

➤ Prince George Meter Replacement

- This project has been completed.
- New mag meter is in service.

➤ Replace PMT-2

- The transformer has been delivered and is being stored in the warehouse.
- We do not have a delivery date for the breaker section of the panel.

➤ Liquid Lime

- We received approval for the PER submitted to VDH.
- The construction for this conversion is currently shown in FY23/24 in line 58090 – Construction in the operating budget.
- We are requesting part of the surplus in the Revenue Fund be used to fund the construction for the installation of the liquid lime system in FY22/23.

➤ Hydrilla

- Our consultant, Golder Associates, is selecting members for the Hydrilla Management Committee. The proposed group to date is as follows:

○ Department of Wildlife Resources (DWR)	Scott Hermann
○ Chesterfield County, Utility Director	George Hayes
○ Dinwiddie County Water Authority	Ben Jones
○ Appomattox River Water Authority	Robert Wilson
○ Lake Gaston Weed Control Council	TBA
○ Chesdin Landing HOA	TBA
○ Cozy Cove Campground	TBA
○ Seven Springs Marina	TBA

At the Chesdin HOA meeting on November 16<sup>th</sup>, several attendees offered to participate on the Hydrilla Management Committee. A representative from Seven Springs Marina also offered to be on the committee.

➤ Docks

- The dock process has changed and dock permits are being routed through the Corps and Virginia Marine Resources Commission (VMRC).

➤ Miscellaneous

- We received an inquiry to camp on the island at Whippernock Creek. This is from the same individual from last year. At that time it was determined that camping on authority owned property was acceptable. I asked that the requestor to provide a date for camping so that the game warden and Dinwiddie County could be notified.

# EXHIBIT J

## Appomattox River Water Authority-Balance Sheet For Month Ending December 31, 2021

### Assets

#### Current Assets

Petty Cash	\$	400
SunTrust Operating Fund	\$	801,574
SunTrust Replacement Fund	\$	-
<b>Total Unrestricted Cash</b>	<b>\$</b>	<b>801,974</b>

Water Revenue	\$	11,355,672
Reserve Account	\$	4,065,778
Replacement Account	\$	500,000
Debt Service Reserve	\$	1,969,099
Bond Principal/Interest	\$	362,448
Bond Construction	\$	409,416
<b>Total Restricted Cash</b>	<b>\$</b>	<b>18,662,413</b>

<b>Total Checking/Savings</b>	<b>\$</b>	<b>19,464,388</b>
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Accounts Receivable	\$	2,907,478
Other Current Assets	\$	10,779
Inventory	\$	831,667

<b>Total Current Assets</b>	<b>\$</b>	<b>23,214,312</b>
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#### Fixed Assets

Land and Land Rights	\$	1,044,167
Water System	\$	85,582,831
Equipment	\$	1,738,287
Hydro	\$	34,873
Construction in Progress	\$	12,773,550
Accumulated Amortization	\$	(34,873)
Accumulated Depreciation	\$	(53,451,019)
<b>Total Fixed Assets</b>	<b>\$</b>	<b>47,687,816</b>

#### Other Assets

Def Outflow-OPEB GLI	\$	20,179
Def Out Res-Post ER Pension Costs	\$	35,851
Deferred Outflow-OPEB GLI	\$	7,801
Def Out Res-Net Dif Pension Inv	\$	-
Def Out Res-OPEB Experience	\$	43,133
Def Out Res-OPEB Assumptions	\$	1,873
<b>Total Other Assets</b>	<b>\$</b>	<b>108,837</b>

<b>Total Assets</b>	<b>\$</b>	<b>71,010,965</b>
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### Liabilities & Equity

#### Current Liabilities

Accounts Payable	\$	42,427
Retainage Payable	\$	12,492
Accrued Interest Payable	\$	126,732

<b>Total Current Liabilities</b>	<b>\$</b>	<b>181,650</b>
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#### Long Term Liabilities

Def Inf Res-Net Dif Pension Inv	\$	261,124
Def Inf Res-Pen Chg Assumptions	\$	(61,850)
Def Inf Res-Pens Dif Proj/Act E	\$	(184,803)
Net Pension Liability	\$	(335,122)
Def Infl-OPEB Chg of Assumptions	\$	1,092
Deferred Inflow-OPEB GLI	\$	10,214
Deferred Inflow-Expect & Actual	\$	11,985
Bonds Payable-2010	\$	-
Bonds Payable-2012	\$	1,901,000
Bonds Payable-2017	\$	10,383,000
Bonds Payable-2019 Refunding Bond Payment	\$	6,185,000
Bonds Payable-2019 Def Amt on Refunding	\$	(91,617)
Accrued Leave Payable	\$	190,641
Post Employment Benefit	\$	125,096
OPEB Liability-GLI	\$	125,664
<b>Total Long-Term Liabilities</b>	<b>\$</b>	<b>18,521,424</b>

