



900 Magazine Rd.
Petersburg, VA 23803
Office: (804) 861-0111
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SOUTH CENTRAL WASTEWATER 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 4)
3. Public Comment (Exhibit B, page 5)
4. Executive Director's Report:
 - Annual Audit Presentation for FY21 (Exhibit C, pages 6 to 64)
 - Annual True-up for FY21 (Exhibit D, pages 65 to 67)
 - Nutrient Project Update (Exhibit E, pages 68 to 112)
 - Proposed 2022 meeting schedule (Exhibit F, page 113)
 - Award of Professional Services Contract (Exhibit G, page 114)
 - Budget (Exhibit H, pages 115 to 116)
 - Status Report (Exhibit I, pages 117 to 119)
 - Financials (Exhibit J, pages 120 to 122)
5. Items from Counsel
6. Closed Session
7. Other items from Board Members/Staff Not on Agenda
8. Adjourn

BOARD OF DIRECTORS MEETING
South Central Wastewater 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, (Dinwiddie)
Joseph Casey, (Chesterfield)

ALTERNATES PRESENT:

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

ABSENT:

Percy Ashcraft, (Prince George)
Todd Flippin, (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 SCWWA meeting was called to order after the ARWA meeting by Mr. Smith, Chairman, at 3:49 p.m.

1. Call to Order/Roll Call

The roll was called:	Doug Smith	Present
	Kevin Massengill	Present
	Joseph Casey	Present
	Tangela Innis	Present

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

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

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

For: 4 Against: 0 Abstain: 0

3. Public Comment

There were no Public Comments.

4. Executive Director's Report:

- **Nutrient Project Update**

Mr. Gordon reported on the nutrient project update. He stated Mr. Wilson did contact our WQIF grant writer, Mr. Crocker, to discuss the agreement. Mr. Crocker mentioned that he would revise the agreement, in that Mr. Pomeroy mentioned there was a 96% flow adjustment of eligible funds they were going to provide us and would like to see that go to 100%. He stated he would adjust that to 100% which would equal an additional \$3,000,000-\$4,000,000 in grant funds we would receive. That was verbal and we have not received anything in writing. Mr. Wilson reached out to Mr. Crocker by email who explained he had been swamped and was hoping to get to it today. Mr. Smith stated he had to commend the ongoing great work from staff and consultants that have been assisting. Before we had talked about the 95% that had never been done so to have this positive reaction and hopeful opportunity once it is redrafted to get the 100% eligible, that is outstanding. Mr. Wilson stated we had a good team which included AquaLaw, VAMWA, and McGuireWoods consulting.

- **Status Report: Ongoing Projects/Operations**

Mr. Gordon reported on the status report. He stated The Archer Company was selected to perform the classification and compensation study for both plants. Ms. Wilkins will be managing that project. Mr. Gordon also stated the Vice Chairman position for the SCWWA Board of Directors is currently unfilled.

- **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.

Dr. Casey stated with everything that the State is doing for us, does any of that require a footnote in the financial statements that the auditors may need to disclose? Ms. Wilkins replied we were putting it in the Executive Director’s summary.

5. Items from Counsel

- **Draft Incorporating Subdivision Funding Resolution**

Mr. Anderson stated that in the Board package there are three documents and he had one more to distribute. These relate to the portion of the nutrient removal project that has to do with the borrowing or bond issue. On July 30, 2021, the Authority submitted a grant application to the DEQ for the Clean Water Revolving Fund Loan. VRA administers the Revolving Loan Fund and we have been talking to them for the past twelve months. He spoke with Sean Crumlish and Andrea Pearson of VRA. They will be analyzing the credit between now and mid-December, then the VRA and DEQ will take the whole list of applicants to the State Water Control Board for approval. We will have a commitment letter shortly after that, although he has been told that if there is anything unusual, they will let us know. By mid-December we should have an idea what the credit requirements are going to be plus we will also know what is in the Governor’s budget to make sure that we have gotten all that WQIF grant funding. Mr. Anderson stated that VRA recommended that SCWWA authorize the bond issue at the January meeting. After that take, the Approval Resolutions to the participating jurisdictions. All this would bring a closing somewhere in April, May, or early June range. They also said principal forgiveness is a possibility but given the level of grant funding this project is getting they told us not to hold our breath.

Mr. Anderson reported on the documents. The first is the Authorizing Resolution and that would be the one we take in January to this Board. What it does is it amends and restates the original 1996 financial resolution that the Authority adopted when it first took over the Petersburg wastewater treatment plant. It is designed to tie into the Service Agreement as the 1996 resolution does. We are not recommending any changes to the Service Agreement. Right now, the authorizing resolution draft does not include a Debt Service Relief Fund.

- **Draft Bond Authorizing Resolution**

The second document is the Approval Resolution of Jurisdictions. The example in the Board package is for Chesterfield County. We have one available that we can email to you for your respective jurisdiction. It provides the approval of the borrowing as under the Service Agreement and contains a subject to appropriations support agreement for each of the jurisdictions share of the obligations paid to the Authority which flows through and pays the bonds. Nobody picks up anyone else’s share. The main significance of that document for VRA is that if you were to fail to make good on the Support Agreement, VRA has a mechanism where they can intercept your state aid to the level necessary to pay your portion of the debt service. The revolving loan fund bonds are rated Triple A because that is a part of the security package.

Mr. Anderson stated that Dinwiddie County and Dinwiddie County Water Authority will both be approving resolutions. The Water Authority will approve the issuance of the bonds but there will not be any Support Agreement language in there. Dinwiddie County will approve the bonds and have the Support Agreement language.

- **Draft Support Agreement**

The third document is the Support Agreement, which tracks the language of the resolutions.

The fourth document is a concurrent resolution that would extend the corporate life of SCWWA. Under the Water and Wastewater’s Act the Authority has a fifty year life. The term of the loan from VRA or at least the ones we are looking at now would be twenty-five years after the completion of the project, which would take the Authority beyond its fifty year charter. McGuireWoods did one years ago for ARWA, and this is in its same form where all the jurisdictions would approve it. He left a blank for the extension of term. You do not have to go out fifty years and it could be shortened to five or seven years.

Mr. Anderson stated there is no action requested at this time and we will not be requesting it until January 2022. Dr. Casey asked the timing that would be needed for governing bodies to approve this, and Mr. Anderson answered February to early March. Dr. Casey asked if there were any other governing actions needed as part of this whole package, and Mr. Anderson answered he was not aware of any.

6. Closed Session

There was no Closed Session.

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

Mr. Smith stated currently SCWWA’s Vice-Chairman position is vacant.

Upon a motion made by Dr. Casey and seconded by Ms. Innis, Mr. Massengill was elected Vice-Chairman for the rest of the term of December 2022:

For: 4 Against: 0 Abstain: 0

Dr. Casey referred to the State's role in funding for the Nutrient Upgrade project and asked if we should prepare for any potential administrative changes. He stated he knew Mr. Strickler had left and does not want this project lost in any transitions. Mr. Wilson stated most of the critical correspondence that we had was executed by Mr. Paylor, the Director of DEQ. When we get the grant revised from Mr. Crocker, he thinks we are on solid ground. Mr. Smith stated he signed off on the version that we had.

8. Adjourn

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

Upon a motion by Ms. Innis and seconded by Mr. Massengill the meeting was adjourned at 4:16 p.m.

MINUTES APPROVED BY:

Frank Haltom
Secretary/Treasurer



APPOMATTOX RIVER WATER AUTHORITY
21300 Chesdin Road
Petersburg, VA 23803



SOUTH CENTRAL WASTEWATER AUTHORITY
900 Magazine Road
Petersburg, VA 23803

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

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

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

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

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

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

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



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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

South Central Wastewater Authority



Financial Report For the June 30, 2021

South Central Wastewater Authority

Financial Statements Year Ended June 30, 2021

SOUTH CENTRAL WASTEWATER AUTHORITY

Petersburg, Virginia

(A Public Body Politic and Corporation Chartered July, 1996)

- Board of Directors -

Douglas E. Smith, Chairman
City of Colonial Heights

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

Aretha Ferrell-Benavides, Member
City of Petersburg

Dr. Joseph P. Casey, Member
Chesterfield County

Percy C. Ashcraft, Member
Prince George County

W. Kevin Massengill, Member
County of Dinwiddie

- Officials -

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

James C. Gordon, Assistant Executive Director

McGuire Woods, Counsel

Table of Contents

	<u>Page</u>
Independent Auditors' Report	1-2
Management's Discussion and Analysis.....	3-9
 Financial Statements:	
Statement of Net Position	10-11
Statement of Revenues, Expenses and Changes in Net Position	12
Statement of Cash Flows.....	13
Notes to Financial Statements	14-37
 Required Supplementary Information:	
Schedule of Changes in Net Pension (Asset) Liability and Related Ratios	38
Schedule of Employer Contributions – Pension Plan.....	39
Notes to Required Supplementary Information – Pension Plan.....	40
Schedule of Changes in Total OPEB Liability (Asset) and Related Ratios – Health Insurance	41
Notes to Required Supplementary Information – Health Insurance.....	42
Schedule of Authority's Share of Net OPEB Liability – Group Life Insurance Plan	43
Schedule of Employer Contributions – Group Life Insurance Plan	44
Notes to Required Supplementary Information – Group Life Insurance Plan	45
 Compliance:	
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>	46-47



ROBINSON, FARMER, COX ASSOCIATES, PLLC

Certified Public Accountants

Independent Auditors' Report

**To the Honorable Members of
South Central Wastewater Authority
Petersburg, Virginia**

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities of South Central Wastewater Authority, as of and for the year ended June 30, 2021, and the related notes to the financial statements, which collectively comprise the 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 South Central Wastewater 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 3-9 and 38-45 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 South Central Wastewater 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 South Central Wastewater 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 South Central Wastewater 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 South Central Wastewater Authority's internal control over financial reporting and compliance.



Charlottesville, Virginia
November 5, 2021

Management's Discussion and Analysis

As management of the South Central Wastewater Authority (Authority), we offer readers of the South Central Wastewater Authority's financial statements this narrative overview and analysis of the financial activities of South Central Wastewater 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 of resources, deferred inflows of resources 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).

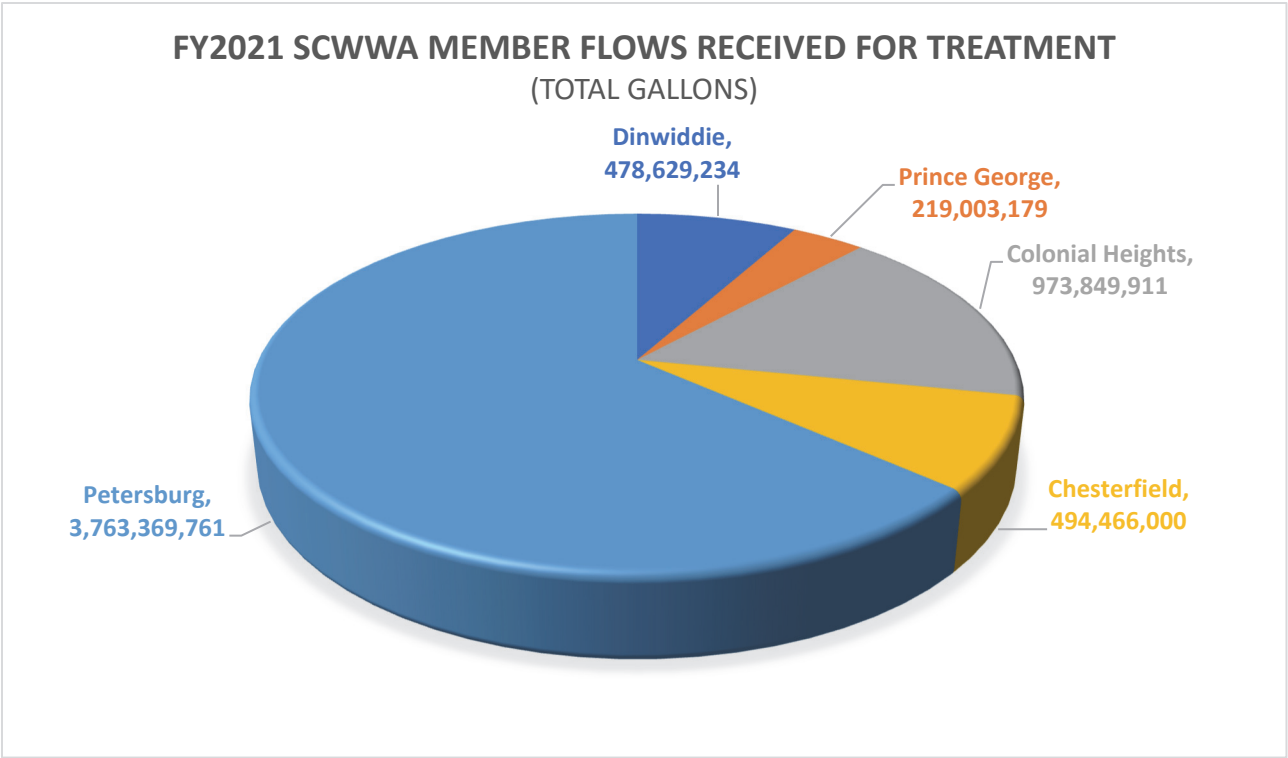
Refer to the table of contents for the basic enterprise fund financial statements.

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.

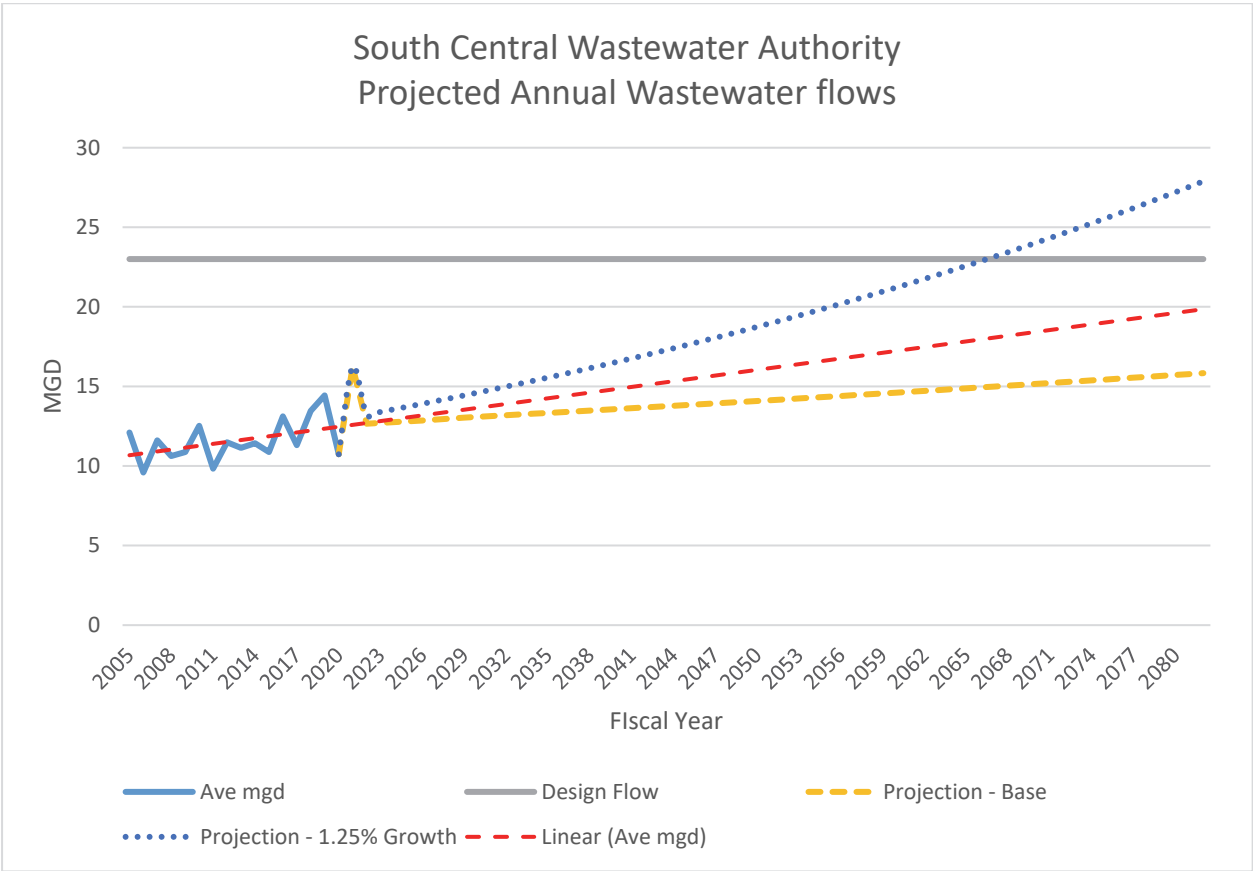
Summary of South Central Wastewater Authority Operations

The South Central Wastewater Authority (Authority) is a body politic and corporate organized under the laws of the Commonwealth of Virginia whose address is 900 Magazine Road, Petersburg, Virginia 23803. The Authority provides wholesale wastewater treatment services to five incorporating subdivisions: 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 wastewater treatment services to the five incorporating subdivisions is outlined in the 1996 Service Agreement and subsequent amendments. The current plant's rated capacity is 23 million gallons per day.

Summary of South Central Wastewater Authority Operations: (Continued)



The treated effluent from the SCWWA wastewater treatment facility discharges to the Appomattox River, a tributary of the James River, a major watershed of the Chesapeake Bay. In FY2021, we saw significantly more precipitation than FY2020 which impacted flows received at the plant. Based on data since 2005, average flows appear to be fairly flat but are variable depending on the rainfall experienced within the fiscal year. Growth projections based off the Base Hazen 2014 projections and the linear flow projections show flows between 14 and 16 mgd in 2050.



Financial Highlights

- The assets and deferred outflows of resources of the Authority exceeded its liabilities at the close of the most recent fiscal year by \$34,849,302 (net position). Of this amount, \$17,897,916 is reported as unrestricted net position.
- The Authority's total net position increased by \$2,293,389.
- The Authority's total long-term debt which includes net OPEB obligations, net pension liability and compensated absences increased by \$392,877 during the current fiscal year. The Authority's investment in capital assets increased during the year by \$6,171 after recording depreciation expense of \$1,252,702. Details of these items can be found under the heading "*Capital Asset and Debt Administration*".
- Total revenues decreased by \$246,975 (net of loss on disposal of capital assets). Total expenses decreased by \$108,959.
- Refunds due to member localities for FY2021 totals \$104,726.

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 \$34,849,302 at the close of the most recent fiscal year.

By far the largest portion of the Authority's net position (48.64 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.

