

Capital Improvement Program Introduction:

County government provides needed and desired services to the public. In order to provide these services, the County must furnish and maintain capital facilities and equipment, such as roads, parks and schools. The Capital Improvement Program (CIP) is a proposed schedule for the expenditure of funds to acquire or construct needed improvements over the next five-year period along with a planning CIP for years six thru ten.

The Capital Improvement Program is an important component of the County's long range planning process and serves as a planning and implementation tool for the acquisition, development, construction, maintenance, and renovation of public facilities, infrastructure and capital equipment. The first year of the CIP becomes the capital budget and the remaining years provide an estimated, but unfunded, cost of the proposed projects and their anticipated funding sources. The CIP is reviewed annually and the priorities re-evaluated based on conditions and requirements of the community. This forecasting also allows the County to anticipate and plan for future spending requirements, and provides a positive influence on private investment decisions.

In developing its Capital Improvement Program, the County adheres to a set of financial and debt management policies established by the Board of Supervisors. These policies help preserve the County's credit rating and establish the framework for the County's overall fiscal planning and management. Projects are carefully evaluated and prioritized to optimize the use of limited capital funds to meet operational and community needs.

A CIP Development Policy was approved by the Board of Supervisors on Resolution R19-209. A New School Planning Policy for the Development of the CIP was approved by the Board of Supervisors on Resolution R19-183.

Capital Improvement Program:

The first five years of the ten-year plan represents Stafford County's Capital Improvement Program, and years six through ten provides the County's needs assessment. The first year of the CIP becomes the capital budget and the remaining years provide an estimated, but unfunded, cost of the proposed projects and their anticipated funding sources as prioritized by the various review committees in accordance with the Board's guiding principles.

Capital Needs Assessment:

The second five years of the ten year plan represents Stafford County's Capital Needs Assessment. The Capital Needs Assessment helps identify the County's needs beyond the five-year period. This plan is updated every year with the CIP and helps form the basis of the five-year Capital Improvement Program as projects are brought forward. Projects included in the assessment period are not balanced to revenues but are viewed as potential projects in a planning stage.

Capital Improvement Program Introduction:

Benefits of Capital Programming are:

- Eliminates the duplication of project requests and enables the County to take advantage of joint planning and shared County facilities.
- Provides a budgeting tool which anticipates expenditure levels several years in advance to determine revenue needs and appropriate financing strategies.
- Provides a concise central source of information for citizens and land developers to accurately anticipate facilities in Stafford and to make their investment decisions accordingly.
- Assists in the implementation of the Comprehensive Plan.
- Provides a sound and stable financial program.
- Focuses attention on community goals and objectives.
- Overall, the CIP provides a foundation for coordinating and managing programs and expenditures, and assisting the local government in maintaining an excellent level of service to the citizens of Stafford, now and in the future.

Project Descriptions:

Capital Project:

A planned expense for a facility or physical item requiring a minimum expenditure of \$50,000. Has a useful life span of 5 years or more and meets one or more of the following definitions:

- Requires the acquisition or construction of any physical facility for the community.
- Involves the acquisition of land or an interest in land for the community.
- Involves the acquisition or construction of public utilities.
- Involves the ongoing acquisition of major equipment or physical systems, such as, computer technology, radio systems, major specialized vehicles etc.
- Involves modifications to facilities, including additions to existing facilities, which increases the square footage, useful life, or value of the facility; and/or capital maintenance or replacement projects on existing facilities, as defined below.

Capital Repair, Replacement and Rehabilitation Projects:

Repair, replacement and rehabilitation projects (3R), primarily are small scale projects related to current existing physical assets. These projects can extend the useful life of an asset, but not fundamentally change the structure or purpose. These also include repair, replacement and rehabilitation of major mechanical systems such as heating and cooling systems. Upgrades to technology infrastructure and systems can also be considered a 3R project.

