

A G E N D A
JAMES CITY SERVICE AUTHORITY BOARD OF DIRECTORS
REGULAR MEETING
County Government Center Board Room
101 Mounts Bay Road, Williamsburg, VA 23185
May 5, 2020
4:00 PM

- A. CALL TO ORDER**
- B. ROLL CALL**
- C. PRESENTATIONS**
- D. PUBLIC COMMENT**
- E. CONSENT CALENDAR**
 - 1. Minutes Adoption
- F. PUBLIC HEARING(S)**
- G. BOARD CONSIDERATION(S)**
 - 1. Proposed FY 21-22 Budget
- H. BOARD REQUESTS AND DIRECTIVES**
- I. GENERAL MANAGER'S UPDATE**
 - 1. Series 2020 Water and Sewer System Revenue Bond RFP Results Presentation
- J. ADJOURNMENT**
 - 1. Adjourn until 5 p.m. on May 12, 2020 for the Regular Meeting

ITEM SUMMARY

DATE: 4/28/2020
TO: The Board of Directors
FROM: Teresa J. Fellows, Deputy Secretary
SUBJECT: Minutes Adoption

ATTACHMENTS:

| | Description | Type |
|---|----------------------------|---------|
| 📎 | 032420 BOD Regular Meeting | Minutes |

REVIEWERS:

| Department | Reviewer | Action | Date |
|-----------------|-----------------|----------|---------------------|
| Board Secretary | Fellows, Teresa | Approved | 4/21/2020 - 2:14 PM |

MINUTES
JAMES CITY SERVICE AUTHORITY BOARD OF DIRECTORS
REGULAR MEETING
County Government Center Board Room
101 Mounts Bay Road, Williamsburg, VA 23185
March 24, 2020
4:00 PM

A. CALL TO ORDER

B. ROLL CALL

Michael J. Hipple, Powhatan District
Ruth M. Larson, Vice Chairman, Berkeley District
John J. McGlennon, Roberts District
James O. Icenhour, Jr., Jamestown District
P. Sue Sadler, Chairman, Stonehouse District - via phone

Scott A. Stevens, Secretary to the Board
Adam R. Kinsman, County Attorney
M. Douglas Powell, General Manager

Ms. Larson requested a motion to Allow Ms. Sadler, who was unable to attend the meeting, to participate via phone for the Board of Directors meeting due to extenuating circumstances.

A motion to Allow Ms. Sadler to Participate by Phone was made by Michael Hipple, the motion result was Passed.

AYES: 4 NAYS: 0 ABSTAIN: 0 ABSENT: 1

Ayes: Hipple, Icenhour Jr, McGlennon, Larson Absent: Sadler

Ms. Larson stated the Board is adhering to social distancing to avoid exposure spread of the Coronavirus in response to a declared State of Emergency.

1. Remote Participation Policy

A motion to Approve was made by Michael Hipple, the motion result was Passed.

AYES: 5 NAYS: 0 ABSTAIN: 0 ABSENT: 0

Ayes: Hipple, Icenhour Jr, McGlennon, Sadler, Larson

Ms. Sadler designated Ms. Larson, Vice Chairman, as the presiding officer of the meeting.

A motion to Move Agenda Item No. 4 to the Front of the Meeting was made by John McGlennon, the motion result was Passed.

AYES: 5 NAYS: 0 ABSTAIN: 0 ABSENT: 0

Ayes: Hipple, Icenhour Jr, McGlennon, Sadler, Larson

C. PRESENTATIONS

None

D. PUBLIC COMMENT

None

E. CONSENT CALENDAR

1. Minutes Adoption - 022520 Regular Meeting

A motion to Approve was made by John McGlennon, the motion result was Passed.

AYES: 5 NAYS: 0 ABSTAIN: 0 ABSENT: 0

Ayes: Hipple, Icenhour Jr, McGlennon, Sadler, Larson

F. PUBLIC HEARING(S)

None

G. BOARD CONSIDERATION(S)

1. Affirmation of Emergency Staffing Plan and Authorizations to Address a Local Emergency Related to Coronavirus (Covid-19)

A motion to Approve was made by James Icenhour Jr, the motion result was Passed.

AYES: 5 NAYS: 0 ABSTAIN: 0 ABSENT: 0

Ayes: Hipple, Icenhour Jr, McGlennon, Sadler, Larson

Mr. Powell gave an overview of the resolution included in the Agenda Packet.

Mr. McGlennon stated it was a wise decision to suspend any discontinuation of services during the current emergency being confronted.

2. Contract Award - Server Hardware and Software Replacement - \$168,205

A motion to Approve was made by John McGlennon, the motion result was Passed.

AYES: 5 NAYS: 0 ABSTAIN: 0 ABSENT: 0

Ayes: Hipple, Icenhour Jr, McGlennon, Sadler, Larson

Mr. Powell gave an overview of the memorandum and resolution included in the Agenda Packet. He stated if this resolution was adopted, his intention was to temporarily defer this purchase due to recent developments; however, not indefinitely. He asked the Board to adopt the resolution so that it would be in place when necessary.

3. Contract Award - Elevated Storage Tank ES-1 Repair - \$300,000

A motion to Approve was made by James Icenhour Jr, the motion result was Passed.

AYES: 5 NAYS: 0 ABSTAIN: 0 ABSENT: 0

Ayes: Hipple, Icenhour Jr, McGlennon, Sadler, Larson

Mr. Powell gave an overview of the memorandum and resolution included in the Agenda Packet. He stated he would proceed with this purchase right away in an effort to have this storage tank repair completed before the beginning of the peak season.

4. Resolution Authorizing the Issuance and Sale of Revenue Bonds, Series 2020

A motion to Approve was made by Michael Hipple, the motion result was Passed.

AYES: 5 NAYS: 0 ABSTAIN: 0 ABSENT: 0

Ayes: Hipple, Icenhour Jr, McGlennon, Sadler, Larson

Mr. Powell introduced remote participants: Mr. Courtney Rogers, Senior Vice President of Davenport & Company, LLC; Ms. Martha Warthen, Bond Counsel, Hunton, Andrews, Kurth, LLP; and Ms. Stephanie Luton, Assistant Manager, James City Service Authority (JCSA). He gave an overview of the memorandum and resolution included in the Agenda Packet. Mr. Powell stated this item was considered for deferral; however, the financial advisor recommended this resolution be adopted with the idea that it would allow flexibility to act quickly should market conditions change. He noted the resolution included in the original Board packet was revised to allow a potential bank loan as an option to move forward in addition to a public sale. Mr. Powell conveyed his commitment to the Board and commented that if the Board adopted the resolution he would be in touch with each Board member before acting.

Mr. Rogers stated unusual things were currently happening in the marketplace on the equity side as well as on the bond side. He stated what has been seen in the news recently was an equity issue in the municipal market, with people pulling money out of bond funds at record levels the last several weeks, with more sellers than buyers. He noted that as prices were lowered in the bond world the interest rates go upward, which was what had been happening recently. He discussed interest rates, the resolution included in the Agenda Packet that would allow the ability of a direct bank loan, and the importance of having cash on hand.

Ms. Larson expressed her gratitude for being proactive and providing various options.

H. BOARD REQUESTS AND DIRECTIVES

Mr. McGlennon inquired about current JCSA protocols regarding teleworking and safety practices being enforced for crews working out in the fields.

Mr. Powell discussed various arrangements: teleworking; policy implementations at the Five Forks water treatment facility allowing no more than two waterworks operators at a time; small JCSA offices staffing two employee's each; and field employees being split into two teams, with one team working one week and the other team working the following week. He further discussed these implementations in regard to the possibility of employees being quarantined and the ability to operate, concluding this was the plan that would provide the most physical separation between staff.

Mr. McGlennon stated that was a sensible policy to be following.

Mr. Powell stated he did not feel the staffing plan in place today would be a permanent staffing plan, noting there would have to be flexibility to address future changes.

Ms. Larson asked fellow Board members if they had any questions.

Ms. Sadler expressed her appreciation to Mr. Powell and staff for their part in ensuring the safety of the public during this difficult time.

I. GENERAL MANAGER'S UPDATE

Mr. Powell emphasized the water supply is safe and the Coronavirus is not a waterborne pathogen and does not pose a threat to the water supply. He stated normal treatment procedures that the JCSA, as well as other localities, has in place are effective in disinfecting this particular virus, again emphasizing the water supply is safe. He addressed the subject of finances and stated currently he has suspended many capital projects, all but necessary operating expenditures, until there is a better handle on the impact on revenues. He further stated he implemented a policy whereas any expenditure over \$1,000 would require Ms.

Luton's signature and any expenditure over \$5,000 requires his approval. He discussed the estimated effects of this procedure on revenues in regard to the JCSA budget and expressed his kudos to Ms. Luton for her efforts in this analysis. He examined previous effects of the 2008 recession on the JCSA budget, as well as lessons learned regarding sensitivity of tap fees to what is currently happening in the economy and pondered the scenario of possibly no tap fee collections for the rest of this fiscal year. He focused on the operating methodology and noted 2008 was not particularly relevant in this scenario as this current situation has resulted in more unemployment more quickly. He stated the assumption at this point is an approximate 15% reduction in operating revenue volumetric and fixed charges. He further stated if this event continued for a lengthy amount of time, future discussion should entail a possible recommendation to ban irrigation in an effort not to add any more stress on the system than necessary. He remarked these were assumptions being used to estimate the revenue impact and determine what expenditures could possibly be eliminated. He concluded that the JCSA has \$50 million in a reserve fund of which \$16 million is undesignated, therefore placing the Authority in a good position with its reserves and flexibility to address the possible impact on the budget.