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

	Net Position	
	2021	2020
Current and other assets	\$ 19,034,022	\$ 16,442,436
Capital assets	16,951,386	16,945,215
Total assets	<u>\$ 35,985,408</u>	<u>\$ 33,387,651</u>
Deferred outflows - pension related items	\$ 350,487	\$ 199,557
Deferred outflows - OPEB related items	86,108	34,594
Total deferred outflows	<u>\$ 436,595</u>	<u>\$ 234,151</u>
Long-term liabilities	\$ 1,072,263	\$ 679,386
Other liabilities	451,064	238,388
Total liabilities	<u>\$ 1,523,327</u>	<u>\$ 917,774</u>
Deferred inflows - pension related items	\$ 16,749	\$ 91,843
Deferred inflows - OPEB related items	32,625	56,272
Total deferred inflows	<u>\$ 49,374</u>	<u>\$ 148,115</u>
Investment in capital assets	\$ 16,951,386	\$ 16,945,215
Unrestricted	17,897,916	15,610,698
Total net position	<u><u>\$ 34,849,302</u></u>	<u><u>\$ 32,555,913</u></u>

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

Financial Analysis: (Continued)

		Change in Net Position	
		2021	2020
Revenues:			
Operating revenues	\$	7,266,134	\$ 7,156,126
Gain (loss) on disposal of capital assets		(489,388)	(48,574)
Other nonoperating revenue		72,062	132,782
Investment income		17,664	123,113
Capital contributions		<u>2,250,000</u>	<u>2,000,000</u>
Total revenues	\$	<u>9,116,472</u>	<u>\$ 9,363,447</u>
Expenses:			
Operating expenses (excluding depreciation)	\$	5,570,381	\$ 5,736,833
Depreciation expense		<u>1,252,702</u>	<u>1,195,209</u>
Total expenses	\$	<u>6,823,083</u>	<u>\$ 6,932,042</u>
Increase (decrease) in net position	\$	2,293,389	\$ 2,431,405
Net position-July 1		<u>32,555,913</u>	<u>30,124,508</u>
Net position-June 30	\$	<u><u>34,849,302</u></u>	<u><u>32,555,913</u></u>

The Authority's net position increased by \$2,293,389 during the current year. Key elements of the changes in revenues and expenses 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 \$16,951,386 (net of accumulated depreciation). Investment in capital assets increased by approximately 0.04% during the year. Below is a comparison of the items that make up capital assets as of June 30, 2021 vs. June 30, 2020.

	2021	2020
Land	\$ 92,968	\$ 92,968
Sewer system plant	34,163,853	35,565,964
Plant machinery	6,856,858	7,323,263
Equipment and vehicles	2,506,266	2,545,521
Accumulated depreciation	(28,103,392)	(28,582,501)
Construction in progress	<u>1,434,833</u>	<u>-</u>
Total capital assets	<u><u>\$ 16,951,386</u></u>	<u><u>\$ 16,945,215</u></u>

More detailed information on the Authority's capital assets is presented in Note 4 of the notes to the financial statements.

Capital Asset and Debt Administration: (Continued)

Long-Term Obligations - At the end of the current fiscal year, the Authority's long-term debt included net OPEB obligation, net pension liability and compensated absences. Total long-term debt increased by \$392,877 including an increase in the net pension liability, OPEB obligations and compensated absences. The net pension liability comprised the largest portion of the overall increase in the amount of \$315,332.

More detailed information on the Authority's long-term obligations is presented in the notes to the financial statements.

Review of Operations

As previously mentioned, total revenues decreased by \$246,975. Operating revenues decreased by \$110,008. Operating expenses (excluding depreciation) decreased \$166,452 over fiscal year 2020 totals.

Authority Highlights

- The treatment facility discharge effluent quality met all VPDES permit limits during the fiscal year and no significant problems were encountered with the operating the plant.
- The average flow for fiscal year 2021 was 4.887 mgd more than fiscal year 2020. Rainfall measured at the treatment plant for fiscal year 2021 was 65.46 inches compared to 45.79 inches in fiscal year 2020. Fiscal year 2021 was significantly wetter than fiscal year 2020. Since 2005, the Authority recorded more precipitation in fiscal year 2021 than any other year.

		2021	2020
Total Annual Flow	(mg)	6,120	4,152
Minimum Day	(mgd)	8.550 (June 2021)	8.819 (Oct. 2019)
Maximum Day	(mgd)	41.7667 (Aug 2020)	30.923 (Feb. 2020)
Annual Average Day	(mgd)	16.766	11.879

Note: These annual flow numbers include septage/leachate received and internal facility flows.

- A private exchange contract with Chesterfield County has been signed to secure total nitrogen credits through 2025.
- Continued to provide 24/7 treatment of wastewater during the ongoing COVID-19 crisis while following the Commonwealth of Virginia mandates.
- Successful completion of the FY2019-2020 Audit.
- With the help of AquaLaw and McGuireWoods the Authority received grant approval for 95% eligible funding through the Water Quality Improvement Fund (WQIF) for the Nutrient Reduction Project.
- Awarded the Nutrient Reduction Project engineering design contract to Hazen and Sawyer. Design at the end of the fiscal year was approximately 50% complete.
- Successful DEQ plant inspection.
- Completed installation of Programmable Logic Computer 3 (PLC3). This controls the Authority's Blowers, Sodium Hypochlorite feed, and Sodium Bisulfite feed. This replaced a 20+ year old PLC.
- Authorized work to replace PLC2. This controls the equipment in the Headworks building and is replacing a 20+ year old PLC. The caustic feed and scrubber system were split out to its own PLC as well.
- Industrial Pretreatment Program standards were maintained.
- Awarded project to upgrade the Headworks Drain Pumps Station. The project includes installing a new pump station package and building and running the line to the common flume for the primary clarifiers. SCWWA is furnishing the pump station and enclosure.

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.
 - New air scrubber media was purchased
 - Return Activated Sludge (RAS) flowmeter signal converters were purchased to upgrade the existing units.
 - Repaired one of the RAS pumps.
 - The Belt Filter Presses (BFPs) were maintained in operation. Units received bearing replacements, gearbox rebuilds, roller repairs, belt replacements throughout the year.
 - New sampling pump and a sampling sink were installed at the effluent discharge for the operators.
 - Covers for the Scum Pots were ordered and installed.
 - Installed new System Control and Data Acquisition (SCADA) servers.
 - Authorized installation of new cipher locks around the plant and additional cameras and fencing to improve plant security and visibility.
 - Installed local disconnects at the RAS pumps.
 - Upgraded the safety interlocks on one of the blowers.
 - Updated the Authority website to the latest format.
 - Repaired the Gravity Belt Thickener (GBT) Roller.
 - Ordered replacement caustic feed pumps.
 - Moved the pig pump and electrical controls into the headworks building.

The Commonwealth of Virginia posted its final Chesapeake Bay TMDL Phase III Watershed Implementation Plan (WIP) in August 2019. SCWWA is included in the legislation, HB2129, to be upgraded to achieve 4 milligrams per liter (mg/l) for Total Nitrogen (TN) and 0.3 mg/l of Total Phosphorus (TP). The Commonwealth began negotiations with SCWWA to provide an \$85 million grant through the Water Quality Improvement Fund (WQIF) for the Nutrient Project. The incorporating subdivisions will be responsible for the local share portion of the project that is estimated to be \$35 million. The local share portion of the project will be divided between the incorporating subdivisions by their respective percent ownership in the plant.

Wet Weather Infiltration & Inflow (I&I)

The wastewater facility biological treatment process is very vulnerable to upsets due to high influent flows during wet-weather events. The base design of the SCWWA plant allows for a peak day flow of 57.5 MGD (2.5 times average) and a peak hour flow of 69.0 MGD (3.0 times average). The Authority does not own the wastewater collection systems transporting the influent to the SCWWA facility. From the regulatory perspective, there is the potential that the incorporating subdivisions will be responsible for finding and eliminating I & I sources in their collection systems. The incorporating subdivisions may also need to consider constructing and operating flow equalization facilities to mitigate the I & I that is not practicable to eliminate to prevent surges to the Authority treatment plant. The City of Petersburg has installed a wastewater equalization (holding) basin at their Poore Creek Pump Station to mitigate peak flows from this sewer-shed. In recent years, the Authority has begun noting compliance actions have occurred in Virginia against facilities/jurisdictions with flows in the range of 10 to 100 MGD that have noted sewer system overflows in the collection system.

Authority Highlights: (Continued)

Biosolids Handling

South Central Wastewater Authority utilizes land application for disposal of generated biosolids. For FY2021, minimal biosolids have been maintained onsite. Nutri-Blend routinely hauls biosolids Monday – Friday depending on the weather. There have been instances where there have been large amounts of rain when they have requested to haul on the weekends. They have successfully hauled biosolids offsite within the 30-day contract requirement.

Economic Conditions

The Authority continues to operate under sound management current working capital and positive cash flows from operations and an outside revenue stream. Overall finances for the Authority for fiscal year 2021 as viewed by management, including the Board of Directors, is considered sound.

Contacting the Authority

Questions concerning this report or requests for additional information should be directed to the Executive Director, 21300 Chesdin Road, Petersburg, Virginia 23803, telephone (804) 590-1145.

- Financial Statements -

SOUTH CENTRAL WASTEWATER AUTHORITY

Statement of Net Position

June 30, 2021

(With Comparative Totals for the Prior Year)

	<u>2021</u>	<u>2020</u>
Assets		
Current Assets		
Cash and cash equivalents	\$ 7,737,997	\$ 5,075,367
Cash and cash equivalents - Board designated	10,255,256	10,474,710
Accounts receivable	56,353	56,055
Inventory	937,503	787,928
Prepaid expenses	46,913	48,376
Total Current Assets	\$ <u>19,034,022</u>	\$ <u>16,442,436</u>
Noncurrent Assets		
Capital Assets:		
Land and land rights	\$ 92,968	\$ 92,968
Sewer system	34,163,853	35,565,964
Plant machinery	6,856,858	7,323,263
Equipment and vehicles	2,506,266	2,545,521
Accumulated depreciation	<u>(28,103,392)</u>	<u>(28,582,501)</u>
Sub-total net capital assets	\$ 15,516,553	\$ 16,945,215
Construction in progress	<u>1,434,833</u>	<u>-</u>
Total net capital assets	\$ <u>16,951,386</u>	\$ <u>16,945,215</u>
Total Noncurrent Assets	\$ <u>16,951,386</u>	\$ <u>16,945,215</u>
Total Assets	\$ <u>35,985,408</u>	\$ <u>33,387,651</u>
Deferred Outflows of Resources		
Pension related items	\$ 350,487	\$ 199,557
OPEB related items	<u>86,108</u>	<u>34,594</u>
Total Deferred Outflows of Resources	\$ <u>436,595</u>	\$ <u>234,151</u>

SOUTH CENTRAL WASTEWATER AUTHORITY

Statement of Net Position

June 30, 2021 (continued)

(With Comparative Totals for the Prior Year)

	<u>2021</u>	<u>2020</u>
Liabilities		
Current Liabilities		
Accounts payable and other accrued expenses	\$ 346,338	\$ 168,680
Refunds due to member localities	<u>104,726</u>	<u>69,708</u>
Total Current Liabilities	<u>\$ 451,064</u>	<u>\$ 238,388</u>
Noncurrent Liabilities		
Net OPEB liabilities	\$ 295,870	\$ 229,861
Net pension liability	517,245	201,913
Compensated absences	<u>259,148</u>	<u>247,612</u>
Total Noncurrent Liabilities	<u>\$ 1,072,263</u>	<u>\$ 679,386</u>
Total Liabilities	<u>\$ 1,523,327</u>	<u>\$ 917,774</u>
Deferred Inflows of Resources		
Pension related items	\$ 16,749	\$ 91,843
OPEB related items	<u>32,625</u>	<u>56,272</u>
Total Deferred Inflows of Resources	<u>\$ 49,374</u>	<u>\$ 148,115</u>
Net Position		
Investment in capital assets	\$ 16,951,386	\$ 16,945,215
Unrestricted	<u>17,897,916</u>	<u>15,610,698</u>
Total Net Position	<u>\$ 34,849,302</u>	<u>\$ 32,555,913</u>

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

SOUTH CENTRAL WASTEWATER 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>
Operating Revenues		
Charges for services	\$ 6,379,874	\$ 6,389,991
Septage and miscellaneous	<u>886,260</u>	<u>766,135</u>
Total Operating Revenues	<u>\$ 7,266,134</u>	<u>\$ 7,156,126</u>
Operating Expenses		
Operating and maintenance:		
Salaries	\$ 1,905,154	\$ 1,921,241
Employee benefits	880,732	725,969
Contractual services	288,135	569,239
Chemicals	549,822	526,043
Materials and supplies	536,019	624,338
Sludge disposal	297,540	301,256
Other charges	616,783	597,195
Nutrient credit purchases	496,196	471,552
Depreciation	<u>1,252,702</u>	<u>1,195,209</u>
Total Operating Expenses	<u>\$ 6,823,083</u>	<u>\$ 6,932,042</u>
Net Operating Income (Loss)	<u>\$ 443,051</u>	<u>\$ 224,084</u>
Nonoperating Revenues (Expenses)		
Contributions from member localities:		
Capital reserve	\$ 2,250,000	\$ 2,000,000
Interest income	17,664	123,113
Litigation proceeds	66,717	130,070
Other revenue (expense)	5,345	2,712
Loss on disposal of equipment	<u>(489,388)</u>	<u>(48,574)</u>
Total Nonoperating Revenues (Expenses)	<u>\$ 1,850,338</u>	<u>\$ 2,207,321</u>
Change in net position	\$ 2,293,389	\$ 2,431,405
Net position, beginning of year	<u>32,555,913</u>	<u>30,124,508</u>
Net position, end of year	<u><u>\$ 34,849,302</u></u>	<u><u>\$ 32,555,913</u></u>

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

SOUTH CENTRAL WASTEWATER AUTHORITY

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

	<u>2021</u>	<u>2020</u>
Cash flows from operating activities:		
Receipts from customers and users	\$ 7,300,854	\$ 6,645,172
Payments to suppliers and vendors	(2,923,413)	(3,170,947)
Payments to and on behalf of employees	(2,694,194)	(2,673,002)
Net cash provided by (used for) operating activities	<u>\$ 1,683,247</u>	<u>\$ 801,223</u>
Cash flows from capital and related financing activities:		
Intergovernmental revenue - capital reserve	\$ 2,250,000	\$ 2,000,000
Acquisition of plant and equipment	(1,594,008)	(551,441)
Proceeds from sale of equipment	14,211	3,400
Net cash provided by (used for) capital and related financing activities	<u>\$ 670,203</u>	<u>\$ 1,451,959</u>
Cash flows from noncapital financing activities:		
Litigation proceeds	\$ 66,717	\$ 130,070
Other revenue (expense)	5,345	2,712
Net cash provided by (used for) noncapital financing activities	<u>\$ 72,062</u>	<u>\$ 132,782</u>
Cash flows from investing activities:		
Interest received	\$ 17,664	\$ 123,113
Net cash provided by (used for) investing activities	<u>\$ 17,664</u>	<u>\$ 123,113</u>
Net increase (decrease) in cash and cash equivalents	<u>\$ 2,443,176</u>	<u>\$ 2,509,077</u>
Cash and cash equivalents at beginning of year	<u>\$ 15,550,077</u>	<u>\$ 13,041,000</u>
Cash and cash equivalents at end of year	<u><u>\$ 17,993,253</u></u>	<u><u>\$ 15,550,077</u></u>
Reconciliation of operating income (loss) to net cash provided by (used for) operating activities:		
Operating income (loss)	\$ 443,051	\$ 2,224,084
Adjustments to reconcile operating income (loss) to net cash provided by (used for) operating activities:		
Depreciation	1,252,702	1,195,209
Changes in operating assets, deferred outflows of resources, liabilities, and deferred inflows of resources:		
(Increase) decrease in receivables	(298)	6,159
(Increase) decrease in inventories	(149,575)	(34,682)
(Increase) decrease in prepaid expenses	1,463	841
Increase (decrease) in operating accounts payable and accrued expenses	9,194	(47,483)
Increase (decrease) in refunds due to member localities	35,018	(517,113)
Increase (decrease) in compensated absences	11,536	27,961
Increase (decrease) in net pension liability	315,332	120,431
(Increase) decrease in pension deferred outflows of resources	(150,930)	(95,017)
(Increase) decrease in OPEB deferred outflows of resources	(51,514)	(13,636)
Increase (decrease) in pension deferred inflows of resources	(75,094)	(63,492)
Increase (decrease) in OPEB deferred inflows of resources	(23,647)	(16,799)
Increase (decrease) in OPEB liabilities	66,009	14,760
Net cash provided by (used for) operating activities	<u><u>\$ 1,683,247</u></u>	<u><u>\$ 2,801,223</u></u>

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

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021

NOTE 1 – ORGANIZATION AND NATURE OF BUSINESS:

The South Central Wastewater Authority (Authority) is a body politic and corporate organized under the laws of the Commonwealth of Virginia whose address is 900 Magazine Road, Petersburg, Virginia 23803. The Authority provides wholesale wastewater treatment services to five incorporating subdivisions: 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 wastewater treatment services to the five incorporating subdivisions is outlined in the 1996 Service Agreement and subsequent amendments. The current plant's rated capacity is 23 million gallons per day.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

A. Financial Reporting Entity

The Authority's governing body is comprised of one member appointed by each of the five participating jurisdictions. These governmental entities have an ongoing financial responsibility to the Authority because its continued existence depends on continued funding by the participants. The Authority is a legally separate entity from the participating governments and no participating government has access to its resources or surpluses, nor is any participant liable for the Authority's debts or deficits. The Authority also has the ability to finance its capital projects through user charges or the sale of revenue bonds.

The Authority has been determined to be a joint venture of the five participating jurisdictions. The Authority is not a component unit of any of the participating governments. There are no component units to be included in the Authority's financial statements.

B. Basis of Accounting

South Central Wastewater 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.

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.

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)

C. Basic Financial Statements

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

D. Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, demand deposits, and short-term investments with original maturities of three months or less from the date of acquisition.

E. Accounts Receivable

Accounts receivable is recorded at face value. Since substantially all of the Authority’s receivables are typically collected, no allowance for uncollectible accounts is deemed necessary.

F. Inventories

Inventories are valued at cost using the first-in, first-out method. Inventories consist of expendable supplies held for consumption and are recorded as expenses when used (consumption method).

G. Capital Assets

Capital assets, which include property, plant, equipment, and infrastructure assets (e.g., roads, bridges, sidewalks, and similar items), 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.

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)

G. Capital Assets (Continued)

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:

Sewer system	40 years
Plant machinery	15 years
Equipment and vehicles	5 years

H. Compensated Absences

Authority employees are granted vacation and sick leave in varying amounts. In the event of termination other than retirement, Authority employees are paid for accumulated vacation days based on years of service and are not paid for accumulated sick leave. Upon retirement, Authority employees are paid for accumulated vacation days and a portion of accumulated sick leave. The unused vested portion of vacation and sick leave is recorded as a liability at year end.

I. Use of Estimates

The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, and expenses and disclosure of contingent assets and liabilities for the reported periods. Actual results could differ from those estimates and assumptions.

J. 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.

K. 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 one item that qualifies for reporting in this category. It is comprised of certain items related to the measurement of the net pension liability and net OPEB liabilities and contributions to the pension and OPEB plans made during the current year and subsequent to the net pension liability and net OPEB liability measurement date. For more detailed information on these items, reference the related notes.

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)

K. 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 liability and net OPEB liabilities are reported as deferred inflows of resources. For more detailed information on these items, reference the related notes.

L. Prepaid Expenses

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

M. Pensions

For purposes of measuring the net pension liability, 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 the benefit terms. Investments are reported at fair value.

N. 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.

O. 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.

P. Financial Statement Presentation

Certain amounts in the financial statements of the prior fiscal year have been reclassified to conform to the current financial statement presentation.

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 3 – 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 local governments and other public bodies 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 and Poor’s; or F1 by Fitch Ratings, Inc. (Section 2.2-4502), 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.

Authority's Rated Debt Investments' Values	
<u>Rated Debt Investments</u>	<u>Fair Quality Ratings</u>
	<u>AAAm</u>
Local Government Investment Pool	\$ <u>10,398,927</u>
Total	\$ <u><u>10,398,927</u></u>

Interest Rate Risk:

Investment Maturities (in years)		
	<u>Value</u>	<u>Less Than 1 Year</u>
Local Government Investment Pool	\$ <u>10,398,927</u>	\$ <u>10,398,927</u>
	\$ <u><u>10,398,927</u></u>	\$ <u><u>10,398,927</u></u>

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 3 – DEPOSITS AND INVESTMENTS: (CONTINUED)

External Investment Pool:

The value of the positions in the external investment pool (Local Government Investment Pool) is the same as the value of the pool shares. As LGIP is not SEC registered, regulatory oversight of the pool rests with the Virginia State Treasury. LGIP is an amortized cost basis portfolio. There are no withdrawal limitations or restrictions imposed on participants.

