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**RATING AGENCY PRESENTATION**  
**Water & Sewer Revenue & Refunding Bonds,**  
**Series 2020**

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September 2020

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## Spotsylvania County, VA

### **Edward Petrovitch**

*County Administrator  
14 Years of Service*

### **Bonnie Jewell**

*Assistant County  
Administrator & CFO  
13 Years of Service*

### **Benjamin Loveday**

*Assistant County Administrator &  
Public Works Director  
11 Years of Service*

## Financial Advisor, PFM Financial Advisors LLC

### **Kevin Rotty**

*Managing Director*

### **Kristy Choi**

*Senior Managing Consultant*

### **Isabel Singer**

*Analyst*

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# Spotsylvania Leaders Presenting

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# Agenda

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## Agenda

I. Executive Summary

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II. Operating System & Service Area

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III. Financial Performance

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IV. Capital Improvement Program & Debt Management

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# I. Executive Summary



# Executive Summary

- Growing service area within the Northern Virginia area
- The water and sewer system is in good condition with ample capacity to meet current demands and a strategic and manageable investment plan to ensure continued capacity is available to meet projected future demands
- Spotsylvania's water and sewer rates are comparatively low when stacked against other Virginia systems with 25,000+ accounts
- To date, financial impacts of the pandemic have been manageable, with results exceeding prior estimates
  - FY 2020 operating revenues estimated to exceed FY 2020 Adopted Budget by \$2 million and operating expenses estimated to come in below FY 2020 Adopted Budget by \$4.2 million
- Debt service coverage is strong and increasing, with FY 2019 coverage at 2.49x or 1.80x net of availability fees
- Liquidity remains very strong at over 3 years of days cash on hand
- Using conservative projections, both debt service coverage and days cash on hand are projected to remain solid



# Strong Economic Fundamentals & Financial Position of the County

- The County continues to exhibit strong economic fundamentals
  - Growing employment base, with population increasing by 9.8% in the past 10 years
  - Low unemployment rate of 2.9%, which has declined in each of the last 9 years
  - Median Household Income greater than \$86,000, which exceeds the levels of both the Commonwealth of Virginia and the United States
- Sound financial position, despite the pandemic
  - Real estate assessed value growth of 8.9% in calendar year 2020, a reassessment year
  - Impact to FY 2020 tax revenues as a result of COVID-19 remain manageable
  - Healthy fund balance provides financial flexibility & liquidity
- The County has a strong commitment to its conservative financial practices



# COVID-19 in Spotsylvania

- On March 17, 2020, Spotsylvania declared a local emergency, which allowed the County:
  - Access to State mutual aid
  - To receive State and Federal reimbursements
  - To relax certain procurement laws
  - To give small businesses opportunities to apply for loans through the Small Business Administration
- The County delayed tax payment dates for business licenses & personal property
- Also on March 17, 2020, implemented freeze on hiring, discretionary spending, and certain cash-funded capital projects
- In compliance with Executive Orders issued by the Governor, the County postponed or cancelled community events, non-essential meetings, and closed many public buildings including schools
- Quickly geared up to implement telework across all departments to continue services to the community
- Received \$23.8M in CARES Act funds through the State (using for public safety payroll) and another \$90K specific to the federal election cycle this fall
- As of September 23, 2020, 2,099 cases were reported to date in Spotsylvania, with 132 hospitalizations and 44 deaths



# COVID-19 Impacts to Water System

- The State Corporation Commission issued a statewide moratorium on water shutoffs on March 16 in response to the COVID pandemic
  - The Commission has extended the expiration date of the moratorium twice, it is currently set to expire on October 5, 2020
- From mid-March through August, approximately 2,800 cumulative customers (~560 unique) have avoided disconnection
- The moratorium has caused an estimated loss of disconnect/reconnect revenue of \$70,000 and an estimated loss of user revenue of \$200,000
- The average user has continued to consume approximately 4,300 gallons per month, consistent with the usage in FY 2019
- The County experienced a 57% increase in new connections from FY 2019 to FY 2020 (from 698 in FY 2019 to 1,096 in FY 2020)





## **II. Operating System and Service Area**



# Outstanding Program Management

***“Focusing on innovation and technology to maximize staff efficiency and increase service value.”***

## **Selected Achievements**

- 2019 Virginia Best In Taste Tap Water
  - Previous wins 2015, 2017, 2018
- Virginia AWWA Larry Gordon Safety Award
  - 2016, 2019
- Virginia Environmental Excellence Program
  - E3 Certified
- Virginia Voluntary Safety Star Program
  - First municipal waterworks participant
- Virginia Laboratory Accreditation Program certified
  - Laboratory testing for state and local agencies
- Encouragement of staff to participate in local, state, and national industry groups

## **Computerized Maintenance Management Program**

- Improves the utility for future generations
- Reduces risk of institutional knowledge loss
- Allows for transition from preventive maintenance to predictive maintenance
- Streamlining of work flows while increasing performance and accountability

## **Automated Water Meter Infrastructure (AMI)**

- System wide conversion to remote water meter reading (includes full meter replacement)
- Reduces required meter staffing and vehicle trips
- Improves consumption reading accuracy
- Customer Leak Detection Program
  - Reduces water loss & billing adjustments
  - Improves customer level of service

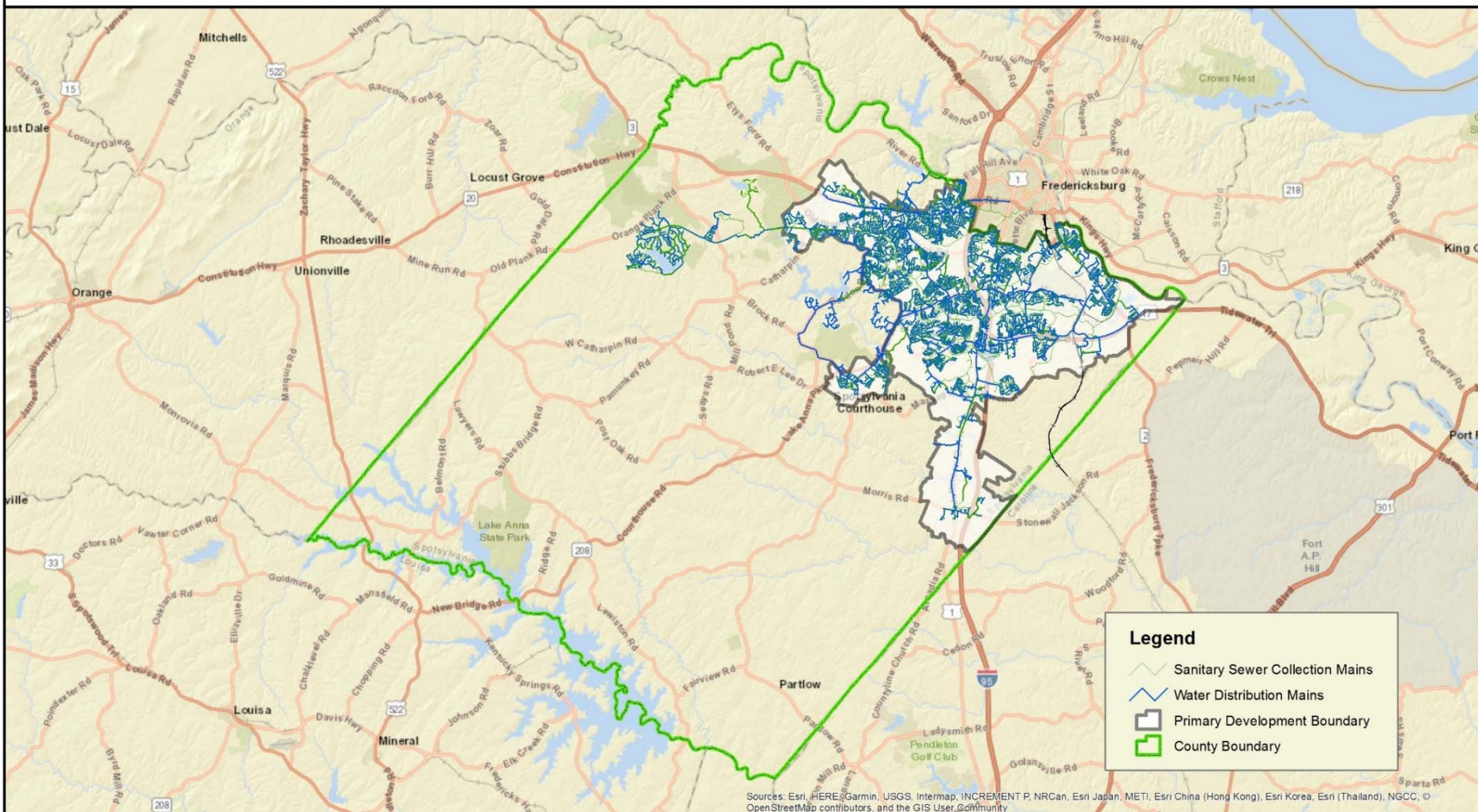
## **Distribution and Conveyance System Modeling**