The County's 3R projects are funded with current revenue as defined in the Principles of High Performance Financial Management. This funding is normally a minimum 3% of general government expenditures. During the final development of the FY2021 Adopted Budget, and the projected revenue shortfalls due to the COVID-19 Pandemic, the Board reduced the Financial Policy requirements of 3% of general fund recurring revenue to 2%. Staff was directed to look at all projects and determine if they are essential or non-essential. Essential projects include those that are directly related to limiting the loss of life and/or assets. Department leaders from all departments with projects that were proposed, along with the Chief Financial Officer, the Budget Director and the Sr. Budget Analyst met to review all projects. Each department provided support for to determine if a project was essential or supported projects being

pushed out into future years. These departments included: Parks, Recreation and Community Facilities; Fire and Rescue; Sheriff's Department; and Information Technology. This group did not prioritize projects beyond FY2021, as the CIP process will begin again in August for FY2022-31 CIP.

Capital Improvement Program Introduction:

The Budget also leverages the use of capital projects reserve and expired commitments to provide funding to invest in current assets. A list of the projects expensed in the General Fund can be found in the General Fund Expenditures section, within non-departmental and capital projects. This practice of utilizing the budget development process to fund projects is considered to provide the management, the Board and the citizens with a comprehensive list of needs and the resources to address those needs. This initiative supports the Board's priorities for infrastructure and fiscal responsibility.

Approximately \$5M in bond funding and \$1.4M in current revenue is allocated to the School's 3R projects annually. The funding source is bond funding through the Virginia Public School Authority program. The School's 3R projects are identified and prioritized by School staff and are presented to the School Board for approval.

Funding Sources:

There are a number of different funding sources available for the various types of projects included in the Capital Improvements Program (CIP). This section outlines some of the more common funding sources used in the CIP.

Bonds:

Bonds are usually for projects requiring initial capital outlays which exceed current revenue available in the short term. Bonds include general obligation debt, which requires a referendum, as well as lease/revenue bonds, which require only authorization by the Board of Supervisors after a public hearing.

Virginia Public School Authority (VPSA) funds can only be used to support the construction of school facilities. Similarly, Literary Fund allocations, when available, can be designated to projects for new school construction.

Current Revenue/Pay-As-You-Go:

Cash capital funding comes from annual appropriations and is part of the adopted operating budget. Projects that are typically smaller in scale such as minor renovations and upgrades are likely candidates for Cash Capital funding as long as the project has an expected useful life of at least five years or more. This type of funding provides the greatest flexibility since it:

- Has no debt service cost to be paid on the expenditure
- Is available at the start of the fiscal year
- Does not have to be approved through a referendum
- Can be carried over at the end of each fiscal year

Funding Sources:

Cash Proffers:

Funds negotiated at the time of rezoning to help defray the capital costs associated with resultant development. As funds are collected over time, appropriations are used for specific capital facility needs.

Funding Sources:

Capital Project Reserve:

Funds reserved from County operating revenues for capital projects.

Master Lease:

Master Lease financing represents another source of capital financing to acquire equipment, vehicles, and technology purchases that have useful lives ranging from three to ten years. Master lease financing is very flexible, allowing the County to finance projects with minimal transaction costs and on an “as needed” basis over the term of the master lease. Because of the short-term maturities of master lease financing, interest rates are typically lower than rates on long-term bonds. Below is a summary of the master lease projects and the County’s availability limit for the five-year plan:

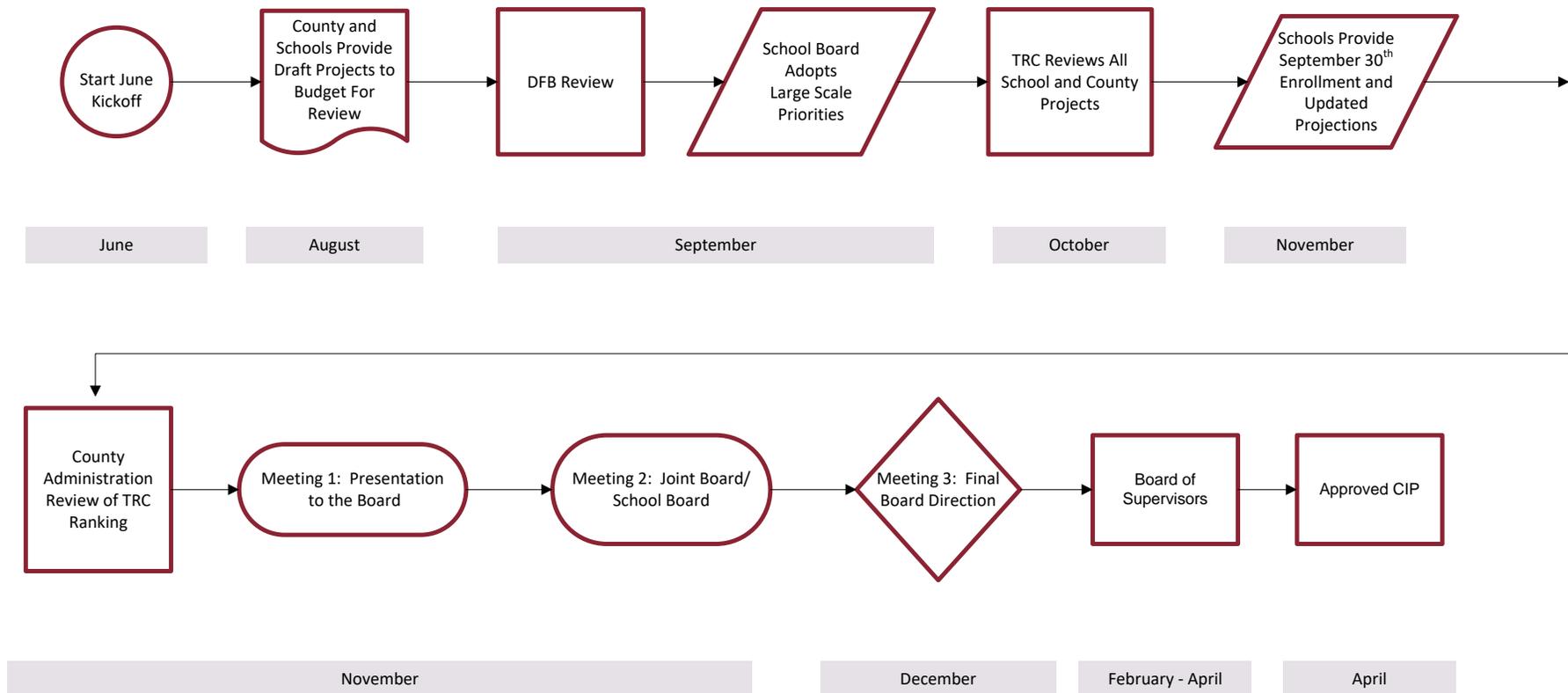
Project	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Replacement Engine	767,000	802,000	1,652,000	851,000	877,000	903,000	930,000	958,000	987,000	1,017,000
Replacement Tanker		884,000								
Replacement Heavy Rescue	1,343,000							1,676,000		
Replacement Fire Boat	341,000							425,000		
Equipment of Fire Boat								42,000		
Equipment for Engines	88,000	92,000	192,000	99,000	102,000	105,000	108,000	111,000	114,000	117,000
Equipment for Heavy Rescue	131,000							163,000		
Replacement Lucas System	270,000								1,040,000	
Replacement LifePak15									2,610,000	
Replacement LifePak CR and AEDs							180,000			
Replacement SCBA Equipment							3,773,000			
Total	2,940,000	1,778,000	1,844,000	950,000	979,000	1,008,000	4,991,000	3,375,000	4,751,000	1,134,000
Dedicated Real Estate Tax Revenue	154,815	200,314	206,323	212,513	218,888	225,455	232,219	239,185	246,361	246,362
Total Master Lease Borrow	2,785,185	1,577,686	1,637,677	737,487	760,112	782,545	4,758,781	3,135,815	4,504,639	887,638
Capacity	9,745,000	788,000	801,000	3,952,000	840,000	3,380,000	874,000	1,878,000	1,897,000	922,000
Cumulative surplus/(deficit)	6,959,815	6,170,129	5,333,452	8,547,965	8,627,853	11,225,308	7,340,527	6,082,712	3,475,073	3,509,435