Concentration of Credit Risk:

The Authority's common practice is to establish limitations on portfolio composition by issuer in order to control concentration of credit risk. No more than 5% of the Authority's portfolio will be invested in the securities of any one issuer with the exception of: (1) the U.S. government or agencies thereof, (2) fully insured/collateralized certificates of deposit or repurchase agreements that are collateralized by the U.S. government or agencies thereof, and (3) mutual funds whereby the portfolio is limited to U.S. government or agency securities.

NOTE 4 – CAPITAL ASSETS:

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

	<u>Beginning Balance</u>	<u>Increases</u>	<u>Decreases</u>	<u>Ending Balance</u>
Capital assets not being depreciated:				
Land and land rights	\$ 92,968	\$ -	\$ -	\$ 92,968
Construction in progress	-	1,434,833	-	1,434,833
Total capital assets not being depreciated	<u>\$ 92,968</u>	<u>\$ 1,434,833</u>	<u>\$ -</u>	<u>\$ 1,527,801</u>
Other capital assets, being depreciated:				
Sewer system	\$ 35,565,964	\$ -	\$ 1,402,111	\$ 34,163,853
Plant machinery	7,323,263	108,856	575,261	6,856,858
Equipment and vehicles	2,545,521	218,783	258,038	2,506,266
Total other capital assets being depreciated	<u>\$ 45,434,748</u>	<u>\$ 327,639</u>	<u>\$ 2,235,410</u>	<u>\$ 43,526,977</u>
Accumulated depreciation:				
Sewer system	\$ (20,829,420)	\$ (886,074)	\$ (1,035,131)	\$ (20,680,363)
Plant machinery	(5,646,307)	(289,709)	(439,852)	(5,496,164)
Equipment and vehicles	(2,106,774)	(76,919)	(256,828)	(1,926,865)
Total accumulated depreciation	<u>\$ (28,582,501)</u>	<u>\$ (1,252,702)</u>	<u>\$ (1,731,811)</u>	<u>\$ (28,103,392)</u>
Other capital assets being depreciated, net	<u>\$ 16,852,247</u>	<u>\$ (925,063)</u>	<u>\$ 503,599</u>	<u>\$ 15,423,585</u>
Capital assets, net	<u>\$ 16,945,215</u>	<u>\$ 509,770</u>	<u>\$ 503,599</u>	<u>\$ 16,951,386</u>

Depreciation expense for the fiscal year totaled \$1,252,702.

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 5 – LONG-TERM OBLIGATIONS:

Changes in Long-Term Obligations:

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

	Balance July 1, 2020	Increases	Decreases	Balance June 30, 2021
Net OPEB liabilities	\$ 229,861	\$ 108,792	\$ 42,783	\$ 295,870
Compensated absences	\$ 247,612	\$ 11,536	-	\$ 259,148
Net pension liability	\$ 201,913	\$ 579,468	\$ 264,136	\$ 517,245
Totals	<u>\$ 679,386</u>	<u>\$ 699,796</u>	<u>\$ 306,919</u>	<u>\$ 1,072,263</u>

NOTE 6 – 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.

- 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.
- 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.
- 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.

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 6 – PENSION PLAN: (CONTINUED)

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 1.70% for non-hazardous duty employees. 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. 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.

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:

	<u>Number</u>
Inactive members or their beneficiaries currently receiving benefits	17
Inactive members:	
Vested inactive members	5
Non-vested inactive members	11
Long-term disability (LTD)	-
Inactive members active elsewhere in VRS	<u>14</u>
Total inactive members	30
Active members	<u>34</u>
Total covered employees	<u><u>81</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 6.49% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2019.

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 6 – PENSION PLAN: (CONTINUED)

Contributions (Continued)

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 \$102,715 and \$89,508 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 (asset) 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 was determined by an actuarial valuation performed as of June 30, 2019 rolled forward to the measurement date of June 30, 2020.

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 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 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.

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 6 – PENSION PLAN: (CONTINUED)

Actuarial Assumptions – General Employees (Continued)

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%

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%

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 6 – PENSION PLAN: (CONTINUED)

Long-Term Expected Rate of Return (Continued)

* 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 40th 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.

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	\$ 4,911,299	\$ 4,709,386	\$ 201,913
Changes for the year:			
Service cost	\$ 183,180	\$ -	\$ 183,180
Interest	326,292	-	326,292
Differences between expected and actual experience	66,879	-	66,879
Contributions - employer	-	89,048	(89,048)
Contributions - employee	-	84,445	(84,445)
Net investment income	-	90,643	(90,643)
Benefit payments, including refunds of employee contributions	(154,688)	(154,688)	-
Administrative expenses	-	(3,008)	3,008
Other changes	-	(109)	109
Net changes	\$ 421,663	\$ 106,331	\$ 315,332
Balances at June 30, 2020	\$ 5,332,962	\$ 4,815,717	\$ 517,245

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 6 – PENSION PLAN: (CONTINUED)

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the Authority using the discount rate of 6.75%, as well as what the Authority's net pension 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		
	(5.75%)	(6.75%)	(7.75%)
South Central Wastewater Authority			
Net Pension Liability (Asset)	\$ 1,190,068	\$ 517,245	\$ (42,005)

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 \$191,563. 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	\$ 46,511	\$ 16,749
Change of assumptions	56,895	-
Net difference between projected and actual earnings on pension plan investments	144,366	-
Employer contributions subsequent to the measurement date	102,715	-
Total	\$ <u>350,487</u>	\$ <u>16,749</u>

\$102,715 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 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:

Year ended June 30	
2022	\$ 63,147
2023	74,661
2024	47,661
2025	45,554
2026	-
Thereafter	-

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 6 – PENSION PLAN: (CONTINUED)

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 7 – OTHER POSTEMPLOYMENT BENEFITS PLANS:

Health Insurance

Plan Description

In addition to the pension benefits described in Note 6, 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	32
Total retirees with coverage	<u>14</u>
Total	<u><u>46</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 as the benefits came due during the year ended June 30, 2021 was \$6,681.

Total OPEB Liability

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

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 7 – OTHER POSTEMPLOYMENT BENEFITS PLANS: (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	2.45% for accounting and funding disclosures as of June 30, 2020
	3.13% for accounting and funding disclosures as of June 30, 2019

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

	<u>Total OPEB Liability</u>
Balances at June 30, 2019	\$ 86,824
Changes for the year:	
Service cost	8,075
Interest	2,675
Difference between expected and actual experience	52,499
Changes in assumptions	2,611
Net changes	\$ 65,860
Balances at June 30, 2020	\$ <u>152,684</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:

<u>1% Decrease</u> <u>(1.45%)</u>	<u>Current Discount</u> <u>Rate (2.45%)</u>	<u>1% Increase</u> <u>(3.45%)</u>
\$ 163,257	\$ 152,684	\$ 142,756

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 7 – OTHER POSTEMPLOYMENT BENEFITS PLANS: (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:

	1% Decrease (3.00%)	Healthcare Cost Trend Rates (4.00%)	1% Increase (5.00%)
	<u> </u>	<u> </u>	<u> </u>
\$	137,710	\$ 152,684	\$ 170,386

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 \$1,900. At June 30, 2021, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
	<u> </u>	<u> </u>
Differences between expected and actual experience	\$ 41,999	\$ 19,960
Changes in assumptions	4,181	1,699
Employer contributions subsequent to the measurement date	6,681	-
Total	\$ <u>52,861</u>	\$ <u>21,659</u>

\$6,681 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. Other amounts reported as deferred outflows of resources and deferred inflows of resources will be recognized in OPEB expense in future reporting periods as follows:

Year Ended June 30

2022	\$ (8,849)
2023	11,174
2024	11,174
2025	11,022
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.

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 7 – OTHER POSTEMPLOYMENT BENEFITS PLANS: (CONTINUED)

Group Life Insurance

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 GLI 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.

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 7 – OTHER POSTEMPLOYMENT BENEFITS PLANS: (CONTINUED)

Group Life Insurance: (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 \$9,459 and \$9,189 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 \$143,186 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 as 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 .00858% as compared to 0.00879% at June 30, 2019.

For the year ended June 30, 2021, the participating employer recognized GLI OPEB expense of \$5,101. 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.

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 7 – OTHER POSTEMPLOYMENT BENEFITS PLANS: (CONTINUED)

Group Life Insurance: (Continued)

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

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:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between expected and actual experience	\$ 9,184	\$ 1,286
Net difference between projected and actual earnings on GLI OPEB program investments	4,301	-
Change in assumptions	7,161	2,990
Changes in proportionate share	3,142	6,690
Employer contributions subsequent to the measurement date	<u>9,459</u>	<u>-</u>
Total	<u>\$ 33,247</u>	<u>\$ 10,966</u>

\$9,459 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:

Year Ended June 30

2022	\$ 1,797
2023	3,012
2024	4,120
2025	3,596
2026	336
Thereafter	(39)

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 7 – OTHER POSTEMPLOYMENT BENEFITS PLANS: (CONTINUED)

Group Life Insurance: (Continued)

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.

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.

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 7 – OTHER POSTEMPLOYMENT BENEFITS PLANS: (CONTINUED)

Group Life Insurance: (Continued)

Actuarial Assumptions: (Continued)

Mortality Rates - Non-Largest Ten Locality Employers - General Employees: (Continued)

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):

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

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.

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 7 – OTHER POSTEMPLOYMENT BENEFITS PLANS : (CONTINUED)

Group Life Insurance: (Continued)

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:

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	<u>100.00%</u>		<u>4.64%</u>
		Inflation	<u>2.50%</u>
		Expected arithmetic nominal return*	<u>7.14%</u>

*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 40th 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 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 ended 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 which was 100% of the actuarially determined contribution rate. From July 1, 2020 on, employers are assumed to continue 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.

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 7 – OTHER POSTEMPLOYMENT BENEFITS PLANS: (CONTINUED)

Group Life Insurance: (Continued)

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

The following 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 GLI Plan			
Net OPEB Liability	\$ 188,229	\$ 143,186	\$ 106,607

GLI Plan Fiduciary Net Position

Detailed information about the GLI 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

	South Central Wastewater Authority			
	Deferred Outflows	Deferred Inflows	Net OPEB Liabilities	OPEB Expense
VRS OPEB Plan:				
Group Life Insurance Plan (Note 7)	\$ 33,247	\$ 10,966	\$ 143,186	\$ 5,101
Authority's Stand-Alone Plan (Note 7)	52,861	21,659	152,684	1,900
Totals	<u>\$ 86,108</u>	<u>\$ 32,625</u>	<u>\$ 295,870</u>	<u>\$ 7,001</u>

NOTE 8 – 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.

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 9 – 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>259,148</u>	\$ <u>247,612</u>

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

NOTE 10 – NUTRIENT CREDIT PURCHASES:

During the current year, the Authority was required to purchase nutrient credits in order to remain in compliance with environmental regulations. The total cost of the credits during fiscal year 2021 was \$496,196. The Authority will be required to purchase credits in future years to comply with environmental regulations until the Authority completes the nutrient upgrade project to reduce the levels of nitrogen and phosphorus in the plant. The SCWWA Board committed to purchase credits from the Virginia Nutrient Credit Exchange Association and from Chesterfield County.

NOTE 11 – RELATED PARTY TRANSACTIONS:

The Authority is governed by a common Board of Directors with the Appomattox River Water Authority (“ARWA”). The Authority has an agreement with ARWA to share several key positions utilized by both the Authority and ARWA. Accordingly, the two Authorities share personnel costs necessary to fund the positions. During the current fiscal year the Authority paid reimbursements in the amount of \$161,734 to ARWA for reimbursement of salary and benefits paid to ARWA employees that allocate time and duties with SCWWA. Similarly, the Authority receives a reimbursement from ARWA for salary and benefits for SCWWA employees that allocate time and duties with ARWA. The Authority received a reimbursement of \$177,405 from ARWA.

During 2013, the Authority entered into an agreement with Chesterfield County (the “County”), a member locality, to begin purchasing nitrogen and phosphorus credits from the County to remain in compliance with environmental regulations as disclosed in Note 10. The agreement was to commence with compliance year 2015 and for each year thereafter through and including compliance year 2018. During 2018, the Authority executed an agreement with the County to further extend this agreement for compliance years 2019 and 2020. In July 2019, another agreement was executed with Chesterfield County to supply nitrogen credits through 2024.

NOTE 12 – 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.

SOUTH CENTRAL WASTEWATER AUTHORITY

Notes to Financial Statements
June 30, 2021 (Continued)

NOTE 12 – RISK MANAGEMENT: (CONTINUED)

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.

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 13 – 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.

- Required Supplementary Information -

SOUTH CENTRAL WASTEWATER AUTHORITY

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

	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total pension liability							
Service cost	\$ 183,180	\$ 177,128	\$ 172,960	\$ 162,869	\$ 172,484	\$ 171,384	\$ 164,219
Interest	326,292	307,432	283,750	276,711	269,159	257,015	238,485
Differences between expected and actual experience	66,879	(42,917)	21,506	(91,312)	(199,473)	(116,926)	-
Changes of assumptions	-	145,795	-	(108,626)	-	-	-
Benefit payments, including refunds of employee contributions	(154,688)	(136,054)	(143,735)	(134,457)	(134,098)	(141,873)	(134,116)
Net change in total pension liability	\$ 421,663	\$ 451,384	\$ 334,481	\$ 105,185	\$ 108,072	\$ 169,600	\$ 268,588
Total pension liability - beginning	4,911,299	4,459,915	4,125,434	4,020,249	3,912,177	3,742,577	3,473,989
Total pension liability - ending (a)	\$ 5,332,962	\$ 4,911,299	\$ 4,459,915	\$ 4,125,434	\$ 4,020,249	\$ 3,912,177	\$ 3,742,577
Plan fiduciary net position							
Contributions - employer	\$ 89,048	\$ 89,420	\$ 119,474	\$ 116,205	\$ 136,390	\$ 134,611	\$ 136,218
Contributions - employee	84,445	83,449	85,013	80,016	76,911	76,008	73,798
Net investment income	90,643	297,146	300,041	436,493	62,297	148,134	429,411
Benefit payments, including refunds of employee contributions	(154,688)	(136,054)	(143,735)	(134,457)	(134,098)	(141,873)	(134,116)
Administrative expense	(3,008)	(2,820)	(2,491)	(2,415)	(2,045)	(1,930)	(2,224)
Other	(109)	(188)	(272)	(393)	(26)	(31)	22
Net change in plan fiduciary net position	\$ 106,331	\$ 330,953	\$ 358,030	\$ 495,449	\$ 139,429	\$ 214,919	\$ 503,109
Plan fiduciary net position - beginning	4,709,386	4,378,433	4,020,403	3,524,954	3,385,525	3,170,606	2,667,497
Plan fiduciary net position - ending (b)	\$ 4,815,717	\$ 4,709,386	\$ 4,378,433	\$ 4,020,403	\$ 3,524,954	\$ 3,385,525	\$ 3,170,606
Authority's net pension (asset) liability - ending (a) - (b)	\$ 517,245	\$ 201,913	\$ 81,482	\$ 105,031	\$ 495,295	\$ 526,652	\$ 571,971
Plan fiduciary net position as a percentage of the total pension (asset) liability	90.30%	95.89%	98.17%	97.45%	87.68%	86.54%	84.72%
Covered payroll	\$ 1,766,107	\$ 1,722,725	\$ 1,742,066	\$ 1,623,382	\$ 1,548,944	\$ 1,525,607	\$ 1,478,344
Authority's net pension (asset) liability as a percentage of covered payroll	29.29%	11.72%	4.68%	6.47%	31.98%	34.52%	38.69%

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.

SOUTH CENTRAL WASTEWATER AUTHORITY

Schedule of Employer Contributions - Pension Plan For the Years Ended June 30, 2012 through June 30, 2021

Fiscal Year	Contributions in Relation to			Contributions	
	Contractually Required Contribution (1)	Contractually Required Contribution (2)	Contribution Deficiency (Excess) (3)	Employer's Covered Payroll (4)	as a % of Covered Payroll (5)
2021	\$ 102,715	\$ 102,715	\$ -	\$ 1,751,639	5.86%
2020	89,508	89,508	-	1,766,107	5.07%
2019	89,435	89,435	-	1,722,725	5.19%
2018	119,474	119,474	-	1,742,066	6.86%
2017	113,903	113,903	-	1,623,382	7.02%
2016	136,390	136,390	-	1,548,944	8.81%
2015	136,218	136,218	-	1,525,607	8.93%
2014	136,303	136,303	-	1,478,344	9.22%
2013	135,056	135,056	-	1,464,815	9.22%
2012	101,125	101,125	-	1,383,382	7.31%

SOUTH CENTRAL WASTEWATER AUTHORITY

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

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%

SOUTH CENTRAL WASTEWATER AUTHORITY

Schedule of Changes in Total OPEB Liability (Asset) and Related Ratios - Health Insurance For the Measurement Dates of June 30, 2017 through June 30, 2020

	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Total OPEB liability				
Service cost	\$ 8,075	\$ 7,258	\$ 11,363	\$ 12,090
Interest	2,675	2,705	4,712	3,622
Changes in assumptions	2,611	3,488	(1,284)	(6,890)
Differences between expected and actual experience	52,499	(2,728)	(73,299)	-
Benefit payments	-	-	-	(2,600)
Net change in total OPEB liability	\$ 65,860	\$ 10,723	\$ (58,508)	\$ 6,222
Total OPEB liability - beginning	86,824	76,101	134,609	128,387
Total OPEB liability - ending	<u>\$ 152,684</u>	<u>\$ 86,824</u>	<u>\$ 76,101</u>	<u>\$ 134,609</u>
 Covered-employee payroll	 \$ N/A	 \$ N/A	 \$ N/A	 \$ N/A
 Authority's total OPEB liability (asset) as a percentage of covered payroll	 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.

SOUTH CENTRAL WASTEWATER AUTHORITY

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

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; 2.50% 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.
Demographic Assumptions	Assumed that 50% of employees with medical coverage would elect to retain the coverage at retirement.

SOUTH CENTRAL WASTEWATER 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

Date	Employer's Proportion of the Net GLI OPEB Liability (Asset)	Employer's Proportionate Share of the Net GLI OPEB Liability (Asset)	Employer's Covered Payroll	Employer's Proportionate Share of the Net GLI OPEB Liability (Asset) as a Percentage of Covered Payroll (3)/(4)	Plan Fiduciary Net Position as a Percentage of Total GLI OPEB Liability (6)
(1)	(2)	(3)	(4)	(5)	(6)
2020	0.00858% \$	143,186 \$	1,766,107	8.11%	52.64%
2019	0.00879%	143,037	1,722,725	8.30%	52.00%
2018	0.00916%	139,000	1,742,066	7.98%	51.22%
2017	0.00880%	132,000	1,623,382	8.13%	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.

SOUTH CENTRAL WASTEWATER AUTHORITY

Schedule of Employer Contributions

Group Life Insurance (GLI) Plan

For the Years Ended June 30, 2017 through June 30, 2021

Date	Contractually Required Contribution (1)	Contributions in Relation to Contractually Required Contribution (2)	Contribution Deficiency (Excess) (3)	Employer's Covered Payroll (4)	Contributions as a % of Covered Payroll (5)
2021	\$ 9,459	\$ 9,459	\$ -	\$ 1,751,639	0.54%
2020	9,189	9,189	-	1,766,107	0.52%
2019	8,958	8,958	-	1,722,725	0.52%
2018	9,059	9,059	-	1,742,066	0.52%
2017	8,442	8,442	-	1,623,382	0.52%

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.