- Impacts of new developments and extensions
- Cost/benefit of CIP expenditures
- Predictive use for CIP development

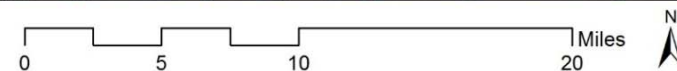


# Operating System – Service Area

Spotsylvania County Utilities Department - Operating System Service Area



Map Developed By: Utilities Department Administration Office  
Production Date: 10/11/2019







# Operating System Metrics

## Population Served

- The County provides water and sewer treatment services within Spotsylvania County and the City of Fredericksburg
- As of August 2020, the Utility serves approximately 100,000 people (75% of population) in Spotsylvania County via:
  - 32,271 water connections
  - 31,250 sewer connections
- The Utility also provides finished water for approximately 30,000 residents in the City of Fredericksburg via the Motts Run Water Treatment Plant.

## System Breakdown

- 567 miles of watermain
- 556 miles of sewer main
- 2 Water treatment plants
- 3 Wastewater treatment plants
- 3 Reservoirs & Rappahannock River
- 48 Pump stations
- 7 Water tanks
- 2 Finished water booster stations
- 2 Raw water pumping stations





# Treatment Plants

*Including the approved expansions noted below, capacity is expected to be sufficient for 50 years.*

<b>Water System</b>					
<u>Treatment Plants</u>	<u>Water Source</u>	<u>Total Plant Capacity</u>	<u>FY19 Daily Average</u>	<u>Planned Expansion</u>	<u>Capacity After Expansion</u>
Ni River WTP	Ni River Reservoir/ Ni River	6.0 MGD <sup>1</sup>	2.7 MGD (3.6 MGD FY20)	N/A	6.0 MGD
Motts Run WTP	Motts Run Reservoir/ Rappahannock River	12.0 MGD <sup>2</sup>	7.9 MGD (8.2 MGD FY20)	FY23-FY24	18.0 MGD-24 MGD <sup>3</sup>
<b>Total</b>		<b>18.0 MGD</b>	<b>10.6 MGD (11.8 MGD FY20)</b>		<b>24.0-30.0 MGD</b>

<b>Sewer System</b>					
<u>Treatment Plants</u>	<u>Total Plant Capacity</u>	<u>FY19 Daily Average</u>	<u>Planned Expansion</u>	<u>Capacity After Expansion</u>	
Massaponax WWTP	9.4 MGD	7.9 MGD	FY20-FY24	17.9 MGD	
FMC WWTP	4.0 MGD <sup>2</sup>	2.3 MGD	N/A	N/A	
Thornburg WWTP	0.3 MGD <sup>4</sup>	0.1 MGD	N/A	0.75 MGD	
<b>Total</b>	<b>13.7 MGD</b>	<b>10.3 MGD</b>		<b>18.65 MGD</b>	

1: The Ni Plant is limited by permit to 6.0 MGD from the Ni River Reservoir. The plant has a functional max capacity of 4.5 MGD.

2: 5.0 MGD of the Motts Run WTP & 1.5 MGD of the FMC WWTP capacity is reserved by the City of Fredericksburg. This represents the design production capacity.

3: The Motts Run Water Treatment Plant is expandable to 24 MGD in a future expansion. Note that expansions are required to address Max Day Demand, not Average Daily Demand.

4: The FMC Plant is planned for decommissioning no later than July 1, 2025; with the FMC flows being redirected to the Massaponax WWTP.



# Contract with Fredericksburg

- Drinking Water
  - City purchases all potable water from the County
    - Water agreement dates back to the early 1980's annexation agreement
      - Most recent substantial update in 1997
    - City billing of capital and direct costs is prorated at 5/12; production costs are charged based on consumption
  - The City has reserved capacity for water treatment of 5 MGD at the County's Motts Run Treatment Plant
    - 7 MGD reserve capacity when Motts Run Treatment Plant is expanded to 24 MGD in the future
- Wastewater Treatment
  - 1981 Wastewater Agreement
    - This agreement will dissolve upon FMC Plant decommissioning
    - New agreement to be negotiated (currently in discussion)
  - County treats a portion of City wastewater at the FMC WWTP
  - 1.5 MGD of the 4.0 MGD FMC Capacity is reserved for the City
  - Operating and capital expenses are prorated based on receiving flows