Ms. Larson discussed a possible timeframe for discussion regarding this topic and inquired how a ban on irrigation could be enforced.

Mr. Powell stated he did not feel any action would be required before the next Board of Supervisors meeting, but perhaps more likely in a month. He briefly discussed possible terms on enforcing a ban on irrigation.

General discussion ensued regarding the possibility of enforcing a ban on irrigation.

Mr. Hipple expressed his appreciation in looking at the JCSA finances and suggested a monthly update in the General Manager's Update portion of each Board of Directors meetings.

J. ADJOURNMENT

1. Adjourn until 5 p.m. on April 14, 2020, for the Joint Budget Public Hearing

A motion to Adjourn was made by John McGlennon, the motion result was Passed.
AYES: 5 NAYS: 0 ABSTAIN: 0 ABSENT: 0
Ayes: Hipple, Icenhour Jr, McGlennon, Sadler, Larson

At approximately 4:25 p.m., the Board of Directors adjourned.

ITEM SUMMARY

DATE: 4/28/2020

TO: The Board of Directors

FROM: M. Douglas Powell, JCSA General Manager

SUBJECT: Proposed FY 21-22 Budget

ATTACHMENTS:

| | Description | Type |
|---|-----------------|-----------------|
| ☐ | Memo | Cover Memo |
| ☐ | Proposed Budget | Backup Material |
| ☐ | Exhibit | Exhibit |

REVIEWERS:

| Department | Reviewer | Action | Date |
|------------------------------|-----------------|----------|----------------------|
| James City Service Authority | Powell, Doug | Approved | 4/21/2020 - 9:08 AM |
| Publication Management | Burcham, Nan | Approved | 4/21/2020 - 9:11 AM |
| Legal Review | Kinsman, Adam | Approved | 4/21/2020 - 9:34 AM |
| Board Secretary | Fellows, Teresa | Approved | 4/21/2020 - 10:09 AM |
| Board Secretary | Purse, Jason | Approved | 4/21/2020 - 12:57 PM |
| Board Secretary | Fellows, Teresa | Approved | 4/21/2020 - 1:34 PM |

MEMORANDUM

DATE: March 28, 2020
TO: The Board of Directors
FROM: M. Douglas Powell, General Manager
SUBJECT: Proposed Fiscal Year 2021-2022 Budget

The proposed Fiscal Year 2021-2022 was presented at a public hearing on March 14. At the conclusion of the public hearing, the Board agreed to discuss the budget further at its regular meeting on March 28.

No action is required. The budget is scheduled for adoption on May 12.

MDP/md
FY21-22Bud-mem

Introduction



The James City Service Authority (JCSA) is a public body politic and corporate of the Commonwealth of Virginia. JCSA was created in 1969 by the James City County Board of Supervisors pursuant to the Virginia Water and Sewer Authorities Act (Code of Virginia, 1950, as amended). It was created to acquire, construct, operate and maintain, to the extent determined by the JCSA to be financially feasible, an integrated water system and an integrated sewer collection system in James City County.

JCSA provides municipal water and wastewater service to County residents and businesses in the Primary Service Area between Stonehouse and Grove and to limited sections of York County and the City of Williamsburg. Operational and maintenance responsibilities include wells, water distribution lines, sewage pumping stations, and sewage collection lines.

Budgetary and Financial Reporting

JCSA accounts for its operations and Capital Improvement Program (CIP) utilizing two separate funds, the Water Fund and the Sewer Fund, which are both supported by user fees. Support services in legal, finance, payroll, and general administrative areas are provided by various County departments on a reimbursable basis. JCSA prepares an annual budget on a modified accrual basis for management and fiscal planning purposes. For financial reporting and audit purposes, in accordance with Generally Accepted Accounting Principles (GAAP), JCSA prepares its Comprehensive Annual Financial Report (CAFR) on a full accrual basis.

Strategic Plan

The first and second goals of the County's 2035 Strategic Plan, obtaining a sustainable long-term water supply and maintaining modern infrastructure and technology, are major initiatives in JCSA's FY21 budget. Successfully meeting both of these long-term goals requires current action. JCSA is required to pursue alternative water sources under the terms of its current Virginia Department of Environmental Quality (DEQ) groundwater withdrawal permit. Contributions to the Alternative Water Supply Reserve Fund will build dedicated funding for these future water sources and reduce future borrowing costs. JCSA's Asset Management program has shown that costs to maintain modern infrastructure and technology will increase significantly in the future as more pipes, wells and pump stations reach the end of their useful lives. Current capital projects such as the White Oaks Area and Kingswood Water Main Replacement Projects, SCADA Upgrade and the Repair and Replacement Reserve will allow JCSA to fix aging infrastructure both now and in the future.

Comprehensive Rate Study

The JCSA's Financial Policy requires a comprehensive rate study every five years. The proposed changes from the FY20 study are designed to maintain adequate revenue despite continued decreases in water usage and minimize the impact of rate increases on the customer. Based on the proposed changes from the current rate study, the total monthly water and sewer bill for a typical 5,000 gallons per month residential user would increase by \$1.79 per month from \$42.05 to \$43.84. The combined bill would remain the lowest in the region except for the City of Williamsburg.

Updates to the water and sewer facility fees are also proposed as a result of the rate study analysis. Facility fees are charged to new development in the Authority's service area to cover the cost of system expansion. The remaining proposed change is an increase to the grinder pump maintenance fee to better match the program's current contract, inspection, and administrative costs. The impact of these proposed changes on the Water and Sewer Funds are discussed in further detail in the sections that follow.

Monthly Billing

JCSA's multi-year meter replacement project was completed in FY20 with over 22,800 touch-read meters converted to radio read technology. Readings are now collected with a vehicle mounted mobile data collector that has significantly reduced meter reading time. This operational efficiency will allow JCSA to move from quarterly billing to monthly billing in May 2020 to better serve customers and promote water conservation. Monthly billing benefits include more efficient household budgeting, more frequent and timely information about usage, and the ability to detect leaks sooner.

Introduction

Strategic Plan Goal(s) and Measures

| Strategic Plan Goal(s) | Key Performance Metric(s) | FY19 Actual | FY20 Estimate | FY21 Target | FY22 Target |
|--|---------------------------|-------------|---------------|-------------|-------------|
| Sustainable Long-Term Water Supply; Modern Infrastructure, Facilities and Technology Systems | Permits Received | 1 | - | 1 | - |
| | Update Regulations | - | 1 | - | - |
| | Educational Programs | 5 | 5 | 5 | 5 |
| | # of Meters Replaced* | 7,500 | 7,500 | - | - |

*The multi-year meter replacement program was completed in FY20; therefore, FY21 and FY22 targets do not reflect meter replacements.

Operational Initiative(s)

- Evaluate Alternative for Long-term Water Supply.
- Update JCSA Asset Management Plan (Capital Replacement Plan).
- Update JCSA regulations.
- Develop Water Conservation Plan for Residences and Businesses.

Financial Summary

| | FY20 Adopted | FY21 Proposed | FY22 Plan |
|-----------------|----------------------|----------------------|----------------------|
| Revenues | | | |
| Water Fund | \$ 13,142,365 | \$ 21,695,794 | \$ 13,712,398 |
| Sewer Fund | 8,182,051 | 7,826,867 | 8,001,174 |
| | <u>\$ 21,324,416</u> | <u>\$ 29,522,661</u> | <u>\$ 21,713,572</u> |
| Expenses | | | |
| Water Fund | \$ 13,142,365 | \$ 21,695,794 | \$ 13,712,398 |
| Sewer Fund | 8,182,051 | 7,826,867 | 8,001,174 |
| | <u>\$ 21,324,416</u> | <u>\$ 29,522,661</u> | <u>\$ 21,713,572</u> |
| Full-time FTEs | 96.0 | 96.0 | 99.0 |
| Part-time FTEs | - | 0.5 | 0.5 |
| Total FTEs | <u>96.0</u> | <u>96.5</u> | <u>99.5</u> |

Revenue

A bond issuance of \$9 million is proposed for FY21 to fund the White Oaks Area and Kingswood Water Main Replacement Projects. Interest income decreases significantly due to more conservative expectations for investment returns over the next two years. Water and sewer facility fees decrease to reflect slower growth patterns over the past several years.

Expenses

A part-time Engineer position is included in the FY21 budget to address future water source development. A compensation contingency can provide mid-year employee raises if FY21 revenues are sufficient.

The FY22 budget includes two new full time positions in water production: a Water Quality Specialist to address increased sampling and environmental compliance requirements and a Maintenance Mechanic to perform additional treatment, sampling and process control tasks associated with the corrosion inhibitor capital improvement project. The FY22 budget also incorporates the main recommendations of a Recruitment and Retention Study performed in 2020 including hiring a human resource analyst and implementing salary adjustments and promotion opportunities to improve market competitiveness, internal pay equity, recruitment and retention.

