

900 Magazine Rd. Petersburg, VA 23803

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# South Central Wastewater Authority Board of Directors Meeting

DATE: May 16, 2019

TIME: 2:00 PM

**LOCATION: Appomattox River Water Authority** 

**Board Room, Administration Building** 

21300 Chesdin Road

South Chesterfield, Virginia 23803

### **AGENDA**

- 1. Call to Order/Roll Call
- 2. Approval of Minutes: Minutes of the Regular Meeting of the Board on March 21, 2019
- 3. Public Comment
- 4. Executive Director's Report:
  - Virginia's Draft Chesapeake Bay Watershed Implementation Plan (WIP III) Briefing on Potential Facility Discharge Permit Impacts
  - Member Potential Financial Impacts due to Facility Nutrient Upgrade
  - Status Report: Ongoing Projects / Operational / Financials / Flow
- 5. Approval of Proposed Fiscal Year 2020 Budget
- 6. Items from Counsel
- 7. Closed Session: Personnel
- 8. Other Items from Board Members/Staff Not on Agenda
- 9. Adjourn

Cc:W. Dupler/George Hayes, Chesterfield

L. Lyons, Petersburg

W. Henley, Colonial Heights

F. Haltom, Prince George

K. Massengill, Dinwiddie County

A. Anderson, McGuire Woods

### 1. Call to Order/Roll Call

### 2. Approval of Minutes: Minutes of the Board Meeting held on March 21, 2019

Following for your review and approval are the minutes of the Regular Board Meeting held on March 21, 2019.

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

### **BOARD OF DIRECTORS MEETING**

South Central Wastewater Authority
March 21, 2019 at 2:00 p.m.
Location: South Central Wastewater Authority

900 Magazine Road, Petersburg, VA 23803

### **MEMBERS PRESENT:**

Doug Smith, Chairman (Colonial Heights) Percy Ashcraft, (Prince George) Joseph Casey, (Chesterfield) Robert B. Wilson, (Dinwiddie)

### **ALTERNATES PRESENT:**

Kevin Massengill, (Alternate, Dinwiddie) George Hayes, Secretary/Treasurer (Alternate, Chesterfield) Lionel Lyons, (Alternate, Petersburg) Frank Haltom, (Alternate, Prince George)

### **ABSENT:**

Aretha Ferrell-Benavides, Vice-Chairman (Petersburg) William Henley, (Alternate, Colonial Heights) William Dupler, (Alternate, Chesterfield)

### **STAFF:**

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

### **OTHERS:**

Denny Morris, (Crater Region Planning Commission) Mike Wooden, (Arcadis) Andrew Barnes, (Petersburg) Keith Boswell, (Gateway Region)

Mr. Smith, Chairman, called the meeting to order at 2:11 p.m.

### 1. Call to Order/Roll Call

The roll was called.

### 2. Approval of Minutes: Minutes of the Regular Meeting of the Board held on January 16, 2019

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

RESOLVED, that the Minutes of the Regular Meeting of the Board held on January 16, 2019 are hereby approved:

For: 4 Against: 0 Abstain: 0

Dr. Casey commented on the length of the Board minutes, and Mr. Smith stated he would pass this on to Staff about developing shorter minutes while still maintaining an electronic recording of the full minutes.

### 3. Public Hearing on Proposed FY 2019/2020 Budget

Mr. Smith opened the Public Hearing on the Proposed FY 2019/2020 Budget and there were no comments from the public.

Dr. Casey stated Chesterfield has proposed a three percent merit raise for their employees, and it's hard for him to approve merit raises higher than what they are contributing. Dr. Wichser asked Ms. Wilkins what was the cost for the difference between three and four percent, and Ms. Wilkins stated for ARWA the difference was \$6,000 and for SCWWA the difference was \$7,000. Mr. Haltom stated that ARWA and SCWWA use a "Performance Based" evaluation process and that the proposed 4% is not across the board.

Mr. Lyons arrived at 2:17 p.m.

### 4. Public Comment

There were no public comments.

### 5. Executive Director's Report

### Establishment of Interest-Bearing Account for Idle Funds

Dr. Wichser reported on the Establishment of Interest-Bearing Account for idle funds. Dr. Casey stated he feels that the Authorities need a two-tiered policy, one for long term and one for short term needs. Mr. Smith asked staff to look into investment policy type of approach for both ARWA and SCWWA. It was stated that ARWA's funds are already in interest bearing accounts with US Bank.

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

RESOLVED, that based on recommendations the Board approves for SCWWA to become a participant in the Virginia Local Government Investment Pool. This approval authorizes the Authority's Executive Director to execute documents and all other instruments necessary to become a member of and make deposits and withdrawals to and from the Local Government Investment Pool Program:

For: 5 Against: 0 Abstain: 0

Status Report: Status Report: Ongoing Projects/Operations/Financials/I&I/Leachate

Mr. Gordon reported on Ongoing Projects/Financials. He also reported on I&I. Dr. Casey expressed concerns related to the I&I information related to rainfall effects on facility flows and the potential impacts on the VPDES permit's ninety-five percent capacity reopener. Mr. Smith asked Staff to review and determine if there was other information from the discussion today that you could recommend to include or change in report.

### 6. Items from Counsel

There were no items from Counsel.

### 7. Closed Session

There was no Closed Session.

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

Mr. Wilson stated that he attended the recent VAMWA meeting, and this is very preliminary, but it looks like the Commonwealth is not going to meet the Watershed Implementation Plan 2025 deadline on nutrients for the Bay. As a result, there might be the possibility of the Commonwealth mandating more stringent nutrient limits on our plant's discharge requirements. He further stated the project cost that we have for our nutrient improvement project could go up based on this potential change. He stated that correspondingly the Department of Environmental Quality has not said if any additions or subtractions related to the WQIF fund might occur, but just the indication that the Commonwealth might become more stringent on nutrient requirements would be a change to SCWWA.

Mr. Lyons introduced Andrew Barnes, the new General Manager of Utilities for Petersburg.

### 9. Adjourn

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

Upon a motion made by Mr. Lyons and seconded by Mr. Wilson the meeting was adjourned at 2:47 p.m.

MINUTES APPROVED BY:
George Hayes
Secretary/Treasurer

### 3. Public Comment

The Guidelines for Public Comment are:

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

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

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

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

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

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

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

### 4. Executive Director's Report

 Virginia's Draft Chesapeake Bay Watershed Implementation Plan (WIP III) Briefing on Potential Facility Discharge Permit Impacts

Presented by Christopher D. Pomeroy, President-AquaLaw PLC

### BACKGROUND:

The Office of the Virginia Secretary of Natural Resources, through the Department of Environmental Quality (DEQ), announces the release of Virginia's Draft Phase III Watershed Implementation Plan for meeting the Chesapeake Bay Total Maximum Daily Load (the Draft Phase III WIP).

### **Draft Phase 3 WIP Excerpt**

(47) Require additional nutrient reductions from wastewater treatment plants (WWTP)

The Commonwealth will initiate actions to achieve additional nutrient reductions from certain significant municipal treatment facilities that have not yet upgraded to achieve 4 mg/l of TN and 0.3 mg/l of TP. This action could consist of a technology-based regulation requiring municipal WWTPs to upgrade to meet effluent limits of 4 mg/l TN and 0.3 mg/l TP or possibly a more cost effective approach that achieves an equivalent reduction in nutrient loads. Of the 87 significant publicly owned treatment works (POTWs) included in the Watershed General Permit, 34 facilities have already received WQIF grants, achieving 4 mg/l TN and 0.3 mg/l TP. A few facilities with special circumstances could maintain their existing alternative effluent limits/targets (e.g. UOSA: 8 mg/l TN; Richmond: 8 mg/l TN; Lynchburg: 8 mg/l TN; and Hopewell: 12 mg/l TN). Additional consideration could be given to aggregate registrations under the watershed general permit and the HRSD SWIFT project to allow for the most efficient means of achieving equivalent reductions. The Commonwealth may choose to exempt a subset of the smallest significant facilities that in aggregate represent a minor percentage of the expected load reductions from this initiative. The Commonwealth intends to pursue reductions from this sector utilizing the most cost effective approach.

Under §62.1-44.19:14.D, the DEQ is required to review the basis for allocations granted in the Water Quality Management Planning Regulation every 10 years (beginning in 2020) and propose the reallocation of any unneeded allocations to other facilities registered under the general permit or reserve such allocations for future use. See Report Prepared Pursuant to Executive Order 52 (2016). (Lead agency: DEQ, target date: TBD)

### • Member Potential Financial Impacts due to Facility Nutrient Upgrade

Presented by: Ted Cole, Senior Vice-President, Davenport & Company LLC

Two conceptual Level Nutrient Removal Projects were analyzed for their impacts on SCWWA Member annual debt service.

### Project Number 1:

- SCWWA upgraded to Level 3 nutrient removal improvements that would allow the facility to meet effluent nutrient concentrations of 3.0 mg/l Total Nitrogen and 0.1 mg/l Total Phosphorus for design hydraulic flow of 23 mgd.
- Project cost: \$50,000,000
- Commonwealth of Virginia Water Quality Improvement Grant Funding: \$15,000,000
- Bond Funding: \$35,000,000

### Project Number 2:

- SCWWA upgraded to Level 3 nutrient removal improvements that would allow the facility to meet effluent nutrient concentrations of 3.0 mg/l Total Nitrogen and 0.1 mg/l Total Phosphorus for design hydraulic flow of 23 mgd plus addressing aging infrastructure improvements and needed wet weather improvements.
- Project cost: \$105,000,000
- Commonwealth of Virginia Water Quality Improvement Grant Funding: \$20,000,000
- Bond Funding: \$85,000,000

Note: Project cost estimates provided by Hazen and Sawyer - July 16, 2018.

# **Discussion Materials**

**South Central Wastewater Authority** 



# Project Overview



### ■ WWTP Upgrade Project #1

- The first project scope would only meet the regulatory required total nitrogen removal.
- The total project cost is estimated to be \$50 million with a potential to receive \$15 million (or more) in grant funding from the Virginia WQIF, resulting in a net borrowing requirement for SCCWA of \$35 million.
- With a potential implementation deadline of 2025, the project would need to begin in Calendar Year 2020 or 2021 at the latest.