SOUTH CENTRAL WASTEWATER AUTHORITY

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

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	Decreased 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***

**To the Honorable Members of
South Central Wastewater Authority
Petersburg, 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 South Central Wastewater Authority as of and for the year ended June 30, 2021, and the related notes to the financial statements, which collectively comprise South Central Wastewater 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 South Central Wastewater 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 South Central Wastewater Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of South Central Wastewater 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 South Central Wastewater 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

Independent Accountants' Report

Auditor of Public Accounts

P.O. Box 1295

Richmond, VA 23218

We have examined management of South Central Wastewater Authority's assertion that the census data reported to the Virginia Retirement System by South Central Wastewater 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. South Central Wastewater 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 South Central Wastewater 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 South Central Wastewater 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 South Central Wastewater Authority was responsible.

The following table reflects the population size and sample size for each procedure performed over the control environment for which South Central Wastewater Authority was responsible:

Required Audit Procedure	Population Size	Sample Size*	Risks and Other Considerations Used to Determine Sample Size
Review of Census Data Elements	38	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	5	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

Communication with Those Charged with Governance

To the Board of Directors South Central Wastewater Authority

We have audited the financial statements of the business-type activities of South Central Wastewater 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 August 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 2 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 South Central Wastewater 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



900 Magazine Rd.
Petersburg, VA 23803
Office: (804) 861-0111
Fax: (804) 861-3254

EXHIBIT D

TO: South Central Wastewater Authority Board of Directors

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

SUBJECT: FY 20/21 True-up

DATE: January 20, 2022

During budget development, the South Central Wastewater Authority (SCWWA) estimates the annual flows originating from each Incorporating Subdivision using the average from the prior 5 years. The SCWWA uses these flow estimates to calculate a percent of Operation and Maintenance Charges per member for the upcoming budget. Per the Authority's Service Agreement, at the end of each fiscal year, the Authority shall provide to each Incorporating Subdivision a statement showing in respect of such Fiscal Year its calculation of the Incorporating Subdivision's actual share of total aggregate Operating and Maintenance Charges and the excess or deficit in the amount of Operating and Maintenance Charges actually paid by the Incorporating Subdivision during such Fiscal Year.

On July 19, 2021, the SCWWA distributed the 4th quarter flow summary for FY20/21 (Attachment #1) to the utility directors of each incorporating subdivision that shows the estimated and actual percent of flows. On page 11 of the FY20/21 audit report, it states that the actual Operating and Maintenance Charges were \$104,726 less than budgeted. This amount and the actual percent of flows were used to calculate the annual true-up (Attachment #2).

Incorporating subdivision that are due a refund can have the amount credited to their bill or the Authority can issue a check with the January 31, 2022 payments. Incorporating subdivision that show a shortfall and owe additional funds will be issued an invoice with a balance due by June 30, 2022.

Board Action Requested:

Staff requests direction from members owed a refund on the preferred option.

Attachment #1

South Central Wastewater AuthorityFiscal Year 20/21

Summary of Use (%)

	Dinwiddie	Prince George	Colonial Heights	Chesterfield	Petersburg	Total		Rainfall(Inches)
July	10.491%	5.170%	16.262%	7.913%	60.163%	100.000%	July	3.57
Aug	7.788%	4.126%	15.099%	8.868%	64.118%	100.000%	Aug	14.86
Sept	6.782%	3.955%	15.828%	9.297%	64.139%	100.000%	Sept	7.71
Oct	5.787%	3.554%	11.101%	8.434%	71.123%	100.000%	Oct	5.54
Nov	11.412%	4.022%	18.634%	11.263%	54.669%	100.000%	Nov	3.75
Dec	8.653%	3.344%	19.660%	9.801%	58.542%	100.000%	Dec	5.82
Jan	6.933%	3.450%	14.591%	7.922%	67.104%	100.000%	Jan	4.24
Feb	8.039%	3.388%	17.561%	7.614%	63.398%	100.000%	Feb	5.26
Mar	11.769%	3.514%	21.014%	7.189%	56.515%	100.000%	Mar	5.93
Apr	5.961%	2.300%	13.203%	5.436%	73.100%	100.000%	Apr	1.46
May	8.176%	5.414%	19.672%	11.593%	55.144%	100.000%	May	1.68
June	7.100%	4.094%	18.935%	7.094%	62.776%	100.000%	June	5.64
Budget							TOTAL	65.46
Projection	8.551%	6.330%	18.079%	8.127%	58.913%	100.000%		
1st Quarter	8.107%	4.324%	15.633%	8.781%	63.156%	100.000%		
2nd Quarter	8.214%	3.613%	15.858%	9.631%	62.684%	100.000%		
3rd Quarter	8.880%	3.449%	17.708%	7.577%	62.386%	100.000%		
4th Quarter	6.758%	3.479%	16.265%	7.191%	66.307%	100.000%		
Year to Date	8.072%	3.694%	16.424%	8.339%	63.471%	100.000%		
Budget Adj.	-0.479%	-2.637%	-1.655%	0.213%	4.558%			
Subtotals (gallons)						Total		
1st Qtr	105,467,652	56,251,250	203,389,838	114,240,000	821,668,217	1,301,016,957		
2nd Quarter	137,535,251	60,499,259	265,544,666	161,268,000	1,049,642,221	1,674,489,397		
3rd Quarter	150,650,342	58,502,570	300,403,525	128,543,000	1,058,337,390	1,696,436,827		
4th Quarter	84,975,989	43,750,100	204,511,882	90,415,000	833,721,932	1,257,374,903		

Attachment #2

SOUTH CENTRAL WASTEWATER AUTHORITY

FY 2021 Budget

BUDGET ADJUSTMENT

Operations and Maintenance, Equipment Repair and Replacement Funds and Debt Service billing per July 2, 1996 Service Agreement

Operation and Maintenance, Section 10, Para. 2 Budget: 6,484,600.00

Community	<u>Petersburg</u>	<u>Colonial Heights</u>	<u>Chesterfield</u>	<u>Prince George</u>	<u>Dinwiddie</u>	
% O&M Budget	58.913%	18.079%	8.127%	6.330%	8.551%	1.000000
O&M Amount Billed Off % Above	3,820,251.90	1,172,362.57	526,988.72	410,493.94	554,502.87	6,484,600.00
Actual:					6,379,873.84	104,726.16
Community	<u>Petersburg</u>	<u>Colonial Heights</u>	<u>Chesterfield</u>	<u>Prince George</u>	<u>Dinwiddie</u>	
% O&M Actual	63.471%	16.424%	8.339%	3.694%	8.072%	1.000000000000
O&M Amount Actually Due	4,049,339.90	1,047,850.61	532,039.38	235,644.75	514,999.21	6,379,873.84
						0
Option 1 (Arrear continue to be paid month thru August 2020)						
O&M SHORTFALL OWED/(REFUND DUE)	229,087.99	(124,511.96)	5,050.66	(174,849.19)	(39,503.66)	(104,726.16)



900 Magazine Rd.
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Fax: (804) 861-3254

Exhibit E

TO: South Central Wastewater Authority Board of Directors

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

DATE: January 20, 2022

SUBJECT: Nutrient Project Update

Since the September 2021 meeting, the following effort has taken place on the Nutrient Project:

- We received confirmation in October that the access road across Pocahontas Island must have a 50' right of way and have 30' of pavement for the City to receive maintenance funding from VDOT. Our design engineers are using these criteria for the minimum design requirement. The design originally had 24' of pavement with 2.5' of curb and gutter on each side and a 55' right of way. The required revisions have been made and the plans resubmitted. We are working through the process to acquire the right of way.
- Mr. Wilson has provided updates on the Nutrient Reduction Project at each member Jurisdiction's Supervisor/Council meetings.
- Hazen and Sawyer and staff are currently participating in biweekly meetings. This was increased from monthly to finalize critical decisions needed to move the design along.
 - Repurpose the existing Sodium Hypochlorite Building to store and feed Sodium Hypochlorite and Carbon. This will eliminate the need for an additional building for the new Carbon feed via MicroC.
 - Non-Potable Water pump station. Hazen has been discussing this with our staff to ensure the new pump station has the necessary volume and pressure to meet the current and future needs of the plant as well as the pressure and volume requirements for the GBT's and BFP's.
 - Alum feed location. The decision has been made to inject the alum in two locations at the north reactor effluent channel with mechanical mixing. Staff feels we will have adequate dosing control with this configuration. This aids in coagulation in the clarifiers.
 - South reactor operation. Staff has requested the top deck have as much grating as possible for operator observations and maintenance activities. We also discussed the operation for splitting the flow from the Primary Clarifier Effluent. Hazen has proposed some options for the Nitrified Recycle (NRCY) flow distribution. Staff is evaluating the options.
 - Additional details have been discussed related to the updated layouts for the Administration Building and Laboratory.
 - Blower Building. The electrical gear will be moved out to a separate building. Staff has provided a design to extend the existing operators lab to provide a backup SCADA room and separation of operators to address future public health crisis.

- Hazen and Sawyer has provided a revised schedule based on the progress made thus far.
 - Provide a draft prequalification package for review – February 15, 2022
 - Prequalification package advertised for contractors – March 15, 2022
 - Contractor prequalification package due – April 4, 2022
 - Contractor shortlist and 100% Design submittal – April 29, 2022
 - Certificate to Construct Application – May 6, 2022 (VPDES Permit requirement)
 - Project Advertisement – May 13, 2022
 - Bids due – June 24, 2022
 - Schedule float if addendums to bid, bids due – July 8, 2022
 - Recommendation of Award by Engineer – July 22, 2022
 - Request for project award at SCWWA Board Meeting – July 28, 2022 (board meeting moved to 4th week)
 - Actual Construction Notice to Proceed – August 4, 2022
 - Construction Notice to Proceed – December 2022 (Requirement of Grant)
 - Certificate to Operate – December 2025 (Requirement of Grant)
- When bids are received, DEQ will plug in “as bid” numbers and recalculate the grant. Prior to making project award on July 28th, the Board will have to have made a decision on funding the local share portion of the project.
- The Request for Quotations (RFQ) to Pre-Purchase the Gravity Belt Thickeners, Belt Filter Presses, and lime mixing equipment and controls is ready for advertisement and will be sent out by the end of January.
- Design for upgrading the existing insertion probe flow meters to mag flow meter on the 3 influent lines has been reviewed.
- We received an email from the SCWWA’s Virginia Pollution Discharge Elimination System (VPDES) permit writer. A modification of our permit is required by the grant. We received the modification for comment. There were some concerns related to the revisions and Mr. Pomeroy assisted us with our reply. A footnote was added to the permit to clarify the new limits do not take effect until calendar year 2026. EPA also provided comments to DEQ on the modification. They requested interim requirements that are enforceable actions leading to compliance with the final requirement. After consulting with Mr. Pomeroy, staff agreed the modifications were acceptable. The interim requirements were aligned with the grant agreement and the schedule provided by our design engineer.
 - Complete PER – 1/10/2020 (complete)
 - Submit application for Certificate to Construct (CTC) – 5/6/2022
 - Submit for Certificate to Operate (CTO) – 12/31/2025
 - Submit Progress Report – 2/1 of each year beginning 2022
 - Achieve compliance with final effluent limits (4 mg/L TN and 0.3 mg/L TP) – 1/1/2026
- On October 27, 2021, management and counsel participated in a conference call with VRA and DEQ to discuss the Clean Water Revolving Loan Fund (CW-RLF).
 - 33 applications totaling \$445 million were received.
 - Public comment period ended 10/29/2021. State Water Control Board will now review list and provide authorization on 12/14/2021. Max term is 25 years (minimum interest rate is 1%)

- 20 year interest rate = 1.5% below market
 - 25 year interest rate = 1.25% below market
- Reviewed procedural and procurement processes. Several items fall in line with WQIF requirements.
 - Reporting requirements were discussed (MBE/WBE, Davis-Bacon, American Iron and Steel)
- Mr. Wilson asked if the member support agreements were acceptable and when would we need to have them finalized. VRA is going to review and will let us know.
- Loan closing is coordinated with the first reimbursement. Reimbursement request procedures were discussed.
- DEQ requires a fiscal sustainability plan upon completion of construction.
- Prequalification for bidders will not be an issue for DEQ as long as the considerations are shared with them in advance.
- Bidders must be made aware of Davis-Bacon, American Iron and Steel, and MBE/WBE requirements prior to submittal.
- On December 14th, VRA presented SCWWA's funding request to the State Water Control Board (SWCB). The SWCB authorized funding for the local share of the SCWWA Nutrient Reduction Project. A copy of the approval letter from CW-RLF is included as Attachment 1.
- Counsel will update the board on the latest financing strategy for the local share.
- The ARWA's current corporate life is scheduled to expire June 1, 2051. If the board is interested, the two corporate lives can be aligned as part of this process. SCWWA's current corporate life expires on March 11, 2046.
- The SCWWA WQIF agreement was received on November 3, 2021. The agreement has been updated to increase the grant amount since Mr. Chris Pomeroy presented it at the July 2021 Board meeting. Both the final executed agreement (Attachment 2) and original agreement (Attachment 3) are included for your review.
 - Both agreements were based on a total project cost of \$112,584,540
 - The updated grant amount is \$85,373,055
 - Original grant amount was \$81,958,133
 - The updated agreement was executed per the approved resolution (Attachment 4) at the July 2021 Board of Directors meeting.
 - Mr. Crocker picked up the executed agreement on November 5, 2021 and delivered it to DEQ Director, Mr. Paylor. Mr. Paylor signed the grant agreement on November 15, 2021.

Board Action Requested:

Staff requests direction on securing financing for the local share of the Nutrient Reduction Project.



Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Ann F. Jennings
Secretary of Natural and Historic Resources

David K. Paylor
Director
(804) 698-4000

December 21, 2021

Mr. Robert B. Wilson
South Central Wastewater Authority
900 Magazine Road
Petersburg, Virginia 23803
rwilson@arwava.org

Re: Virginia Clean Water Revolving Loan Fund Program
FY 2022 – South Central Wastewater Authority – C-515747
South Central Wastewater Treatment Plant Improvements
Loan Authorization

Dear Mr. Wilson:

I am pleased to inform you that the State Water Control Board, at its meeting December 14, 2021, authorized a loan for the referenced project from the Virginia Clean Water Revolving Loan Fund (VCWRLF). The authorization is contingent upon our receipt of a favorable financial report and recommendation from the Virginia Resources Authority (VRA) and your compliance with all program requirements. The loan amount and interest rate for your project, as established by the Board, are as follows:

\$30,626,407 @ Program Rate, up to 25 years

Please note the VCWRLF identifier number as referenced **C-515747** is the VCWRLF number assigned to your loan project. This number should be used on all correspondence and documents associated with the loan project. The Project Manager (PM) and Project Officer (PO) assigned to your loan project is Matthew Link located in the DEQ Central Office and he can be reached at (804) 929-5585 or Matthew.Link@deq.virginia.gov.

We look forward to working with you on this project. Please do not hesitate to contact me at (804) 836-5912 or karen.doran@deq.virginia.gov if you have any questions or need assistance.

Sincerely,

A handwritten signature in cursive script that reads "Karen M. Doran".

Karen M. Doran, Program Manager
Clean Water Financing & Assistance Program

cc: Shawn Crumlish – Virginia Resources Authority
Matthew Link – DEQ/CO – Project Manager & Project Officer

**VIRGINIA WATER QUALITY IMPROVEMENT FUND
POINT SOURCE GRANT AND
OPERATION AND MAINTENANCE AGREEMENT
Contract #440-S-20-03**

THIS AGREEMENT is made as of this 15th day of November, 2021, by and between the Director of the Virginia Department of Environmental Quality in his official capacity, or his designee (the "Director"), and the South Central Wastewater Authority (the "Grantee").

Pursuant to the Virginia Water Quality Improvement Act of 1997, Chapter 21.1, Title 10.1 of the Code of Virginia (1950), as amended (the "Act"), the General Assembly created the Virginia Water Quality Improvement Fund (the "Fund"). The Director, in coordination with the Director of the Department of Conservation and Recreation, is authorized by the Act to make Water Quality Improvement grants related to point source pollution control, in accordance with guidelines established pursuant to Section 10.1-2129 of the Code, and enter into agreements with grantees under the Act which shall, in accordance with Sections 10.1-2130 and 10.1-2131, provide for the payment of the total amount of the grant and require proper long-term operation, monitoring and maintenance of funded projects.

The Grantee has been approved by the Director to receive a Grant from the Fund subject to the terms and conditions herein to finance ninety-five percent (95%) of the cost of the Eligible Project, which consists of the design and installation of Nutrient Removal Technology as described herein. The Grantee will use the Grant to finance that portion of the Eligible Project Costs not being paid for from other sources as set forth in the Total Project Budget in Exhibit B to this Agreement. Such other sources may include, but are not limited to, the Virginia Water Facilities Revolving Fund, Chapter 22, Title 62.1 of the Code of Virginia (1950), as amended.

As required by the Act, this Agreement provides for payment of the Grant, design and construction of the Project, and proper long-term operation, monitoring, and maintenance of the Project. This Agreement is supplemental to the State Water Control Law, Chapter 3.1, Title 62.1 of the Code of Virginia (1950), as amended, and it does not limit in any way the other water quality restoration, protection and enhancement, or enforcement authority of the Director, the State Water Control Board (the "Board") or the Department of Environmental Quality (the "Department").

**ARTICLE I
DEFINITIONS**

1. The capitalized terms contained in this Agreement shall have the meanings set forth below unless the context requires otherwise and any capitalized terms not otherwise defined herein shall have the meaning assigned to such terms in the Act:

(a) "Agreement" means this Virginia Water Quality Improvement Fund Point Source Grant and Operation and Maintenance Agreement between the Director and the Grantee, together with any amendments or supplements hereto.

(b) "Authorized Representative" means any member, official or employee of the Grantee authorized by resolution, ordinance or other official act of the governing body of the Grantee to perform the act or sign the document in question.

(c) "Eligible Project" means the particular Nutrient Removal Technology described in Exhibit A to this Agreement to be designed and constructed by the Grantee with, among other monies, the Grant, with such changes thereto as may be approved in writing by the Director and the Grantee.

(d) "Eligible Project Costs" means costs of the individual items comprising the Eligible Project as permitted by the Act with such changes thereto as may be approved in writing by the Director and the Grantee.

(e) "Extraordinary Conditions" means unforeseeable or exceptional conditions resulting from causes beyond the reasonable control of the Grantee such as, but not limited to fires, strikes, acts of God, and acts of third parties that singly or in combination cause material breach of this Agreement.

(f) "Facility" means all plants, systems, unit processes, equipment or property related to the Project, and owned, operated, or maintained by the Grantee and used in connection with the treatment of wastewater.

(g) "Grant" means the particular grant described in Section 4.0 of this Agreement, with such changes thereto as may be approved in writing by the Director and the Grantee.

(h) "Monetary Assessment" means a contractual or stipulated penalty as described in Section 10.1-2130 of the Code.

(i) "Nutrient Removal Technology" means state-of-the-art nutrient removal technology, biological nutrient removal technology, or other nutrient removal technology, as further described in Section 10.1-2117 of the Code.

(j) "Preliminary Engineering Proposal" means the engineering report and preliminary plans for the Project as described in 9 VAC 25-790-110, as modified by the final engineering design approved by the Department.