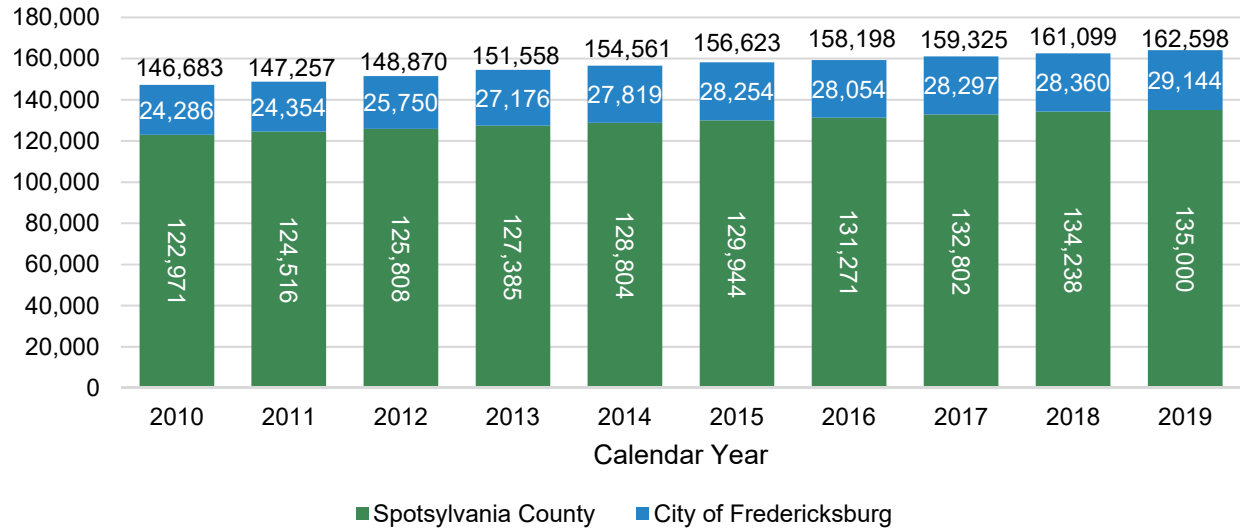




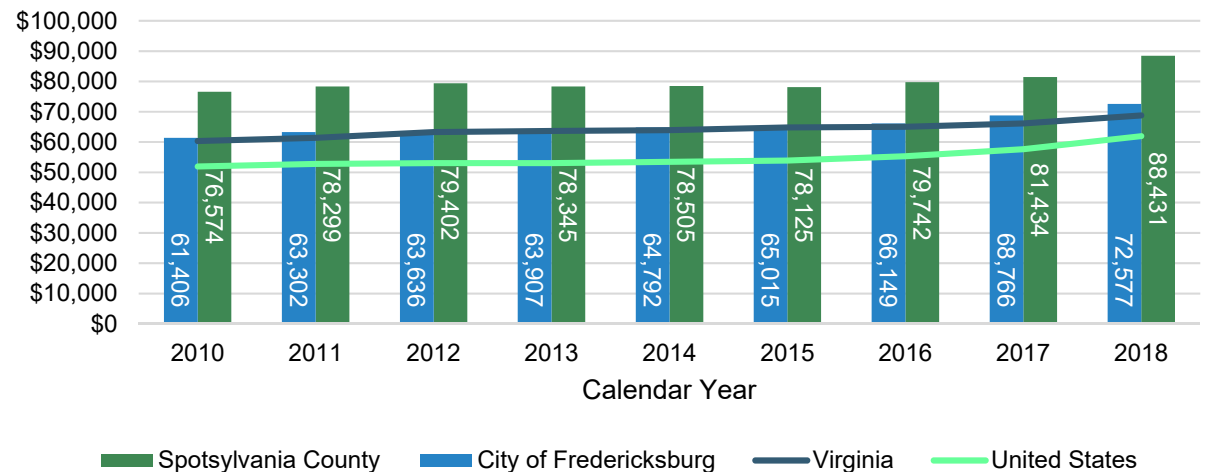
# Strong Demographic Base

### Spotsylvania and Fredericksburg Population

- The service area has continued to see consistent population growth
  - County population growth has averaged 1.0% per year with 8.4% growth since 2010
  - City population growth has averaged 1.8% per year with 16.7% growth since 2010
- The County's median household income has grown 15.5% since 2010 and the City's has grown 18.2% over the same period
- The County continues to have a median household income well above both the Virginia median and the U.S. median



### Spotsylvania and Fredericksburg Median Household Income

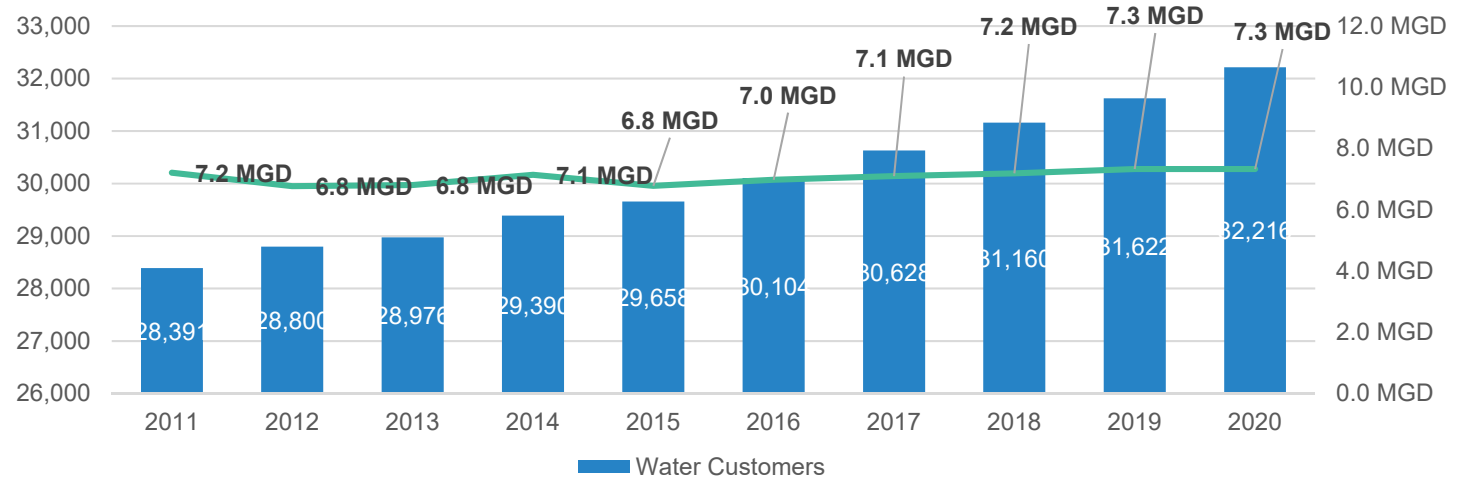




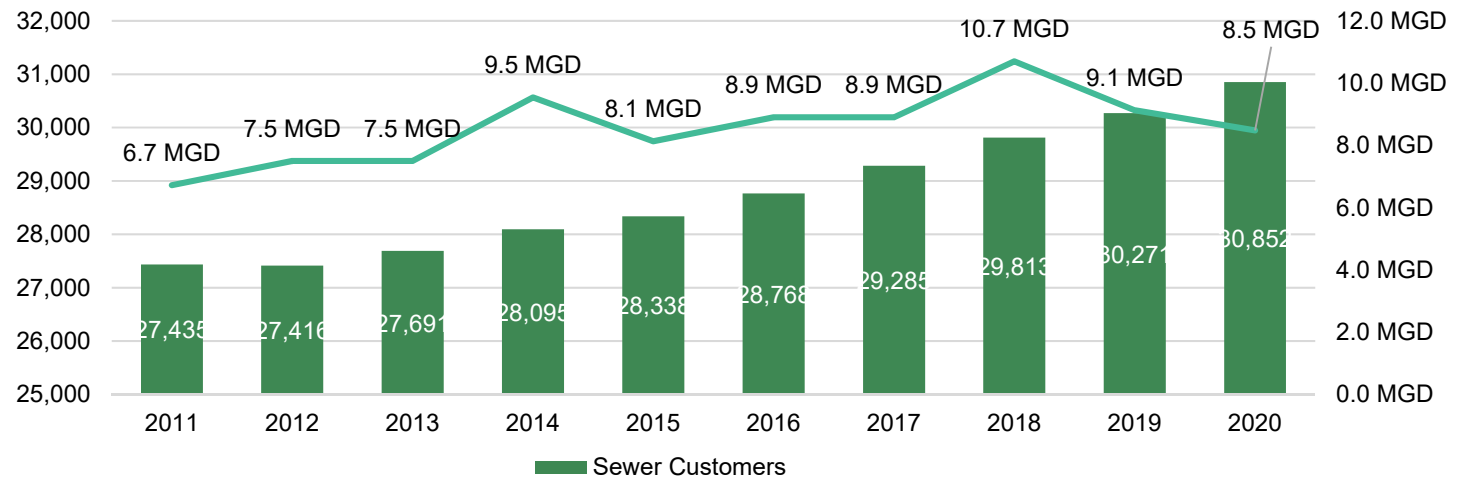
# Billed Flow & Number of Accounts

- Over the past 10 years:
  - Water consumption has averaged a 2.1% yearly increase
  - Sewer flows have averaged a 1.3% yearly increase

### Water Customers and Average Daily Consumption



### Sewer Customers and Average Daily Flows







# Largest Utility Customers

- Top 10 largest customers represent only 5.06% of system revenue
- Of those customers, 7 are residential buildings supported by individual payers

Customer	Type of Business	2019 Fiscal Year Billing	% of Total System Revenue
Horning Brothers	Apartment Building	\$262,177	0.77%
Mid America Apartments LP	Apartment Building	\$207,533	0.61%
Spotsylvania Regional Hospital	Hospital	\$192,454	0.56%
Salem Run Apartments	Apartment Building	\$179,870	0.53%
Greens of Salem Run	Apartment Building	\$177,336	0.52%
Breezewood Apt Assoc LP	Apartment Building	\$170,104	0.50%
Kilburn Crossing 220 LLC	Apartment Building	\$157,957	0.46%
Heritage Hospitality LLC	Hotel	\$133,197	0.39%
Rio Massaponax Car Wash LLC	Car Wash	\$131,483	0.38%
HH Hunt / Abberly Southpoint	Apartment Building	\$114,833	0.34%
<b>Total</b>		<b>\$1,726,944</b>	<b>5.06%</b>