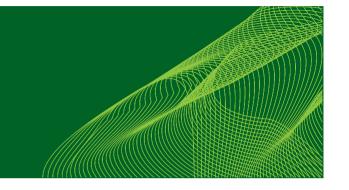
### ■ WWTP Upgrade Project #2

- The second project scope would include the total nitrogen required removal, plus aging infrastructure and treatment and handling to address wet weather impacts on the treatment plant to ensure that the total nitrogen process was protected.
- The total project cost is estimated to be \$105 million with a potential to receive \$20 million (or more) in grant funding from the Virginia WQIF, resulting in a net borrowing requirement for SCCWA of \$85 million.
- With a potential implementation deadline of 2025, the project would need to begin in Calendar Year 2020 or 2021 at the latest.
- Under the Authority's Service Agreement, annual debt service will be allocated to member jurisdictions based on the following allocation:

<ul><li>Petersburg:</li></ul>	52.5%
- Colonial Heights:	20%
- Chesterfield:	10%
- Prince George:	7.5%
- Dinwiddie:	10%



# Project #1 Debt Service Estimates







### **Estimated Debt Service**

20-Year Amortization							
FY		Principal		Interest		Total	
2021	\$	-	\$	1,168,125	\$	1,168,125	
2022		1,105,000		1,550,138		2,655,138	
2023		1,155,000		1,499,288		2,654,288	
2024		1,210,000		1,446,075		2,656,075	
2025		1,265,000		1,390,388		2,655,388	
2026		1,320,000		1,332,225		2,652,225	
2027		1,380,000		1,271,475		2,651,475	
2028		1,445,000		1,207,913		2,652,913	
2029		1,515,000		1,141,313		2,656,313	
2030		1,580,000		1,071,675		2,651,675	
2031		1,655,000		998,888		2,653,888	
2032		1,730,000		922,725		2,652,725	
2033		1,810,000		843,075		2,653,075	
2034		1,895,000		759,713		2,654,713	
2035		1,980,000		672,525		2,652,525	
2036		2,070,000		581,400		2,651,400	
2037		2,170,000		486,000		2,656,000	
2038		2,270,000		386,100		2,656,100	
2039		2,370,000		281,700		2,651,700	
2040		2,480,000		172,575		2,652,575	
2041		2,595,000		58,388		2,653,388	
2042		-		-		-	
2043		-		-		-	
2044		-		-		-	
2045		-		-		-	
2046		-		-		-	
2047		-		-		-	
2048		-		-		-	
2049		-		-		-	
2050		-		-		-	
2051		-		-		-	
Total	\$	35,000,000	\$	19,241,700	\$	54,241,700	

Assumptions:	
Closing Date:	8/4/2020 11/1/2020
First Interest:	11/1/2020
First Principal:	11/1/2021
Final Principal:	11/1/2040
Interest Rate:	4.50%

25-Year Amortization						
FY		Principal		Interest		Total
2021	\$	-	\$	1,233,021	\$	1,233,021
2022		745,000		1,644,806		2,389,806
2023		785,000		1,608,469		2,393,469
2024		820,000		1,570,350		2,390,350
2025		860,000		1,530,450		2,390,450
2026		905,000		1,488,531		2,393,531
2027		950,000		1,444,475		2,394,475
2028		995,000		1,398,281		2,393,281
2029		1,040,000		1,349,950		2,389,950
2030		1,095,000		1,299,244		2,394,244
2031		1,145,000		1,246,044		2,391,044
2032		1,200,000		1,190,350		2,390,350
2033		1,260,000		1,131,925		2,391,925
2034		1,320,000		1,070,650		2,390,650
2035		1,385,000		1,006,406		2,391,406
2036		1,455,000		938,956		2,393,956
2037		1,525,000		868,181		2,393,181
2038		1,600,000		793,963		2,393,963
2039		1,675,000		716,181		2,391,181
2040		1,755,000		634,719		2,389,719
2041		1,840,000		549,338		2,389,338
2042		1,930,000		459,800		2,389,800
2043		2,025,000		365,869		2,390,869
2044		2,125,000		267,306		2,392,306
2045		2,230,000		163,875		2,393,875
2046		2,335,000		55,456		2,390,456
2047		-		-		-
2048		-		-		-
2049		-		-		-
2050		-		-		-
2051		-		-		-
Total	\$	35,000,000	\$	26,026,596	\$	61,026,596

<u>Assumptions:</u>	
Closing Date:	8/4/2020
First Interest:	11/1/2020
First Principal:	11/1/2021
Final Principal:	11/1/2045
Interest Rate:	4.75%

	30-Year Amortization							
FY		Principal		Interest		Total		
2021	\$	-	\$	1,297,917	\$	1,297,917		
2022		515,000		1,737,125		2,252,125		
2023		540,000		1,710,750		2,250,750		
2024		570,000		1,683,000		2,253,000		
2025		600,000		1,653,750		2,253,750		
2026		630,000		1,623,000		2,253,000		
2027		660,000		1,590,750		2,250,750		
2028		695,000		1,556,875		2,251,875		
2029		730,000		1,521,250		2,251,250		
2030		770,000		1,483,750		2,253,750		
2031		810,000		1,444,250		2,254,250		
2032		850,000		1,402,750		2,252,750		
2033		895,000		1,359,125		2,254,125		
2034		940,000		1,313,250		2,253,250		
2035		985,000		1,265,125		2,250,125		
2036		1,040,000		1,214,500		2,254,500		
2037		1,090,000		1,161,250		2,251,250		
2038		1,145,000		1,105,375		2,250,375		
2039		1,205,000		1,046,625		2,251,625		
2040		1,270,000		984,750		2,254,750		
2041		1,335,000		919,625		2,254,625		
2042		1,400,000		851,250		2,251,250		
2043		1,475,000		779,375		2,254,375		
2044		1,550,000		703,750		2,253,750		
2045		1,625,000		624,375		2,249,375		
2046		1,710,000		541,000		2,251,000		
2047		1,800,000		453,250		2,253,250		
2048		1,890,000		361,000		2,251,000		
2049		1,990,000		264,000		2,254,000		
2050		2,090,000		162,000		2,252,000		
2051		2,195,000		54,875		2,249,875		
Total	\$	35,000,000	\$	33,869,667	\$	68,869,667		

Assumptions:	
Closing Date:	8/4/2020
First Interest:	11/1/2020
First Principal:	11/1/2021
Final Principal:	11/1/2050
Interest Rate:	5.00%



\$35 Million Net Debt Funding – 20 Year Allocation by Jurisdiction

			Estimated Debt Ser	vice		
Jurisdiction Allocation	Petersburg 52.50%	Colonial Heights 20.00%	Chesterfield 10.00%	Prince George 7.50%	Dinwiddie 10.00%	Total 100.00%
Fiscal Year						
2021	\$ 613,266	\$ 233,625	\$ 116,813	\$ 87,609	\$ 116,813	\$ 1,168,125
2022	1,393,947	531,028	265,514	199,135	265,514	2,655,138
2023	1,393,501	530,858	265,429	199,072	265,429	2,654,288
2024	1,394,439	531,215	265,608	199,206	265,608	2,656,075
2025	1,394,078	531,078	265,539	199,154	265,539	2,655,388
2026	1,392,418	530,445	265,223	198,917	265,223	2,652,225
2027	1,392,024	530,295	265,148	198,861	265,148	2,651,475
2028	1,392,779	530,583	265,291	198,968	265,291	2,652,913
2029	1,394,564	531,263	265,631	199,223	265,631	2,656,313
2030	1,392,129	530,335	265,168	198,876	265,168	2,651,675
2031	1,393,291	530,778	265,389	199,042	265,389	2,653,888
2032	1,392,681	530,545	265,273	198,954	265,273	2,652,725
2033	1,392,864	530,615	265,308	198,981	265,308	2,653,075
2034	1,393,724	530,943	265,471	199,103	265,471	2,654,713
2035	1,392,576	530,505	265,253	198,939	265,253	2,652,525
2036	1,391,985	530,280	265,140	198,855	265,140	2,651,400
2037	1,394,400	531,200	265,600	199,200	265,600	2,656,000
2038	1,394,453	531,220	265,610	199,208	265,610	2,656,100
2039	1,392,143	530,340	265,170	198,878	265,170	2,651,700
2040	1,392,602	530,515	265,258	198,943	265,258	2,652,575
2041	1,393,028	530,678	265,339	199,004	265,339	2,653,388
Total	\$ 28,476,893	\$ 10,848,340	\$ 5,424,170	\$ 4,068,128	\$ 5,424,170	\$ 54,241,700



\$35 Million Net Debt Funding – 25 Year Allocation by Jurisdiction

Estimated Debt Service						
Jurisdiction Allocation	Petersburg 52.50%	Colonial Heights 20.00%	Chesterfield 10.00%	Prince George 7.50%	Dinwiddie 10.00%	Total 100.00%
Fiscal Year						
2021	\$ 647,336	\$ 246,604	\$ 123,302	\$ 92,477	\$ 123,302	\$ 1,233,021
2022	1,254,648	477,961	238,981	179,235	238,981	2,389,806
2023	1,256,571	478,694	239,347	179,510	239,347	2,393,469
2024	1,254,934	478,070	239,035	179,276	239,035	2,390,350
2025	1,254,986	478,090	239,045	179,284	239,045	2,390,450
2026	1,256,604	478,706	239,353	179,515	239,353	2,393,531
2027	1,257,099	478,895	239,448	179,586	239,448	2,394,475
2028	1,256,473	478,656	239,328	179,496	239,328	2,393,281
2029	1,254,724	477,990	238,995	179,246	238,995	2,389,950
2030	1,256,978	478,849	239,424	179,568	239,424	2,394,244
2031	1,255,298	478,209	239,104	179,328	239,104	2,391,044
2032	1,254,934	478,070	239,035	179,276	239,035	2,390,350
2033	1,255,761	478,385	239,193	179,394	239,193	2,391,925
2034	1,255,091	478,130	239,065	179,299	239,065	2,390,650
2035	1,255,488	478,281	239,141	179,355	239,141	2,391,406
2036	1,256,827	478,791	239,396	179,547	239,396	2,393,956
2037	1,256,420	478,636	239,318	179,489	239,318	2,393,181
2038	1,256,830	478,793	239,396	179,547	239,396	2,393,963
2039	1,255,370	478,236	239,118	179,339	239,118	2,391,181
2040	1,254,602	477,944	238,972	179,229	238,972	2,389,719
2041	1,254,402	477,868	238,934	179,200	238,934	2,389,338
2042	1,254,645	477,960	238,980	179,235	238,980	2,389,800
2043	1,255,206	478,174	239,087	179,315	239,087	2,390,869
2044	1,255,961	478,461	239,231	179,423	239,231	2,392,306
2045	1,256,784	478,775	239,388	179,541	239,388	2,393,875
2046	1,254,990	478,091	239,046	179,284	239,046	2,390,456
Total	\$ 32,038,963	\$ 12,205,319	\$ 6,102,660	\$ 4,576,995	\$ 6,102,660	\$ 61,026,596