(k) "Total Eligible Project Budget" means the sum of the Eligible Project Costs as set forth in Exhibit B to this Agreement, with such changes thereto as may be approved in writing by the Director and the Grantee.

(l) "Total Project Budget" means the sum of the Eligible Project Costs and any ineligible costs that are solely the responsibility of the Grantee, as set forth in Exhibit B to this Agreement, with such changes thereto as may be approved in writing by the Director and the Grantee.

(m) "Project Engineer" means the Grantee's engineer who must be a licensed professional engineer registered to do business in Virginia and designated by the Grantee as the Grantee's engineer for the Project in a written notice to the Department.

(n) "Project Schedule" means the schedule for the Project as set forth in Exhibit C to this Agreement, with such changes thereto as may be approved in writing by the Director and the Grantee.

ARTICLE II

SCOPE OF PROJECT

2. The Grantee will cause the Project to be designed, constructed and placed in operation as described in Exhibit A to this Agreement to meet effluent concentration limitations of 4.0 mg/l for total nitrogen, and 0.30 mg/l for total phosphorus, both on an annual average basis.

ARTICLE III

SCHEDULE

3. The Grantee will cause the Eligible Project to be designed, constructed and placed in operation in accordance with the Project Schedule in Exhibit C to this Agreement.

ARTICLE IV

COMPENSATION

4.0. Grant Amount. The total grant award from the Fund under this Agreement is \$85,373,055 and represents the Commonwealth's ninety-five percent (95%) share of the Total Eligible Project Budget. Any material changes made to the Eligible Project after execution of this Agreement, which alters the Total Eligible Project Budget, will be submitted to the Department for review of grant eligibility. The amount of the grant award set forth herein may be modified from time to time by agreement of the parties to reflect changes to the Eligible Project or the Total Eligible Project Budget.

4.1. Payment of Grant. Payment of the Grant is subject to the availability of monies in the Fund allocated to point source pollution control and Section 4.4 herein. Disbursement of the Grant will be in accordance with the payment provisions set forth in Section 4.2 herein and the eligibility determinations made in the Total Project Budget (Exhibit B).

4.2. Disbursement of Grant Funds. The Department will disburse the Grant to the Grantee not more frequently than once each calendar month upon receipt by the Department of the following:

(a) A requisition for approval by the Department, signed by the Authorized Representative and containing all receipts, vouchers, statements, invoices or other evidence that costs in the Total Project Budget, including the applicable local share for the portion of the project covered by such requisition, have been incurred or expended and all other information called for by, and otherwise being in the form of, Exhibit D to this Agreement.

(b) If any requisition includes an item for payment for labor or to contractors, builders or material men, a certificate, signed by the Project 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 Eligible Project.

Upon receipt of each such requisition and accompanying certificate(s) and schedule(s), the Director shall request the Comptroller to issue a warrant directing the State Treasurer to disburse the Grant to the Grantee in accordance with such requisition to the extent approved by the Department.

Except as may otherwise be approved by the Department, disbursements shall be held at ninety-five percent (95%) of the total grant amount to ensure satisfactory completion of the Eligible Project. Upon receipt from the Grantee of the certificate specified in Section 4.5 and a final requisition detailing all retainage to which the Grantee is then entitled, the Director, subject to the provisions of this section and Section 4.3 herein, shall request the Comptroller to issue a warrant directing the State Treasurer to disburse to the Grantee the final payment from the Grant.

4.3 Application of Grant Funds. The Grantee agrees to apply the Grant solely and exclusively to the reimbursement of Eligible Project Costs.

4.4 Availability of Funds. The Director and Grantee recognize that the availability of monies in the Fund allocated to point source pollution control is subject to appropriation by the General Assembly and allocations made by the Secretary of Natural Resources, and that at times there may not be sufficient monies in the Fund to permit prompt disbursement of grant funds due and owing the Grantee pursuant to this Agreement. To minimize the potential for such disruption in disbursements of grant funds and in satisfaction of its obligations under the Act, the Department covenants and agrees to (1) manage the allocation of grants from the Fund to ensure full funding of executed grant agreements, (2) forecast the estimated disbursements from the Fund in satisfaction of approved grants and make this forecast publicly available each year for use in the Commonwealth's budgetary process, and (3) promptly disburse to the Grantee any grant funds due and owing the Grantee pursuant to this Agreement when sufficient monies are available in the Fund to make such disbursements. The Department may determine that monies are not sufficient to promptly disburse grant funds when there are competing grant requests. To assist the Department in forecasting estimated disbursements, prior to September 30 of each year the Grantee will provide the Department with a written estimate of its projected expenditures on the Project during the next fiscal year using the same line item cost categories in the Project Budget.

4.5 Agreement to Complete Project. The Grantee agrees to cause the Project to be designed and constructed, as described in Exhibit A to this Agreement, and in accordance with (i) the schedule in Exhibit C to this Agreement and (ii) plans and specifications prepared by the Project Engineer and approved by the Department.

4.6 Notice of Substantial Completion. When the Project has been completed, the Grantee shall promptly deliver to the Department a certificate signed by the Authorized Representative and by the Project Engineer stating (i) that the Project has been completed substantially in accordance with the approved plans and specifications and addenda thereto, and in substantial compliance with all material applicable laws, ordinances, rules, and regulations; (ii) the date of such completion; (iii) that all certificates of occupancy and operation necessary for start-up for the Project have been issued or obtained; and (iv) the amount, if any, to be released for payment of the final Project Costs.

ARTICLE V **PERFORMANCE**

5.0 The Grantee's Facility shall meet a total nitrogen effluent concentration limitation of 4.0 mg/l, and a total phosphorus effluent concentration limitation of 0.30 mg/l, both on an annual average basis, except as provided in paragraph 5.1 and Article VIII of this Agreement.

5.1 If, pursuant to Section 10.1-1187.6 of the Code, the State Water Control Board approves an alternative compliance method to technology-based concentration limitations in Virginia Pollutant Discharge Elimination System permits, the concentration limitations in Section 5.0 above shall be suspended subject to the terms of such approval. The terms of approval shall include requirements for operation of the installed Nutrient Removal Technology at the treatment levels for which it was designed.

ARTICLE VI **OPERATION AND MAINTENANCE**

6.0 No later than ninety (90) days after issuance of a Certificate to Operate for the Project, the Grantee shall submit to the Department, for review and approval, an operation and maintenance manual for the Project. As required by the Grantee's VPDES permit, the Facility shall be operated and maintained in a manner consistent with the operation and maintenance manual as approved by the Department.

ARTICLE VII

MONITORING AND REPORTING

7.0. Monitoring. The Grantee shall monitor compliance with the numerical concentrations in Article V of this Agreement. Monitoring will be conducted at the final effluent from the facility and immediately prior to discharge. Sampling frequency and type shall be in accordance with VPDES permit requirements. In the absence of total nitrogen or total phosphorus VPDES permit monitoring requirements, monitoring shall consist of a sample type and collection frequency as specified in the Chesapeake Bay General Watershed Permit Regulation (9 VAC 25-820-70.Part 1.E.). Each sample will be analyzed for total nitrogen and total phosphorus using EPA-approved test methods and reported to the Department.

7.1. Reporting. Beginning with the Project's first full calendar year of operation and each year thereafter, the Grantee will calculate the annual average concentration for total nitrogen and total phosphorus for the calendar year just ended by dividing the sum of the monthly average concentrations by twelve, and submit the results to the Department using the form attached as Exhibit E to this Agreement on or before February 1 of each year. Data excluded from the average based on the occurrence of extraordinary conditions will be identified in the report.

ARTICLE VIII

MATERIAL BREACH

8.0. Material Breach. Any failure or omission by the Grantee to perform its obligations under this Agreement, unless excused by the Department, is a material breach.

8.1. Notice of Material Breach. If at any time the Grantee determines that it is unable to perform its obligations under this Agreement, the Grantee shall promptly provide written notification to the Department. This notification shall include a statement of the reasons it is unable to perform, any actions to be taken to secure future performance and an estimate of the time necessary to do so.

8.2. Monetary Assessments for Breach. In no event shall total Monetary Assessments pursuant to this Agreement exceed (i) \$6,846,919.00 annually or (ii) \$136,938,380.00 during the life of this Agreement. Monetary Assessments will be paid into the State Treasury and credited to the Fund. The Director's right to collect Monetary Assessments does not affect in any way the Director's right to secure specific performance of this Agreement using such other legal remedies as may otherwise be available. Within 90 days of receipt of written demand from the Director, the Grantee shall pay the following Monetary Assessments for the corresponding material breaches of this Agreement unless the Grantee asserts a defense pursuant to the requirements of Section 8.3 herein.

(a) Beginning with the Project's first full calendar year of operation following issuance of a Certificate to Operate for the Project, for exceedance of one or both of the numerical concentration limitations applicable under Article V of this Agreement, except where the exceedance is no greater than 0.8 mg/L for total nitrogen or no more than 10%, whichever is greater, or no greater than 0.1 mg/L for total phosphorus or no more than 10%, whichever is greater, an assessment calculated as follows:

(i) For noncompliance with the total nitrogen effluent limitation in Article V, an assessment calculated using the formula in Exhibit F to this Agreement for each one-tenth of a milligram per liter of total nitrogen in excess of the limitation in Article V.

(ii) For noncompliance with the total phosphorus effluent limitation in Article V, an assessment calculated using the formula in Exhibit F to this Agreement for each one-tenth of a milligram per liter of total phosphorus in excess of the limitation in Article V.

(b) For noncompliance with any deadline in Exhibit C to this Agreement, Article VII of this Agreement, or the failure to submit the operations and maintenance manual in accordance with Article VI of this Agreement, an assessment in the amount of \$500 per day for the first 10 days of noncompliance, and \$1,000 for each day of noncompliance thereafter. Noncompliance with interim deadlines shall be excused where the Grantee complies with the final deadline in Exhibit C to this Agreement.

(c) For noncompliance with the obligation to operate and maintain the Project in a manner consistent with the manual pursuant to Article VI of this Agreement, an assessment in the amount of \$1,000 for each day of noncompliance.

8.3 Extraordinary Conditions.

(a) The Grantee may assert and it shall be a defense to any action by the Director to collect a Monetary Assessment or otherwise secure performance of this Agreement that the alleged non-performance was due to Extraordinary Conditions, provided that the Grantee:

(1) takes reasonable measures to effect a cure or to minimize any non-performance with the Agreement, and

(2) provides written notification to the Department of the occurrence of Extraordinary Conditions, together with an explanation of the events or circumstances contributing to such Extraordinary Conditions, no later than 5 days after the discovery of the Extraordinary Conditions and the resulting impacts on performance.

(b) If the Department disagrees that the events or circumstances described by the Grantee constitute Extraordinary Conditions, the Department must provide the Grantee with a written objection within sixty (60) days of Grantee's notice under paragraph 8.3(a)(2), together with an explanation of the basis for its objection.

8.4 Resolution and Remedy. If no resolution is reached by the parties, the Director or Department may immediately pursue any remedy available at law or equity. In any such action, the Grantee shall have the burden of proving that the alleged noncompliance was due to Extraordinary Conditions. In addition to any other remedy that may be available to the Director or the Department, the Director or Department may bring an action in the Circuit Court of the City of Richmond to enforce this Agreement by injunction or mandamus or stipulated penalties or to recover part or all of the grant funds. No such remedy of the Director or Department shall be deemed to be exclusive or to stop any other such remedy or the bringing of an action to enforce this Agreement. The Grantee agrees to venue to any such action in the Circuit Court of the City of Richmond, either north or south of the James River in the option of the Director. The Grantee further agrees that, in light of the public purpose of nutrient removal, any failure of the Grantee to perform its duties under this Agreement and any failure of the Project to meet the requirements of this Agreement or the requirements of any permit that may be issued by the Board regarding the Project constitutes irreparable harm to the Commonwealth for which the Director or Department lacks an adequate remedy at law.

ARTICLE IX

GENERAL PROVISIONS

9.0. Effect of the Agreement on Virginia Pollutant Discharge Elimination System (VPDES) Permit. This Agreement shall not be deemed to relieve the Grantee of its obligations to comply with the terms of its VPDES permit issued by the Board.

9.1. Disclaimer. Nothing in this Agreement shall be construed as authority for either party to make commitments which will bind the other party beyond the covenants contained herein.

9.2. Non-Waiver. No waiver by the Director of any one or more defaults by the Grantee in the performance of any provision of this Agreement shall operate or be construed as a waiver of any future default or defaults of whatever character.

9.3. Integration and Modification. This Agreement constitutes the entire Agreement between the Grantee and the Director. No alteration, amendment or modification of the provisions of this Agreement shall be effective unless reduced to writing, signed by both the parties and attached hereto. The Department and the Grantee shall confer within six months after each reissuance of the Grantee's VPDES permit for the purpose of determining whether this Agreement should be modified or terminated. This Agreement may be modified by agreement of the parties for any purpose, provided that any significant modification to this Agreement must be preceded by public notice of such modification.

9.4. Collateral Agreements. Where there exists any inconsistency between this Agreement and other provisions of collateral contractual agreements which are made a part of this Agreement by reference, the provisions of this Agreement shall control.

9.5. Non-Discrimination. In the performance of this Agreement, the Grantee warrants that it will not discriminate against any employee, or other person, on account of race, color, sex, religious creed, ancestry, age, national origin or other non-job related factors. The Grantee agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.

9.6. Conflict of Interest. The Grantee warrants that it has fully complied with the Virginia Conflict of Interest Act as it may apply to this Agreement.

9.7. Applicable Laws. This Agreement shall be governed in all respects whether as to validity, construction, capacity, performance or otherwise, by the laws of the Commonwealth of Virginia. The Grantee further agrees to comply with all laws and regulations applicable to the Grantee's performance of its obligations pursuant to this Agreement.

9.8. Records Availability. The Grantee agrees to maintain complete and accurate books and records of the Project Costs, and further, to retain all books, records, and other documents relative to this Agreement for three (3) years after final payment. The Department, its authorized agents, and/or State auditors will have full access to and the right to examine any of said materials during said period. Additionally, the Department and/or its representatives will have the right to access work sites during normal business hours, after reasonable notice to the Grantee, for the purpose of ensuring that the provisions of this Agreement are properly carried out.

9.9. Severability. Each paragraph and provision of this Agreement is severable from the entire Agreement; and if any provision is declared invalid, the remaining provisions shall nevertheless remain in effect.

9.10. Notices. All notices given hereunder shall be in writing and shall be sent by United States certified mail, return receipt requested, postage prepaid, and shall be deemed to have been received at the earliest of: (a) the date of actual receipt of such notice by the addressee, (b) the date of the actual delivery of the notice to the address of the addressee set forth below, or (c) five (5) days after the sender deposits it in the mail properly addressed. All notices required or permitted to be served upon either party hereunder shall be directed to:

Department: Virginia Department of Environmental Quality
CWFAP
P.O. Box 1105
Richmond, VA 23218
Attn: WQIF Program Manager

Grantee: South Central Wastewater Authority
900 Magazine Road
Petersburg, VA 23803
Attn: Robert Wilson, PE

9.11. Successors and Assigns Bound. This Agreement shall extend to and be binding upon the parties hereto, and their respective legal representatives, successors and assigns.

9.12. Exhibits. All exhibits to this Agreement are incorporated herein by reference.

9.13. Termination. This Agreement shall terminate 20 years after the Agreement is executed by both parties or by an earlier date by agreement of the parties; provided, however, that except for termination for cause due to Material Breach, the Director's obligation under Section 4.1 herein to pay the Grant amount shall survive termination if such amount has not been paid in full as of the termination date.

ARTICLE X **COUNTERPARTS**

10. This Agreement may be executed in any number of Counterparts, each of which shall be an original and all of which together shall constitute but one and the same instrument.

ARTICLE XI **NUTRIENT CREDITS TO BE MADE AVAILABLE FOR EXCHANGE**

11. To aid in implementing the Nutrient Credit Exchange Program, the Grantee shall make all Point Source Nitrogen and Phosphorus Credits generated in a calendar year available for nutrient allocation compliance. "Point Source Nitrogen Credit" and "Point Source Phosphorus Credit" shall have the meaning as defined in Virginia Code §62.1-44.19:13. The amount of Credits and facilities authorized to generate Credits shall be governed by the Watershed General Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading (9 VAC 25-820). The Department shall control Credits not otherwise used by the Grantee for waste load allocations or compliance purposes and will make such Credits reasonably available to other dischargers for nutrient allocation compliance through the Water Quality Improvement Fund. For purposes of this Agreement, "used by the Grantee" shall include any use whereby the Credits are applied to any compliance obligation of the Grantee, included within an individual compliance plan or basin-level compliance plan of the Virginia Nutrient Credit Exchange Association, or traded to and used by the owner or operator of another facility for nutrient allocation compliance.

WITNESS the following signatures, all duly authorized.

DIRECTOR OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY

By:

Date:

David K. Payne
11/15/2021

GRANTEE'S AUTHORIZED REPRESENTATIVE

By:

Date:

Douglas E. Smith
11/4/2021

EXHIBIT A
PROJECT DESCRIPTION

Grantee: South Central Wastewater Authority

Grant: #440-S-20-03

The South Central Wastewater Authority proposes to upgrade their existing Wastewater Treatment Plant to include Enhanced Nutrient Removal (ENR) technology. This undertaking includes improvements to existing aeration basins, adding additional aeration basin volume, post-aeration treatment, additional clarification, tertiary filtration and supplemental carbon facilities, and include other appurtenant pumping and piping related to these structures and facilities.

EXHIBIT B
TOTAL PROJECT BUDGET

Grantee: South Central Wastewater Authority

Grant: #440-S-20-03

The following budget reflects the "as-bid" costs associated with eligible project components.

Project Component	Total Cost	Percent Eligible (%)	Eligible Project Cost
Headworks	\$5,300,000	0%	\$0
Enhanced Nutrient Removal	\$35,100,000	96%	\$33,846,900
NRCY Pumps & Piping	\$2,672,873	100%	\$2,672,873
Anaerobic Zone Vertical Mixers (6 Mixers)	\$585,000	100%	\$585,000
Secondary Clarifier P Removal Equipment	\$626,667	100%	\$626,667
Two New Secondary Clarifiers	\$5,455,102	50%	\$2,727,551
RAS/WAS Pump Station	\$3,100,000	50%	\$1,550,000
Alum Feed System	\$200,000	100%	\$200,000
Tertiary Filters	\$10,900,000	100%	\$10,900,000
Intermediate Pump Station	\$3,800,000	100%	\$3,800,000
Carbon Feed Facility	\$1,200,000	100%	\$1,200,000
Disinfection System	\$300,000	0%	\$0
Post Aeration	\$700,000	100%	\$700,000
Solids Handling	\$8,300,000	40%	\$3,320,000
NPW System	\$900,000	100%	\$900,000
Supplemental Alkalinity Feed System	\$700,000	100%	\$700,000
Construction Total	\$79,839,642	79.82%	\$63,728,991
A/E Basic Fees	\$7,200,000	79.82%	\$5,747,129
Other A/E Fees	\$200,000	79.82%	\$159,642
Construction Inspection Fees	\$1,800,000	79.82%	\$1,436,782
Secondary Clarifier Modifications	\$11,544,898	79.82%	\$9,215,281
Ancillary Buildings	\$1,600,000	79.82%	\$1,277,140
Standby Generators	\$1,400,000	79.82%	\$1,117,497
Contingency	\$9,000,000	79.82%	\$7,183,911
Total Project Cost	\$112,584,540	79.82%	\$89,866,374
Grant Percentage			95%
Grant Amount			\$85,373,055

EXHIBIT C
PROJECT SCHEDULE

Grantee: South Central Wastewater Authority

Grant: #440-S-20-03

The Grantee has proposed the following schedule of key activities/milestones as a planning tool which may be subject to change. In particular, the Grantee acknowledges that the appropriate approval (Certificate to Construct) must be issued by the Department prior to proceeding with construction. Unless authorized by a grant modification, it is the responsibility of the Grantee to adhere to the anticipated schedule for the project as follows:

Activity	Date/Duration
a. Construction	December 2022
b. Certificate to Operate	December 2025

EXHIBIT D
REQUISITION FOR REIMBURSEMENT
(To be on Grantee's Letterhead)

Department of Environmental Quality
Clean Water Financing and Assistance Program
P.O. Box 1105
Richmond, VA 23218
Attn.: WQIF Program Manager

RE: Virginia Water Quality Improvement Fund Grant
South Central Wastewater Authority WQIF Contract #440-S-20-03

Dear Program Manager:

This requisition, Number ____, is submitted in connection with the referenced Grant Agreement between the Director of the Virginia Department of Environmental Quality and the South Central Wastewater Authority (The Authority). The effective date of the grant agreement is [insert date of grant agreement].