Financial Forecast for FY23-25

As required by the JCSA Financial Policy, forecasted revenue and expenses for the Water and Sewer Funds for FY23-25 are as follows.

| Financial Forecast | | | |
|---------------------------|----------------------|----------------------|----------------------|
| Revenues | FY23 | FY24 | FY25 |
| Water Fund | \$ 14,168,096 | \$ 14,662,406 | \$ 15,173,362 |
| Sewer Fund | 8,040,463 | 8,085,422 | 8,129,309 |
| | <u>\$ 22,208,559</u> | <u>\$ 22,747,828</u> | <u>\$ 23,302,671</u> |
| Expenses | | | |
| Water Fund | \$ 14,168,096 | \$ 14,662,406 | \$ 15,173,362 |
| Sewer Fund | 8,040,463 | 8,085,422 | 8,129,309 |
| | <u>\$ 22,208,559</u> | <u>\$ 22,747,828</u> | <u>\$ 23,302,671</u> |

The details for the separate funds (Water Fund and Sewer Fund) follow this section.

Water Fund

The Water Fund contains revenues and expenses for JCSA's groundwater supply and distribution system. Revenue is provided from service and fixed charges, interest income, and other miscellaneous sources such as inspection fees and plan review charges. Operating expenses include personnel, supplies, repairs and maintenance, insurance, utilities, equipment, miscellaneous and capital outlay. Debt service expenses reflect the principal and interest payments on outstanding debt. Capital projects reflect expansions, replacements, significant rehabilitations and future reserves.

Strategic Plan

The FY21 Water Fund budget focuses on meeting the first goal of the County's 2035 Strategic Plan, obtaining a sustainable long-term water supply to meet the County's needs through 2035 and beyond. JCSA's Virginia DEQ 10-year groundwater withdrawal permit was renewed in February 2017. While the permit accommodates JCSA's current withdrawal of approximately 5.4 million gallons per day (MGD) with an initial allowance of 6.0 MGD and provides subsequent tiered increases based on growth up to 8.4 MGD, the permit terms also require JCSA to pursue alternative sources to groundwater (<https://jamescitycountyva.gov/documentcenter/view/9952>). Several alternative solutions are being considered.

In accordance with the second goal of the County's 2035 Strategic Plan to modernize infrastructure, the Capital Projects funding is to replace aging infrastructure and equipment through projects such as the White Oaks Area and Kingswood Water Main Replacement, SCADA Upgrade, desalination plant HVAC equipment replacement, and corrosion inhibitor equipment upgrades at production wells.

Financial Summary

| | FY20 Adopted | FY21 Proposed | FY22 Plan |
|---------------------------|------------------------|----------------------|----------------------|
| Revenues | | | |
| Service Charges | \$ 10,498,139 | \$ 10,755,294 | \$ 11,779,098 |
| Facility Charges | 1,955,000 | 1,600,000 | 1,600,000 |
| Interest Income | 475,726 | 159,000 | 151,800 |
| Miscellaneous | 213,500 | 181,500 | 181,500 |
| Series 2020 Bond proceeds | - | 9,000,000 | - |
| | <u>\$ 13,142,365</u> | <u>\$ 21,695,794</u> | <u>\$ 13,712,398</u> |
| Expenses | | | |
| Operating: | | | |
| Personnel | \$ 3,856,731 | \$ 4,036,476 | \$ 4,506,711 |
| Non-personnel | 3,152,728 | 4,116,233 | 3,719,480 |
| Capital Outlay | 132,000 | 149,000 | 135,000 |
| Debt Service: | | | |
| Principal | 655,000 | 1,010,000 | 1,010,000 |
| Interest | 700,050 | 922,582 | 913,256 |
| Compensation Contingency: | | 29,750 | |
| Capital Projects | 4,645,856 | 11,431,753 | 3,427,951 |
| | <u>\$ 13,142,365</u> | <u>\$ 21,695,794</u> | <u>\$ 13,712,398</u> |
| | Full-time FTEs 51.0 | 51.0 | 53.5 |
| | Part-time FTEs - | 0.5 | 0.5 |
| | <u>Total FTEs 51.0</u> | <u>51.5</u> | <u>54.0</u> |

Revenue

A 20 year bond issuance of \$9.0 million is proposed for FY21 to fund the White Oaks Area and Kingswood Water Main Replacement Projects.

Water Fund

FY21 water service charges increase 2.5% from FY20. FY22 water service charges increase 9.5% from the FY21 budget due to anticipated economic recovery from the pandemic. Changes to the consumption volume service rates and structure and increases to the fixed charge follow the FY20 rate study plan required to successfully manage substantial future water sourcing challenges associated with obtaining an alternative supply to groundwater, aging infrastructure, fixed costs and debt service coverage.

Water service charges are based on customer type and consumption. The proposed water rate structure change consists of adjusting the number and size of single-family residential tiers to better reflect current usage patterns while promoting water conservation. The new structure contains four tiers sized as follows: Tier 1 (up to 4,000 gallons monthly), Tier 2 (4,001-8,000 gallons monthly), Tier 3 (8,001-12,000 gallons monthly), and Tier 4 (greater than 12,000 gallons monthly). Water service rates for both single-family residential consumption in the first three tiers and commercial/non-single-family residential consumption would decrease in FY21 to offset a proposed increase in the water fixed charge based on the size of the meter serving the customer that all customers pay regardless of consumption level.

| Single Family Residential | | | |
|----------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Tier 1 | Tier 2 | Tier 3 | Tier 4 |
| Monthly Use: | Monthly Use: | Monthly Use: | Monthly Use: |
| 0-4000 gallons | 4,001-8,000 gallons | 8,001-12,000 gallons | 12,001+ gallons |
| Rate Per 1,000 gallons | Rate Per 1,000 gallons | Rate Per 1,000 gallons | Rate Per 1,000 gallons |
| \$ 3.62 | \$ 6.58 | \$ 13.16 | \$ 20.40 |

| Multi-Family Residential and Non-Residential | |
|---|----------------|
| All Meter Sizes | All Use |
| Rate Per 1,000 Gallons | \$ 5.72 |

The water fixed charge increase promotes long-term revenue and rate stability and moves the Authority's fixed cost recovery level closer to the range favored by credit rating agencies. The fixed charge is for expenses associated with operating and maintaining the water distribution system.

| Water Meter Size | Monthly Fixed Charge |
|-------------------------|-----------------------------|
| 5/8" | \$ 5.23 |
| 3/4" | \$ 7.84 |
| 1" | \$ 13.06 |
| 1 1/2" | \$ 26.13 |
| 2" | \$ 41.81 |
| 3" | \$ 91.45 |
| 4" | \$ 156.77 |
| 6" | \$ 352.74 |
| 8" | \$ 418.07 |
| 10" | \$ 600.97 |

For a typical residential customer who uses 5,000 gallons of water monthly, the total monthly water bill will increase in FY21 by \$1.79 from \$24.50 to \$26.29 per month.

Water facility fees decrease to reflect slower growth patterns over the past several years. Updates to the water facility fees are also proposed as a result of the FY20 rate study analysis.

Water Fund

Facility fees are charged to new development in the Authority's service area to cover the cost of system expansion. System facility fees are assessed for major backbone infrastructure and local facility fees are assessed for smaller water distribution and sewer collection mains. The current facility fees have not been updated in many years with some rates dating from the 1980s and 1990s. In addition, the system facility fee calculation method for a typical residential connection is inefficient to administer given that it is based on the number of bathroom fixtures. The proposed system facility fee structure based solely on meter size for all connection types is the industry standard and much easier to administer. The local facility fee structure will remain a fixed charge, but the rate will be updated from \$1,300 to \$1,436 to reflect the current cost of service.

| Water Meter Size | Water System Facilities Charge |
|------------------|--------------------------------|
| 5/8" | \$ 3,219 |
| 3/4" | \$ 4,829 |
| 1" | \$ 8,048 |
| 1 1/2" | \$ 16,095 |
| 2" | \$ 25,752 |
| 3" | \$ 56,333 |
| 4" | \$ 96,570 |
| 6" | \$ 217,283 |
| 8" | \$ 257,520 |
| 10" | \$ 370,185 |

Interest income decreases significantly due to more conservative expectations for investment returns over the next two years.

Expenses

Operating: A part time Engineer position is included in the FY21 budget to address future water source development. FY22 personnel expenses increase due to the addition of two new full time positions in water production: a Water Quality Specialist to address increased sampling and environmental compliance requirements and a Maintenance Mechanic to perform additional treatment, sampling and process control tasks associated with the corrosion inhibitor capital improvement project. The FY22 budget also incorporates the main recommendations of a Recruitment and Retention Study performed in 2020 including hiring a human resource analyst (0.5 FTE Water Fund) and implementing salary adjustments and promotion opportunities to improve market competitiveness, internal pay equity, recruitment and retention.

Non-personnel operating expenses increase in FY21 primarily due to a one-time recoating of a 500,000 gallon ground storage tank for \$279,000 and an increase of \$200,000 to fund individual emergent infrastructure repairs directly through the operating budget rather than the Repair and Replacement Reserve.

Debt Service: Debt Service spending includes both the principal and interest payments on bonds sold to investors. These expenses increase in FY21 with a new 20 year \$9 million bond issuance to fund the White Oaks Area and Kingswood Water Main Replacement Projects. Debt service payments are projected to be approximately \$572,300 annually with the final payment to be made in 2040.