## III. Financial Update



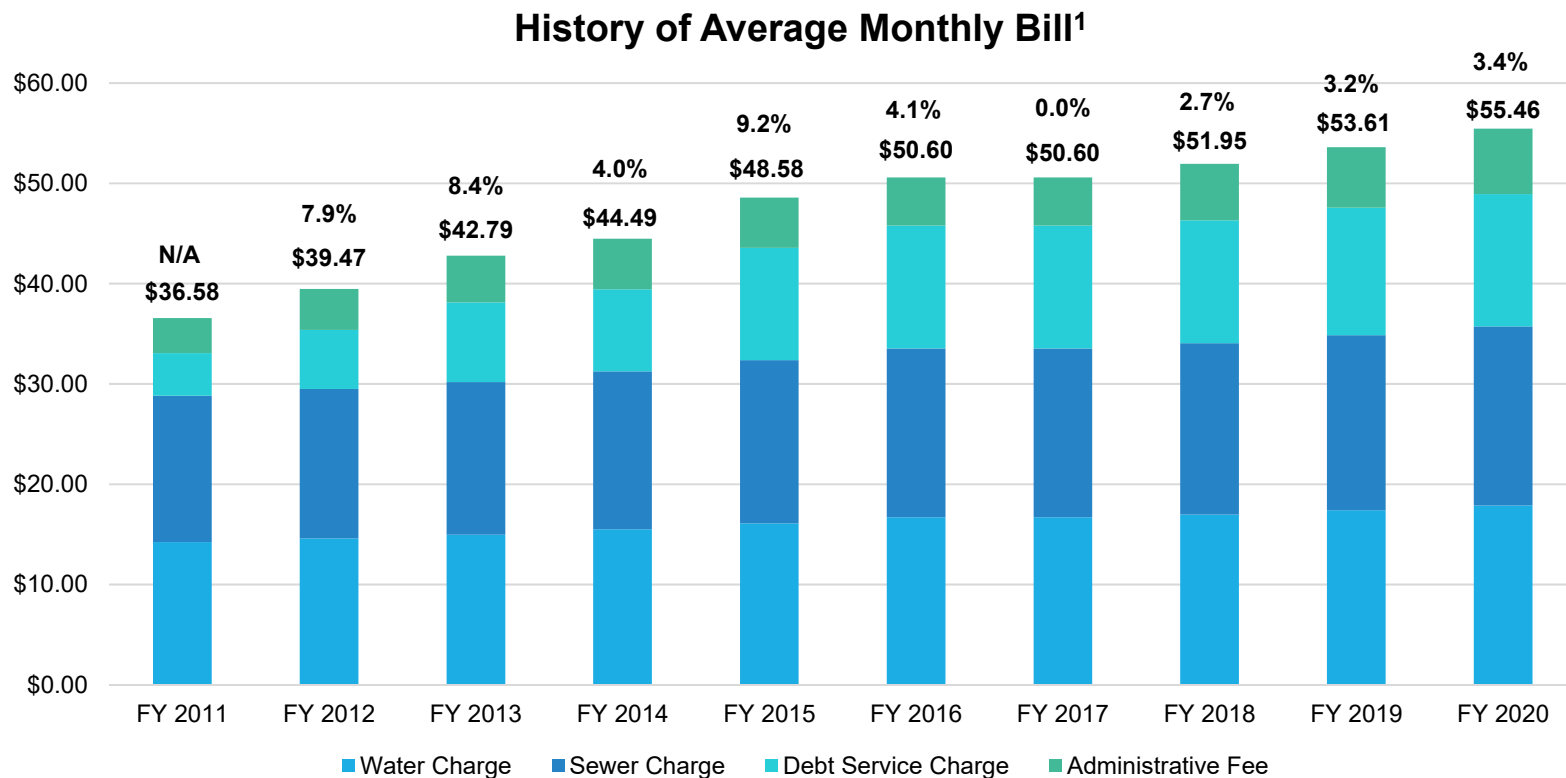
# Utility Fiscal Policies

- In April 2017 the County updated its fiscal policies aimed at improving the financial position of the Utilities Fund and the associated ratings
  - Specifically, policies regarding ongoing maintenance and usage of Utilities Fund Balance & Utilities Capital Projects Fund were updated
- The County will:
  - **Maintain Utilities Fund independence from General Fund**
  - **Set user fees and charges at a level that fully supports the total direct/indirect costs of the system**
  - **Maintain a Utilities Fund balance of at least 100% of the average of the last 3 years total revenues**
    - Total revenues defined as including user and availability fees
    - Fund balance = “Equity in Pooled Cash & Investments”
  - **Target at least 1.3x debt service coverage**
  - **Maintain a minimum of 1.0x debt service coverage not including availability fees**



# Residential Rates

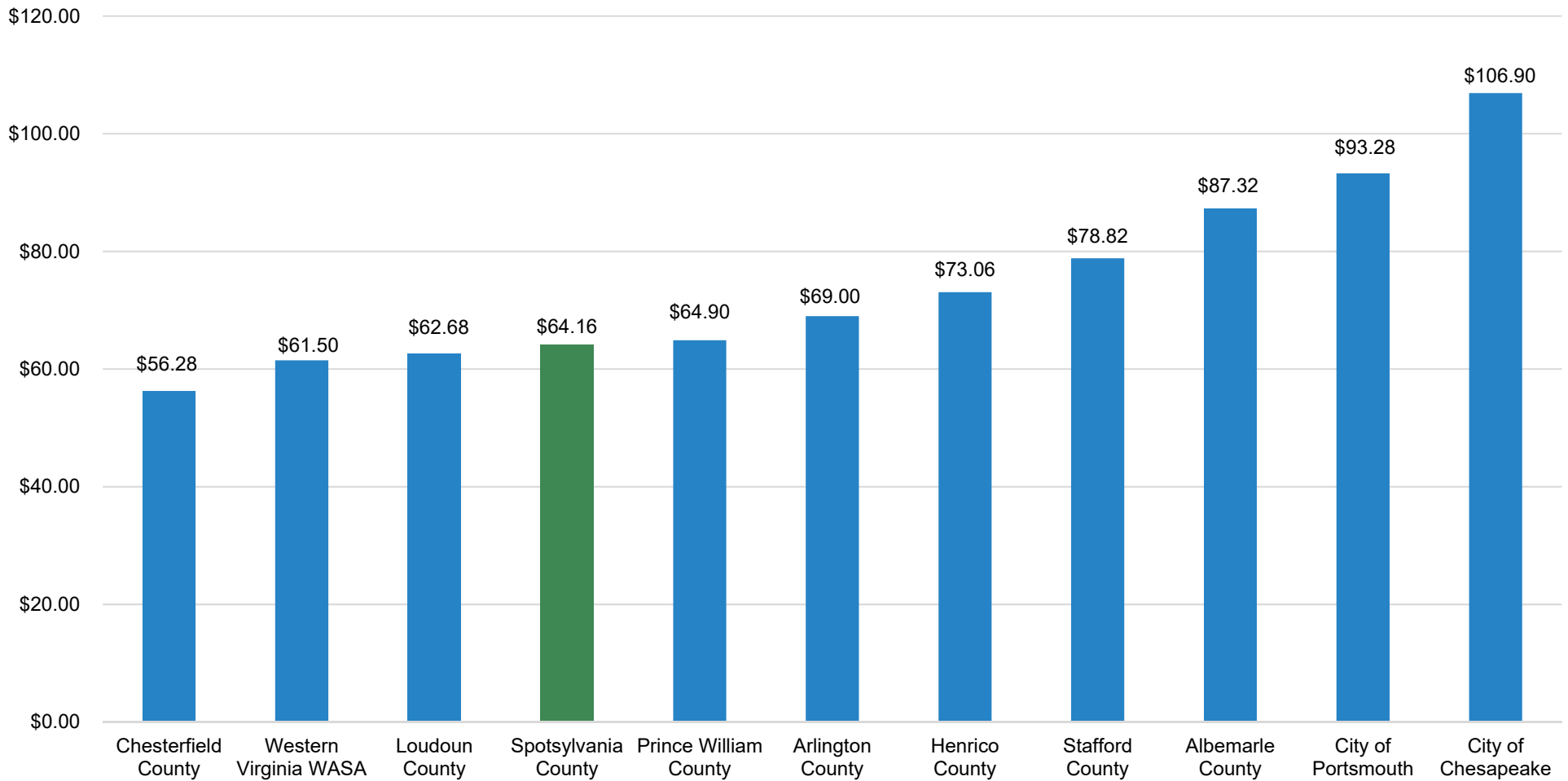
- The County's regular practice is to set rates in 3-year increments with the option to go back to the Board at any time, if needed
- This year, in reaction to COVID-19, the County has kept the FY21 rates at the same level as FY20 rates
  - The County will revisit FY22 & FY23 rates in Spring/Summer of 2021