<b>Total Liabilities</b>	<b>\$</b>	<b>18,703,074</b>
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### Equity

Retained Earnings	\$	3,610,632
Reserve for Operations	\$	2,880,200
Reserve for Water Revenue	\$	7,145,445
Reserve for Replacements	\$	500,000
Reserve for Bond Interest	\$	126,732
Reserve for Debt Service	\$	2,094,831
Reserve for Bond Principal	\$	1,601,000
Reserve for Reserve	\$	3,750,300
Fixed Assets, Net of Debt	\$	28,744,065

Net Income	\$	1,854,685
<b>Total Equity</b>	<b>\$</b>	<b>52,307,891</b>

<b>Total Liabilities &amp; Equity</b>	<b>\$</b>	<b>71,010,965</b>
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\$ -

Appomattox River Water Authority  
YTD Income Statement for the period ending December 31, 2021

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 21/22</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	\$ 10,699,057	\$ 5,349,529	\$ 6,380,384	\$ 1,030,855	19.27%
Rent/Misc. Income	\$ 30,000	\$ 15,000	\$ 12,198	\$ (2,802)	-18.68%
<b>Total Operating Revenues</b>	<b>\$ 10,729,057</b>	<b>\$ 5,364,529</b>	<b>\$ 6,392,582</b>	<b>\$ 1,028,053</b>	<b>19.16%</b>

**Expenses**

Personnel Cost	\$ 2,590,100	\$ 1,295,050	\$ 1,142,989	\$ (152,061)	-11.74%
Contractual/Professional Services	\$ 1,049,500	\$ 524,750	\$ 487,686	\$ (37,064)	-7.06%
Utilities	\$ 830,500	\$ 415,250	\$ 438,721	\$ 23,471	5.65%
Communication/Postal/Freight	\$ 56,500	\$ 28,250	\$ 18,696	\$ (9,554)	-33.82%
Office/Lab/Janitorial Supplies	\$ 104,000	\$ 52,000	\$ 55,975	\$ 3,975	7.64%
Insurance	\$ 100,000	\$ 100,000	\$ 100,353	\$ 353	0.35%
Lease/Rental Equipment	\$ 25,000	\$ 12,500	\$ 14,390	\$ 1,890	15.12%
Travel/Training/Dues	\$ 55,000	\$ 27,500	\$ 11,302	\$ (16,198)	-58.90%
Safety/Uniforms	\$ 40,000	\$ 20,000	\$ 8,337	\$ (11,663)	-58.32%
Chemicals	\$ 2,300,000	\$ 1,150,000	\$ 941,864	\$ (208,136)	-18.10%
Repair/Maintenance Parts & Supplies	\$ 350,000	\$ 175,000	\$ 129,000	\$ (46,000)	-26.29%
<b>Total Operating Expenses</b>	<b>\$ 7,500,600</b>	<b>\$ 3,800,300</b>	<b>\$ 3,349,311</b>	<b>\$ (450,989)</b>	<b>-11.87%</b>
<b>Operating Results Suplus/(Deficit)</b>	<b>\$ 3,228,457</b>	<b>\$ 1,564,228</b>	<b>\$ 3,043,270</b>	<b>\$ 1,479,042</b>	<b>94.55%</b>