In 2008 JCSA entered into an agreement with the City of Newport News for long term water supply and issued bonds to pay a first installment of \$25 million for 4 million gallons of potable water capacity per day per calendar year. An optional second installment of \$25 million (adjusted for inflation from 2008 and estimated to be approximately \$32 million) was not paid in 2019 and water capacity under the agreement was reduced to 2 million gallons per day. These bonds were refinanced in April 2016 resulting in an annual debt service savings of approximately \$292,550. Future payments are projected to be \$1.36 million annually with the final payment to be made in 2040.

Capital Projects: A five-year summary of the Water Fund's CIP follows and includes a discussion of individual projects.

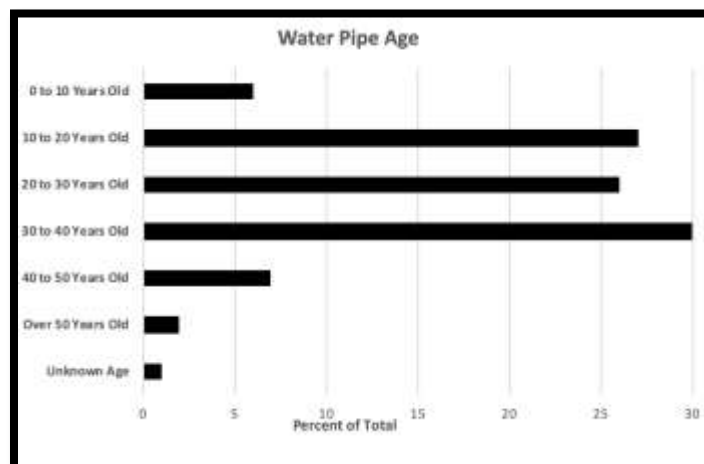
Water Fund

| Five-Year Capital Improvement Plan Summary | | | | | | |
|--|----------------------|---------------------|---------------------|---------------------|---------------------|----------------------|
| Description | FY21 | FY22 | FY23 | FY24 | FY25 | Total |
| Water Supply | | | | | | |
| FFWTP Equipment Replacement | \$ 300,000 | \$ 490,000 | \$ 300,000 | \$ 300,000 | \$ 300,000 | \$ 1,690,000 |
| Water Distribution & Transmission | | | | | | |
| College Creek | - | 500,000 | - | - | - | 500,000 |
| Corrosion Inhibitor | 341,776 | - | - | - | - | 341,776 |
| White Oaks | 5,406,724 | - | - | - | - | 5,406,724 |
| Kingswood | 3,593,276 | 531,724 | - | - | - | 4,125,000 |
| Subtotal | 9,341,776 | 1,031,724 | - | - | - | 10,373,500 |
| Other Projects | | | | | | |
| Arc Flash | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 75,000 |
| Heavy Equipment | 60,000 | - | 50,000 | 62,500 | 50,000 | 222,500 |
| SCADA Upgrade | 621,776 | - | 65,000 | - | - | 686,776 |
| Subtotal | 696,776 | 15,000 | 130,000 | 77,500 | 65,000 | 984,276 |
| Reserves | | | | | | |
| Alternative Water Supply | 546,600 | 945,614 | 1,000,000 | 1,000,000 | 1,000,000 | 4,492,214 |
| Repair and Replacement | 546,601 | 945,613 | 1,000,000 | 1,000,000 | 1,000,000 | 4,492,214 |
| Subtotal | 1,093,201 | 1,891,227 | 2,000,000 | 2,000,000 | 2,000,000 | 8,984,428 |
| Grand Total | \$ 11,431,753 | \$ 3,427,951 | \$ 2,430,000 | \$ 2,377,500 | \$ 2,365,000 | \$ 22,032,204 |

- **FFWTP Equipment Replacement:** This is a capital maintenance project for the Five Forks Water Treatment Plant (FFWTP). In order to maintain security, operational reliability and required output levels at the FFWTP, the \$300,000 in FY21 is to maintain, replace and upgrade the building HVAC mechanical system and Well, High Pressure Feed and High Service Pumps and Motors that have reached the end of their service lives.
- **College Creek 16" Waterline Rehabilitation:** The existing 16 inch steel waterline suspended along the College Creek Bridge was installed in 1976 and the protective coating, fittings and bridge attachment connections require replacement due to exposure to the elements. The existing pipe will be removed, sandblasted, covered with a new protective coating and reinstalled. An FY15 allocation of \$500,000 to this project was applied to the design and construction of a directionally drilled waterline under College Creek to provide system redundancy.
- **Corrosion Inhibitor:** This project consists of designing and installing equipment to introduce corrosion inhibitor that protects the water distribution system and residential piping. An evaluation was completed to assess JCASA's Central System source water entry points and water distribution system water quality to determine the effectiveness of the current treatment processes and obtain recommendations for improvements to minimize the corrosion potential within JCASA's water distribution system. The FY21 funding completes the \$1 million construction budget required for improvements at various water treatment facilities.
- **White Oaks Area Water Main Replacement:** This project consists of replacing the existing undersized water distribution system installed in the early 1970s in the White Oaks, Indigo Park, Jamestown Farms, Paddock Green, Paddock Lane and Canterbury Hills neighborhoods. Approximately 22,000 feet of water main requires replacement and upsizing to maintain reliability and service. Upsizing will also enhance public safety by increasing fire flow capacity. Valves, fire hydrants, service lines, and meter boxes will also be replaced. Reconfiguring the water system in this area will also improve service reliability to the nearby Mill Creek Landing neighborhood by abandoning approximately 3,500 feet of aging 12 inch pipe located in easements that are difficult to access. Design is underway and construction will start at the end of 2020 at an estimated cost of \$6.6 million.

Water Fund

- **Kingswood Water Main Replacement:** This project consists of replacing the existing 1960s-70s era neighborhood water distribution system primarily serving the Kingswood subdivision. The existing cast iron water mains are undersized by current standards and approaching the end of their service lives. The replacement of approximately 14,500 feet of water main will improve system reliability, minimize service disruptions and provide increased fire flows. The project will also include the replacement of valves, fire hydrants, service lines and meter boxes. Design will start in 2020 with construction anticipated to begin in 2021. The estimated total cost for design and construction is \$4.675 million.
- **Arc Flash:** This project consists of implementing the findings of an Electrical Arc Flash Prevention study of the electrical and power generation equipment at approximately 76 lift stations and 25 well facilities. Implementing the study findings is required to meet applicable safety standards and regulations.
- **Heavy Equipment:** A compact tracked skid steer loader is programmed for FY21.
- **SCADA and Server Upgrade:** SCADA (Supervisory Control and Data Acquisition System) is the industrial control and communication system that monitors and controls JCSA's 108 facilities. The data transmission technology, hardware and software used in the current system are approaching the end of their service lives and require replacement over the next several years. The project consists of upgrading existing programmable logic controllers (PLC) hardware and software and integrating them with the new data transmission system and existing facility equipment. PLCs are industrial computers used to control machinery and equipment such as pumps and motors. The upgraded system will also improve system reporting, data analysis and data storage. The FY21 allocation includes \$200,000 to replace computer server hardware and software that supports the SCADA system. The total project budget is \$3,299,000 with \$2,201,000 funded in previous years.
- **Alternative Water Supply:** This reserve provides dedicated funding for development of a long-term, sustainable water supply in accordance with the first goal of the County's 2035 Strategic Plan. JCSA's Virginia DEQ 10-year groundwater withdrawal permit was renewed in February 2017. While the permit accommodates JCSA's current withdrawal of approximately 5.4 million gallons per day (MGD) with an initial allowance of 6.0 MGD and provides subsequent tiered increases based on growth up to 8.4 MGD, the permit terms require JCSA to pursue alternative sources to groundwater. Several alternative solutions are being considered.
- **Repair and Replacement:** This reserve builds dedicated funding and promotes infrastructure asset management in accordance with the second goal of the County's 2035 Strategic Plan by funding unexpected repairs and replacement activity to maintain current levels of service. JCSA operates and maintains 415 miles of water pipes of varying materials and ages. Approximately 78% of JCSA's water pipes are made of polyvinyl chloride plastic which has an expected life of about 50 years.



Water Fund

As the chart above shows, almost one-third of JCSA pipe infrastructure is 30 to 40 years old. In addition to material and age, other factors that can influence expected pipe life include soil type, installation and climate. The Repair and Replacement Reserve prepares JCSA to address challenges of aging infrastructure.

As established by the JCSA Financial Policy, the target balance for this fund is the annual depreciation expense from the most recent Comprehensive Annual Financial Report which is approximately \$8.0 million.

Sewer Fund

The Sewer Fund contains revenues and expenses for JCSA's sewer collection and transmission system. Revenue is provided from service and fixed charges, grinder pump charges, interest income, and other miscellaneous sources such as rent and sub-meter charges. Operating expenses include personnel, supplies, repairs and maintenance, insurance, utilities, equipment, miscellaneous and capital outlay. Capital projects reflect expansions, replacements, significant rehabilitations and a reserve for future repair and replacements.

Strategic Plan

In accordance with the second goal of the County's 2035 Strategic Plan to modernize infrastructure, the CIP funds DEQ's Consent Order sewer rehabilitation and maintenance projects to address infrastructure asset management.