# Rate Competitiveness

**Comparison of Average Monthly Bill (FY 2020)  
Systems with more than 25,000 accounts**





# Revenue & Expense History

Fiscal Year Ended June 30

	2016	2017	2018	2019	Preliminary 2020
<b>Operating Revenues</b>					
Charges for Services					
Water and Sewer	\$30,151,900	\$30,999,078	\$31,798,760	\$32,545,335	\$35,063,463
Miscellaneous	\$1,641,448	\$1,546,660	\$1,591,721	\$1,649,977	\$1,603,495
	<b>\$31,793,348</b>	<b>\$32,545,738</b>	<b>\$33,390,481</b>	<b>\$34,195,312</b>	<b>\$36,666,958</b>
<b>Operating Expenses (Excluding Depreciation)</b>					
Personnel & Fringe Benefits	\$9,235,103	\$9,987,879	\$9,729,497	\$9,155,610	\$10,886,099
Miscellaneous <sup>1</sup>	\$7,313,332	\$7,694,811	\$8,686,735	\$9,893,429	\$8,930,993
	<b>\$16,548,435</b>	<b>\$17,682,690</b>	<b>\$18,416,232</b>	<b>\$19,049,039</b>	<b>\$19,817,092</b>
<b>Non-Operating Revenues</b>					
Availability Fees	\$6,135,752	\$5,706,980	\$7,011,600	\$6,981,000	\$10,877,210
Interest Income	\$500,341	\$117,309	\$126,197	\$1,446,352	\$1,636,293
Other Revenues <sup>2</sup>	\$666,657	\$618,993	\$764,232	\$1,660,583	\$1,444,613
	<b>\$7,302,750</b>	<b>\$6,443,282</b>	<b>\$7,902,029</b>	<b>\$10,087,935</b>	<b>\$13,958,116</b>
<b>Net Revenue Available for Debt Service</b>	<b>\$22,547,663</b>	<b>\$21,306,330</b>	<b>\$22,876,278</b>	<b>\$25,234,208</b>	<b>\$30,807,982</b>
<b>Debt Service<sup>3</sup></b>	\$10,143,809	\$10,087,794	\$10,136,693	\$10,151,060	\$9,924,932
<b>Debt Service Coverage</b>	<b>2.22x</b>	<b>2.11x</b>	<b>2.26x</b>	<b>2.49x</b>	<b>3.10x</b>
<b>Debt Service Coverage (Net of Availability Fees)</b>	<b>1.62x</b>	<b>1.55x</b>	<b>1.57x</b>	<b>1.80x</b>	<b>2.01x</b>

1: Miscellaneous excludes CPF expenses and includes capital operating expense

2: Other Revenues includes: Interest earnings attributable to operating funds, sale of surplus assets, adjustment for CPF revenues, antenna tower revenues, transfers in and collection of bad debt

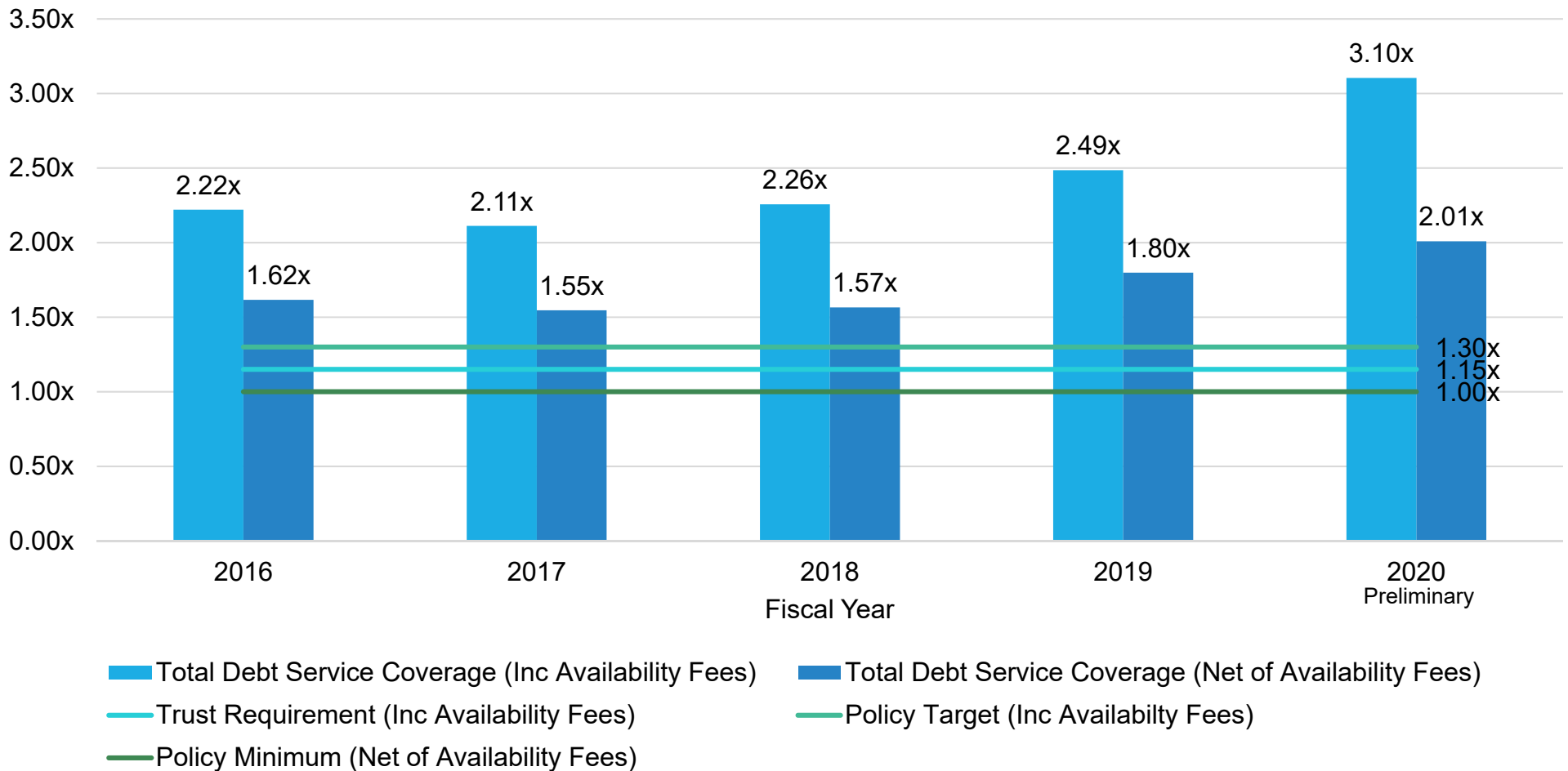
3: Debt Service is net of BAB subsidy and includes bond administrative fees