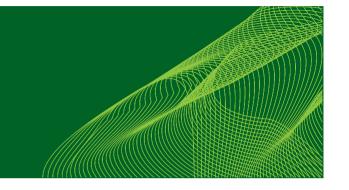


\$35 Million Net Debt Funding – 30 Year Allocation by Jurisdiction

			Estimated Debt Ser	vice		
Jurisdiction Allocation	Petersburg 52.50%	Colonial Heights 20.00%	Chesterfield 10.00%	Prince George 7.50%	Dinwiddie 10.00%	Total 100.00%
Fiscal Year						
2021	\$ 681,406	\$ 259,583	\$ 129,792	\$ 97,344	\$ 129,792	\$ 1,297,917
2022	1,182,366	450,425	225,213	168,909	225,213	2,252,125
2023	1,181,644	450,150	225,075	168,806	225,075	2,250,750
2024	1,182,825	450,600	225,300	168,975	225,300	2,253,000
2025	1,183,219	450,750	225,375	169,031	225,375	2,253,750
2026	1,182,825	450,600	225,300	168,975	225,300	2,253,000
2027	1,181,644	450,150	225,075	168,806	225,075	2,250,750
2028	1,182,234	450,375	225,188	168,891	225,188	2,251,875
2029	1,181,906	450,250	225,125	168,844	225,125	2,251,250
2030	1,183,219	450,750	225,375	169,031	225,375	2,253,750
2031	1,183,481	450,850	225,425	169,069	225,425	2,254,250
2032	1,182,694	450,550	225,275	168,956	225,275	2,252,750
2033	1,183,416	450,825	225,413	169,059	225,413	2,254,125
2034	1,182,956	450,650	225,325	168,994	225,325	2,253,250
2035	1,181,316	450,025	225,013	168,759	225,013	2,250,125
2036	1,183,613	450,900	225,450	169,088	225,450	2,254,500
2037	1,181,906	450,250	225,125	168,844	225,125	2,251,250
2038	1,181,447	450,075	225,038	168,778	225,038	2,250,375
2039	1,182,103	450,325	225,163	168,872	225,163	2,251,625
2040	1,183,744	450,950	225,475	169,106	225,475	2,254,750
2041	1,183,678	450,925	225,463	169,097	225,463	2,254,625
2042	1,181,906	450,250	225,125	168,844	225,125	2,251,250
2043	1,183,547	450,875	225,438	169,078	225,438	2,254,375
2044	1,183,219	450,750	225,375	169,031	225,375	2,253,750
2045	1,180,922	449,875	224,938	168,703	224,938	2,249,375
2046	1,181,775	450,200	225,100	168,825	225,100	2,251,000
2047	1,182,956	450,650	225,325	168,994	225,325	2,253,250
2048	1,181,775	450,200	225,100	168,825	225,100	2,251,000
2049	1,183,350	450,800	225,400	169,050	225,400	2,254,000
2050	1,182,300	450,400	225,200	168,900	225,200	2,252,000
2051	1,181,184	449,975	224,988	168,741	224,988	2,249,875
Total	\$ 36,156,575	\$ 13,773,933	\$ 6,886,967	\$ 5,165,225	\$ 6,886,967	\$ 68,869,667



# Project #2 Debt Service Estimates



8/4/2020

11/1/2020

11/1/2021 11/1/2040

May 16, 2019

4.50%



\$85 Million Net Debt Funding

Estimated	Debt	Service
25-Year	Amort	ization

FY         Principal         Interest         Total           2021         \$ - \$ 2,836,875         \$ 2,836,875           2022         2,680,000         3,764,700         6,444,700           2023         2,805,000         3,641,288         6,446,288           2024         2,935,000         3,512,138         6,447,025           2026         3,210,000         3,235,725         6,445,725           2027         3,355,000         3,088,013         6,443,013           2028         3,510,000         2,933,550         6,443,550           2029         3,675,000         2,771,888         6,446,888           2030         3,840,000         2,602,800         6,442,800           2031         4,020,000         2,425,950         6,445,950           2032         4,205,000         2,240,888         6,445,888           2033         4,395,000         2,047,388         6,442,388           2034         4,600,000         1,845,000         6,445,000           2035         4,810,000         1,633,275         6,443,275           2036         5,035,000         1,180,013         6,445,013           2038         5,505,000         1,180,013         6,445,013 </th <th colspan="7">20-Year Amortization</th>	20-Year Amortization						
2021         \$ - \$ 2,836,875 \$ 2,836,875           2022         2,680,000 3,764,700 6,444,700           2023         2,805,000 3,641,288 6,446,288           2024         2,935,000 3,512,138 6,447,138           2025         3,070,000 3,377,025 6,447,025           2026         3,210,000 3,235,725 6,445,725           2027         3,355,000 3,088,013 6,443,550           2028         3,510,000 2,933,550 6,443,550           2029         3,675,000 2,771,888 6,446,888           2030         3,840,000 2,602,800 6,442,800           2031         4,020,000 2,425,950 6,445,950           2032         4,205,000 2,240,888 6,445,888           2033         4,395,000 2,047,388 6,442,388           2034         4,600,000 1,845,000 6,445,000           2035         4,810,000 1,633,275 6,443,275           2036         5,035,000 1,411,763 6,446,763           2037         5,265,000 937,688 6,442,688           2039         5,760,000 684,225 6,444,268           2040         6,025,000 419,063 6,444,063           2041         6,300,000 141,750 6,441,750           2042         -         -           2043         -         -           2044         -         -         -           2044	FY		Principal		Interest		Total
2022         2,680,000         3,764,700         6,444,700           2023         2,805,000         3,641,288         6,446,288           2024         2,935,000         3,512,138         6,447,138           2025         3,070,000         3,377,025         6,447,025           2026         3,210,000         3,235,725         6,445,725           2027         3,355,000         3,088,013         6,443,550           2028         3,510,000         2,933,550         6,443,550           2029         3,675,000         2,771,888         6,446,888           2030         3,840,000         2,602,800         6,442,800           2031         4,020,000         2,425,950         6,445,950           2032         4,205,000         2,240,888         6,445,888           2033         4,395,000         2,047,388         6,442,388           2034         4,600,000         1,845,000         6,445,000           2035         4,810,000         1,633,275         6,443,275           2036         5,035,000         1,11,763         6,444,6763           2037         5,265,000         1,180,013         6,444,688           2039         5,760,000         684,225         <		\$	········	\$		\$	
2023         2,805,000         3,641,288         6,446,288           2024         2,935,000         3,512,138         6,447,138           2025         3,070,000         3,377,025         6,447,025           2026         3,210,000         3,235,725         6,445,725           2027         3,355,000         3,088,013         6,443,013           2028         3,510,000         2,933,550         6,443,550           2029         3,675,000         2,771,888         6,446,888           2030         3,840,000         2,602,800         6,442,800           2031         4,020,000         2,240,888         6,445,950           2032         4,205,000         2,240,888         6,445,888           2033         4,395,000         2,047,388         6,442,388           2034         4,600,000         1,845,000         6,445,000           2035         4,810,000         1,633,275         6,443,275           2036         5,035,000         1,411,763         6,446,763           2037         5,265,000         1,180,013         6,442,688           2039         5,760,000         684,225         6,444,268           2040         6,025,000         419,063 <td< td=""><td></td><td></td><td>2.680.000</td><td></td><td>, ,</td><td></td><td>, ,</td></td<>			2.680.000		, ,		, ,
2024         2,935,000         3,512,138         6,447,138           2025         3,070,000         3,377,025         6,447,025           2026         3,210,000         3,235,725         6,445,725           2027         3,355,000         3,088,013         6,443,013           2028         3,510,000         2,933,550         6,443,550           2029         3,675,000         2,771,888         6,446,888           2030         3,840,000         2,602,800         6,442,800           2031         4,020,000         2,240,888         6,445,950           2032         4,205,000         2,240,888         6,445,888           2033         4,395,000         2,047,388         6,442,388           2034         4,600,000         1,845,000         6,445,000           2035         4,810,000         1,633,275         6,443,275           2036         5,035,000         1,180,013         6,445,613           2037         5,265,000         1,180,013         6,442,688           2039         5,760,000         684,225         6,444,268           2040         6,025,000         419,063         6,444,063           2044         -         -         - <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
2025         3,070,000         3,377,025         6,447,025           2026         3,210,000         3,235,725         6,445,725           2027         3,355,000         3,088,013         6,443,013           2028         3,510,000         2,933,550         6,443,550           2029         3,675,000         2,771,888         6,446,888           2030         3,840,000         2,602,800         6,442,800           2031         4,020,000         2,425,950         6,445,950           2032         4,205,000         2,240,888         6,445,888           2033         4,395,000         2,047,388         6,442,388           2034         4,600,000         1,845,000         6,445,000           2035         4,810,000         1,633,275         6,443,275           2036         5,035,000         1,11,763         6,446,763           2037         5,265,000         1,180,013         6,445,688           2039         5,760,000         684,225         6,444,268           2040         6,025,000         419,063         6,444,063           2044         -         -         -           2045         -         -         -           20							
2026         3,210,000         3,235,725         6,445,725           2027         3,355,000         3,088,013         6,443,013           2028         3,510,000         2,933,550         6,443,550           2029         3,675,000         2,771,888         6,446,888           2030         3,840,000         2,602,800         6,442,800           2031         4,020,000         2,425,950         6,445,950           2032         4,205,000         2,240,888         6,445,888           2033         4,395,000         2,047,388         6,442,388           2034         4,600,000         1,845,000         6,445,000           2035         4,810,000         1,633,275         6,443,275           2036         5,035,000         1,180,013         6,445,613           2037         5,265,000         1,180,013         6,442,688           2039         5,760,000         684,225         6,444,268           2039         5,760,000         419,063         6,444,063           2041         6,300,000         141,750         6,441,750           2044         -         -         -           2045         -         -         -           204							
2027         3,355,000         3,088,013         6,443,013           2028         3,510,000         2,933,550         6,443,550           2029         3,675,000         2,771,888         6,446,888           2030         3,840,000         2,602,800         6,442,800           2031         4,020,000         2,425,950         6,445,950           2032         4,205,000         2,240,888         6,445,888           2033         4,395,000         2,047,388         6,442,388           2034         4,600,000         1,845,000         6,445,000           2035         4,810,000         1,633,275         6,443,275           2036         5,035,000         1,411,763         6,446,763           2037         5,265,000         1,180,013         6,445,688           2039         5,760,000         684,225         6,444,288           2040         6,025,000         419,063         6,444,063           2041         6,300,000         141,750         6,441,750           2044         -         -         -           2045         -         -         -           2046         -         -         -           2047         - <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
2029         3,675,000         2,771,888         6,446,888           2030         3,840,000         2,602,800         6,442,800           2031         4,020,000         2,425,950         6,445,950           2032         4,205,000         2,240,888         6,445,888           2033         4,395,000         2,047,388         6,442,388           2034         4,600,000         1,845,000         6,445,000           2035         4,810,000         1,633,275         6,443,275           2036         5,035,000         1,411,763         6,446,763           2037         5,265,000         1,180,013         6,445,013           2038         5,505,000         937,688         6,442,688           2039         5,760,000         684,225         6,444,255           2040         6,025,000         419,063         6,444,063           2041         6,300,000         141,750         6,441,750           2043         -         -         -           2044         -         -         -           2045         -         -         -           2046         -         -         -           2047         -         -	2027						
2030         3,840,000         2,602,800         6,442,800           2031         4,020,000         2,425,950         6,445,950           2032         4,205,000         2,240,888         6,445,888           2033         4,395,000         2,047,388         6,442,388           2034         4,600,000         1,845,000         6,445,000           2035         4,810,000         1,633,275         6,443,275           2036         5,035,000         1,411,763         6,446,763           2037         5,265,000         1,180,013         6,445,013           2038         5,505,000         937,688         6,442,688           2039         5,760,000         684,225         6,444,255           2040         6,025,000         419,063         6,444,063           2041         6,300,000         141,750         6,441,750           2042         -         -         -           2043         -         -         -           2044         -         -         -           2045         -         -         -           2046         -         -         -           2047         -         -         -	2028		3,510,000		2,933,550		6,443,550
2031         4,020,000         2,425,950         6,445,950           2032         4,205,000         2,240,888         6,445,888           2033         4,395,000         2,047,388         6,442,388           2034         4,600,000         1,845,000         6,445,000           2035         4,810,000         1,633,275         6,443,275           2036         5,035,000         1,411,763         6,446,763           2037         5,265,000         1,180,013         6,445,013           2038         5,505,000         937,688         6,442,688           2039         5,760,000         684,225         6,444,255           2040         6,025,000         419,063         6,444,063           2041         6,300,000         141,750         6,441,750           2042         -         -         -           2043         -         -         -           2044         -         -         -           2045         -         -         -           2046         -         -         -           2047         -         -         -           2048         -         -         -           204	2029		3,675,000		2,771,888		6,446,888
2032         4,205,000         2,240,888         6,445,888           2033         4,395,000         2,047,388         6,442,388           2034         4,600,000         1,845,000         6,445,000           2035         4,810,000         1,633,275         6,443,275           2036         5,035,000         1,411,763         6,446,763           2037         5,265,000         1,180,013         6,445,013           2038         5,505,000         937,688         6,442,688           2039         5,760,000         684,225         6,444,268           2040         6,025,000         419,063         6,444,063           2041         6,300,000         141,750         6,441,750           2042         -         -         -           2043         -         -         -           2044         -         -         -           2045         -         -         -           2046         -         -         -           2047         -         -         -           2048         -         -         -           2049         -         -         -           2050         - <td>2030</td> <td></td> <td>3,840,000</td> <td></td> <td>2,602,800</td> <td></td> <td>6,442,800</td>	2030		3,840,000		2,602,800		6,442,800
2033         4,395,000         2,047,388         6,442,388           2034         4,600,000         1,845,000         6,445,000           2035         4,810,000         1,633,275         6,443,275           2036         5,035,000         1,411,763         6,446,763           2037         5,265,000         1,180,013         6,445,013           2038         5,505,000         937,688         6,442,688           2039         5,760,000         684,225         6,444,255           2040         6,025,000         419,063         6,444,063           2041         6,300,000         141,750         6,441,750           2042         -         -         -           2043         -         -         -           2044         -         -         -           2045         -         -         -           2046         -         -         -           2047         -         -         -           2048         -         -         -           2049         -         -         -           2050         -         -         -           -         -         -	2031		4,020,000		2,425,950		6,445,950
2034         4,600,000         1,845,000         6,445,000           2035         4,810,000         1,633,275         6,443,275           2036         5,035,000         1,411,763         6,446,763           2037         5,265,000         1,180,013         6,445,013           2038         5,505,000         937,688         6,442,688           2039         5,760,000         684,225         6,444,263           2040         6,025,000         419,063         6,444,063           2041         6,300,000         141,750         6,441,750           2042         -         -         -           2043         -         -         -           2044         -         -         -           2045         -         -         -           2046         -         -         -           2047         -         -         -           2048         -         -         -           2049         -         -         -           2050         -         -         -	2032		4,205,000		2,240,888		6,445,888
2035         4,810,000         1,633,275         6,443,275           2036         5,035,000         1,411,763         6,446,763           2037         5,265,000         1,180,013         6,445,013           2038         5,505,000         937,688         6,442,688           2039         5,760,000         684,225         6,444,255           2040         6,025,000         419,063         6,444,063           2041         6,300,000         141,750         6,441,750           2042         -         -         -           2043         -         -         -           2044         -         -         -           2045         -         -         -           2046         -         -         -           2047         -         -         -           2048         -         -         -           2049         -         -         -           2050         -         -         -	2033		4,395,000		2,047,388		6,442,388
2036         5,035,000         1,411,763         6,446,763           2037         5,265,000         1,180,013         6,445,013           2038         5,505,000         937,688         6,442,688           2039         5,760,000         684,225         6,444,063           2040         6,025,000         419,063         6,444,063           2041         6,300,000         141,750         6,441,750           2042         -         -         -           2043         -         -         -           2044         -         -         -           2045         -         -         -           2046         -         -         -           2047         -         -         -           2048         -         -         -           2049         -         -         -           2050         -         -         -           2051         -         -         -	2034		4,600,000		1,845,000		6,445,000
2037         5,265,000         1,180,013         6,445,013           2038         5,505,000         937,688         6,442,688           2039         5,760,000         684,225         6,444,265           2040         6,025,000         419,063         6,444,063           2041         6,300,000         141,750         6,441,750           2042         -         -         -           2043         -         -         -           2044         -         -         -           2045         -         -         -           2046         -         -         -           2047         -         -         -           2048         -         -         -           2049         -         -         -           2050         -         -         -           2051         -         -         -	2035		4,810,000		1,633,275		6,443,275
2038         5,505,000         937,688         6,442,688           2039         5,760,000         684,225         6,444,252           2040         6,025,000         419,063         6,444,063           2041         6,300,000         141,750         6,441,750           2042         -         -         -           2043         -         -         -           2044         -         -         -           2045         -         -         -           2046         -         -         -           2047         -         -         -           2048         -         -         -           2049         -         -         -           2050         -         -         -           2051         -         -         -	2036		5,035,000		1,411,763		6,446,763
2039         5,760,000         684,225         6,444,225           2040         6,025,000         419,063         6,444,063           2041         6,300,000         141,750         6,441,750           2042         -         -         -           2043         -         -         -           2044         -         -         -           2045         -         -         -           2046         -         -         -           2047         -         -         -           2048         -         -         -           2049         -         -         -           2050         -         -         -           2051         -         -         -	2037		5,265,000		1,180,013		6,445,013
2040     6,025,000     419,063     6,444,063       2041     6,300,000     141,750     6,441,750       2042     -     -     -       2043     -     -     -       2044     -     -     -       2045     -     -     -       2046     -     -     -       2047     -     -     -       2048     -     -     -       2049     -     -     -       2050     -     -     -       2051     -     -     -	2038		5,505,000		937,688		6,442,688
2041         6,300,000         141,750         6,441,750           2042         -         -         -           2043         -         -         -           2044         -         -         -           2045         -         -         -           2046         -         -         -           2047         -         -         -           2048         -         -         -           2049         -         -         -           2050         -         -         -           2051         -         -         -	2039		5,760,000		684,225		6,444,225
2042     -     -     -       2043     -     -     -       2044     -     -     -       2045     -     -     -       2046     -     -     -       2047     -     -     -       2048     -     -     -       2049     -     -     -       2050     -     -     -       2051     -     -     -	2040		6,025,000		419,063		6,444,063
2043       -       -       -         2044       -       -       -         2045       -       -       -         2046       -       -       -         2047       -       -       -         2048       -       -       -         2049       -       -       -         2050       -       -       -         2051       -       -       -	2041		6,300,000		141,750		6,441,750
2044     -     -     -       2045     -     -     -       2046     -     -     -       2047     -     -     -       2048     -     -     -       2049     -     -     -       2050     -     -     -       2051     -     -     -	2042		-		-		-
2045     -     -     -       2046     -     -     -       2047     -     -     -       2048     -     -     -       2049     -     -     -       2050     -     -     -       2051     -     -     -	2043		-		-		-
2046     -     -     -       2047     -     -     -       2048     -     -     -       2049     -     -     -       2050     -     -     -       2051     -     -     -	2044		-		-		-
2047     -     -     -       2048     -     -     -       2049     -     -     -       2050     -     -     -       2051     -     -     -	2045		-		-		-
2048     -     -     -       2049     -     -     -       2050     -     -     -       2051     -     -     -	2046		-		-		-
2049     -     -     -       2050     -     -     -       2051     -     -     -	2047		-		-		-
2050     -     -     -       2051     -     -     -	2048		-		-		-
2051	2049		-		-		-
	2050		-		-		-
Total \$ 85,000,000 \$ 46,731,000 \$ 131,731,000	2051		-		-		-
	Total	\$	85,000,000	\$	46,731,000	\$	131,731,000