In 2007, the Board of Directors authorized the JCSA to enter into a Consent Agreement with the Virginia Department of Environmental Quality (DEQ) to address sanitary sewer overflows (SSOs). Thirteen other Hampton Roads localities entered into similar agreements during the same timeframe. In February 2014, Hampton Roads Sanitation District (HRSD) and fourteen Hampton Roads localities, including the JCSA, entered into a Regional Hybrid Consolidation Plan for meeting Consent Agreement requirements. This regional approach to capital construction is estimated to save approximately \$1 billion regionally compared to the cost of each locality individually fulfilling its Consent Agreement responsibilities. JCSA keeps ownership and control of its local sewer infrastructure and is still responsible for monitoring and maintaining the local sewer system to Consent Agreement standards and fixing significant defects.

Financial Summary

| | FY20 Adopted | FY21 Proposed | FY22 Plan |
|---------------------------|---------------------|---------------------|---------------------|
| Revenues | | | |
| Service Charges | \$ 5,906,125 | \$ 6,018,687 | \$ 6,194,194 |
| Facility Charges | 1,411,200 | 1,200,000 | 1,200,000 |
| Grinder Pump Charges | 160,000 | 205,000 | 211,000 |
| Interest Income | 475,726 | 159,000 | 151,800 |
| Miscellaneous | 229,000 | 244,180 | 244,180 |
| | <u>\$ 8,182,051</u> | <u>\$ 7,826,867</u> | <u>\$ 8,001,174</u> |
| Expenses | | | |
| Operating: | | | |
| Personnel | \$ 3,383,978 | \$ 3,478,711 | \$ 3,764,633 |
| Non-personnel | 2,355,150 | 2,359,100 | 2,298,056 |
| Capital Outlay | 48,000 | 186,500 | 87,000 |
| Grinder Pump | 335,000 | 285,580 | 286,700 |
| Compensation Contingency: | | 25,874 | |
| Capital Projects | 2,059,923 | 1,491,102 | 1,564,785 |
| | <u>\$ 8,182,051</u> | <u>\$ 7,826,867</u> | <u>\$ 8,001,174</u> |
| Full-time FTEs | 45.0 | 45.0 | 45.5 |
| Part-time FTEs | - | - | - |
| Total FTEs | <u>45.0</u> | <u>45.0</u> | <u>45.5</u> |

Revenue

FY21 sewer service charges increase 1.9% from the FY20 budget and the FY22 sewer service charges increase 2.9% from the FY21 budget due to anticipated economic recovery from the pandemic. Wastewater service charges are based upon water consumption. In FY21 and FY22 no changes are proposed to the FY20 sewer service rate of \$3.11 per 1,000 gallons of water consumed.

Each customer bill includes a monthly fixed charge based upon the size of the meter serving the customer. This Fixed Charge is for expenses associated with operating and maintaining the wastewater collection system. No changes are proposed for the sewer fixed charge but the rate table has been converted to a monthly basis to match monthly billing.

Sewer Fund

| Water Meter Size | Monthly Fixed Charge |
|-------------------------|-----------------------------|
| 5/8" | \$ 2.00 |
| 3/4" | \$ 3.00 |
| 1" | \$ 5.01 |
| 1 1/2" | \$ 10.01 |
| 2" | \$ 16.01 |
| 3" | \$ 32.02 |
| 4" | \$ 50.03 |
| 6" | \$ 100.06 |
| 8" | \$ 160.10 |
| 10" | \$ 230.14 |

Sewer facility fees decrease to reflect slower growth patterns over the past several years. Updates to the sewer facility fees are also proposed as a result of the FY20 rate study analysis. Facility fees are charged to new development in the Authority's service area to cover the cost of system expansion. System facility fees are assessed for major backbone infrastructure and local facility fees are assessed for smaller water distribution and sewer collection mains. The current facility fees have not been updated in many years with some rates dating from the 1980s and 1990s. In addition, the system facility fee calculation method for a typical residential connection is inefficient to administer given that it is based on the number of bathroom fixtures. The proposed system facility fee structure based solely on meter size for all connection types is the industry standard and much easier to administer. The local facility fee structure will remain a fixed charge, but the rate will be updated from \$1,050 to \$1,818 to reflect the current cost of service.

| Water Meter Size | Wastewater System Facilities Charge |
|-------------------------|--|
| 5/8" | \$ 3,583 |
| 3/4" | \$ 5,375 |
| 1" | \$ 8,958 |
| 1 1/2" | \$ 17,915 |
| 2" | \$ 28,664 |
| 3" | \$ 62,703 |
| 4" | \$ 107,490 |
| 6" | \$ 241,853 |
| 8" | \$ 286,640 |
| 10" | \$ 412,045 |

An increase in the grinder pump maintenance fee from \$325 in FY20 to \$350 in FY21 and \$375 in FY22 is proposed to better match the program's current contract, inspection, and administrative costs.

Interest income decreases significantly due to more conservative expectations for investment returns over the next two years.

Expenses

Operating: The FY21 and FY22 budgets contain \$100,000 to fund individual emergent infrastructure repairs directly through the operating budget rather than the Repair and Replacement Reserve. The FY22 budget also incorporates the main recommendations of a Recruitment and Retention Study performed in 2020 including hiring a human resource analyst (0.5 FTE Sewer Fund) and implementing salary adjustments and promotion opportunities to improve market competitiveness, internal pay equity, recruitment and retention.

Capital outlay expenses increase in FY21 primarily due to two vehicle replacements and diagnostic pipe inspection equipment replacements.

Sewer Fund

Grinder pump expenses decrease in FY21 due to anticipated reduced participation attributable to upgraded inspection standards and unit age eligibility requirements to ensure repair parts are available.

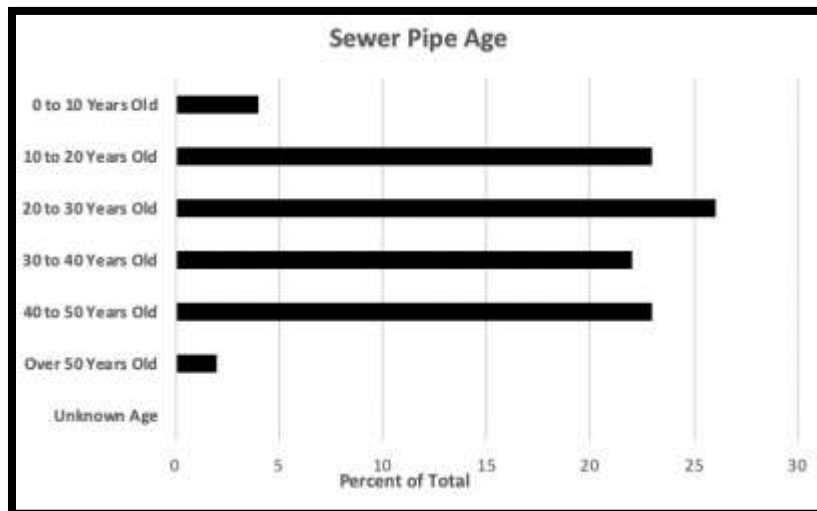
Capital Projects: A five-year summary of the Sewer Fund's CIP follows, as well as a discussion of the individual projects.

| Five-Year Capital Improvement Plan Summary | | | | | | |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Description | FY21 | FY22 | FY23 | FY24 | FY25 | Total |
| Sewer System Improvements | | | | | | |
| DEQ Consent Order Sewer System Imp. | \$ 779,878 | \$ 1,099,785 | \$ 1,500,000 | \$ 1,500,000 | \$ 1,500,000 | \$ 6,379,663 |
| DEQ Consent Order Sewer - MOM | 200,000 | 200,000 | 200,000 | 200,000 | 200,000 | 1,000,000 |
| Subtotal | 979,878 | 1,299,785 | 1,700,000 | 1,700,000 | 1,700,000 | 7,379,663 |
| Other Projects | | | | | | |
| Heavy Equipment | - | 230,000 | 50,000 | 62,500 | 50,000 | 392,500 |
| Arc Flash | 35,000 | 35,000 | 35,000 | 35,000 | 35,000 | 175,000 |
| SCADA Upgrade | 476,224 | - | - | - | - | 476,224 |
| Subtotal | 511,224 | 265,000 | 85,000 | 97,500 | 85,000 | 1,043,724 |
| Reserve | | | | | | |
| Repair and Replacement | - | - | 250,000 | 250,000 | 250,000 | 750,000 |
| Grand Total | \$ 1,491,102 | \$ 1,564,785 | \$ 2,035,000 | \$ 2,047,500 | \$ 2,035,000 | \$ 9,173,387 |

- DEQ Consent Order Sewer System Improvements: Significant defects discovered through Consent Order MOM inspection activities must be repaired in a timely fashion. These required repairs include manhole rehabilitation, pipe repair and sewer pipe bridge renovation. In addition to ensuring JCSA meets its Consent Order regulatory responsibilities, the Sewer System Improvements program improves system reliability and service level for residents by funding neighborhood-wide pipe replacement projects and improvements and upgrades at 76 neighborhood lift stations.
- DEQ Consent Order Management, Operation, and Maintenance (MOM): The Virginia DEQ Consent Order, effective September 26, 2007, requires that localities develop and implement a MOM Program. The DEQ requires certain MOM activities to be performed on a continuing basis to include items such as easement clearing; gravity sewer pipe and manhole inspection; force main and valve inspection; pump station inspection; flow monitoring and hydraulic modeling; fats, oils, and grease abatement; and repair/replacement/rehabilitation of defective assets. In addition to ensuring JCSA meets its Consent Order regulatory responsibilities, the MOM program improves system reliability and service level for residents by proactively seeking out infrastructure issues and treating them before they can cause larger problems.
- Heavy Equipment: Rehabilitation and equipment upgrades to an existing dump truck and purchase of a camera for detailed manhole condition investigations are planned for FY22.
- Arc Flash: This project consists of implementing the findings of an Electrical Arc Flash Prevention study of the electrical and power generation equipment at approximately 76 lift stations and 25 well facilities. Implementing the study findings is required to meet applicable safety standards and regulations.