Unless otherwise defined in this requisition, all capitalized terms used herein shall have the meaning set forth in Article I of the Grant Agreement. The undersigned Authorized Representative of the Grantee hereby requests disbursement of grant proceeds under the Grant Agreement in the amount of \$_____ for the purposes of payment of the Eligible Project Costs as set forth on Schedule I attached hereto.

Copies of invoices relating to the items for which payment is requested are attached.

The undersigned certifies that the amounts requested by this requisition will be applied solely and exclusively to the reimbursement of the Grantee for the payment of Eligible Project Costs.

This requisition includes (if applicable) an accompanying Certificate of the Project Engineer as to the performance of the work.

Sincerely,

(Authorized Representative of the Grantee)

Attachments

SCHEDULE 1
VIRGINIA WATER QUALITY IMPROVEMENT FUND
FORM TO ACCOMPANY REQUEST FOR REIMBURSEMENT

REQUISITION # _____
 Grantee: South Central Wastewater Authority
 Grant: #440-S-20-03

CERTIFYING SIGNATURE: _____

TITLE: _____

Cost Category	Total Project Budget	Eligible Project Cost*	95% WQIF Grant Share	Total Expenditures This Period	Previous Grant Disbursements	Grant Disbursement This Period	Grant Balance
Construction	\$ 94,384,540	79.82%	95.00%	\$0.00	\$0.00	\$0.00	\$71,571,964
		\$75,338,909	\$71,571,964				
Construction Contingency	\$9,000,000	79.82%	95.00%	\$0.00	\$0.00	\$0.00	\$6,824,715
		\$7,183,911	\$6,824,715				
Engineering Services	\$7,400,000	79.82%	95.00%	\$0.00	\$0.00	\$0.00	\$5,611,433
		\$5,906,772	\$5,611,433				
Construction Management/Inspection	\$1,800,000	79.82%	95.00%	\$0.00	\$0.00	\$0.00	\$1,364,943
		\$1,436,782	\$1,364,943				
TOTALS:	\$112,584,540	\$89,866,374	\$85,373,055	\$0.00	\$0.00	\$0.00	\$85,373,055

*Eligible project cost percentage =79.8212384

Total Grant Amount: \$85,373,055
 Previous Grant Disbursements: \$0.00
 This Grant Request: \$0.00
 Total Grant Requested to Date: \$0.00
 Grant Proceeds Remaining: \$85,373,055

CERTIFICATE OF THE PROJECT ENGINEER
FORM TO ACCOMPANY REQUEST FOR REIMBURSEMENT

Grantee: South Central Wastewater Authority
Grant: #440-S-20-03

This Certificate is submitted in connection with Requisition Number _____, dated _____, 20__, submitted by the South Central Wastewater Authority (the "Grantee") to the Virginia Department of Environmental Quality. Capitalized terms used herein shall have the same meanings set forth in Article I of the Grant Agreement referred to in the Requisition.

The undersigned Project Engineer for _____ hereby certifies that insofar as the amounts covered by this Requisition include payments for labor or to contractors, builders or material men, such work was actually performed or such materials, supplies, or equipment were actually furnished to or installed in the Project.

(Project Engineer)

(Date)

EXHIBIT E
REPORTING OF ANALYTICAL RESULTS

Grantee: South Central Wastewater Authority

Grant: #440-S-20-03

Year: _____

MONTH	PARAMETER	CONCENTRATION (monthly average)	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
January	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
February	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
March	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
April	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
May	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
June	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
July	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
August	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
September	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
October	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
November	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
December	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
Annual Average	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		

EXHIBIT E
REPORTING OF ANALYTICAL RESULTS
(continued)

Grantee: South Central Wastewater Authority

Grant: #440-S-20-03

Data Excluded Due to the Occurrence of Extraordinary Conditions: (if applicable; attach explanation)

Date(s): _____

Operator Responsible for Samples: _____ Date: _____

Telephone: _____ Certificate Number: _____

EXHIBIT F

FORMULA FOR CALCULATING MONETARY ASSESSMENT FOR EXCEEDANCE OF NUMERICAL NITROGEN CONCENTRATIONS

Grantee: South Central Wastewater Authority

Grant: #440-S-20-03

Section 2: Nitrogen Exceedances

$$CN = (TNe/TNr) \times AnPay \times PerGrant$$

where:

CN	=	Assessment for Nitrogen Exceedance.
TNe	=	Exceedance in tenths of a milligram per liter.
TNr	=	Expected nitrogen removal (difference between "pre-nutrient removal" annual average concentration and 4.0 mg/l limitation) in tenths of a milligram per liter.
AnPay	=	Annual Payment on grant; assumes principal payments amortized over 20 years and an interest rate of 5 percent. Using these assumed values leads to a "cost recovery factor" of 0.0802. The "cost recovery factor" times the grant amount yields the Annual Payment amount.
PerGrant	=	Percentage of grant received by year of exceedance.

Values used for Grant #440-S-20-03:

Pre-Nutrient Removal TN Concentration	= 35.0 mg/l
Effluent TN Concentration Limitation	= 4.0 mg/l
Total Grant Amount for TN Removal	= \$46,974,054
Useful Service Life	= 20 years
Interest Rate	= 5 percent

Calculated (assumes grant paid 100%):

Expected Removal (TNr)	= 31.0 mg/l
AnPay	= \$3,767,319
CN	= \$12,153 (for each 0.1 mg/l TN exceedance)

EXHIBIT F

FORMULA FOR CALCULATING MONETARY ASSESSMENT FOR EXCEEDANCE OF NUMERICAL PHOSPHORUS CONCENTRATIONS

Grantee: South Central Wastewater Authority

Grant: #440-S-20-03

Section 2: Phosphorus Exceedances

$$CP = (TPe/TPr) \times AnPay \times PerGrant$$

where:

CP	=	Assessment for Phosphorus Exceedance.
TPe	=	Exceedance in tenths of a milligram per liter.
TPr	=	Expected phosphorus removal (difference between "pre-nutrient removal" annual average concentration and 0.30 mg/l limitation) in tenths of a milligram per liter.
AnPay	=	Annual Payment on grant; assumes principal payments amortized over 20 years and an interest rate of 5 percent. Using these assumed values leads to a "cost recovery factor" of 0.0802. The "cost recovery factor" times the grant amount yields the Annual Payment amount.
PerGrant	=	Percentage of grant received by year of exceedance.

Values used for Grant #440-S-20-03:

Pre-Nutrient Removal TP Concentration	= 5.5 mg/l
Effluent TP Concentration Limitation	= 0.3 mg/l
Total Grant Amount for TP Removal	= \$38,399,002
Useful Service Life	= 20 years
Interest Rate	= 5 percent

Calculated (assumes grant paid 100%):

Expected Removal (TPr)	= 5.2 mg/l
AnPay	= \$3,079,600
CP	= \$59,223 (for each 0.1 mg/l TP exceedance)

**VIRGINIA WATER QUALITY IMPROVEMENT FUND
POINT SOURCE GRANT AND
OPERATION AND MAINTENANCE AGREEMENT
Contract #440-S-20-03**

THIS AGREEMENT is made as of this ____ day of _____, 2021, by and between the Director of the Virginia Department of Environmental Quality in his official capacity, or his designee (the “Director”), and the South Central Wastewater Authority (the “Grantee”).

Pursuant to the Virginia Water Quality Improvement Act of 1997, Chapter 21.1, Title 10.1 of the Code of Virginia (1950), as amended (the “Act”), the General Assembly created the Virginia Water Quality Improvement Fund (the “Fund”). The Director, in coordination with the Director of the Department of Conservation and Recreation, is authorized by the Act to make Water Quality Improvement grants related to point source pollution control, in accordance with guidelines established pursuant to Section 10.1-2129 of the Code, and enter into agreements with grantees under the Act which shall, in accordance with Sections 10.1-2130 and 10.1-2131, provide for the payment of the total amount of the grant and require proper long-term operation, monitoring and maintenance of funded projects.

The Grantee has been approved by the Director to receive a Grant from the Fund subject to the terms and conditions herein to finance ninety-five percent (95%) of the cost of the Eligible Project, which consists of the design and installation of Nutrient Removal Technology as described herein. The Grantee will use the Grant to finance that portion of the Eligible Project Costs not being paid for from other sources as set forth in the Total Project Budget in Exhibit B to this Agreement. Such other sources may include, but are not limited to, the Virginia Water Facilities Revolving Fund, Chapter 22, Title 62.1 of the Code of Virginia (1950), as amended.

As required by the Act, this Agreement provides for payment of the Grant, design and construction of the Project, and proper long-term operation, monitoring, and maintenance of the Project. This Agreement is supplemental to the State Water Control Law, Chapter 3.1, Title 62.1 of the Code of Virginia (1950), as amended, and it does not limit in any way the other water quality restoration, protection and enhancement, or enforcement authority of the Director, the State Water Control Board (the “Board”) or the Department of Environmental Quality (the “Department”).

**ARTICLE I
DEFINITIONS**

1. The capitalized terms contained in this Agreement shall have the meanings set forth below unless the context requires otherwise and any capitalized terms not otherwise defined herein shall have the meaning assigned to such terms in the Act:

(a) “Agreement” means this Virginia Water Quality Improvement Fund Point Source Grant and Operation and Maintenance Agreement between the Director and the Grantee, together with any amendments or supplements hereto.

(b) “Authorized Representative” means any member, official or employee of the Grantee authorized by resolution, ordinance or other official act of the governing body of the Grantee to perform the act or sign the document in question.

(c) “Eligible Project” means the particular Nutrient Removal Technology described in Exhibit A to this Agreement to be designed and constructed by the Grantee with, among other monies, the Grant, with such changes thereto as may be approved in writing by the Director and the Grantee.

(d) “Eligible Project Costs” means costs of the individual items comprising the Eligible Project as permitted by the Act with such changes thereto as may be approved in writing by the Director and the Grantee.

(e) “Extraordinary Conditions” means unforeseeable or exceptional conditions resulting from causes beyond the reasonable control of the Grantee such as, but not limited to fires, strikes, acts of God, and acts of third parties that singly or in combination cause material breach of this Agreement.

(f) “Facility” means all plants, systems, unit processes, equipment or property related to the Project, and owned, operated, or maintained by the Grantee and used in connection with the treatment of wastewater.

(g) “Grant” means the particular grant described in Section 4.0 of this Agreement, with such changes thereto as may be approved in writing by the Director and the Grantee.

(h) “Monetary Assessment” means a contractual or stipulated penalty as described in Section 10.1-2130 of the Code.

(i) “Nutrient Removal Technology” means state-of-the-art nutrient removal technology, biological nutrient removal technology, or other nutrient removal technology, as further described in Section 10.1-2117 of the Code.

(j) “Preliminary Engineering Proposal” means the engineering report and preliminary plans for the Project as described in 9 VAC 25-790-110, as modified by the final engineering design approved by the Department.

(k) “Total Eligible Project Budget” means the sum of the Eligible Project Costs as set forth in Exhibit B to this Agreement, with such changes thereto as may be approved in writing by the Director and the Grantee.

(l) “Total Project Budget” means the sum of the Eligible Project Costs and any ineligible costs that are solely the responsibility of the Grantee, as set forth in Exhibit B to this Agreement, with such changes thereto as may be approved in writing by the Director and the Grantee.

(m) “Project Engineer” means the Grantee’s engineer who must be a licensed professional engineer registered to do business in Virginia and designated by the Grantee as the Grantee’s engineer for the Project in a written notice to the Department.

(n) “Project Schedule” means the schedule for the Project as set forth in Exhibit C to this Agreement, with such changes thereto as may be approved in writing by the Director and the Grantee.

ARTICLE II

SCOPE OF PROJECT

2. The Grantee will cause the Project to be designed, constructed and placed in operation as described in Exhibit A to this Agreement to meet effluent concentration limitations of 4.0 mg/l for total nitrogen, and 0.30 mg/l for total phosphorus, both on an annual average basis.

ARTICLE III

SCHEDULE

3. The Grantee will cause the Eligible Project to be designed, constructed and placed in operation in accordance with the Project Schedule in Exhibit C to this Agreement.

ARTICLE IV

COMPENSATION

4.0. Grant Amount. The total grant award from the Fund under this Agreement is \$81,958,133 and represents the Commonwealth's ninety-five percent (95%) share of the Total Eligible Project Budget. Any material changes made to the Eligible Project after execution of this Agreement, which alters the Total Eligible Project Budget, will be submitted to the Department for review of grant eligibility. The amount of the grant award set forth herein may be modified from time to time by agreement of the parties to reflect changes to the Eligible Project or the Total Eligible Project Budget.

4.1. Payment of Grant. Payment of the Grant is subject to the availability of monies in the Fund allocated to point source pollution control and Section 4.4 herein. Disbursement of the Grant will be in accordance with the payment provisions set forth in Section 4.2 herein and the eligibility determinations made in the Total Project Budget (Exhibit B).

4.2. Disbursement of Grant Funds. The Department will disburse the Grant to the Grantee not more frequently than once each calendar month upon receipt by the Department of the following:

(a) A requisition for approval by the Department, signed by the Authorized Representative and containing all receipts, vouchers, statements, invoices or other evidence that costs in the Total Project Budget, including the applicable local share for the portion of the project covered by such requisition, have been incurred or expended and all other information called for by, and otherwise being in the form of, Exhibit D to this Agreement.

(b) If any requisition includes an item for payment for labor or to contractors, builders or material men, a certificate, signed by the Project 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 Eligible Project.

Upon receipt of each such requisition and accompanying certificate(s) and schedule(s), the Director shall request the Comptroller to issue a warrant directing the State Treasurer to disburse the Grant to the Grantee in accordance with such requisition to the extent approved by the Department.

Except as may otherwise be approved by the Department, disbursements shall be held at ninety-five percent (95%) of the total grant amount to ensure satisfactory completion of the Eligible Project. Upon receipt from the Grantee of the certificate specified in Section 4.5 and a final requisition detailing all retainage to which the Grantee is then entitled, the Director, subject to the provisions of this section and Section 4.3 herein, shall request the Comptroller to issue a warrant directing the State Treasurer to disburse to the Grantee the final payment from the Grant.

4.3 Application of Grant Funds. The Grantee agrees to apply the Grant solely and exclusively to the reimbursement of Eligible Project Costs.

4.4. Availability of Funds. The Director and Grantee recognize that the availability of monies in the Fund allocated to point source pollution control is subject to appropriation by the General Assembly and allocations made by the Secretary of Natural Resources, and that at times there may not be sufficient monies in the Fund to permit prompt disbursement of grant funds due and owing the Grantee pursuant to this Agreement. To minimize the potential for such disruption in disbursements of grant funds and in satisfaction of its obligations under the Act, the Department covenants and agrees to (1) manage the allocation of grants from the Fund to ensure full funding of executed grant agreements, (2) forecast the estimated disbursements from the Fund in satisfaction of approved grants and make this forecast publicly available each year for use in the Commonwealth's budgetary process, and (3) promptly disburse to the Grantee any grant funds due and owing the Grantee pursuant to this Agreement when sufficient monies are available in the Fund to make such disbursements. The Department may determine that monies are not sufficient to promptly disburse grant funds when there are competing grant requests. To assist the Department in forecasting estimated disbursements, prior to September 30 of each year the Grantee will provide the Department with a written estimate of its projected expenditures on the Project during the next fiscal year using the same line item cost categories in the Project Budget.

4.5. Agreement to Complete Project. The Grantee agrees to cause the Project to be designed and constructed, as described in Exhibit A to this Agreement, and in accordance with (i) the schedule in Exhibit C to this Agreement and (ii) plans and specifications prepared by the Project Engineer and approved by the Department.

4.6 Notice of Substantial Completion. When the Project has been completed, the Grantee shall promptly deliver to the Department a certificate signed by the Authorized Representative and by the Project Engineer stating (i) that the Project has been completed substantially in accordance with the approved plans and specifications and addenda thereto, and in substantial compliance with all material applicable laws, ordinances, rules, and regulations; (ii) the date of such completion; (iii) that all certificates of occupancy and operation necessary for start-up for the Project have been issued or obtained; and (iv) the amount, if any, to be released for payment of the final Project Costs.

ARTICLE V **PERFORMANCE**

5.0 The Grantee's Facility shall meet a total nitrogen effluent concentration limitation of 4.0 mg/l, and a total phosphorus effluent concentration limitation of 0.30 mg/l, both on an annual average basis, except as provided in paragraph 5.1 and Article VIII of this Agreement.

5.1 If, pursuant to Section 10.1-1187.6 of the Code, the State Water Control Board approves an alternative compliance method to technology-based concentration limitations in Virginia Pollutant Discharge Elimination System permits, the concentration limitations in Section 5.0 above shall be suspended subject to the terms of such approval. The terms of approval shall include requirements for operation of the installed Nutrient Removal Technology at the treatment levels for which it was designed.

ARTICLE VI **OPERATION AND MAINTENANCE**

6.0 No later than ninety (90) days after issuance of a Certificate to Operate for the Project, the Grantee shall submit to the Department, for review and approval, an operation and maintenance manual for the Project. As required by the Grantee's VPDES permit, the Facility shall be operated and maintained in a manner consistent with the operation and maintenance manual as approved by the Department.

ARTICLE VII

MONITORING AND REPORTING

7.0. Monitoring. The Grantee shall monitor compliance with the numerical concentrations in Article V of this Agreement. Monitoring will be conducted at the final effluent from the facility and immediately prior to discharge. Sampling frequency and type shall be in accordance with VPDES permit requirements. In the absence of total nitrogen or total phosphorus VPDES permit monitoring requirements, monitoring shall consist of a sample type and collection frequency as specified in the Chesapeake Bay General Watershed Permit Regulation (9 VAC 25-820-70.Part 1.E.). Each sample will be analyzed for total nitrogen and total phosphorus using EPA-approved test methods and reported to the Department.

7.1. Reporting. Beginning with the Project's first full calendar year of operation and each year thereafter, the Grantee will calculate the annual average concentration for total nitrogen and total phosphorus for the calendar year just ended by dividing the sum of the monthly average concentrations by twelve, and submit the results to the Department using the form attached as Exhibit E to this Agreement on or before February 1 of each year. Data excluded from the average based on the occurrence of extraordinary conditions will be identified in the report.

ARTICLE VIII

MATERIAL BREACH

8.0. Material Breach. Any failure or omission by the Grantee to perform its obligations under this Agreement, unless excused by the Department, is a material breach.

8.1. Notice of Material Breach. If at any time the Grantee determines that it is unable to perform its obligations under this Agreement, the Grantee shall promptly provide written notification to the Department. This notification shall include a statement of the reasons it is unable to perform, any actions to be taken to secure future performance and an estimate of the time necessary to do so.