ΓV	Dringing		Interest	Total
FY	Principal	Φ.	Interest	Total
2021	\$ -	\$	2,994,479	\$ 2,994,479
2022	1,815,000		3,994,394	5,809,394
2023	1,905,000		3,906,044	5,811,044
2024	1,995,000		3,813,419	5,808,419
2025	2,090,000		3,716,400	5,806,400
2026	2,195,000		3,614,631	5,809,631
2027	2,300,000		3,507,875	5,807,875
2028	2,410,000		3,396,013	5,806,013
2029	2,530,000		3,278,688	5,808,688
2030	2,655,000		3,155,544	5,810,544
2031	2,780,000		3,026,463	5,806,463
2032	2,915,000		2,891,206	5,806,206
2033	3,060,000		2,749,300	5,809,300
2034	3,210,000		2,600,388	5,810,388
2035	3,365,000		2,444,231	5,809,231
2036	3,530,000		2,280,475	5,810,475
2037	3,700,000		2,108,763	5,808,763
2038	3,880,000		1,928,738	5,808,738
2039	4,070,000		1,739,925	5,809,925
2040	4,265,000		1,541,969	5,806,969
2041	4,475,000		1,334,394	5,809,394
2042	4,690,000		1,116,725	5,806,725
2043	4,920,000		888,488	5,808,488
2044	5,160,000		649,088	5,809,088
2045	5,410,000		398,050	5,808,050
2046	5,675,000		134,781	5,809,781
2047	-			
2048			_	
2049	_		-	_
2050			_	
2051				
Total	\$ 85,000,000	\$	63,210,467	\$ 148,210,467
iotai	Ψ 65,000,000	Ψ	00,210,407	Ψ 140,210,401

	30-Year Amortization							
FY		Principal		Interest		Total		
2021	\$	Tillioipai	\$	3,152,083	\$	3,152,083		
2022	Ψ	1,250,000	Ψ	4,218,750	Ψ	5,468,750		
2023		1,315,000		4,154,625		5,469,625		
2024		1,385,000		4,087,125		5,472,125		
2025		1,455,000		4,016,125		5,471,125		
2026		1,530,000		3,941,500		5,471,500		
2027		1,605,000		3,863,125		5,468,125		
2028		1,690,000		3,780,750		5,470,750		
2029		1,775,000		3,694,125		5,469,125		
2030		1,865,000		3,603,125		5,468,125		
2031		1,965,000		3,507,375		5,472,375		
2032		2,065,000		3,406,625		5,471,625		
2033		2,170,000		3,300,750		5,470,750		
2034		2,280,000		3,189,500		5,469,500		
2035		2,400,000		3,072,500		5,472,500		
2036		2,520,000		2,949,500		5,469,500		
2037		2,650,000		2,820,250		5,470,250		
2038		2,785,000		2,684,375		5,469,375		
2039		2,930,000		2,541,500		5,471,500		
2040		3,080,000		2,391,250		5,471,250		
2041		3,235,000		2,233,375		5,468,375		
2042		3,400,000		2,067,500		5,467,500		
2043		3,575,000		1,893,125		5,468,125		
2044		3,760,000		1,709,750		5,469,750		
2045		3,955,000		1,516,875		5,471,875		
2046		4,155,000		1,314,125		5,469,125		
2047		4,370,000		1,101,000		5,471,000		
2048		4,595,000		876,875		5,471,875		
2049		4,830,000		641,250		5,471,250		
2050		5,075,000		393,625		5,468,625		
2051		5,335,000		133,375		5,468,375		
Total	\$	85,000,000	\$	82,255,833	\$	167,255,833		

Assumptions:	
Closing Date:	8/4/2020
First Interest:	11/1/2020
First Principal:	11/1/2021
Final Principal:	11/1/2045
Interest Rate:	4.75%