Sewer Fund

- **SCADA and Server Upgrade:** SCADA (Supervisory Control and Data Acquisition System) is the industrial control and communication system that monitors and controls JCSA's 108 facilities. The data transmission technology, hardware and software used in the current system are approaching the end of their service lives and require replacement over the next several years. The project consists of upgrading existing programmable logic controllers (PLC) hardware and software and integrating them with the new data transmission system and existing facility equipment. PLCs are industrial computers used to control machinery and equipment such as pumps and motors. The upgraded system will also improve system reporting, data analysis and data storage. The FY21 allocation includes \$200,000 to replace computer server hardware and software that supports the SCADA system. The total project budget is \$3,299,000 with \$2,201,000 funded in previous years.
- **Repair and Replacement:** This reserve builds dedicated funding and promotes infrastructure asset management in accordance with the second goal of the County's 2035 Strategic Plan by funding unexpected repairs and replacement activity to maintain current levels of service. JCSA operates and maintains 446 miles of sewer pipes of varying materials and ages. Approximately 63% of JCSA's sewer pipes are made of polyvinyl chloride plastic which has an expected life of about 50 years.



As the chart above shows, while the majority of JCSA pipe infrastructure is 10 to 30 years old, almost one quarter of the total is over 40 years old. In addition to material and age, other factors that can influence expected pipe life include soil type, installation and climate. The Repair and Replacement Reserve prepares JCSA to address challenges of aging infrastructure.

As established by the JCSA Financial Policy, the target balance for this fund is the annual depreciation expense from the most recent Comprehensive Annual Financial Report which is approximately \$8.0 million.

| FY20 Operating Expenses | | | |
|-------------------------|-----------------------------------|--------------|--|
| Fund | Actual (through March 2020) | Budget | Through March 2020 % Actual to Budget |
| Water | \$4,758,063 | \$ 7,264,683 | 65.5% |
| Sewer | \$3,948,714 | \$ 6,007,796 | 65.7% |

| FY19 Operating Expenses | | | | |
|-------------------------|-----------------------------------|--------------|--|-----------------------------------|
| Fund | Actual (through March 2019) | Budget | Through March 2019 % Actual to Budget | Year End % Actual to Budget |
| Water | \$4,840,599 | \$ 7,522,678 | 64.3% | 81.5% |
| Sewer | \$3,813,369 | \$ 5,970,480 | 63.9% | 84.9% |

| FY20 Operating Revenue | | | |
|------------------------|-----------------------------------|--------------|--|
| Fund | Actual (through March 2020) | Budget | Through March 2020 % Actual to Budget |
| Water | \$7,761,828 | \$10,711,639 | 72.5% |
| Sewer | \$4,269,347 | \$ 6,295,125 | 67.8% |

| FY19 Operating Revenue | | | | |
|------------------------|-----------------------------------|--------------|--|-----------------------------------|
| Fund | Actual (through March 2019) | Budget | Through March 2019 % Actual to Budget | Year End % Actual to Budget |
| Water | \$6,571,600 | \$10,038,758 | 65.5% | 101.7% |
| Sewer | \$4,240,653 | \$ 6,195,838 | 68.4% | 105.0% |

ITEM SUMMARY

DATE: 5/5/2020
TO: The Board of Directors
FROM: M. Douglas Powell, General Manager
SUBJECT: Series 2020 Water and Sewer System Revenue Bond RFP Results Presentation

ATTACHMENTS:

| | Description | Type |
|---|--------------|--------------|
| 📎 | Presentation | Presentation |

REVIEWERS:

| Department | Reviewer | Action | Date |
|-----------------|-----------------|----------|---------------------|
| Board Secretary | Fellows, Teresa | Approved | 5/6/2020 - 12:52 PM |