Development of the Capital Improvement Program:

As shown below, the CIP is a collaborative process among a number of departments within the County and Schools. The Department of Finance and Budget provides information concerning the County’s past, present and future financial resources. The department prepares and distributes the package utilized by departments and agencies to submit project requests. The planning phase begins with a detailed review of the ten-year needs and as the program develops, Finance and Budget assists in the review and evaluation of project submissions. The CIP process takes approximately ten months each planning cycle.

CIP Development Flowchart

CIP Capital Improvement Program
 TRC Technical Review Committee
 DFB Department of Finance and Budget



Capital Improvement Program Calendar:

<u>August</u>	
Monday, August 16, 2019	CIP-All requests for County and School CIP projects due
<u>September</u>	
Tuesday, September 10, 2019	CIP-School Board Meeting – adopts the CIP priorities
Monday, September 16, 2019	TRC receives projects
Monday, September 30, 2019	CIP - TRC meeting - Review all Schools Projects
<u>October</u>	
Monday, October 01, 2019	CIP - TRC meeting - Review all Public Works Projects
Friday, October 04, 2019	CIP - TRC meeting - Review all Public Safety Projects
Monday, October 07, 2019	CIP - TRC meeting - Review all Parks Projects
Tuesday, October 8, 2019	CIP - TRC meeting - Review all General Government Projects
Friday, October 11, 2019	CIP - TRC meeting - Review of all Transportation Projects
Tuesday, October 15, 2019	CIP Joint School Board and Board of Supervisors meeting to review School Board CIP priorities
<u>November</u>	
Wednesday, November 06, 2019	CIP - School submits updated enrollment projections to TRC for review
Tuesday, November 19, 2019	Debt capacity, CIP, and Five-Year comparison of Sept. 30 enrollment projections to the Board of Supervisors
Thursday, November 21, 2019	CIP Work Session on CIP Projects overview and project review
<u>December</u>	
Thursday, December 3, 2019	CIP Work Session Joint Board/School Board meeting to review projects
Tuesday, December 17, 2019	Final recommendations on the Five Year Financial Plan and CIP Work Session Final Board Review
<u>February</u>	
Tuesday, January 18, 2019	Presentation of Proposed Budget and CIP to Board of Supervisors
<u>March</u>	
Tuesday, March 03, 2019	Board authorizes Public Hearings for the FY2021 Budget, the CY2020 tax rates, CIP, and VPSA bond borrow
Tuesday, March 24, 2019	Budget Work session Debt, Financial Policy Limitations (debt capacity), and CIP
Thursday, March 26, 2019	Budget Work session: Review of debt, financial policy limitations (debt capacity), and CIP, if needed

Capital Improvement Program Calendar:

April

Tuesday, April 07, 2019

Budget, Tax Rate and CIP Public Hearings

Tuesday, April 21, 2019

Budget Work Session and adopt the FY2021 Budget, CIP, CY2020 Tax Rates

Project Request:

Each year, representatives of County departments, offices and agencies and the Stafford County Public Schools are asked to submit a Capital Improvements Project (CIP) request form. The completed forms provide a detailed project description, justification, cost projections, and a statement of impact on the County’s and School’s operating budgets.

Projected costs are determined using historical or current costs for similar projects based on engineering or architectural estimates when available. An average annual escalation assumption is included for all projects.

New projects should include the following:

- A CIP justification package - based on standards, comparisons, metrics, methodologies and objective study to justify the need and timing for capital improvements. This includes: the Comprehensive Plan, School capacity projections, vehicle and apparatus replacement criteria, facility maintenance and replacement needs assessment, long range space studies, facility master planning; and/or strategic plans.
- Program Description - The description should provide sufficient detail to permit a full understanding of the nature and scope of the project and include, but not be limited to the function or goal served, and the location (include an illustration, map or photograph, if appropriate). Also include in the program description a discussion of project need; the function a project will serve; the reason a project is requested for a specific time; a discussion of the project as it relates to department objectives and the relationship of the project to long term County goals as defined by the Comprehensive Plan.