8.2. Monetary Assessments for Breach. In no event shall total Monetary Assessments pursuant to this Agreement exceed (i) \$6,573,042.00 annually or (ii) \$131,460,840.00 during the life of this Agreement. Monetary Assessments will be paid into the State Treasury and credited to the Fund. The Director's right to collect Monetary Assessments does not affect in any way the Director's right to secure specific performance of this Agreement using such other legal remedies as may otherwise be available. Within 90 days of receipt of written demand from the Director, the Grantee shall pay the following Monetary Assessments for the corresponding material breaches of this Agreement unless the Grantee asserts a defense pursuant to the requirements of Section 8.3 herein.

(a) Beginning with the Project's first full calendar year of operation following issuance of a Certificate to Operate for the Project, for exceedance of one or both of the numerical concentration limitations applicable under Article V of this Agreement, except where the exceedance is no greater than 0.8 mg/L for total nitrogen or no more than 10%, whichever is greater, or no greater than 0.1 mg/L for total phosphorus or no more than 10%, whichever is greater, an assessment calculated as follows:

(i) For noncompliance with the total nitrogen effluent limitation in Article V, an assessment calculated using the formula in Exhibit F to this Agreement for each one-tenth of a milligram per liter of total nitrogen in excess of the limitation in Article V.

(ii) For noncompliance with the total phosphorus effluent limitation in Article V, an assessment calculated using the formula in Exhibit F to this Agreement for each one-tenth of a milligram per liter of total phosphorus in excess of the limitation in Article V.

(b) For noncompliance with any deadline in Exhibit C to this Agreement, Article VII of this Agreement, or the failure to submit the operations and maintenance manual in accordance with Article VI of this Agreement, an assessment in the amount of \$500 per day for the first 10 days of noncompliance, and \$1,000 for each day of noncompliance thereafter. Noncompliance with interim deadlines shall be excused where the Grantee complies with the final deadline in Exhibit C to this Agreement.

(c) For noncompliance with the obligation to operate and maintain the Project in a manner consistent with the manual pursuant to Article VI of this Agreement, an assessment in the amount of \$1,000 for each day of noncompliance.

8.3 Extraordinary Conditions.

(a) The Grantee may assert and it shall be a defense to any action by the Director to collect a Monetary Assessment or otherwise secure performance of this Agreement that the alleged non-performance was due to Extraordinary Conditions, provided that the Grantee:

(1) takes reasonable measures to effect a cure or to minimize any non-performance with the Agreement, and

(2) provides written notification to the Department of the occurrence of Extraordinary Conditions, together with an explanation of the events or circumstances contributing to such Extraordinary Conditions, no later than 5 days after the discovery of the Extraordinary Conditions and the resulting impacts on performance.

(b) If the Department disagrees that the events or circumstances described by the Grantee constitute Extraordinary Conditions, the Department must provide the Grantee with a written objection within sixty (60) days of Grantee's notice under paragraph 8.3(a)(2), together with an explanation of the basis for its objection.

8.4 Resolution and Remedy. If no resolution is reached by the parties, the Director or Department may immediately pursue any remedy available at law or equity. In any such action, the Grantee shall have the burden of proving that the alleged noncompliance was due to Extraordinary Conditions. In addition to any other remedy that may be available to the Director or the Department, the Director or Department may bring an action in the Circuit Court of the City of Richmond to enforce this Agreement by injunction or mandamus or stipulated penalties or to recover part or all of the grant funds. No such remedy of the Director or Department shall be deemed to be exclusive or to stop any other such remedy or the bringing of an action to enforce this Agreement. The Grantee agrees to venue to any such action in the Circuit Court of the City of Richmond, either north or south of the James River in the option of the Director. The Grantee further agrees that, in light of the public purpose of nutrient removal, any failure of the Grantee to perform its duties under this Agreement and any failure of the Project to meet the requirements of this Agreement or the requirements of any permit that may be issued by the Board regarding the Project constitutes irreparable harm to the Commonwealth for which the Director or Department lacks an adequate remedy at law.

ARTICLE IX **GENERAL PROVISIONS**

9.0. Effect of the Agreement on Virginia Pollutant Discharge Elimination System (VPDES) Permit. This Agreement shall not be deemed to relieve the Grantee of its obligations to comply with the terms of its VPDES permit issued by the Board.

9.1. Disclaimer. Nothing in this Agreement shall be construed as authority for either party to make commitments which will bind the other party beyond the covenants contained herein.

9.2. Non-Waiver. No waiver by the Director of any one or more defaults by the Grantee in the performance of any provision of this Agreement shall operate or be construed as a waiver of any future default or defaults of whatever character.

9.3. Integration and Modification. This Agreement constitutes the entire Agreement between the Grantee and the Director. No alteration, amendment or modification of the provisions of this Agreement shall be effective unless reduced to writing, signed by both the parties and attached hereto. The Department and the Grantee shall confer within six months after each reissuance of the Grantee's VPDES permit for the purpose of determining whether this Agreement should be modified or terminated. This Agreement may be modified by agreement of the parties for any purpose, provided that any significant modification to this Agreement must be preceded by public notice of such modification.

9.4. Collateral Agreements. Where there exists any inconsistency between this Agreement and other provisions of collateral contractual agreements which are made a part of this Agreement by reference, the provisions of this Agreement shall control.

9.5. Non-Discrimination. In the performance of this Agreement, the Grantee warrants that it will not discriminate against any employee, or other person, on account of race, color, sex, religious creed, ancestry, age, national origin or other non-job related factors. The Grantee agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.

9.6. Conflict of Interest. The Grantee warrants that it has fully complied with the Virginia Conflict of Interest Act as it may apply to this Agreement.

9.7. Applicable Laws. This Agreement shall be governed in all respects whether as to validity, construction, capacity, performance or otherwise, by the laws of the Commonwealth of Virginia. The Grantee further agrees to comply with all laws and regulations applicable to the Grantee's performance of its obligations pursuant to this Agreement.

9.8. Records Availability. The Grantee agrees to maintain complete and accurate books and records of the Project Costs, and further, to retain all books, records, and other documents relative to this Agreement for three (3) years after final payment. The Department, its authorized agents, and/or State auditors will have full access to and the right to examine any of said materials during said period. Additionally, the Department and/or its representatives will have the right to access work sites during normal business hours, after reasonable notice to the Grantee, for the purpose of ensuring that the provisions of this Agreement are properly carried out.

9.9. Severability. Each paragraph and provision of this Agreement is severable from the entire Agreement; and if any provision is declared invalid, the remaining provisions shall nevertheless remain in effect.

9.10. Notices. All notices given hereunder shall be in writing and shall be sent by United States certified mail, return receipt requested, postage prepaid, and shall be deemed to have been received at the earliest of: (a) the date of actual receipt of such notice by the addressee, (b) the date of the actual delivery of the notice to the address of the addressee set forth below, or (c) five (5) days after the sender deposits it in the mail properly addressed. All notices required or permitted to be served upon either party hereunder shall be directed to:

Department: Virginia Department of Environmental Quality
CWFAP
P.O. Box 1105
Richmond, VA 23218
Attn: WQIF Program Manager

Grantee: South Central Wastewater Authority
900 Magazine Road
Petersburg, VA 23803
Attn: Robert Wilson, PE

9.11. Successors and Assigns Bound. This Agreement shall extend to and be binding upon the parties hereto, and their respective legal representatives, successors and assigns.

9.12. Exhibits. All exhibits to this Agreement are incorporated herein by reference.

9.13. Termination. This Agreement shall terminate 20 years after the Agreement is executed by both parties or by an earlier date by agreement of the parties; provided, however, that except for termination for cause due to Material Breach, the Director's obligation under Section 4.1 herein to pay the Grant amount shall survive termination if such amount has not been paid in full as of the termination date.

ARTICLE X **COUNTERPARTS**

10. This Agreement may be executed in any number of Counterparts, each of which shall be an original and all of which together shall constitute but one and the same instrument.

ARTICLE XI **NUTRIENT CREDITS TO BE MADE AVAILABLE FOR EXCHANGE**

11. To aid in implementing the Nutrient Credit Exchange Program, the Grantee shall make all Point Source Nitrogen and Phosphorus Credits generated in a calendar year available for nutrient allocation compliance. "Point Source Nitrogen Credit" and "Point Source Phosphorus Credit" shall have the meaning as defined in Virginia Code §62.1-44.19:13. The amount of Credits and facilities authorized to generate Credits shall be governed by the Watershed General Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading (9 VAC 25-820). The Department shall control Credits not otherwise used by the Grantee for waste load allocations or compliance purposes and will make such Credits reasonably available to other dischargers for nutrient allocation compliance through the Water Quality Improvement Fund. For purposes of this Agreement, "used by the Grantee" shall include any use whereby the Credits are applied to any compliance obligation of the Grantee, included within an individual compliance plan or basin-level compliance plan of the Virginia Nutrient Credit Exchange Association, or traded to and used by the owner or operator of another facility for nutrient allocation compliance.

WITNESS the following signatures, all duly authorized.

DIRECTOR OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY

By: _____

Date: _____

GRANTEE'S AUTHORIZED REPRESENTATIVE

By: _____

Date: _____

EXHIBIT A
PROJECT DESCRIPTION

Grantee: South Central Wastewater Authority

Grant: #440-S-20-03

The South Central Wastewater Authority proposes to upgrade their existing Wastewater Treatment Plant to include Enhanced Nutrient Removal (ENR) technology. This undertaking includes improvements to existing aeration basins, adding additional aeration basin volume, post-aeration treatment, additional clarification, tertiary filtration and supplemental carbon facilities, and include other appurtenant pumping and piping related to these structures and facilities.

EXHIBIT B
TOTAL PROJECT BUDGET

Grantee: South Central Wastewater Authority

Grant: #440-S-20-03

The following budget reflects the “as-bid” costs associated with eligible project components.

Project Component	Total Cost	Percent Eligible (%)	Eligible Project Cost
Headworks	\$5,300,000	0%	\$0
Enhanced Nutrient Removal	\$35,100,000	96%	\$33,846,900
NRCY Pumps & Piping	\$2,672,873	100%	\$2,672,873
Anaerobic Zone Vertical Mixers (6 Mixers)	\$585,000	100%	\$585,000
Secondary Clarifier P Removal Equipment	\$626,667	100%	\$626,667
Two New Secondary Clarifiers	\$5,455,102	50%	\$2,727,551
RAS/WAS Pump Station	\$3,100,000	50%	\$1,550,000
Alum Feed System	\$200,000	100%	\$200,000
Tertiary Filters	\$10,900,000	100%	\$10,900,000
Intermediate Pump Station	\$3,800,000	100%	\$3,800,000
Carbon Feed Facility	\$1,200,000	100%	\$1,200,000
Disinfection System	\$300,000	0%	\$0
Post Aeration	\$700,000	100%	\$700,000
Solids Handling	\$8,300,000	40%	\$3,320,000
NPW System	\$900,000	100%	\$900,000
Supplemental Alkalinity Feed System	\$700,000	100%	\$700,000
Construction Total	\$79,839,642	79.82%	\$63,728,991
A/E Basic Fees	\$7,200,000	79.82%	\$5,747,129
Other A/E Fees	\$200,000	79.82%	\$159,642
Construction Inspection Fees	\$1,800,000	79.82%	\$1,436,782
Secondary Clarifier Modifications	\$11,544,898	79.82%	\$9,215,281
Ancillary Buildings	\$1,600,000	79.82%	\$1,277,140
Standby Generators	\$1,400,000	79.82%	\$1,117,497
Contingency	\$9,000,000	79.82%	\$7,183,911
Total Project Cost	\$112,584,540	79.82%	\$89,866,374
Grant Percentage			95%
Proration Based on “Reasonable and Necessary” Flow			96%
Grant Amount			\$81,958,133

EXHIBIT C
PROJECT SCHEDULE

Grantee: South Central Wastewater Authority

Grant: #440-S-20-03

The Grantee has proposed the following schedule of key activities/milestones as a planning tool which may be subject to change. In particular, the Grantee acknowledges that the appropriate approval (Certificate to Construct) must be issued by the Department prior to proceeding with construction. Unless authorized by a grant modification, it is the responsibility of the Grantee to adhere to the anticipated schedule for the project as follows:

Activity	Date/Duration
a. Construction	December 2022
b. Certificate to Operate	December 2025

EXHIBIT D
REQUISITION FOR REIMBURSEMENT
(To be on Grantee's Letterhead)

Department of Environmental Quality
Clean Water Financing and Assistance Program
P.O. Box 1105
Richmond, VA 23218
Attn.: WQIF Program Manager

RE: **Virginia Water Quality Improvement Fund Grant**
 South Central Wastewater Authority WQIF Contract #440-S-20-03

Dear Program Manager:

 This requisition, Number ____, is submitted in connection with the referenced Grant Agreement between the Director of the Virginia Department of Environmental Quality and the South Central Wastewater Authority (The Authority). The effective date of the grant agreement is [insert date of grant agreement].

 Unless otherwise defined in this requisition, all capitalized terms used herein shall have the meaning set forth in Article I of the Grant Agreement. The undersigned Authorized Representative of the Grantee hereby requests disbursement of grant proceeds under the Grant Agreement in the amount of \$_____ for the purposes of payment of the Eligible Project Costs as set forth on Schedule I attached hereto.

 Copies of invoices relating to the items for which payment is requested are attached.

 The undersigned certifies that the amounts requested by this requisition will be applied solely and exclusively to the reimbursement of the Grantee for the payment of Eligible Project Costs.

 This requisition includes (if applicable) an accompanying Certificate of the Project Engineer as to the performance of the work.

Sincerely,

(Authorized Representative of the Grantee)

Attachments

SCHEDULE 1
VIRGINIA WATER QUALITY IMPROVEMENT FUND
FORM TO ACCOMPANY REQUEST FOR REIMBURSEMENT

REQUISITION # _____

Grantee: South Central Wastewater Authority

Grant: #440-S-20-03

CERTIFYING SIGNATURE: _____

TITLE: _____

Cost Category	Total Project Budget	Eligible Project Cost*	91.2% WQIF Grant Share (95% x 96%)	Total Expenditures This Period	Previous Grant Disbursements	Grant Disbursement This Period	Grant Balance
Construction	\$ 94,384,540	79.82%	91.2%	\$0.00	\$0.00	\$0.00	\$68,709,085
		\$75,338,909	\$68,709,085				
Construction Contingency	\$9,000,000	79.82%	91.2%	\$0.00	\$0.00	\$0.00	\$6,551,727
		\$7,183,911	\$6,551,727				
Engineering Services	\$7,400,000	79.82%	91.2%	\$0.00	\$0.00	\$0.00	\$5,386,976
		\$5,906,772	\$5,386,976				
Construction Management/Inspection	\$1,800,000	79.82%	91.2%	\$0.00	\$0.00	\$0.00	\$1,310,345
		\$1,436,782	\$1,310,345				
TOTALS:	\$112,584,540	\$89,866,374	\$81,958,133	\$0.00	\$0.00	\$0.00	\$81,958,133

*Eligible project cost percentage =79.8212384

Total Grant Amount: \$81,958,133
Previous Grant Disbursements: \$0.00
This Grant Request: \$0.00
Total Grant Requested to Date: \$0.00
Grant Proceeds Remaining: \$81,958,133

CERTIFICATE OF THE PROJECT ENGINEER
FORM TO ACCOMPANY REQUEST FOR REIMBURSEMENT

Grantee: South Central Wastewater Authority

Grant: #440-S-20-03

This Certificate is submitted in connection with Requisition Number _____, dated _____, 20__, submitted by the South Central Wastewater Authority (the "Grantee") to the Virginia Department of Environmental Quality. Capitalized terms used herein shall have the same meanings set forth in Article I of the Grant Agreement referred to in the Requisition.

The undersigned Project Engineer for _____ hereby certifies that insofar as the amounts covered by this Requisition include payments for labor or to contractors, builders or material men, such work was actually performed or such materials, supplies, or equipment were actually furnished to or installed in the Project.

(Project Engineer)

(Date)

EXHIBIT E
REPORTING OF ANALYTICAL RESULTS

Grantee: South Central Wastewater Authority

Grant: #440-S-20-03

Year: _____

MONTH	PARAMETER	CONCENTRATION (monthly average)	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
January	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
February	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
March	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
April	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
May	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
June	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
July	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
August	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
September	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
October	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
November	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
December	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		
Annual Average	Total Nitrogen		mg/l		
	Total Phosphorus		mg/l		

EXHIBIT E
REPORTING OF ANALYTICAL RESULTS
(continued)

Grantee: South Central Wastewater Authority

Grant: #440-S-20-03

Data Excluded Due to the Occurrence of Extraordinary Conditions: (if applicable; attach explanation)

Date(s): _____

Operator Responsible for Samples: _____ Date: _____

Telephone: _____ Certificate Number: _____

EXHIBIT F

FORMULA FOR CALCULATING MONETARY ASSESSMENT FOR EXCEEDANCE OF NUMERICAL NITROGEN CONCENTRATIONS

Grantee: South Central Wastewater Authority

Grant: #440-S-20-03

Section 2: Nitrogen Exceedances

$$CN = (TNe/TNr) \times AnPay \times PerGrant$$

where:

CN	=	Assessment for Nitrogen Exceedance.
TNe	=	Exceedance in tenths of a milligram per liter.
TNr	=	Expected nitrogen removal (difference between “pre-nutrient removal” annual average concentration and 4.0 mg/l limitation) in tenths of a milligram per liter.
AnPay	=	Annual Payment on grant; assumes principal payments amortized over 20 years and an interest rate of 5 percent. Using these assumed values leads to a “cost recovery factor” of 0.0802. The “cost recovery factor” times the grant amount yields the Annual Payment amount.
PerGrant	=	Percentage of grant received by year of exceedance.

Values used for Grant #440-S-20-03:

Pre-Nutrient Removal TN Concentration	= 35.0 mg/l
Effluent TN Concentration Limitation	= 4.0 mg/l
Total Grant Amount for TN Removal	= \$45,095,091
Useful Service Life	= 20 years
Interest Rate	= 5 percent

Calculated (assumes grant paid 100%):

Expected Removal (TNr)	= 31.0 mg/l
AnPay	= \$3,616,626
CN	= \$11,666 (for each 0.1 mg/l TN exceedance)

EXHIBIT F

FORMULA FOR CALCULATING MONETARY ASSESSMENT FOR EXCEEDANCE OF NUMERICAL PHOSPHORUS CONCENTRATIONS

Grantee: South Central Wastewater Authority

Grant: #440-S-20-03

Section 2: Phosphorus Exceedances

$$CP = (TPe/TPr) \times AnPay \times PerGrant$$

where:

CP	=	Assessment for Phosphorus Exceedance.
TPe	=	Exceedance in tenths of a milligram per liter.
TPr	=	Expected phosphorus removal (difference between “pre-nutrient removal” annual average concentration and 0.30 mg/l limitation) in tenths of a milligram per liter.
AnPay	=	Annual Payment on grant; assumes principal payments amortized over 20 years and an interest rate of 5 percent. Using these assumed values leads to a “cost recovery factor” of 0.0802. The “cost recovery factor” times the grant amount yields the Annual Payment amount.
PerGrant	=	Percentage of grant received by year of exceedance.