James City Service Authority, VA

Series 2020 Water and Sewer System Revenue Bond

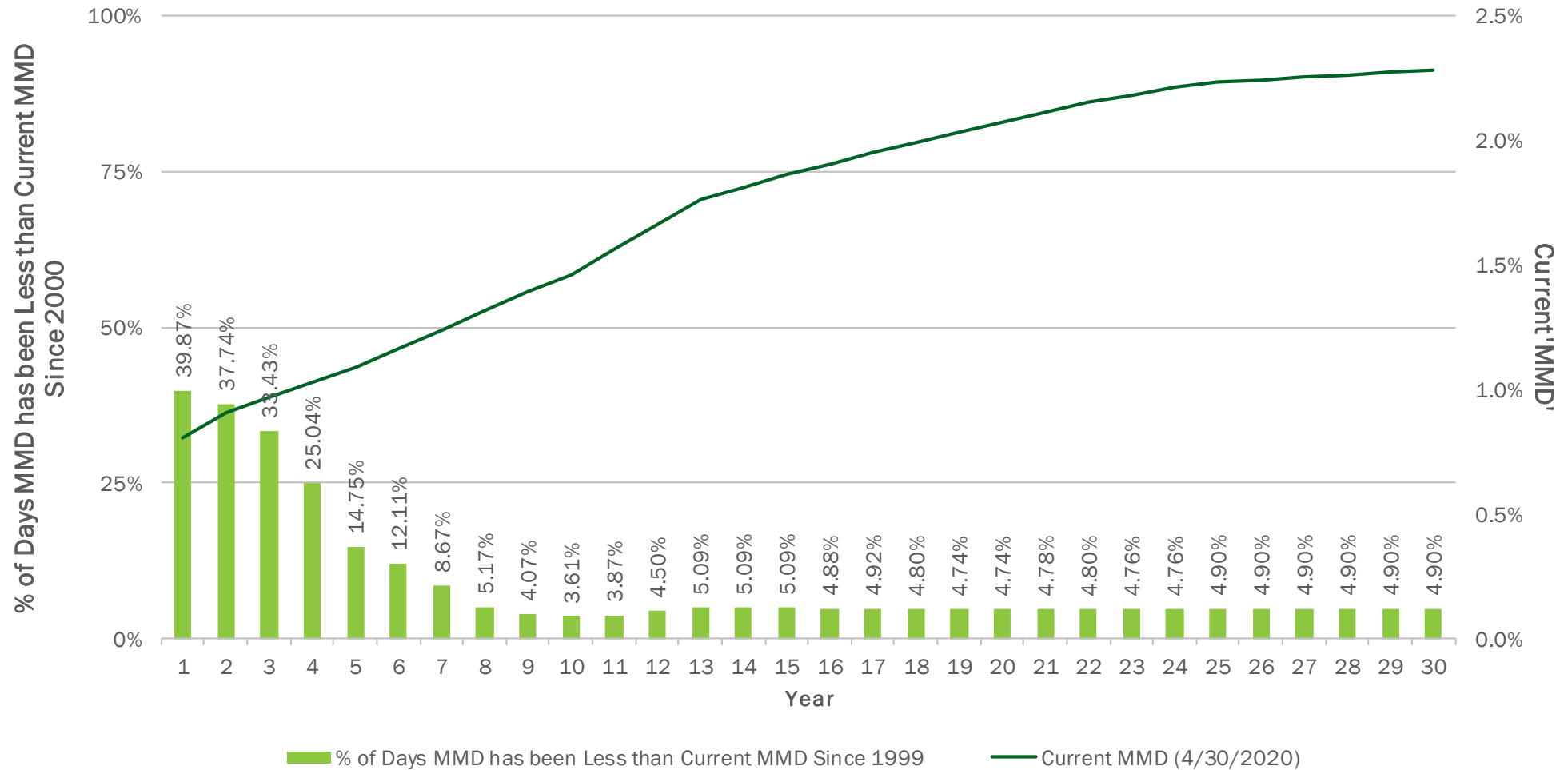
RFP Results Presentation



May 5, 2020

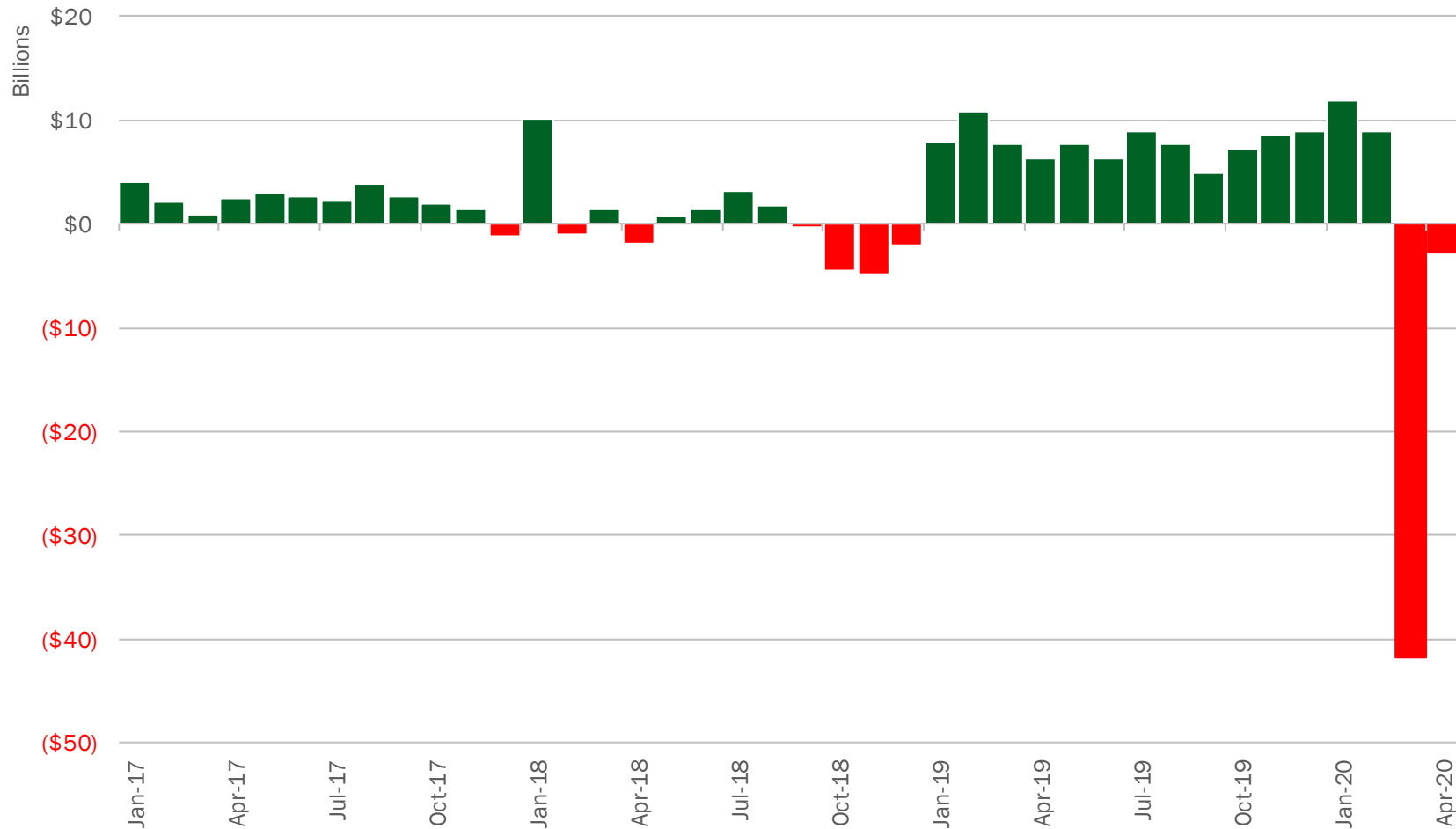
Tax-Exempt Interest Rate Trends

- Shown in the table below is the percentage of days over the past 20 years that the MMD has been below the current levels. Relative to history, tax-exempt interest rates are still quite low.



Source: Thomson MMD Publication.

Monthly Bond Fund Inflows/Outflows

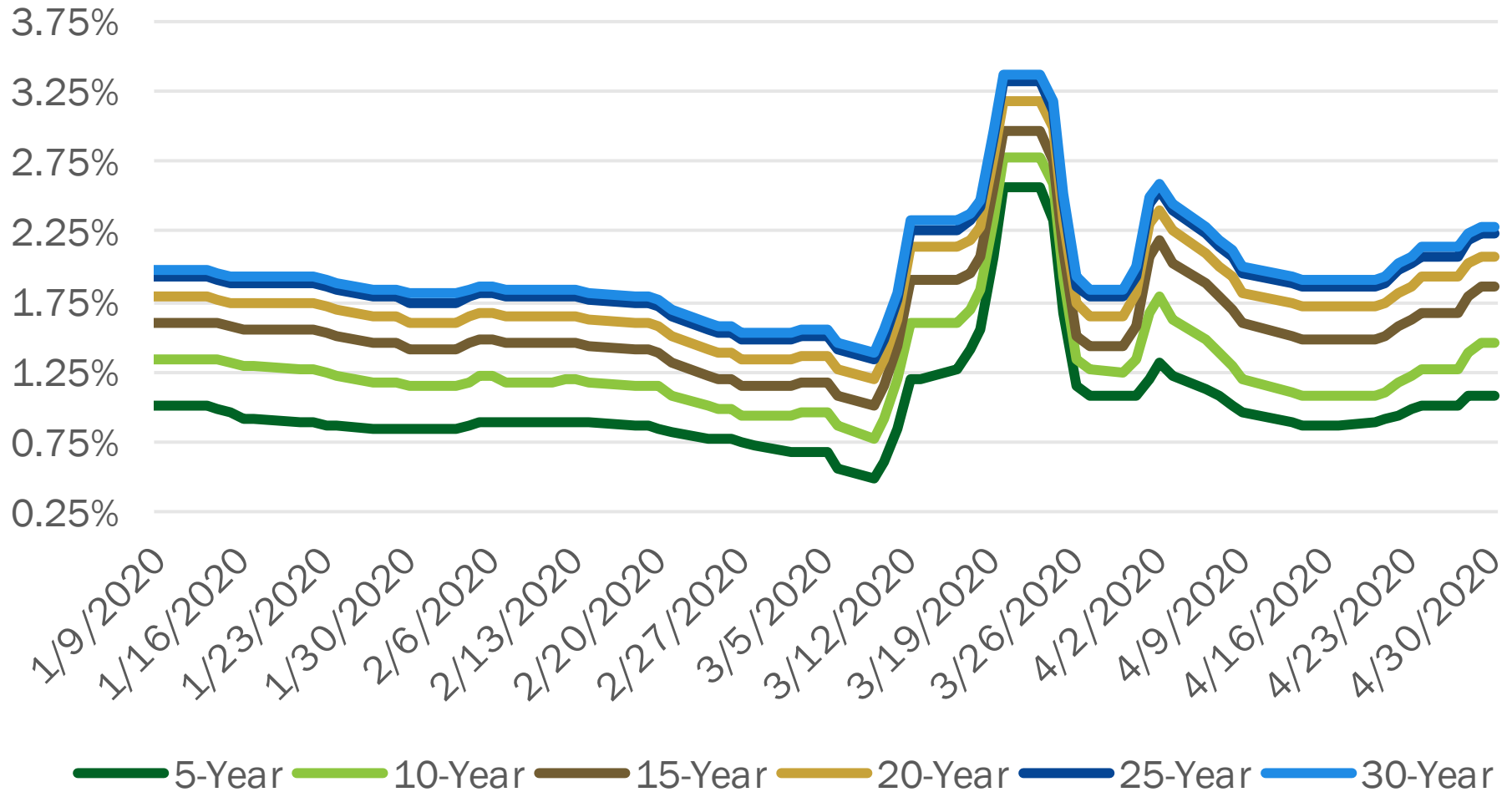


The above chart tracks the inflow and outflow of dollars from municipal bond funds. As shown above, investors fled from municipal bonds as the COVID-19 pandemic began to surge across the Country in March. Because there were more sellers than buyers of municipal bonds, this caused rates to rise substantially as shown on the following page.

Tax-Exempt Interest Rates Year to Date



Tax-Exempt Interest Rates Year to Date



- In February 2020, Davenport & Company (“Davenport”), in our capacity as Financial Advisor to the James City Service Authority (the “Authority”) presented a Plan of Finance to the Board of Directors outlining a recommended funding approach for \$9 million of upcoming capital projects.
- In the Plan of Finance, Davenport recommended that the Authority secure the funding via a long-term borrowing and undertake that borrowing via a Public Market Bond Sale instead of seeking a Direct Bank Loan.
- As the COVID-19 pandemic began to spread across the Country in March, the municipal financial markets began to experience significant volatility as shown on the preceding slides.
- In an effort to ensure that the Authority is able to obtain funding for the projects in spite of the volatility in the public market for municipal bonds, Davenport recommended that the Authority seek proposals for a Direct Bank Loan to closer evaluate its potential as an alternative financing option.

Request for Proposals Solicitation

- On Tuesday, April 7, 2020, Davenport, in our capacity as Financial Advisor to the Authority, distributed a Request for Proposals (“RFP”) to over 25 local, regional, and national lending institutions on behalf of the Authority for the purpose of obtaining a loan evidenced by the Authority’s Water and Sewer System Revenue Bond, Series 2020 (the “2020 Bond”).
- Davenport requested that bidders provide proposals for both 15 and 20 year term options.
- The proceeds of the 2020 Bond will be used to (i) finance the upgrade, repair and replacement of a portion of the Authority’s water distribution system and (ii) pay for the costs of issuance associated with the 2020 Bond.
- On Monday, April 27, 2020 Davenport received 4 proposals for the 2020 Bond which have been summarized on the following page.

Summary of Rates Received



| JCSA 2020 Water and Sewer System Revenue Bond Summary of Rates Received | | | |
|--|--------|--------------------------|--------|
| 15 Year Option | | 20 Year Option | |
| Bank | Rate | Bank | Rate |
| Key Government Finance | 2.264% | Sterling National Bank | 2.720% |
| Capital One | 2.300% | Capital One | 2.750% |
| Sterling National Bank | 2.440% | Key Government Finance | No Bid |
| Truist Bank (Make Whole) | 3.410% | Truist Bank (Make Whole) | No Bid |
| Truist Bank (Par Call) | 3.440% | Truist Bank (Par Call) | No Bid |

As shown above, Key Government Finance offered the lowest rate among all proposals received. On the following pages, Davenport has summarized certain key provisions of their proposal and compared the estimated debt service to potential alternative financing options.