Assumptions:	
Closing Date:	8/4/2020
First Interest:	11/1/2020
First Principal:	11/1/2021
Final Principal:	11/1/2050
Interest Rate:	5.00%

Assumptions: Closing Date:

First Interest:

First Principal:

Final Principal:

Interest Rate:



\$85 Million Net Debt Funding- 20 Year Allocation by Jurisdiction

			Estimated Debt Ser	vice		
			Estimated Debt Ger	VIOC		
Jurisdiction	Petersburg	Colonial Heights	Chesterfield	Prince George	Dinwiddie	Total
Allocation	52.50%	20.00%	10.00%	7.50%	10.00%	100.00%
Fiscal Year						
2021	\$ 1,489,359	\$ 567,375	\$ 283,688	\$ 212,766	\$ 283,688	\$ 2,836,875
2022	3,383,468	1,288,940	644,470	483,353	644,470	6,444,700
2023	3,384,301	1,289,258	644,629	483,472	644,629	6,446,288
2024	3,384,747	1,289,428	644,714	483,535	644,714	6,447,138
2025	3,384,688	1,289,405	644,703	483,527	644,703	6,447,025
2026	3,384,006	1,289,145	644,573	483,429	644,573	6,445,725
2027	3,382,582	1,288,603	644,301	483,226	644,301	6,443,013
2028	3,382,864	1,288,710	644,355	483,266	644,355	6,443,550
2029	3,384,616	1,289,378	644,689	483,517	644,689	6,446,888
2030	3,382,470	1,288,560	644,280	483,210	644,280	6,442,800
2031	3,384,124	1,289,190	644,595	483,446	644,595	6,445,950
2032	3,384,091	1,289,178	644,589	483,442	644,589	6,445,888
2033	3,382,253	1,288,478	644,239	483,179	644,239	6,442,388
2034	3,383,625	1,289,000	644,500	483,375	644,500	6,445,000
2035	3,382,719	1,288,655	644,328	483,246	644,328	6,443,275
2036	3,384,550	1,289,353	644,676	483,507	644,676	6,446,763
2037	3,383,632	1,289,003	644,501	483,376	644,501	6,445,013
2038	3,382,411	1,288,538	644,269	483,202	644,269	6,442,688
2039	3,383,218	1,288,845	644,423	483,317	644,423	6,444,225
2040	3,383,133	1,288,813	644,406	483,305	644,406	6,444,063
2041	3,381,919	1,288,350	644,175	483,131	644,175	6,441,750
Total	\$ 69,158,775	\$ 26,346,200	\$ 13,173,100	\$ 9,879,825	\$ 13,173,100	\$ 131,731,000



\$85 Million Net Debt Funding- 25 Year Allocation by Jurisdiction

			Estimated Debt Ser	vice		
Jurisdiction Allocation	Petersburg 52.50%	Colonial Heights 20.00%	Chesterfield 10.00%	Prince George 7.50%	Dinwiddie 10.00%	Total 100.00%
Fiscal Year						
2021	\$ 1,572,102	\$ 598,896	\$ 299,448	\$ 224,586	\$ 299,448	\$ 2,994,479
2022	3,049,932	1,161,879	580,939	435,705	580,939	5,809,394
2023	3,050,798	1,162,209	581,104	435,828	581,104	5,811,044
2024	3,049,420	1,161,684	580,842	435,631	580,842	5,808,419
2025	3,048,360	1,161,280	580,640	435,480	580,640	5,806,400
2026	3,050,056	1,161,926	580,963	435,722	580,963	5,809,631
2027	3,049,134	1,161,575	580,788	435,591	580,788	5,807,875
2028	3,048,157	1,161,203	580,601	435,451	580,601	5,806,013
2029	3,049,561	1,161,738	580,869	435,652	580,869	5,808,688
2030	3,050,535	1,162,109	581,054	435,791	581,054	5,810,544
2031	3,048,393	1,161,293	580,646	435,485	580,646	5,806,463
2032	3,048,258	1,161,241	580,621	435,465	580,621	5,806,206
2033	3,049,883	1,161,860	580,930	435,698	580,930	5,809,300
2034	3,050,453	1,162,078	581,039	435,779	581,039	5,810,388
2035	3,049,846	1,161,846	580,923	435,692	580,923	5,809,231
2036	3,050,499	1,162,095	581,048	435,786	581,048	5,810,475
2037	3,049,600	1,161,753	580,876	435,657	580,876	5,808,763
2038	3,049,587	1,161,748	580,874	435,655	580,874	5,808,738
2039	3,050,211	1,161,985	580,993	435,744	580,993	5,809,925
2040	3,048,659	1,161,394	580,697	435,523	580,697	5,806,969
2041	3,049,932	1,161,879	580,939	435,705	580,939	5,809,394
2042	3,048,531	1,161,345	580,673	435,504	580,673	5,806,725
2043	3,049,456	1,161,698	580,849	435,637	580,849	5,808,488
2044	3,049,771	1,161,818	580,909	435,682	580,909	5,809,088
2045	3,049,226	1,161,610	580,805	435,604	580,805	5,808,050
2046	3,050,135	1,161,956	580,978	435,734	580,978	5,809,781
Total	\$ 77,810,495	\$ 29,642,093	\$ 14,821,047	\$ 11,115,785	\$ 14,821,047	\$ 148,210,467

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\$85 Million Net Debt Funding- 30 Year Allocation by Jurisdiction

			Estimated Debt Sei	vice		
Jurisdiction Allocation	Petersburg 52.50%	Colonial Heights 20.00%	Chesterfield 10.00%	Prince George 7.50%	Dinwiddie 10.00%	Total 100.00%
Fiscal Year						
2021	\$ 1,654,844	\$ 630,417	\$ 315,208	\$ 236,406	\$ 315,208	\$ 3,152,083
2022	2,871,094	1,093,750	546,875	410,156	546,875	5,468,750
2023	2,871,553	1,093,925	546,963	410,222	546,963	5,469,625
2024	2,872,866	1,094,425	547,213	410,409	547,213	5,472,125
2025	2,872,341	1,094,225	547,113	410,334	547,113	5,471,125
2026	2,872,538	1,094,300	547,150	410,363	547,150	5,471,500
2027	2,870,766	1,093,625	546,813	410,109	546,813	5,468,125
2028	2,872,144	1,094,150	547,075	410,306	547,075	5,470,750
2029	2,871,291	1,093,825	546,913	410,184	546,913	5,469,125
2030	2,870,766	1,093,625	546,813	410,109	546,813	5,468,125
2031	2,872,997	1,094,475	547,238	410,428	547,238	5,472,375
2032	2,872,603	1,094,325	547,163	410,372	547,163	5,471,625
2033	2,872,144	1,094,150	547,075	410,306	547,075	5,470,750
2034	2,871,488	1,093,900	546,950	410,213	546,950	5,469,500
2035	2,873,063	1,094,500	547,250	410,438	547,250	5,472,500
2036	2,871,488	1,093,900	546,950	410,213	546,950	5,469,500
2037	2,871,881	1,094,050	547,025	410,269	547,025	5,470,250
2038	2,871,422	1,093,875	546,938	410,203	546,938	5,469,375
2039	2,872,538	1,094,300	547,150	410,363	547,150	5,471,500
2040	2,872,406	1,094,250	547,125	410,344	547,125	5,471,250
2041	2,870,897	1,093,675	546,838	410,128	546,838	5,468,375
2042	2,870,438	1,093,500	546,750	410,063	546,750	5,467,500
2043	2,870,766	1,093,625	546,813	410,109	546,813	5,468,125
2044	2,871,619	1,093,950	546,975	410,231	546,975	5,469,750
2045	2,872,734	1,094,375	547,188	410,391	547,188	5,471,875
2046	2,871,291	1,093,825	546,913	410,184	546,913	5,469,125
2047	2,872,275	1,094,200	547,100	410,325	547,100	5,471,000
2048	2,872,734	1,094,375	547,188	410,391	547,188	5,471,875
2049	2,872,406	1,094,250	547,125	410,344	547,125	5,471,250
2050	2,871,028	1,093,725	546,863	410,147	546,863	5,468,625
2051	2,870,897	1,093,675	546,838	410,128	546,838	5,468,375
Total	\$ 87,809,312	\$ 33,451,167	\$ 16,725,583	\$ 12,544,187	\$ 16,725,583	\$ 167,255,833

May 16, 2019

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# Municipal Advisor Disclosure



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When acting as a registered municipal advisor Davenport is a fiduciary required by federal law to act in the best interest of a municipal entity without regard to its own financial or other interests. Davenport is not a fiduciary when it acts as a registered investment advisor, when advising an obligated person, or when acting as an underwriter, though it is required to deal fairly with such persons.

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### • Status Report: Ongoing Projects / Operational / Financials / Flow

Following are status reports concerning the Ongoing Project, Operations, Financials, Flow, and Leachate Traffic for the SCWWA.



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

Fax: (804) 861-3254

### **MEMORANDUM**

TO: SOUTH CENTRAL WASTEWATER AUTHORITY BOARD OF DIRECTORS

FROM: ROBERT C. WICHSER, EXECUTIVE DIRECTOR

JAMES C. GORDON, ASSISTANT EXECUTIVE DIRECTOR

SUBJECT: STATUS REPORT – ON-GOING PROJECTS

DATE: MAY 16, 2019

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

### Wastewater Treatment Plant Improvements, Phase 2

• Grout was successfully installed in the secondary clarifier on April 16, 2019. The clarifier was placed back in service on April 22, 2019. This effectively closes out the project.

### Warehouse Project

• Warehouse construction is going with an anticipated completion schedule of June, 2019

### **Solids Handling Project**

• This study is ongoing. A workshop with the Authority was conducted on May 2, 2019 to discuss process alternatives. We anticipate a draft report by June 2019.



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

Fax: (804) 861-3254

### **MEMORANDUM**

TO: SOUTH CENTRAL WASTEWATER AUTHORITY BOARD OF DIRECTORS

FROM: ROBERT C. WICHSER, EXECUTIVE DIRECTOR

JAMES C. GORDON, ASST. EXECUTIVE DIRECTOR

SUBJECT: OPERATING & FINANCIAL STATUS REPORT

DATE: MAY 16, 2019

### **Operating Status Report:**

### General:

- The next scheduled normal Board of Directors meeting is July 18, 2019 at the Appomattox River Water Authority at 2:00 pm.
- The 24" valve replacement on the Main Line from Petersburg' Main Pump Station was completed on 3/5/2019. The total cost for the valve, replacement, and bypass demobilization was \$195,374.51. This is being paid out of the Equipment Replacement and Reserve Fund (ERRF).
- The Admin floor has been replaced and staff is awaiting the replacement of the front door

### **Status of Nutrient Waste-load**

- Total Phosphorus (TP)
  - o Waste-load allocation Total Phosphorus: 28,404 lbs. on a calendar basis.
  - Total actual waste-load through April 2019 was 8,026 lbs. (Proportionally, the SCWWA was 1,442 lbs. of TP under our waste-load allocation for this time of year)
- Total Nitrogen (TN)
  - o Waste-load allocation Total Nitrogen: 350,239 lbs. on a calendar basis
  - Total actual waste-load through April 2019 was 147,119 lbs. (Proportionally, the SCWWA was 30,373 lbs. of TN over our waste-load allocation for this time of year.)
  - Note: The SCWWA is locked-in to purchasing 169,623 credits for 2019.