# Coverage History

**Over the past 5 years, the County has met its coverage policies with and without availability fees.**

## Debt Service Coverage

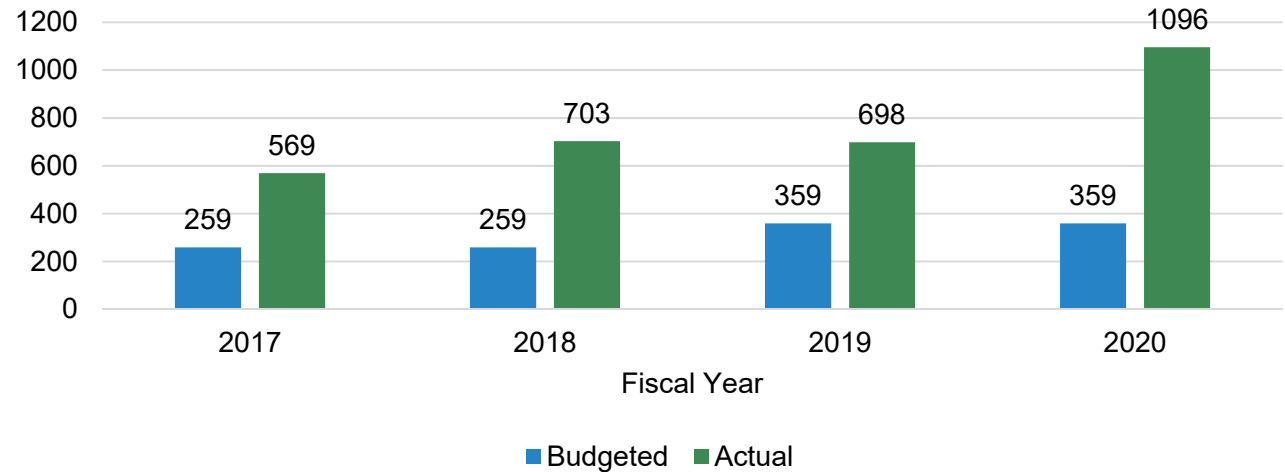




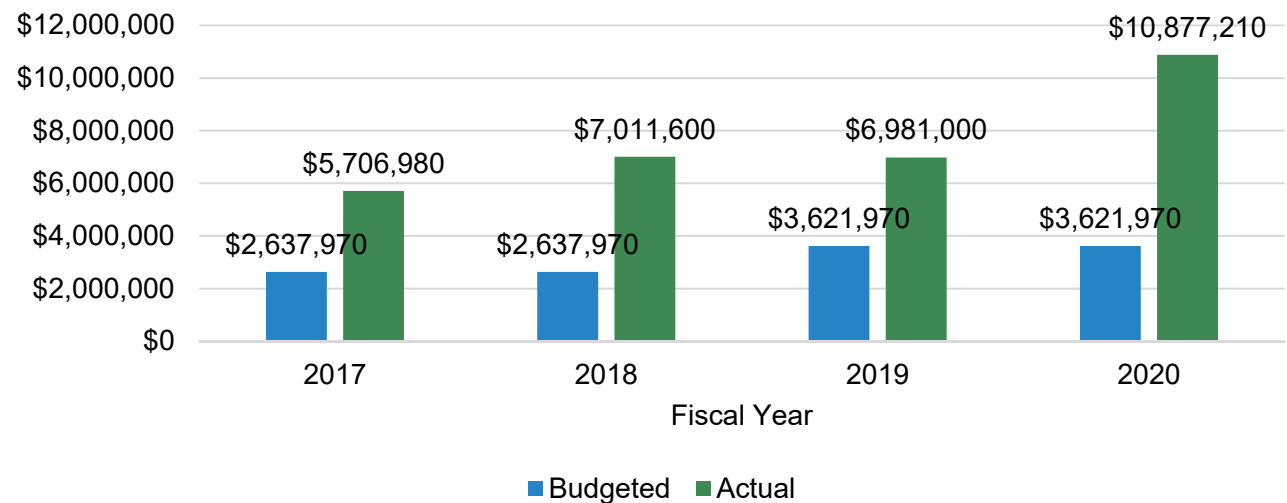
# Connections & Availability Fee Revenue History

- The County conservatively budgets for new connections and availability fee revenues
- The County comfortably exceeded its projections for these two metrics in the past four years

### New Connections: Budget to Actual



### Availability Fee Revenue: Budget to Actual



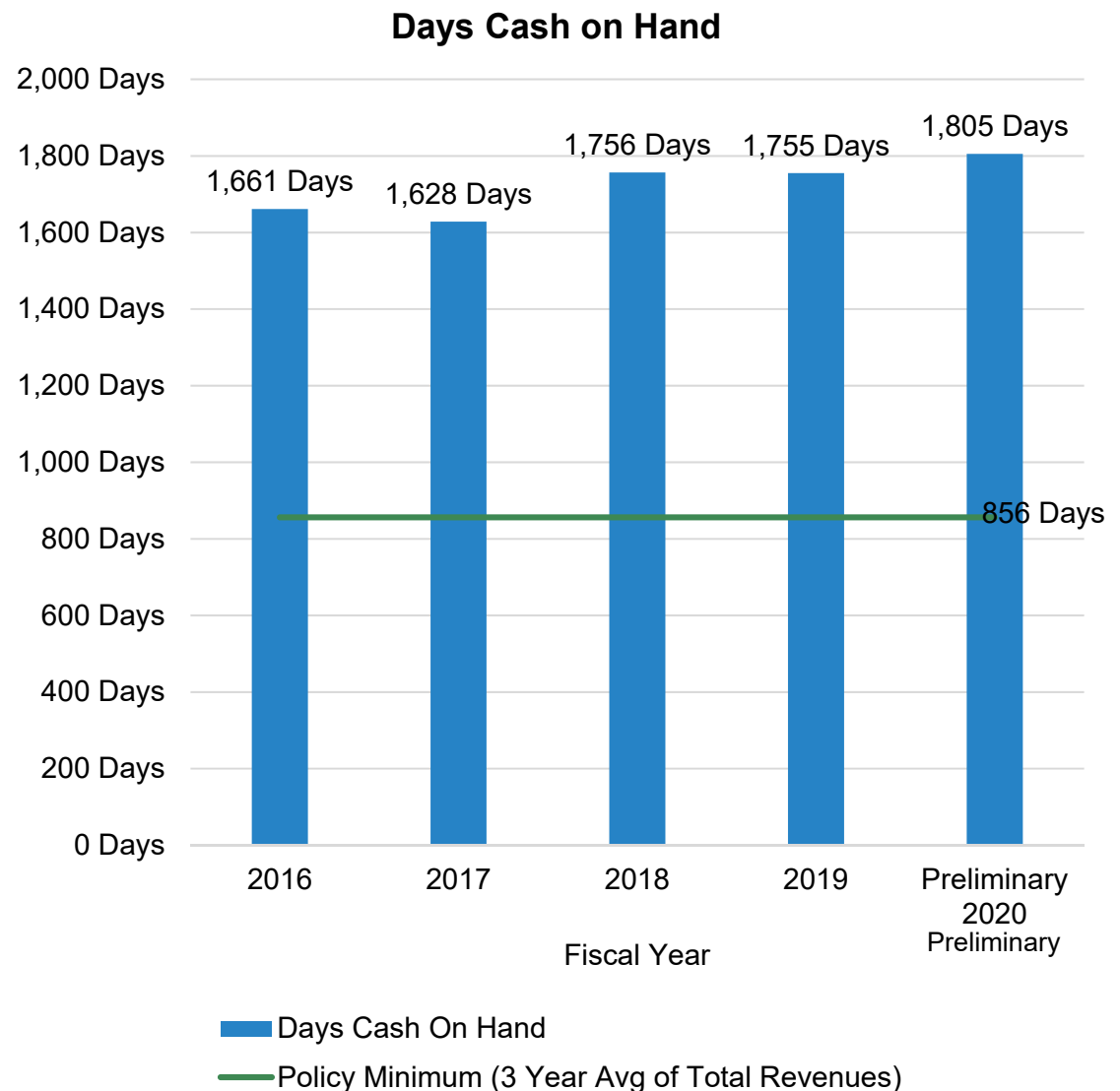




# Liquidity History

- The County anticipates its liquidity position will decline over the next several years to approximately 800 days, still a very strong level
- The County's utility liquidity policy states that it will:
  - At a minimum, maintain an amount equal to a 3-year average of total revenues