Project Request:

- Operating Impact Summary - All CIP projects include a section that identifies operating budget impacts that will be incurred as a result of project implementation during the ten-year CIP period. Examples of annual operating budget impacts would include, but are not limited to maintenance, personnel, supplies, and utilities associated with the project. This calculation should estimate the annual cost for the capital project. This estimate should be included in the five-year operating budget included in the proposed budget for the upcoming year. Include any cost savings or improved efficiencies resulting from the proposed project. The purpose of assessing and displaying these impacts is to identify foreseeable demands on the operating budget as a result of project completion. Include any cost savings or improved efficiencies as a result of the proposed project
- Project Cost Estimates – The schedule should include the following phases:
 - Land: any actual or projected costs pertaining to the acquisition of land for a project, including appraisal fees, land costs, closing costs, and recording fees. Estimate acres and cost if firm figures are not known.

- Construction: any actual or projected cost for construction of a project, including site preparation or grading, erection and finishing of structures, and any other on-site items such as roads, parking, curb and gutter, water and sewer, storm drains, and landscaping.
- Planning and Design: any costs, actual or projected, for planning, architectural, or engineering fees. If a specific amount is not known, estimate these costs by taking ten percent of site development and construction costs.
- Equipment: any costs, actual or projected, for furniture, fixtures, or equipment that is required in the facility but not included in the construction of the structure.
- Hardware/Software: any costs, actual or projected, of any computer hardware or software associated with the project.
- Project Management: any costs for personnel and operating costs needed for project or contract management during the life of the project.
- Other: cost estimates for projects or project elements that do not fit in the above categories.

Updated projects should include the following:

- Project amendments to include a brief description
- Updated cost calculations based on current market or program clarifications
- Change in an existing approved project
- Change based on revenue projections

Review Process:

Initial Staff Review:

Finance and Budget Department staff compiles the submitted project requests and verifies the accuracy of the anticipated project costs and operating impact. The requests are extensively reviewed by the County Public Works Department (PW) and Department of Parks, Recreation and Community Facilities (PRCF) to verify the accuracy, adequacy and completeness of project descriptions, project cost, and funding requests. The Capital Improvement Program review schedule provides for a four week review period for any project in the CIP requiring construction.

Review Process:

Technical Review Committee:

The TRC ranks the projects based on established criteria. The ranking process allows projects to be added in a systematic, objective manner. Available revenues, the Board's Guiding Principles and Priorities, and financial policies guide project inclusion in the Capital Improvement Program. The Technical Review Committee reports its recommendations to the Board of Supervisors.

The Capital Program Technical Review Committee will assist the County in the Capital Program process by assuring that the technical aspects and costs of each of the requested projects have been well researched and documented. The team will also review, evaluate and document the need for each project and make recommendations for priority funding based on the established Capital Project Evaluation Criteria. The Capital Program Technical Review Committee will report their recommendations to the County Administrator and the Board of Supervisors.

TRC Members Responsibilities:

- Review all project requests for clarity, accuracy and appropriate timing;
- Meet with project submitters to clarify requests and propose revisions, if needed;
- Rank requested projects based on established evaluation criteria;
- Review available revenues and debt service requirements for project requests based on approved County financial policies;
- Prioritize projects based on their ranking and available revenues;
- Determine if projects should be considered a 3R project;
- Together with the Department of Finance and Budget develop a recommended CIP based on revenue projections provided by Department of Finance and Budget;
- Review updated school enrollment projections to determine if variances in the recommendation need to be made;
- Forward the joint recommendation to the County Administrator

TRC Members:

- County Budget Director, Department of Finance and Budget (Committee Co-Chair)
- Deputy Director, Department of Public Works (Committee Co-Chair)
- Senior Planning staff, Department of Planning & Zoning
- The County Administrator may designate up to two personnel each CIP cycle to participate in the TRC. This will ensure that the process allows for new perspectives. These participants may be from County or School staff.