Summary of Top Proposal



Key Government Finance - 15 Year Rate and Amortization

Series 2020 Water and Sewer System Revenue Bond

| | |
|---------------------------|-------------|
| Maximum Borrowing Amount: | \$9,200,000 |
|---------------------------|-------------|

| | |
|-------|---------------------------|
| Rate: | 2.264% Fixed for 15 Years |
|-------|---------------------------|

| | |
|-------------|--|
| Prepayment: | Prepayable in whole at any time at par |
|-------------|--|

| | |
|---|------|
| Closing Fees due to Key Government Finance: | None |
|---|------|

| | |
|-----------------------------|-----|
| Subject to Credit Approval: | Yes |
|-----------------------------|-----|

| | |
|-----------|--------------|
| Close By: | June 3, 2020 |
|-----------|--------------|

Estimated Debt Service

Recommended 15 Year Option vs. Low 20 Year Option



| James City Service Authority, VA 2020 Financing Estimated Bank Loan Debt Service - 15 Year Option Recommended Key Government Finance Rate of 2.264% | | | |
|---|---------------------|---------------------|----------------------|
| All In True Interest Cost: 2.48% | | | |
| Fiscal Year | Principal | Interest | Total |
| 2021 | \$ 585,000 | \$ 135,153 | \$ 720,153 |
| 2022 | 526,000 | 193,798 | 719,798 |
| 2023 | 538,000 | 181,890 | 719,890 |
| 2024 | 551,000 | 169,709 | 720,709 |
| 2025 | 563,000 | 157,235 | 720,235 |
| 2026 | 576,000 | 144,488 | 720,488 |
| 2027 | 589,000 | 131,448 | 720,448 |
| 2028 | 602,000 | 118,113 | 720,113 |
| 2029 | 616,000 | 104,484 | 720,484 |
| 2030 | 630,000 | 90,537 | 720,537 |
| 2031 | 644,000 | 76,274 | 720,274 |
| 2032 | 659,000 | 61,694 | 720,694 |
| 2033 | 673,000 | 46,774 | 719,774 |
| 2034 | 689,000 | 31,538 | 720,538 |
| 2035 | 704,000 | 15,939 | 719,939 |
| 2036 | - | - | - |
| 2037 | - | - | - |
| 2038 | - | - | - |
| 2039 | - | - | - |
| 2040 | - | - | - |
| Total | \$ 9,145,000 | \$ 1,659,074 | \$ 10,804,074 |

| James City Service Authority, VA 2020 Financing Estimated Bank Loan Debt Service - 20 Year Option Low 20 Year Rate of 2.72% (Sterling National Bank) | | | |
|--|---------------------|---------------------|----------------------|
| All In True Interest Cost: 2.89% | | | |
| Fiscal Year | Principal | Interest | Total |
| 2021 | \$ 431,000 | \$ 162,375 | \$ 593,375 |
| 2022 | 356,000 | 237,021 | 593,021 |
| 2023 | 366,000 | 227,338 | 593,338 |
| 2024 | 376,000 | 217,382 | 593,382 |
| 2025 | 386,000 | 207,155 | 593,155 |
| 2026 | 397,000 | 196,656 | 593,656 |
| 2027 | 407,000 | 185,858 | 592,858 |
| 2028 | 419,000 | 174,787 | 593,787 |
| 2029 | 430,000 | 163,390 | 593,390 |
| 2030 | 442,000 | 151,694 | 593,694 |
| 2031 | 454,000 | 139,672 | 593,672 |
| 2032 | 466,000 | 127,323 | 593,323 |
| 2033 | 479,000 | 114,648 | 593,648 |
| 2034 | 492,000 | 101,619 | 593,619 |
| 2035 | 505,000 | 88,237 | 593,237 |
| 2036 | 519,000 | 74,501 | 593,501 |
| 2037 | 533,000 | 60,384 | 593,384 |
| 2038 | 547,000 | 45,886 | 592,886 |
| 2039 | 562,000 | 31,008 | 593,008 |
| 2040 | 578,000 | 15,722 | 593,722 |
| Total | \$ 9,145,000 | \$ 2,722,656 | \$ 11,867,656 |

| Difference | |
|------------|--------------------|
| | |
| \$ | 126,778 |
| | 126,778 |
| | 126,552 |
| | 127,327 |
| | 127,080 |
| | 126,832 |
| | 127,590 |
| | 126,326 |
| | 127,093 |
| | 126,843 |
| | 126,602 |
| | 127,371 |
| | 126,126 |
| | 126,918 |
| | 126,702 |
| | (593,501) |
| | (593,384) |
| | (592,886) |
| | (593,008) |
| | (593,722) |
| \$ | (1,063,582) |

The tables above compare the Authority's estimated debt service for the 2020 Bond under the recommended Key Government Finance 15 year rate of 2.264% versus the 2.72% rate from Sterling National Bank which was the lowest rate received for the 20 year option.

As shown in the "Difference" column, the Authority is estimated to save approximately \$1.0 million over the life of the 2020 Bond by financing the project over 15 years instead of 20.

- In the event that the Authority wishes to continue moving forward with financing the projects, Davenport recommends that the Authority secure financing via a Direct Bank Loan and accept the 15-year 2.264% bid from Key Government Finance. This recommendation is based upon the following:
 - Funding the projects via a Direct Bank Loan allows the Authority to lock in its borrowing rate today and eliminates the additional interest rate risk that it would shoulder if it elected to pursue a Public Market Sale where interest rates would not be locked in for several weeks;
 - The 2.264% Bid from Key was the lowest absolute fixed rate proposed among all options;
 - Financing the project over 15 years instead of 20 is estimated to save the Authority approximately \$1.0 million in debt service costs over the life of the 2020 Bond;
 - Allows for prepayment in whole at any time prior to final maturity at no penalty;
 - The interest rate is fixed between now and closing (i.e. not indicative);
 - No closing fees due to Key Government Finance; and,
- Most importantly, financing the project allows the Authority to maintain its cash at a time that it may be needed most.




Next Steps

| Date | Action |
|----------------|--|
| April 7, 2020 | ✓ Davenport Distributed Request for Proposals to Local, Regional and National Banking Institutions. |
| April 27, 2020 | ✓ Davenport Received Responses to the Authority's Request for Proposals. |
| May 5, 2020 | RFP Results/Recommendation presented to the Board. Authority Board of Directors affirms selection of lender and issuance of the 2020 Bond. |
| May 20, 2020 | Close on 2020 Water and Sewer System Revenue Bond – Funding Available. |



Appendix - Detailed Summary of Bids Received

James City Service Authority, VA

Detailed Summary of Bids



| JCSA Water and Sewer System Revenue Bond, Series 2020 | | | |
|---|---|---|--|
| | Capital One - Option 1 | Capital One - Option 2 | Key - Option 1 |
| |  |  |  |
| Maximum Amount Financed | \$9,200,000 | | \$9,200,000 |
| Term | 15 Years | 20 Years | 15 Years |
| Interest Rate | 2.300% | 2.750% | 2.264% |
| Call Date | In whole beginning 1/15/2028 | In whole beginning 1/15/2030 | In whole only at any time |
| Prepayment Penalty | None | | None |
| Closing Fees | None | | None |
| Notes | | | Taxable Gross-Up Provision - Rate would increase to 2.866%. Default Rate equal to 3% above the then current rate. |

Detailed Summary of Bids (Continued)

| JCSA Water and Sewer System Revenue Bond, Series 2020 | | |
|---|---|--|
| | Sterling - Option 1 | Sterling - Option 2 |
| |  STERLING NATIONAL BANK |  STERLING NATIONAL BANK |
| Maximum Amount Financed | \$9,200,000 | |
| Term | 15 Years | 20 Years |
| Interest Rate | 2.440% | 2.720% |
| Call Date | In whole beginning 1/15/2027 | |
| Prepayment Penalty | None | |
| Closing Fees | Not to exceed \$7,500 | |
| Notes | | |

Detailed Summary of Bids (Continued)



| JCSA Water and Sewer System Revenue Bond, Series 2020 | | |
|---|---|---|
| | Truist - Option 1: Make Whole | Truist - Option 1: Par Call |
| | TRUIST  | TRUIST  |
| Maximum Amount Financed | \$9,200,000 | |
| Term | 15 Years | |
| Interest Rate | 3.410% | 3.440% |
| Call Date | In whole or in part at any time | In whole beginning 5/20/30 |
| Prepayment Penalty | Make Whole Provision | None |
| Closing Fees | Not to exceed \$15,000 | |
| Notes | | |



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Version 01/13/2014 TS/AH/CR

ITEM SUMMARY

DATE: 4/28/2020
TO: The Board of Directors
FROM: Teresa J. Fellows, Deputy Secretary
SUBJECT: Adjourn until 5 p.m. on May 12, 2020 for the Regular Meeting

REVIEWERS:

| Department | Reviewer | Action | Date |
|-----------------|-----------------|----------|---------------------|
| Board Secretary | Fellows, Teresa | Approved | 4/21/2020 - 2:16 PM |