Fiscal Year	Equity in Pooled Cash & Investments	3 Year Average of Total Revenues
2016	78.2 million	33.3 million
2017	79.3 million	35.7 million
2018	81.6 million	37.6 million
2019	81.0 million	41.5 million
Preliminary 2020	98.0 million	45.4 million





# Preliminary FY2020 Results

***The County expects to end FY 2020 on a strong note, adding \$8.8 million to fund balance due to revenue exceeding FY 2020 Budget and expenditures coming well under FY 2020 Budget.***

	Pre-COVID FY 2020 Adopted	Post-COVID Preliminary FY 2020 Actual	Post-COVID FY 2021 Adopted	FY 2020 Adopted to Prelim FY 2020 % change	Prelim FY 2020 to FY 2021 Adopted % change
<b>REVENUES:</b>					
User Fees	\$34,135,209	\$35,020,688	\$33,929,282	2.53%	-3.1%
Miscellaneous	1,633,287	\$1,776,033	1,699,413	8.04%	-4.3%
BAB Subsidy	494,344	\$497,624	483,658	0.66%	-2.8%
Interest Earnings	175,000	\$1,314,850	225,000	86.69%	-82.9%
Transfers from Other Funds	125,000	\$0	95,000	n/a	n/a
Use of (Addition to) Fund Balance	(2,541,962)	(\$8,798,071)	(762,132)	71.11%	-91.3%
<b>Total</b>	<b>\$34,020,878</b>	<b>\$29,811,124</b>	<b>\$35,670,221</b>	<b>-14.12%</b>	<b>19.7%</b>
<b>EXPENDITURES:</b>					
Personnel	\$11,179,454	\$10,886,099	\$11,366,108	-2.69%	4.4%
Operating	9,599,276	\$8,503,880	10,240,914	-12.88%	20.4%
Capital	960,390	\$427,113	348,207	-124.86%	-18.5%
Debt Service	12,212,658	\$9,924,932	13,714,992	-23.05%	38.2%
<b>Subtotal - Appropriated Expenses</b>	<b>\$33,951,778</b>	<b>\$29,742,024</b>	<b>\$35,670,221</b>	<b>-14.15%</b>	<b>19.9%</b>
Transfers to Other Funds	\$69,100	\$69,100	\$0	0.00%	-100.0%
<b>Total</b>	<b>\$34,020,878</b>	<b>\$29,811,124</b>	<b>\$35,670,221</b>	<b>-14.12%</b>	<b>19.7%</b>



# FY2021 Utility Budget Highlights

- The FY 2021 adopted Utilities Operating Fund budget totals \$35.7 million
  - This represents a 4.8% (\$1.6 million) increase over the FY 2020 adopted Utilities Operating Fund budget
- The FY 2021 adopted Utilities Operating Fund budget focuses on maintenance and existing priorities

	FY 2020 Adopted Budget	FY 2021 Adopted Budget	\$ Change	% Change
<b>REVENUES:</b>				
User Fees	\$34,135,209	\$33,929,282	(\$205,927)	-0.6%
Miscellaneous	\$1,633,287	\$1,699,413	\$66,126	4.0%
BAB Subsidy	\$494,344	\$483,658	(\$10,686)	-2.2%
Interest Earnings	\$175,000	\$225,000	\$50,000	28.6%
Transfers from Other Funds	\$125,000	\$95,000	(\$30,000)	-24.0%
Use of (Addition to) Fund Balance	(\$2,541,962)	(\$762,132)	\$1,779,830	-70.0%
<b>TOTAL REVENUES</b>	<b>\$34,020,878</b>	<b>\$35,670,221</b>	<b>\$1,649,343</b>	<b>4.8%</b>
<b>EXPENDITURES:</b>				
Personnel	\$11,179,454	\$11,366,108	\$186,654	1.7%
Operating	\$9,599,276	\$10,240,914	\$641,638	6.7%
Capital	\$960,390	\$348,207	(\$612,183)	-63.7%
Debt Service	\$12,212,658	\$13,714,992	\$1,502,334	12.3%
<b>SUBTOTAL - APPROPRIATED EXPENDITURES</b>	<b>\$33,951,778</b>	<b>\$35,670,221</b>	<b>\$1,718,443</b>	<b>5.1%</b>
Transfers to Other Fund	\$69,100	\$0	(\$69,100)	-100.0%
<b>TOTAL EXPENDITURES</b>	<b>\$34,020,878</b>	<b>\$35,670,221</b>	<b>\$1,649,343</b>	<b>4.8%</b>



# **IV. Capital Improvement and Debt Management**



# FY2021 Capital Improvement Plan (“CIP”)

- Typically, the Board annually adopts a five-year CIP
  - The first year of the CIP is for implementation and the remaining four years are for planning purposes
- In light of the COVID-19 pandemic, the Board of Supervisors adopted a one-year CIP for FY 2021
  - The County plans on revisiting the out-years of the CIP in the fall

<b>CIP Sources &amp; Uses</b>		<b>FY 2021</b>
Cash		\$9,000,000
Fredericksburg Capital Contributions		\$19,544,825
Bonds		\$24,210,739
<b>Total Sources of Funds</b>		<b>\$52,755,564</b>

General Utility Projects	\$1,500,000
Water Projects	\$8,155,000
Sewer Projects	\$43,100,564
<b>Total Uses of Funds</b>	<b>\$52,755,564</b>

<b>FY 2021 CIP Projects</b>	
Massaponax WWTP expansion	\$19,278,000
Thornburg WWTP expansion	\$7,500,000
FMC to Massaponax conveyance	\$7,140,000
Harrison Road waterline	\$3,000,000
Thornburg distribution improvements	\$2,000,000
Other general projects	\$1,500,000
Other water projects	\$3,155,000
Other sewer projects	\$9,182,564
<b>Total Utilities Capital Projects</b>	<b>\$52,755,564</b>



# Projected Financial Metrics

*The County's projections are derived using conservative assumptions, in line with the County's past practices.*

	Preliminary FY 2020	Projected FY 2021	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025
Gross Revenue	\$39,747,864	\$36,098,696	\$38,111,339	\$39,983,268	\$41,989,932	\$43,960,766
Op Exp	\$19,817,092	\$21,955,229	\$23,140,691	\$23,946,547	\$24,775,223	\$25,627,368
<b>Net Revenues</b>	<b>\$19,930,772</b>	<b>\$14,143,467</b>	<b>\$14,970,648</b>	<b>\$16,036,721</b>	<b>\$17,214,709</b>	<b>\$18,333,398</b>
Availability Fees	\$10,877,210	\$4,113,970	\$4,113,970	\$4,113,970	\$4,113,970	\$4,113,970
<b>Debt Service</b>	<b>\$9,924,932</b>	<b>\$13,231,334</b>	<b>\$14,364,616</b>	<b>\$15,208,819</b>	<b>\$16,117,968</b>	<b>\$17,029,015</b>
<b>Debt Service Coverage</b>	<b>3.10</b>	<b>1.38</b>	<b>1.33</b>	<b>1.32</b>	<b>1.32</b>	<b>1.32</b>
<b>Debt Service Coverage (net of availability fees)</b>	<b>2.01</b>	<b>1.07</b>	<b>1.04</b>	<b>1.05</b>	<b>1.07</b>	<b>1.08</b>
Equity in Pooled Cash & Investments	\$98,000,000	\$78,000,000	\$68,606,032	\$59,433,934	\$60,530,675	\$61,835,058
<b>Days Cash on Hand</b>	<b>1,805</b>	<b>1,297</b>	<b>1,082</b>	<b>906</b>	<b>892</b>	<b>881</b>