### **Operations:**

- Plant effluent met all discharge permit requirements for March and April 2019. Copies of the discharge monitoring reports (DMR's) for the VPDES permit and the general permit are available.
- Staff continues to communicate with NutriBlend to remove biosolids. We expect to have all the solids on the pad cleared off by 5/10/2019.
- Two of our operators are retiring over the next few months. Staff is currently interviewing to fill these positions.

### Maintenance:

- Staff has replaced the diffusers in 1C and 2C. They are preparing to replace the diffusers in 3C.
- Staff is upgrading and pulling new electric feeds for the existing primary drives and for the new gate actuators.
- Staff is now performing PMs on the Return Activated Sludge pumps and replacing the cradles.

### Instrumentation

- Staff is installing the network connections in the new warehouse.
- Caustic PLC work continues.
- Local displays for the Sodium Bisulfite tanks are being mounted near the offload station.

### Laboratory

- Annual proficiency testing for certified parameters is ongoing.
- Pricing is being received for disposal of old chemicals.

### **Financial Status Report:**

Following is the Executive Summary of the Monthly Financial Statement that includes the YTD Budget Performance and the Financial Statement for April 2019.

### **South Central Wastewater Authority**

For Month Ending April 30, 2019

### Assets

Current Assets			
	Petty Cash	\$	250
	Wells Fargo Operating Account	\$	3,763,501
	Total Unrestricted Cash	\$	3,763,751
	Wells Fargo Reserve	\$	2 016 /11/
	Wells Fargo Capital Improvement Reserve	\$	3,916,414
	ERRF	\$	146,112
	LGIP-ERRF	\$	2,710,468
	LGIP_Capital Improvements Reserve	\$	2,700,000
	Total Restricted Cash	\$	9,472,994
	Total Checking/Savings	\$	13,236,745
	Assaulta Dassiuskia		450.034
	Accounts Receivable  Long Term Receivable (Petgs/Legal)	\$ \$	158,931
	zong rem meservasie (r etgs/zegar/	*	
Total Current Assets		\$	13,395,676
Fixed Assets			
	Sewer System Plant	\$	33,609,033
	Equipment & Vehicles	\$	3,037,357
	Plant Machinery	\$	7,920,877
	Construction in Progress	\$	2,512,232
	Land	\$	92,968
	Accumulated Depreciation	\$	(28,490,891)
Total Fixed Assets		\$	18,681,576
Other Assets			
<b>5</b>	Inventory	\$	664,334
	Def Out Res-Post ER Pension Con	\$	119,474
	Deferred Outflows-GLI OPEB	\$	9,059
Total Other Assets	Serence outliens can en ab	\$	792,867
Total Assets		\$	32,870,119
Liabilities & Equity			
• •			
Current Liabilities			
	Accounts Payable	\$	1,662
Total Current Liabilities		\$	1,662
Other Current Liabilities			
	Payroll Accruals	\$	223,256
	Retainage Payable	\$	´-
	Suspense-Clearing Account	\$	514,167
	Refunds Due Member Localities	\$	-
<b>Total Other Current Liabilities</b>		\$	737,423
Lana Tarra Liabilitica			
Long Term Liabilities	Net OPEB Obligation	\$	134,609
	Net OPEB Liability-GLI	\$	132,000
	Def Infl-OPEB-Chg of Assumption	¢	5,512
	Deferred Inflows-GLI OPEB	\$ \$ \$ \$	15,000
	Define Res-Net Dif Pension Inv	ş ¢	166,457
	Def Inf Res-Pens Chg Assumption	ç	76,200
	Def Inf Res-Pens Dif Proj/Act E	ç	
	Net Pension Liability	\$	61,277 105,031
Total Long-Term Liabilities	Net Pension Liability	\$	696,086
Total Liabilities		\$	1,435,171
Equity			
	Retained Earnings	\$	15,442,788
	Initial Locality Contribution Cap.	\$	14,166,822
	Net Income	\$	1 025 220
Total Equity	Net Income	\$ \$	1,825,338 31,434,948
Total Equity		Ą	31,434,340
Total Liabilities & Equity		\$	32,870,119

		Budget		Budget		Actual	Y	TD Budget	Variance
Wastewater Rate Center		FY 18/19	Y	ear-to-Date	Y	ear-to-Date		vs. Actual	Percentage
Revenues and Expenses Summary	_	<u> </u>							
Operating Budget vs. Actual									
Revenues									
Septage/Misc Revenue	ċ		ć		ċ	872,872	\$	872,872	#DIV/0!
O&M Revenue	\$ \$	8,199,100	\$ \$	6,832,583	\$ \$	6,832,583	\$ \$	872,872 (0)	0.00!
Reserve Policy	\$	0,199,100	\$	0,632,363	ڊ \$	0,632,363	۰ \$	(0)	#DIV/0!
ER&RF Revenue	\$	-	\$	-	ڊ \$	_	ب \$	_	#DIV/0!
Total Operating Revenues	\$	8,199,100	٠ \$	6,832,583	<del>ب</del> \$	7,705,456	<del>ب</del> \$	872,872	12.789
Expenses									
Personnel Cost	\$	2,700,000	\$	2,250,583	\$	2,221,698	\$	(28,885)	-1.28
Contractual/Professional Services	\$	350,000	\$	316,750	\$	268,956	\$	(47,794)	-15.09
Utilities	\$	462,500	\$	385,417	\$	386,164	\$	747	0.19
Communication/Postage/Freight	\$	31,500	\$	26,250	\$	22,025	\$	(4,225)	-16.10
Office/Lab/Purification Supplies	\$	74,000	\$	62,803	\$	54,311	\$	(8,492)	-13.52
Insurance	\$	65,000	\$	54,167	\$	64,055	\$	9,888	18.26
Lease/Rental Equipment	\$	11,000	\$	9,167	\$	8,690	\$	(477)	-5.21
Travel/Training/Dues	\$	61,100	\$	57,764	\$	40,785	\$	(16,978)	-29.39
Safety/Uniforms	\$	44,500	\$	37,083	\$	23,971	\$	(13,113)	-35.36
Chemicals/Sludge Disposal	\$	910,000	\$	758,333	\$	669,777	\$	(88,556)	-11.689
Repair/Maintenance Parts & Supplies	\$	501,500	\$	421,932	\$	258,630	\$	(163,302)	-38.70
Total Operating Expenses	\$	5,211,100	\$	4,380,249	\$	4,019,061	\$	(361,187)	-8.25
Operating Suplus/(Deficit)	\$	2,988,000	\$	2,452,335	\$	3,686,394	\$	1,234,060	50.329
Replacement Outlay Budget vs. Actual									
Machinery & Equipment	\$	210,000	\$	175,000	\$	382,428	\$	207,428	118.53
Instrumentation	\$	80,000	\$	66,667	\$	10,894	\$	(55,773)	-83.66
SCADA	\$	15,000	\$	12,500	\$	-	\$	(12,500)	-100.00
Computer Equipment	\$	15,000	\$	12,500	\$	-	\$	(12,500)	-100.009
Motor Vehicles	\$	6,000	\$	5,000	\$	6,326	\$	1,326	26.52
Construction	\$	295,000	\$	245,833	\$	950,745	\$	704,912	286.74
Special Studies	\$	-	\$	-	\$	-	\$	-	#DIV/0!
Total Replacement Outlay	\$	621,000	\$	517,500	\$	1,350,393	\$	832,893	160.959

Nutrient Credit Purchases (Expense)	\$ 617,000	\$ 514,167	\$ 514,167	\$ (0)	0.00%
Nutrient Reduction	\$ -	\$ -	\$ 1,030	\$ 1,030	#DIV/0!
			2.474	2.474	#DIV/0!



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

Fax: (804) 861-3254

### **MEMORANDUM**

TO: SOUTH CENTRAL WASTEWATER AUTHORITY BOARD OF DIRECTORS

FROM: ROBERT C. WICHSER, EXECUTIVE DIRECTOR

JAMES C. GORDON, ASSISTANT EXECUTIVE DIRECTOR

**SUBJECT:** Flow Report

DATE: May 16, 2019

Below is the rainfall and flow information through April 2019. The following two pages show the annual flow trends and

projection for the South Central Wastewater Authority.

Month	Rainfall (inches)	Average Flow (mgd)
April 2018	4.73	11.974
May 2018	8.46	15.221
June 2018	6.28	14.629
July 2018	9.44	12.785
August 2018	4.53	12.973
September 2018	4.43	11.572
October 2018	6.05	14.568
November 2018	5.7	20.758
December 2018	3.21	18.440
January 2019	3.27	17.865
February 2019	4.57	19.594
March 2019	4.55	19.236
April 2019	3.79	14.265

### PRIMARY FLOW DATA

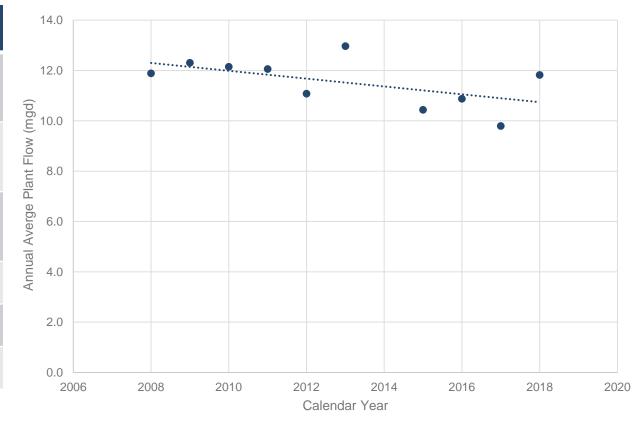
April	2019	2018	2017	2016	2015	2014	2013
Minimum (mgd)	11.600	9.233	9.061	9.535	10.890	10.367	10.972
Maximum (mgd)	20.519	20.216	20.181	11.498	23.441	22.924	17.729
Average (mgd)	14.265	11.974	11.681	10.379	13.098	13.307	13.391
Rainfall (inches)	3.79	4.73	1.46	2.55	4.24	3.64	4.42

# **Design Criteria Development – Wastewater Flow Analysis**

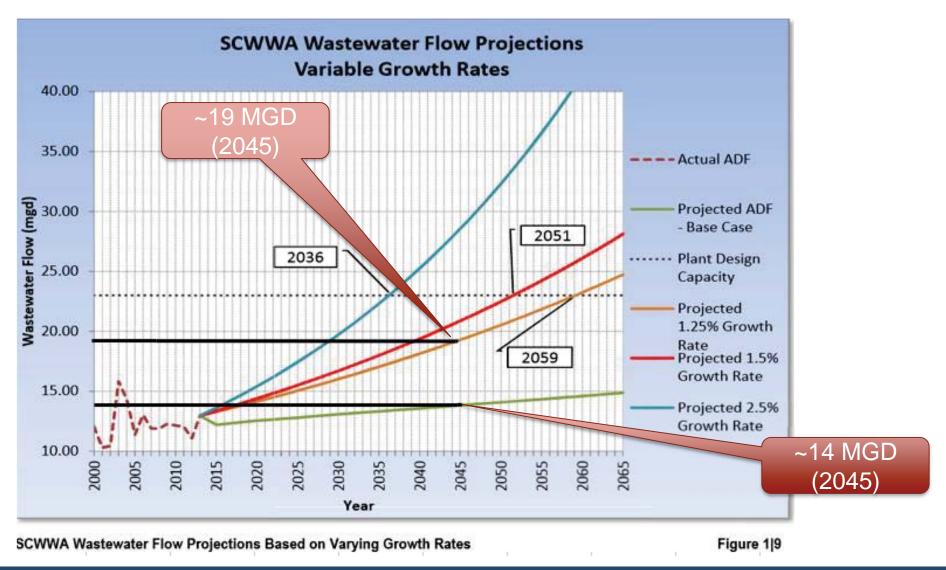
### Calendar Flow (MGD) Year 2015 (AA) 10.4 2016 (AA) 10.9 2017 (AA) 9.8 2018 (AA) 11.8 **Max Month** 16.5 (2015 - 2018)Max Week (2015 - 2018)