**Replacement Outlay Budget vs. Actual**

Machinery & Motors-Process	\$ 179,000	\$ 89,500	\$ 23,465	\$ (66,035)	-73.78%
Instrumentation	\$ 281,000	\$ 140,500	\$ 70,300	\$ (70,200)	-49.96%
SCADA	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Furniture/Fixtures	\$ -	\$ -	\$ 21,312	\$ 21,312	#DIV/0!
Motor Vehicles	\$ -	\$ -	\$ 26,348	\$ 26,348	#DIV/0!
Maintenance Equipment	\$ 40,000	\$ 20,000	\$ -	\$ (20,000)	-100.00%
Valve Replacement	\$ 100,000	\$ 50,000	\$ -	\$ (50,000)	-100.00%
Roof Repairs	\$ 100,000	\$ 50,000	\$ -	\$ (50,000)	-100.00%
Dock Improvements	\$ 80,000	\$ 40,000	\$ 18,595	\$ (21,405)	-53.51%
Lagoon Splitter Box Access	\$ 25,000	\$ 12,500	\$ -	\$ (12,500)	-100.00%
Sedimentation Basin Improvements	\$ 235,000	\$ 117,500	\$ -	\$ (117,500)	-100.00%
Single Pane Windows	\$ 100,000	\$ 50,000	\$ -	\$ (50,000)	-100.00%
Prince George Meter Vault	\$ -	\$ -	\$ 65,888	\$ 65,888	#DIV/0!
Security Infrastructure Upgrade	\$ -	\$ -	\$ 48,117	\$ 48,117	#DIV/0!
Warehouse Restroom	\$ -	\$ -	\$ 25,158	\$ 25,158	#DIV/0!
<b>Total Capital Outlay</b>	<b>\$ 1,140,000</b>	<b>\$ 570,000</b>	<b>\$ 299,183</b>	<b>\$ (409,980)</b>	<b>-71.93%</b>

**Construction Outlay Budget vs. Actual**

In-Plant Capital Upgrade	\$ -	\$ -	\$ 390,781	\$ 390,781	#DIV/0!
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**Debt Service Budget vs. Actual**

Interest Income	\$ -	\$ -	\$ 1,842	\$ 1,842	#DIV/0!
Other (Income)	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Sell of Asset	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Interest Expense	\$ 487,457	\$ 487,457	\$ 253,463	\$ (233,994)	-48.00%
Bond Issuance Cost	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Principal Payments	\$ 1,601,000	\$ 1,601,000	\$ 247,000	\$ (1,354,000)	-84.57%

**Other Income/Other Expense**

Alum Litigation Proceeds-Received YTD	\$ -	\$ -	\$ -	\$ -	#DIV/0!
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Alum Litigation Proceeds-Credited to Members YTD	\$	-	\$	-	\$	-	\$	-	#DIV/0!
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**Appomattox River Water Authority  
Executive Review  
Cash And Debt Highlights  
As of December 31, 2021**

<b>Highlights: ARWA Cash Positions</b>		<b>30-Jun-21</b>	<b>31-Dec-21</b>	<b>Change</b>	<b>Explanation</b>
Unrestricted Cash & Investments:					
Petty Cash	\$	400.00	\$ 400.00	\$ -	see explanation (a) below
SunTrust Operating Account	\$	2,926,658.47	\$ 801,574.30	\$ (2,125,084.17)	see explanation (b) below
SunTrust Replacement Fund	\$	200.00	\$ -	\$ (200.00)	see explanation (c) below
Restricted Cash and Investments:					
Water Revenue	\$	6,843,188.10	\$ 11,355,671.72	\$ 4,512,483.62	see explanation (d) below
Reserve Account	\$	4,003,336.28	\$ 4,065,778.07	\$ 62,441.79	see explanation (e) below
Replacement Account	\$	474,195.15	\$ 500,000.00	\$ 25,804.85	see explanation (f) below
Debt Service Reserve	\$	2,090,700.24	\$ 1,969,099.38	\$ (121,600.86)	see explanation (g) below
2012 Bond Principal/Interest	\$	220,519.40	\$ 82,348.94	\$ (138,170.46)	
2017 Bond Principal/Interest	\$	757,674.23	\$ 280,089.88	\$ (477,584.35)	
2019 Bond Principal/Interest	\$	450,368.77	\$ 8.77	\$ (450,360.00)	
2017 Construction	\$	800,124.01	\$ 409,416.45	\$ (390,707.56)	
<b>Total Cash and Investments</b>	<b>\$</b>	<b>18,567,364.65</b>	<b>\$ 19,464,387.51</b>	<b>\$ 897,022.86</b>	

<b>Highlights: ARWA Outstanding Bonds</b>		<b>30-Jun-21</b>	<b>31-Dec-21</b>	<b>Change</b>
2012 Bond	\$	1,901,000.00	\$ 1,901,000.00	\$ -
2017 Bond	\$	11,192,000.00	\$ 10,383,000.00	\$ (809,000.00)
2019 Bond	\$	6,730,000.00	\$ 6,185,000.00	\$ (545,000.00)
2019 Bond-Def Amt on Refund	\$	(91,617.07)	\$ (91,617.07)	\$ -
<b>Total Bonds Outstanding</b>	<b>\$</b>	<b>19,731,382.93</b>	<b>\$ 18,377,382.93</b>	<b>\$ (1,354,000.00)</b>

**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. Financial Policy: Must maintain a minimum of \$500K
- g. 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