Values used for Grant #440-S-20-03:

Pre-Nutrient Removal TP Concentration	= 5.5 mg/l
Effluent TP Concentration Limitation	= 0.3 mg/l
Total Grant Amount for TP Removal	= \$36,863,042
Useful Service Life	= 20 years
Interest Rate	= 5 percent

Calculated (assumes grant paid 100%):

Expected Removal (TPr)	= 5.2 mg/l
AnPay	= \$2,956,416
CP	= \$56,854 (for each 0.1 mg/l TP exceedance)

CERTIFICATE OF SECRETARY-TREASURER

The undersigned Secretary-Treasurer of the South Central Wastewater Authority (the "Authority") hereby certifies that:

1. A regular meeting of the Board of the Authority was duly called and held on July 22, 2021 (the "Meeting"), at which the following members were present and absent:

PRESENT: Mr. Haltom

Dr. Casey

Mr. Massengill

Mr. Smith

ABSENT: Mr. Turille

2. A resolution (the "Resolution") of the Authority entitled "RESOLUTION OF THE SOUTH CENTRAL WASTEWATER AUTHORITY APPROVING THE VIRGINIA WATER QUALITY IMPROVEMENT FUND POINT SOURCE GRANT AND OPERATION AND MAINTENANCE AGREEMENT TO PROVIDE FUNDING FOR THE NUTRIENT REMOVAL TECHNOLOGY UPGRADE PROJECT," was duly adopted at the Meeting by the recorded affirmative vote of at least a majority of all of the members of the Board of the Authority on the motion of Mr. Massengill, which was seconded by Dr. Casey, the ayes and nays being recorded in the minutes of the meeting as shown below:

<u>MEMBER</u>	<u>VOTE</u>
Mr. Haltom	Aye
Dr. Casey	Aye
Mr. Massengill	Aye
Mr. Smith	Aye
Mr. Turille	Absent

3. Attached is a true and correct copy of the Resolution.

WITNESS my signature and the seal of the South Central Wastewater Authority this 22nd day of July 2021.

Frankie Haltom

Frank Haltom, Secretary-Treasurer
South Central Wastewater Authority



**RESOLUTION OF THE SOUTH CENTRAL WASTEWATER AUTHORITY
APPROVING THE VIRGINIA WATER QUALITY IMPROVEMENT FUND POINT
SOURCE GRANT AND OPERATION AND MAINTENANCE AGREEMENT TO
PROVIDE FUNDING FOR THE NUTRIENT REMOVAL TECHNOLOGY UPGRADE
PROJECT**

A. The South Central Wastewater Authority (the "Authority") is currently in the process of designing upgrades to and additional facilities for the Authority's wastewater treatment plant as part of its Nutrient Removal Technology Upgrade Project (the "Project") and considering various options to finance the Project.

B. Pursuant to the Virginia Water Quality Improvement Act of 1997, Chapter 21.1, Title 10.1 of the Code of Virginia (1950), as amended (the "WQIF Act"), the General Assembly created the Virginia Water Quality Improvement Fund (the "Fund"). The Director of the Virginia Department of Environmental Quality (the "Director"), in coordination with the Director of the Virginia Department of Conservation and Recreation, is authorized by the WQIF Act to make Water Quality Improvement grants related to point source pollution control, in accordance with guidelines established pursuant to Section 10.1-2129 of the WQIF Act, and enter into agreements with grantees under the Act which shall, in accordance with Sections 10.1-2130 and 10.1-2131, provide for the payment of the total amount of the grant and require proper long-term operation, monitoring and maintenance of funded projects.

C. The Authority has been approved by the Director to receive a grant (the "Grant") from the Fund subject to the terms and conditions of the Point Source Grant and Operation and Maintenance Agreement (the "Agreement") to finance ninety-five percent (95%) of the costs of the portion of the design and installation of the Project eligible for funding under the WQIF Act (the "Eligible Project Costs"). The Authority intends to use the Grant to finance that portion of the Eligible Project Costs not being paid for from other sources.

D. The Agreement, the most recent draft of which has been presented to the Board of the Authority (the "Board") at this meeting, provides for payment of the Grant and the design and construction of the Project, and also imposes certain requirements for the long-term operation, monitoring, and maintenance of the Project.

**NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF THE SOUTH
CENTRAL WASTEWATER AUTHORITY THAT:**

1. **Approval of Grant and Agreement.** The Board hereby finds that the acceptance of the Grant and the approval of the Agreement for the purposes described in this Resolution will promote the health, safety, welfare, morals and prosperity of the residents served by the Authority and will promote the governmental purposes for which the Authority was formed. The Board notes that any bonds or other debt that the Authority would issue or incur to pay the portion of the costs of the Project that will not be paid from the Grant requires the approval of all five of the Authority's incorporating subdivisions, Chesterfield County, the City of Colonial Heights, Dinwiddie County, the City of Petersburg, and Prince George County, pursuant to the Service Agreement dated as of July 2, 1996, between the Authority and the incorporating subdivisions, as amended.

2. Execution and Delivery of Agreement. The draft Agreement presented to this meeting is approved. The Chairman and the Executive Director of the Authority, either of whom may act, are authorized to execute and deliver the final 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 Agreement on the Authority's behalf.

3. Further Actions. The Chairman and the Executive Director and such officers and agents of the Authority 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 Grant or the Agreement, including the execution and delivery on behalf of the Authority 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.

4. Effective Date. This Resolution shall take effect immediately.



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Petersburg, VA 23803
Office: (804) 861-0111
Fax: (804) 861-3254

EXHIBIT F

TO: South Central Wastewater 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 th	Appomattox River Water Authority
March 17 th	Appomattox River Water Authority
May 19 th	Appomattox River Water Authority
July 28 th	South Central Wastewater Authority
September 22 nd	South Central Wastewater Authority
November 17 th	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 28th meeting is one week later than normal to accommodate the award for the Nutrient Project. One member has a conflict for July 28th. Please check your calendars for July 29th 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.



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EXHIBIT G

TO: South Central Wastewater 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 1st with a due date of September 30th. 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.



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EXHIBIT H

TO: South Central Wastewater 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 17th 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 17th meeting we will request the Board set a public hearing date for the May 19th meeting for the FY23 Budget. Between March 17th and May 19th, we will answer any questions raised at the March 17th meeting. Based on the discussion at the May 19th meeting, the Board will have the option of approving the budget. The budget will need to be approved prior to July 1st.

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.

South Central Wastewater Authority

Preliminary FY23 Budget Information

		Petersburg	Colonial Heights	Chesterfield	Prince George	Dinwiddie	Total / Average
Estimated % O&M Charges ⁽¹⁾	%	60.301%	17.170%	8.202%	5.652%	8.674%	100.000%
% ownership in SCWWA ⁽²⁾	%	52.500%	20.000%	10.000%	7.500%	10.000%	100.000%
Total Estimated annual responsibility ⁽³⁾	\$	\$5,277,838	\$1,629,051	\$789,376	\$559,196	\$820,397	\$9,075,858
Monthly Bill	\$	\$439,820	\$135,754	\$65,781	\$46,600	\$68,366	\$756,322
% change from FY22	%	3.57%	-0.52%	3.70%	-4.33%	0.75%	0.63%

Note(s)

- 1) Estimated % O&M Charges are based on the average prior 5 years of flows received from each Incorporating Subdivision. For FY23 this was average of FY17 thru FY21.
- 2) Percent ownership in SCWWA is outlined in the 1996 Service Agreement
- 3) Following the annual audit, the annual O&M Charges are trued-up based on actual flows received from each incorporating subdivisions.



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EXHIBIT I

TO: South Central Wastewater 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 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.
- 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 17th meeting. At the March 17th meeting we will request the Board set a public hearing date for the May 19th meeting for the FY23 Budget. Between March 17th and May 19th, we will answer any questions. .
- Archer met with staff to review the classification and compensation study process. Comprehensive position questionnaires (CPQ) we provided to all employees. Mrs. Wilkins Received CPQs from all employees and they were forwarded to Archer. Management met virtually with Archer on December 29th for the latest update on the study. A presentation to the board is planned for the March meeting.

- Leachate and Septage revenues were:

Month	Leachate	Septage
September	\$29,920	\$16,149
October	\$35,234	\$16,801
November	\$49,862	\$15,986
December	\$47,838	\$13,355

- SCWWA's annual total nitrogen (TN) waste load allocation (WLA) is 350,239 lbs. TN discharged for 2021 was 425,881 lbs. We have a contract with Chesterfield to purchase 50,000 credits to cover any WLA overage. We also have an option with Chesterfield to purchase additional credits as needed beyond the 50,000.
- SCWWA's annual total phosphorus (TP) WLA is 28,404 lbs. TP discharged through October 2021 was 22,841 lbs.

➤ Operations

Chesterfield

Colonial Heights

Dinwiddie

Petersburg

Prince George

- Plant effluent met all permit requirements for September, October, November, and December 2021.
- Average daily effluent flows were:

Month	Average Effluent Flow (mgd)	Total Monthly Precipitation (inches)
September	12.07	3.45
October	10.90	4.22
November	9.97	0.70
December	9.44	1.53

- Sodium Hypochlorite feed line had a leak. Operators discovered the issue, quickly rolled out the emergency feed lines, and successfully transitioned to the emergency feed lines. Once maintenance completed installation of the new feed lines, they tested the lines and transitioned to the new feed lines.
- Provided information about our current Non-Potable Water (NPW) system to the design engineers.
- Plant has been biologically removing phosphorus better than normal. During the week, alum is not needed. Operations staff is currently investigating to understand what has changed. This could be from the leachate trucks or an industry.

➤ Maintenance

- Receiving quotes for work needed at the grit collector and replacing a sodium hypochlorite tank. Based on the quotes received, it was decided to replace the sodium hypochlorite tank in house. The tank has been safely and successfully installed. We are currently waiting on parts to plumb in the tank.
- Received quotes to replace the membranes on the roof of 5 buildings. Due to the scope and inspection needed for this job we have requested a proposal from one of our trust engineers
- Replaced the sodium hypochlorite feed lines. Maintenance has trenched and installed 4 new feed lines (primary and spare to each feed location).
- Scheduled and completed testing on the breakers in the switchgear.
- Upgraded gravity belt thickener and belt filter press 90-30 Programmable Logic Computer (PLC) to newer RX3i.
- Assisted in the installation of the laboratory fume hood.
- Planning for installation of new caustic feed pumps.

➤ IT

- Reorganized the server room to make it easier to work on.
- Troubleshooting PLC3 issues. Rebuilt the sodium hypochlorite flow pacing logic. Working of Blower and motor operated valve control issues.
- Scheduled and coordinated the Firewall upgrade.
- Assisted Maintenance with the switchgear testing and upgrade of the PLCs in the solids handling building.
- Obtaining quotes for fuel consumption monitoring on the generators.

➤ Laboratory

- 2021 Pretreatment inspections finalized.
- Annual pretreatment report is being prepared for submittal by January 31st.
- HRSD was onsite November 9th and 10th for final effluent sampling. The last final effluent sampling event for this permit cycle is scheduled for January 25th.
- Whole Effluent Toxicity sampling is scheduled for February 5th.
- Investigated influent pH swings. There were no issues with treatment, but we did notice pH swings during the day.
- New fume hood has been installed and is in use.
- There were no comments for the AMPAC pretreatment permit. The permit can now be issued, and flows will be based on the previous permit for the location. Once the facility is fully operational additional sampling will be performed and flows and limits will be adjusted accordingly.
-

➤ Drain Pump Station

- Pumps and controls are onsite.
- Current Building ship date is December 13th.
- Preconstruction meeting was held on November 2nd
 - Contractor will wait for delivery of building before mobilizing.
 - They should have all the supplies needed for the job before the building is delivered.
 - SCWWA will need to provide bypass pumping during construction (6-8 weeks).
- Change order approved to provide the ability for staff to bypass the pump station is needed.

➤ Roofing Project

- Solids Building, Pump Building 5, Sodium Bisulfite Building, Vehicle Storage Building, and Blower Building roofs need to be replaced.
- Bidding document are currently being finalized by WW Associates.

South Central Wastewater Authority
For Month Ending December 31, 2021

Assets**Current Assets**

Petty Cash	\$	250
Wells Fargo Operating Account	\$	5,052,780
Payments In-Transit To LGIP Fund	\$	127,041
<i>Total Unrestricted Cash</i>	\$	5,180,072

Wells Fargo Reserve	\$	3,916,414
LGIP-ERRF	\$	2,710,468
LGIP_Capital Improvements Reserve	\$	6,532,406
<i>Total Restricted Cash</i>	\$	13,159,289

Total Checking/Savings **\$ 18,339,360**

Accounts Receivable	\$	111,705
Prepaid Expenses	\$	46,913
Long Term Receivable (Petgs/Legal)	\$	-

Total Current Assets **\$ 18,497,978**

Fixed Assets

Sewer System Plant	\$	34,163,853
Equipment & Vehicles	\$	2,506,266
Plant Machinery	\$	6,856,858
Construction in Progress	\$	1,434,833
Land	\$	92,968
Accumulated Depreciation	\$	(28,103,392)
Total Fixed Assets	\$	16,951,386

Other Assets

Inventory	\$	937,503
Def Out Res-Post ER Pension Con	\$	102,715
Deferred Outflows-GLI OPEB	\$	33,247
Def Out Res-OPEB Assumptions	\$	4,181
Def Out Res-OPEB Experience	\$	41,999
Total Other Assets	\$	1,119,645

Total Assets

\$ 36,569,010

Liabilities & Equity**Current Liabilities**

Accounts Payable	\$	429,264
Total Current Liabilities	\$	429,264

Other Current Liabilities

Payroll Accruals	\$	259,148
Health Ins-ARWA	\$	-
Retainage Payable	\$	-
Accrue for Nutrient Credit Purchases	\$	93,750
Refunds Due Member Localities	\$	104,726
Total Other Current Liabilities	\$	457,624

Long Term Liabilities

Net OPEB Obligation	\$	152,684
Net OPEB Liability-GLI	\$	143,186
Def Infl-OPEB-Chg of Assumption	\$	19,960
Deferred Inflows-GLI OPEB	\$	10,966
Def Inf-Chg in Ex and Act	\$	1,699
Def Inf Res-Net Dif Pension Inv	\$	(29,762)
Def Inf Res-Pens Chg Assumption	\$	(56,895)
Def Inf Res-Pens Dif Proj/Act E	\$	(144,366)
Net Pension Liability	\$	517,245
Total Long-Term Liabilities	\$	614,717

Total Liabilities

\$ 1,501,606

Equity

Retained Earnings	\$	20,675,799
Initial Locality Contribution Cap.	\$	14,166,822

Net Income	\$	224,783
Total Equity	\$	35,067,404

Total Liabilities & Equity

\$ 36,569,010

South Central Wastewater Authority
YTD Income Statement for the period ending December 31, 2021

Wastewater 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

Septage/Misc Revenue	\$ -	\$ -	\$ 336,689	\$ 336,689	#DIV/0!
O&M Revenue	\$ 6,393,600	\$ 3,196,800	\$ 3,196,800	\$ 0	0.00%
Capital Improvements Reserve	\$ 2,500,000	\$ 1,250,000	\$ 1,250,000	\$ (0)	0.00%
ER&RF Revenue	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Total Operating Revenues	\$ 8,893,600	\$ 4,446,800	\$ 4,783,489	\$ 336,689	7.57%

Expenses

Personnel Cost	\$ 2,879,500	\$ 1,439,750	\$ 1,371,702	\$ (68,048)	-4.73%
Contractual/Professional Services	\$ 345,000	\$ 172,500	\$ 130,570	\$ (41,930)	-24.31%
Utilities	\$ 485,000	\$ 242,500	\$ 199,978	\$ (42,522)	-17.53%
Communication/Postage/Freight	\$ 41,500	\$ 20,750	\$ 15,094	\$ (5,656)	-27.26%
Office/Lab/Janitorial Supplies	\$ 81,100	\$ 40,550	\$ 55,145	\$ 14,595	35.99%
Insurance	\$ 70,000	\$ 70,000	\$ 67,613	\$ (2,387)	-3.41%
Lease/Rental Equipment	\$ 11,000	\$ 5,500	\$ 5,605	\$ 105	1.91%
Travel/Training/Dues	\$ 62,000	\$ 31,000	\$ 25,000	\$ (6,000)	-19.36%
Safety/Uniforms	\$ 49,000	\$ 24,500	\$ 29,238	\$ 4,738	19.34%
Chemicals/Sludge Disposal	\$ 925,000	\$ 462,500	\$ 413,553	\$ (48,947)	-10.58%
Repair/Maintenance Parts & Supplies/Purchases	\$ 530,000	\$ 265,000	\$ 324,585	\$ 59,585	22.49%
Total Operating Expenses	\$ 5,479,100	\$ 2,774,550	\$ 2,638,084	\$ (136,466)	-4.92%
Operating Suplus/(Deficit)	\$ 3,414,500	\$ 1,672,250	\$ 2,145,405	\$ 473,155	28.29%

Replacement Outlay Budget vs. Actual

Machinery & Equipment	\$ 292,000	\$ 146,000	\$ 113,534	\$ (32,466)	-22.24%
Plant Equipment	\$ 185,000	\$ 92,500	\$ 110,000		
Instrumentation	\$ -	\$ -	\$ 87,804	\$ 87,804	#DIV/0!
SCADA	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Computer Equipment	\$ -	\$ -	\$ 20,992	\$ 20,992	#DIV/0!
Motor Vehicles	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Construction	\$ 250,000	\$ 125,000	\$ 122,098	\$ (2,903)	-2.32%
Special Studies	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Total Replacement Outlay	\$ 727,000	\$ 363,500	\$ 454,428	\$ 73,428	20.20%

Nutrient Upgrade Budget vs. Actual

Nutrient Upgrade-Engineering	\$ -	\$ -	\$ 1,385,789	\$ 1,385,789	#DIV/0!
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Other Income/Expense Budget vs. Actual

Nutrient Credit Purchases (Expense)	\$ 187,500	\$ 93,750	\$ 93,750	\$ -	0.00%
Nutrient Reduction	\$ -	\$ -	\$ 2,224	\$ 2,224	#DIV/0!
Interest-Income	\$ -	\$ -	\$ 4,821	\$ 4,821	#DIV/0!
Gain/Loss on Disposal	\$ -	\$ -	\$ 6,300	\$ 6,300	#DIV/0!
Other Income-Other	\$ -	\$ -	\$ -	\$ -	#DIV/0!
Alum Litigation Proceeds (Income)	\$ -	\$ -	\$ -	\$ -	#DIV/0!

South Central Wastewater Authority
Executive Review
Cash and Debt Highlights
As of December 31, 2021

	Highlights: SCWWA Cash Positions					30-Jun-21	31-Dec-21	Change	Explanation	
	Unrestricted Cash & Investments:									
		Petty Cash				\$ 250.00	\$ 250.00	\$ -	On-Hand Petty Cash for incidental expenses	
		Wells Fargo Operating Account				\$ 3,677,661.92	\$ 5,052,780.46	\$ 1,375,118.54	Financial Policy: All incoming O & M charges under service agreement	
		Wells Fargo Reserve Account				\$ 3,916,414.45	\$ 3,916,414.45	\$ -	Financial Policy: 50% of Authority's Annual O & M Budget	
		Payments In-Transit to LGIP Fund (Performed Quarterly)				\$ -	\$ 127,041.14	\$ 127,041.14	Incoming Leachate Revenues-Moved Quarterly to LGIP Account	
	Restricted Cash and Investments:									
		LGIP-ERRF				\$ 2,710,467.97	\$ 2,710,467.97	\$ -	Resolution adopted by BOD, January 2018	
		LGIP-Capital Improvement Reserve				\$ 7,688,458.72	\$ 6,532,406.12	\$ (1,156,052.60)	Resolution adopted by BOD, January 2018	
	Total Cash and Investments					\$ 17,993,253.06	\$ 18,339,360.14	\$ 346,107.08		