23.3

### Actual Plant Effluent Flow



# Determination of Future Influent Flows and Solids Processing Equipment Sizing Criteria



# South Central Wastewater Authority Leachate Truck Log

Current Max # of WM Trucks Allowed per agreement	16	
--	----	--

	Origina	tion Site	Total Combined Trucks per
Date	# from Amelia	# from Charles City	day
3/1/2019	6		6
3/2/2019			0
3/3/2019			0
3/4/2019	6		6
3/5/2019	6		6
3/6/2019	6		6
3/7/2019	6		6
3/8/2019	6		6
3/9/2019			0
3/10/2019			0
3/11/2019	6		6
3/12/2019	6		6
3/13/2019	6		6
3/14/2019	5		5
3/15/2019	6		6
3/16/2019			0
3/17/2019			0
3/18/2019	5		5
3/19/2019	5		5
3/20/2019	6		6
3/21/2019	6		6
3/22/2019	6		6
3/23/2019			0
3/24/2019			0
3/25/2019	5		5
3/26/2019	4		4
3/27/2019	6		6
3/28/2019	6		6
3/29/2019	6		6
3/30/2019			0
3/31/2019			0
Total	120	0	120

### Notes:

- 1) On average each truck offloaded 6,665 gallons of leachate
- 2) The agreement with Waste Management is for \$0.095/gallon; on average the charge to offload a truck is \$633
- 3) Total leachate revenue invoiced for March 2019 is \$76,491.52
- 4) Since 1/18/2019 no truck have been received from Charles City

# South Central Wastewater Authority Leachate Truck Log

Current Max # of WM Trucks Allowed per agreement	16	
--	----	--

	Origina	tion Site	Total Combined Trucks per
Date	# from Amelia	# from Charles City	day
4/1/2019	6		6
4/2/2019	6		6
4/3/2019	6		6
4/4/2019	6		6
4/5/2019	6		6
4/6/2019			0
4/7/2019			0
4/8/2019	6		6
4/9/2019	6		6
4/10/2019	5		5
4/11/2019	6		6
4/12/2019	4		4
4/13/2019			0
4/14/2019			0
4/15/2019	6		6
4/16/2019	6		6
4/17/2019	6		6
4/18/2019	6		6
4/19/2019	6		6
4/20/2019			0
4/21/2019			0
4/22/2019	6		6
4/23/2019	6		6
4/24/2019	6		6
4/25/2019	6		6
4/26/2019	6		6
4/27/2019			0
4/28/2019			0
4/29/2019	6		6
4/30/2019	5		5
Total	128	0	128

### Notes

- 1) On average each truck offloaded 6,665 gallons of leachate
- 2) The agreement with Waste Management is for \$0.095/gallon; on average the charge to offload a truck is \$633
- 3) Total leachate revenue invoiced for April 2019 is \$81,500.66
- 4) Since 1/18/2019 no truck have been received from Charles City

# 5. Approval of Proposed Fiscal Year 2020 Budget Following is the proposed FY2020 Budget memorandum and budget presentation.



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

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### **MEMORANDUM**

TO: SOUTH CENTRAL WASTEWATER AUTHORITY

**BOARD OF DIRECTORS** 

FROM: ROBERT C. WICHSER, EXECUTIVE DIRECTOR

JAMES C. GORDON, ASSISTANT EXECUTIVE DIRECTOR

SUBJECT: ADOPTION OF FISCAL YEAR 2020 BUDGET AND RELATED PAYMENTS

DATE: MAY 16, 2019

At the January 16, 2019 Board Meeting, the proposed \$ 8.5 million Fiscal Year 2020 South Central Wastewater Authority's (SCWWA) Operations and Maintenance budget and related payments were presented and discussed in detail. At the conclusion of the discussion the SCWWA Board set a public hearing for March 21, 2019, and directed SCWWA staff to publish the required notices of the public hearing.

The notice of public hearing was advertised twice in a local newspaper and the public hearing held at the March 21, 2019 SCWWA Board Meeting. No comments were received from the public during the advertisement period or at the public hearing.

The proposed budget includes a zero percent overall cost increase from the current budget to proposed budget to the members related to employee salaries. This was made possible due to not replacing a manager level FTE that resigned. A portion of this salary will support annual salary increases. The thirty-three Authority employees will share in \$58,000 available funds (If allocated to existing budgeted salaries on an equal basis this would result in a 3.1 % increase) and be provided an annual salary increase on July 1, 2019 based on their individual annual performance evaluation.

The proposed Fiscal Year 2020 budget and related payments were developed in October, November and December 2018 and had been presented and vetted on November 16, 2018 with all five SCWWA Member Utility Alternates/ Utility Directors.

### **Board Action Requested:**

Staff respectfully recommends that the Board adopt the attached resolution, which approves SCWWA's Fiscal Year 2020 budget as presented at the January 16, 2019 SCWWA Board Meeting and adopts the related payment schedule.

### SOUTH CENTRAL WASTEWATER AUTHORITY

### PROPOSED: January 16, 2019 <u>APPROVED:</u>

						Change
		iscal Year	scal Year		Increase/	·
A = = 4 #	ITEM	2018/2019	019/2020	(Decrease)		Reason for changes
Acct #	<u>ITEM</u>	Budget	Budget	FY18	8/19 to FY19/20	Proposed budget reflects 1 FTE reduction and pay for
51000	SALARY	\$ 1,900,000	\$ 1,900,000	\$	-	performance increase and zero percent increase to members between current and proposed budget.
52000	EMPLOYEE BENEFITS	\$ 800,000	\$ 892,000	\$	92,000	Primarily the increase is due to Anthem Blue Cross Blue
	Employer FICA	\$ 145,000	145,000	*	5_,555	Shield Health Insurance Increase. The Health Insurance
	Virginia Retirement System	\$ 150,000	125,000			for FY18-19 was higher than budgeted so the FY19-20 budget factors that increase plus an additional 10%.
	Hospitalization Insurance	\$ 460,000	590,000			budget factors that increase plus an additional 1070.
	Group Life	\$ 25,000	27,000			
	Supplemental Group Life	\$	\$ 1,500			
	Health Insurance Credit	\$ -	\$ -			
	Employee Promotions	\$ 3,500	\$ 3,500			
	OPEB Health Insuranc ARC Adj	\$ 15,000	-			
52952	Net Pension Adjustment	·				
	•					
53000	Contractual Services	\$ 339,000	\$ 369,600	\$	30,600	
53121	Auditing Services	\$ 12,500	\$ 12,500			
53122	Accounting Services	\$ 7,000	\$ 7,000			
53123	Administrative Service	\$ (5,000)	\$ 37,000			
53140	Consults - Engineering	\$ 50,000	\$ 50,000			
53145	Consults - General	\$ 50,000	\$ 25,000			
53150	Legal Services	\$ 50,000	\$ 50,000			
53152	Software Support	\$ 40,000	\$ 45,000			
53160	Medical	\$ 5,000	\$ 8,600			
53162	Bank Service Charges	\$ 1,000	\$ 1,000			
53170	Payment in Lieu of Taxes (City of Petersburg)	\$ 33,500	\$ 33,500			
53190	Samples and Testing	\$ 44,500	\$ 44,500			
53220	VPDES Permit Fee	\$ 10,500	\$ 10,500			
53320	Maintenance Service Contracts	\$ 15,000	\$ 20,000			
53600	Grounds Maintenance	\$ 25,000	\$ 25,000			
55000	Other Charges	\$ 972,400	974,400	\$	2,000	
55050	Advertising	\$ 6,000	6,000			
55110	Electricity	\$ 425,000	425,000			
55120	Natural Gas	\$ 20,000	\$ 20,000			

55130	Solid Waste	\$	3,500	\$	3,500			
55140		\$	8,000		8,000			
	Storm Water (City of Petersburg)	\$	6,000		6,000			
	Biosolids Disposal	\$	350,000		350,000			
	Postage and Freight	\$	15,000		15,000			
	Telecommunications	\$	16,500		16,500			
55308	General Liability Insurance	\$	65,000		67,000			
55410	Lease/Rent of Equipment	\$	11,000		11,000			
	Meals and Lodging	\$	5,000		5,000			
	Education and Training	\$	19,400		19,400			
	Safety Supplies	\$	22,000		22,000			
	ositi, osppiio	Ť	,	Ţ.	,			
56000	Materials and Supplies	\$	1,194,700	\$	1,205,700	\$	11,000	
	Office Supplies	\$	15,000		15,000	Ť	11,000	
56004		\$	51,000		52,000			
	Process Chemicals	\$	560,000		560,000			
	Repair and Maintenance Supplies - IT	\$	53,000		60,000			
	Repair and Maintenance Supplies - Shop	\$	415,000		408,000			
56008	Vehicle and Equipment Fuels	\$	25,000		25,000			
56010	Janitorial Supplies	\$	8,000		8,000			
56011	Uniforms	\$	22,500		22,500			
	Dues and Subscriptions	\$	36,700		36,700			
	Small Equipment Purchases	\$	8,500		8,500			
	Operation - Supplies - Maintenance	Ť	3,000	\$	10,000			
					,			
57000	Equipment Replacement	\$	636,000	\$	593,000	\$	(43,000)	
					·			
58000	Nutrient Credit Purchases	\$	617,000	\$	525,000	\$	(92,000)	
59000	Rate Stabilization Funds to be deposited to Capital Reserve Acct	\$	1,740,000	\$	-	\$	(1,740,000)	
	Total(Operations & Maintenance)	\$	8,199,100	\$	6,459,700	\$	(1,739,400)	
	Reserve policy (50% O&M)		0	\$		\$	-	50% reserves achieved 2 years early
	ERRF (5% of Operations & Maintenance)	\$	-	\$	-	\$	-	Account has achieve the max of \$2.5 m
	Capital Reserve Account	\$	-	\$	2,000,000	\$	2,000,000	Used to offset future capital expenditures
	Debt Service	\$	-	\$			\$0	
	Total	\$	8,199,100	\$	8,459,700	\$	260,600	