# Conservative Assumptions

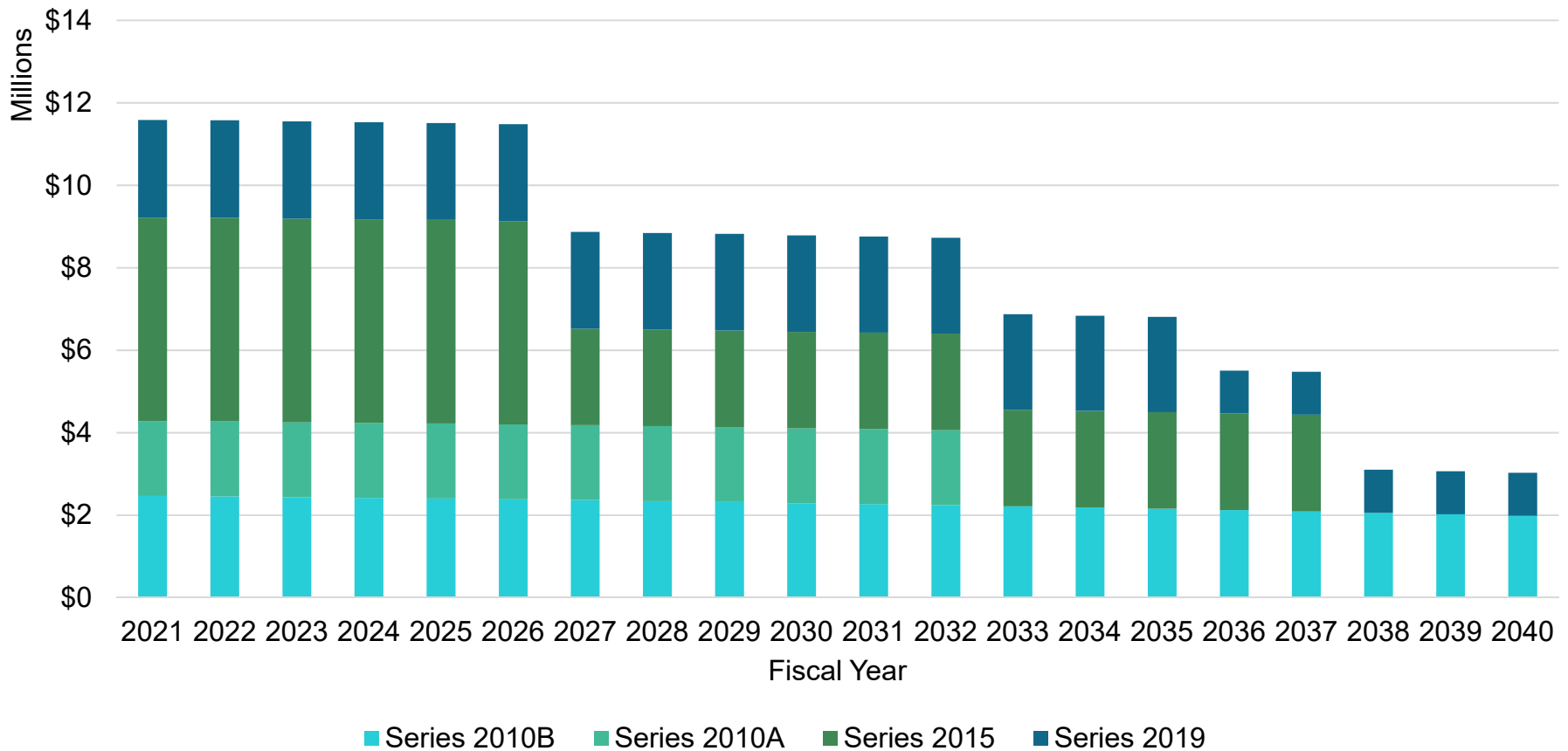
- Assumed debt issuance totaling \$51 million in FY 2022 through FY 2025
- Revenues assume conservative addition of 410 connections per year in out-years; compared to an average of 832 for each of the last three years stemming from development of multiple large apartment complexes near the interstate
- Assume 4% to 5% annual increases in monthly bills to customers beginning in FY 2022
- Out-year compensation adjustments (increase) are assumed at 2.5% and inflation in materials and supplies is assumed at 2.5%



# Annual Debt Service

**As of June 30, 2020, the County had \$115.475 million of outstanding water and sewer revenue bonds.**

Annual Debt Service

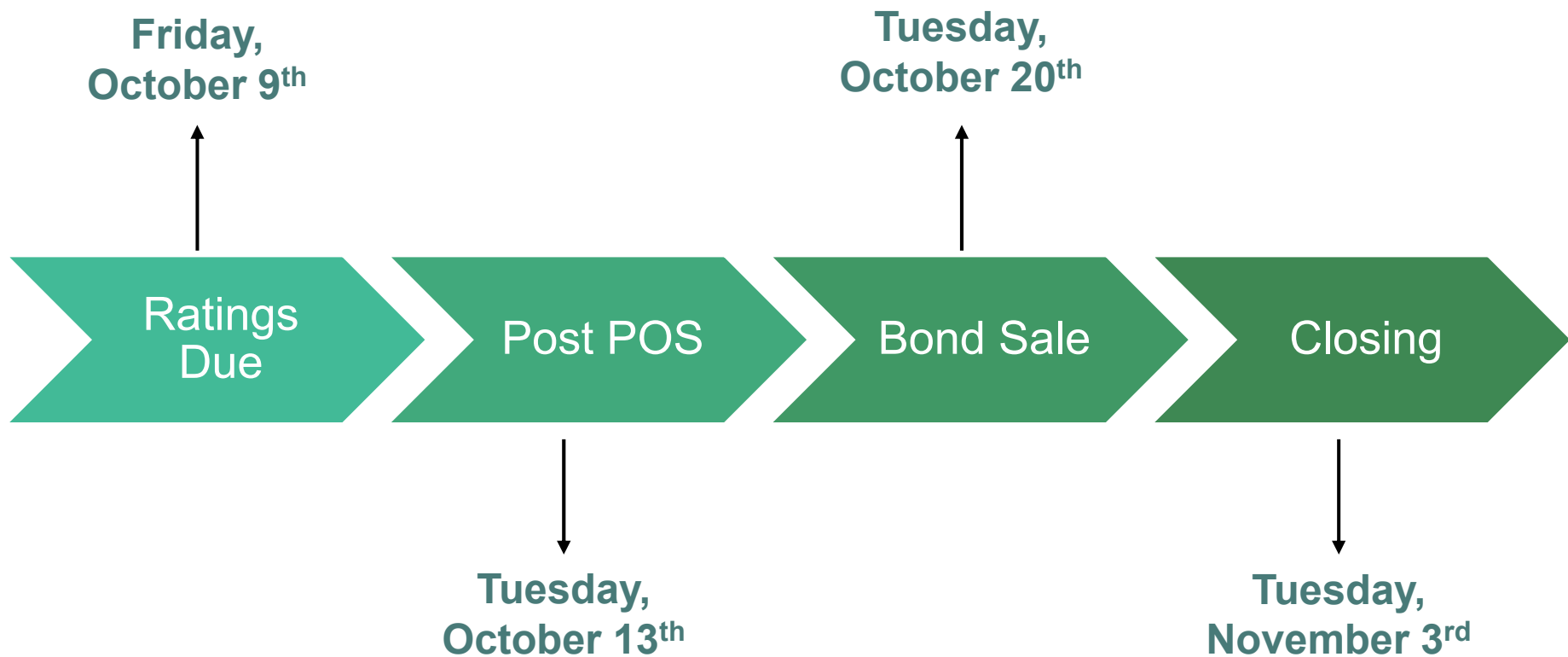






# Water and Sewer Revenue Bonds, Series 2020

- The County intends to fund \$17.33 million in new money projects with the Series 2020 Bonds and refund all outstanding maturities of the Series 2010A and Series 2010B Bonds
- The Debt Service Reserve Fund requirement for the Series 2020 Bonds will be set at \$0
- Estimated par amount of \$47.38 million





# Conclusion

***The County is committed to maintaining a strong financial and operational position of the system for the citizens of Spotsylvania County.***