# South Central Wastewater Authority Replacement Fund Budget - 57000 FY19/20

		_		Proposed	<u>ا</u> ـــ		IN	IFORMATION/	AL &	PLANNING	<b></b>		Bey	ond
Acct#	Proposed FY ITEM		3udget <u>18/19</u>	Budget 19/20		<u>20/21</u>		<u>21/22</u>		22/23	23/24	<u>FY</u>	-	Estimate
	Emergency / Miscellaneous Repairs	\$	60,000	\$ 95,000	\$	125,000	\$	125,000	\$	125,000	\$ 125,000			
	Major Component Replament Parts	\$	150,000											
57010 - Machinery & Equipment	Replace Pump Bldg 3 MCC			\$ 20,000										
	Electric Actuators at Grit Tank			\$ 8,000										
	Misc. Instrumentation Equipment/Supplies	\$	75,000											
	Replace PLC3 (23 years old)			\$ 90,000										
E7020 Instrumentation	Replace PLC2 (24 years old)				\$	80,000								
57020 - Instrumentation	Replace PLC 4 (25 years old)						\$	80,000						
	New Phosphate Analyzer			\$ 20,000										
	Field Sampler	\$	5,000											
57000 004D4	Misc. SCADA/Communication Equipment	\$	15,000	\$ 15,000	\$	15,000	\$	15,000	\$	15,000	\$ 15,000			
57030 - SCADA	SCADA/Network Master Plan Development	\$	15,000											
57040 O U U 0 O. ft	Replacement Computers/Servers	\$	10,000	\$ 10,000	\$	10,000	\$	10,000	\$	10,000	\$ 10,000			
57040 - Computer Hardware & Software	License renewal and software	\$	5,000											
	2000 1 ton Dump Bed Truck (salt spreader and plow)			\$ 40,000										
	Operations 2001 Dodge Pickup			\$ 35,000										
	2007 Operations Colorado				\$	35,000								
	2008 Trailblazer (Fleet)				\$	40,000								
	Case Loader (Big Loader)						\$	160,000						
57050 - Motor Vehicles	4x4 Pickup - Replacement						\$	40,000	\$	40,000	\$ 40,000			
	2000 GMC Dump Truck						\$	75,000						
	1982 Crane Truck								\$	100,000				
	2001 GMC Dump Truck								\$	75,000				
	Golf carts	\$	6,000											
	General Concrete Repair	\$	50,000	\$ 50,000	\$	50,000	\$	50,000	\$	50,000	\$ 50,000			
	Replace administration building flooring	\$	20,000											
	Roof Inspection/Repairs			\$ 10,000	\$	10,000	\$	10,000	\$	10,000	\$ 10,000			
	Roof Replacement - PB 5, Sodium Bi, Blower, Vehicle Storage, and Sodium Hypo						\$	250,000						

	Upgrade Headworks Drain PS				\$ 250,000				
57060 - Construction	New Headworks Air Compressors		\$ 6	60,000					
	Rehab Admin work areas		\$ 1	0,000					
	Security Perimeter Fence		\$ 10	00,000					
	Elec. Actuators	\$ 50,000							
	Generator and Utility Protective Relays Upgrade		\$ 3	30,000					
	Asphalt overlay from gate to Septage	\$ 175,000							
	RAS Pumps						\$ 1,000,000		
57080 - Fixtures and Funiture	Lab Cabinets and Countertop						\$ 35,000		
	TOTALS:	\$ 636,000	\$ 59	3,000	\$ 615,000	\$ 815,000	\$ 1,460,000	\$ 250,000	

NOTE: FY 19/20 TO BE APPROVED WITH BUDGET

### South Central Wastewater Authority Nutrient Credit Purchase - Acct # 58100

FY19/20 Proposed **INFORMATIONAL & PLANNING** Acct# 58100 **Budget Budget ITEM** 19/20 20/21 21/22 22/23 23/24 24/25 25/26 Private Purchase - Henrico County Private Purchase - Chesterfield County \$ 467,000 472,000 500,000 Contengency - Exchange Purchase if needed 150,000 53,000 50,000 \$ 50,000 \$ 50,000 \$ 50,000 \$ 50,000 \$ 50,000 Private or Exchange \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 \$ 500,000 Totals \$ 617,000 \$ 525,000 550,000 \$ 550,000 \$ 550,000 \$ 550,000 \$ 550,000 \$ 550,000

NOTE: FY 19/20 TO BE APPROVED WITH BUDGET

## South Central Wastewater Authority <u>Capital Budget</u>

### FY19/20 Proposed **INFORMATIONAL & PLANNING Budget Budget ITEM** 18/19 19/20 20/21 21/22 22/23 23/24 24/25 25/26 \$ Solids Building Upgrade (4) 500,000 3,500,000 3,500,000 Nutrient Upgrade (3) \$ 1,500,000 \$ 15,000,000 \$ 15,000,000 Totals \$ 500,000 3,500,000 3,500,000 \$ 15,000,000 \$ 15,000,000 \$

NOTE:

- 1) The above items for information only. Approval required from Board of Directors at time of project award.
- 2) Bond Funding will be required for these Proposed Capital Project.
- 3) Project cost defined by regulator requirements. Assumes \$20,000,000 in WQIF Funding.
- 4) Funded with capital reserve fund/miscellaneous revenue fund. Project can be funded with cash reserves and debt.

Project cost and start date are driven by state mandate.

### SOUTH CENTRAL WASTEWATER AUTHORITY

# FY 2019/2020 Budget Proposed: January 16, 2019 Approved: \_\_\_\_\_

Operation and Maintenance, Section	on 10, Para. :	2					Bud	get:		\$6,459,700.00
Community		<u>Petersburg</u>	<u>C</u>	olonial Heights	olonial Heights Chesterfield Prince George					
% O&M (1)		57.606%		18.922%		8.200%		6.802%		8.469%
O&M	\$	3,721,203.82	\$	1,222,290.76	\$	529,701.60	\$	439,419.48	\$	547,084.34
Equipment Repair and Replacement	nt Fund, Sec	tion 11, Para. E,	5% of	f O&M			Bud	lget:	\$	-
%ERRF(2)		52.5%		20.0%		10.0%		7.5%		10.0%
ERRF	\$	-	\$	-	\$	-	\$	-	\$	-
Debt Service, Section 11, Para. A.2	!				,		Bud		\$	-
% Participation		0.00%		0.00%		0.00%		0.00%		0.00%
P&I Owed	\$	-	\$	-	\$	-	\$	-	\$	-
Deferred	\$	-	\$	-	\$	-	\$	-	\$	-
Total P&I	\$	-	\$	-	\$	-	\$	-	\$	-
Reserve Policy							Rud	lget:		0
% Participation (3)		52.5%		20.0%		10.0%	Duc	7.5%		10.0%
Reserve Policy	\$	-	\$	-	\$	-	\$	-	\$	-
•										
Capital Reserve Account (to offset f	future Capital	Expenditures)					Bud	lget:	\$	2,000,000.00
% Participation		52.5%		20.0%		10.0%		7.5%		10.0%
Reserve Policy	\$	1,050,000.00	\$	400,000.00	\$	200,000.00	\$	150,000.00	\$	200,000.00
Annual Total	\$	4,771,203.82	\$	1,622,290.76	\$	729,701.60	\$	589,419.48	\$	747,084.34
O&M Due Monthly	\$	310,100.32	\$	101,857.56	\$	44,141.80	\$	36,618.29	\$	45,590.36
ERRF Due Monthly	\$	-	\$	-	\$	-	\$	-	\$	-
Reserve policy Due Monthly	\$	-	\$	-	\$	-	\$	-	\$	-
Rate Stabilization Fund	\$	87,500.00	\$	33,333.33	\$	16,666.67	\$	12,500.00	\$	16,666.67
P&I Due Monthly	\$		\$		\$		\$		\$	
Total Due Monthly	\$	397,600.32	\$	135,190.90	\$	60,808.47	\$	49,118.29	\$	62,257.03

### Notes:

- (1) Participation percentage based on flow data for period from FY14 to FY18
- (2) Participation percentage based upon Section 6 of the Service Agreement
- (3) A Reserve Policy of 50% O&M was adopted with the FY15/16 Budget to be funded initially over a 5 year term. Participation is based on Plant Allocation

### SOUTH CENTRAL WASTEWATER AUTHORITY

### FY 2019/2020 Budget

Proposed: January 16, 2019 Approved:

Proposed Revenues											
i Toposeu Nevenues		Petersburg	<u>C</u>	Colonial Heights		Chesterfield		Prince George		<u>Dinwiddie</u>	<u>Total</u>
Estimated Share of Plant Flow		57.606%		18.922%		8.200%		6.802%		8.469%	100.000%
Estimated Share of Operations & Maintenance	\$	3,721,203.82	\$	1,222,290.76	\$	529,701.60	\$	439,419.48	\$	547,084.34	\$ 6,459,700.00
Share of Plant Capacity (%)		52.50%		20.00%		10.00%		7.50%		10.00%	100.00%
Share of Equipment Replacement Reserve Fund	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Reserve Policy - Reserve Fund (50% O&M)	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Capital Reserve Account	\$	1,050,000.00	\$	400,000.00	\$	200,000.00	\$	150,000.00	\$	200,000.00	\$ 2,000,000.00
Share of Debt Service	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Monthly Amount	\$	397,600.32	\$	135,190.90	\$	60,808.47	\$	49,118.29	\$	62,257.03	\$ 704,975.00
Annual Total	\$	4,771,203.82	\$	1,622,290.76	\$	729,701.60	\$	589,419.48	\$	747,084.34	\$ 8,459,700.00
Electrical Credit											\$ -
Funds Carried over from Previous FY										\$ -	
Miscellaneous Revenue - PROPOSE THIS REVENUE IS DEPOSITED TO A CAPITAL RESERVE FUND										\$ -	
Total Budget	otal Budget										\$ 8,459,700.00

### **Budget Comparison**

	FY19/	20 Proposed				
		Budget	F	Y18/19 Budget	FY19/20	- FY18/19
Locality		Revenue		Revenue	Diffe	rence
City of Petersburg	\$	4,771,204	\$	4,576,617	\$ 194,587	4.25%
City of Colonial Heights	\$	1,622,291	\$	1,659,788	\$ (37,497)	-2.26%
Chesterfield County	\$	729,702	\$	699,349	\$ 30,353	4.34%
Prince George County	\$	589,419	\$	570,021	\$ 19,399	3.40%
Dinwiddie County	\$	747,084	\$	693,327	\$ 53,758	7.75%
Sub-totals	\$	8,459,700	\$	8,199,100	\$ 260,600	
Deferred Debt (Petersburg)	\$	-	\$	-	\$	
Deferred Debt (Colonial Heights)	\$	-	\$	-	\$	
Deferred Debt (Prince George)					\$ -	
Electrical Credit	\$	-	\$	-	\$ -	
Funds Carried over From Previous FY	\$	-	\$	-	\$	
Miscellaneous Revenue	\$	-	\$	-	\$ -	
Total Budget	\$	8,459,700.00	\$	8,199,100.00	\$ 260,600.00	

### 50% Reserve Policy:

Reserve Fund Calculation

		Total expected			
		reserves on June 30,	Recommended 50%	Charges required to	
SCWWA O&M Budget		2019	O&M Reserves	achieve 50% reserves	Annual Charge
	\$6,459,700	\$4,392,714.58	\$3,229,850.00	-\$1,162,864.58	0

6.	Items from Counsel
7.	Closed Session – Personnel
8.	Other Items from Board Members/Staff Not on Agenda
9.	Adjourn