Review Process:

Established Project Evaluation Criteria:

Project evaluation criteria have been established and are used by the committees to review and evaluate all capital projects and their cost estimates. All projects are evaluated against various factors which the submitting department/agency is asked to address on each of the CIP forms.

All submitted or proposed Capital Improvement Projects will be subject to ranking in the following areas of emphasis:

- Health and Safety (20%)
- Impact on Operational Budget (20%)
- Special Considerations and Regulatory Compliance (15%)
- Economic and Community Development (15%)
- Quality of Life (10%)
- Infrastructure and Capacity (20%)

Review of 3R Projects:

As defined by the process, projects that are considered to be 3R will have different scoring criteria. Emphasis in the CIP will be given to maintaining current assets. The first five years of the CIP will have scored projects that are balanced with offsetting revenues. Consideration for the following will be included:

- Does the project increase infrastructure capacity to meet existing deficiencies to service the existing population? (20%)
- Does the project eliminate a risk or hazard to public health and/or safety that endangers that population area? (20%)
- Does the project preserve or extend the life of an existing asset? (30%)
- Will failure to do the project or delaying the project have major impacts on other projects or programs? (10%)
- Is the need for the project supported through studies? (20%)

Guiding Principles for the TRC:

Guiding principles have been established for the Technical Review Committee. These principles will be incorporated into the scoring and evaluations of projects.

- New high schools will be proposed at 2,150 seats.
- Projects approved in previous CIP's that will begin in the next fiscal year will not be part of the Technical Review Committee's review.

Review Process:

Board of Supervisors Policy Review:

Prior to the Board's Review, the Board will receive the TRC's recommendation. The CIP projects that have been ranked by the TRC and reviewed by the County Administrator will be presented to the Board in November. The purpose of this presentation will be to gather the Board's direction to incorporate into the CIP that the County Administrator proposes in conjunction with the annual operating budget.

CIP Recommendation:

The County Administrator's recommended CIP is reviewed by the Board of Supervisors for projects to be funded in the upcoming fiscal year during the annual budget process. The projects approved for funding in the current budget year become that year's Capital Budget. Those projects approved for funding in the subsequent years will serve as a guide to ongoing project planning and preparation of the following year's CIP.

Policies:

Financial Policy:

The CIP is developed to be consistent with The County's Principles of High Performance Financial Management, which were last update by Resolution R19-182 on June 4, 2019.

New debt requires the County operating budget to absorb the increased debt service and any operating costs associated with the capital project. Prior to the issuance of any new debt, consideration will be given to current economic and budgetary conditions. The County is working to reduce reliance on debt by increasing other types of funding for capital projects. The County has established the following policies to assist management with financial decisions.

Capital Improvement Program (CIP) and Bonded Debt Service Affordability Guidelines:

- A five-year balanced CIP allocating capital improvement funds along with a planning CIP for years six – ten developed between the Schools and General Government will be adopted annually. A projection of changes to the tax rate will be included to help inform the Board of possible impacts of decisions.
- Capital Improvement projects for County and Schools are items for which the purchase, construction, renovation, non-recurring replacement, expansion, or the acquisition represents a public betterment and adds to the total physical worth of Stafford. Projects include, but are not limited to, expenditures for land, new structures, major repairs and renovations; maintenance of existing structures; and expenditures for machinery, equipment and vehicles. Each project funded by long term bonds should have a total cost of \$500,000 or more. Bond funded expenses include land acquisition, legal, planning, design and construction costs.
- In any year when debt service decreases from the prior year, the resulting budget savings will be used to fund one time capital needs or retained for future debt service.
- Year-end money and funds in the Capital Projects Reserve will be utilized during the budget process, and will be allocated in the CIP on projects that have been prioritized using the CIP criteria and process.
- To provide oversight over project budgets, the Board will generally appropriate by project phase (e.g. design, construction, FF&E) and may withhold from appropriation a portion of contingency funds until such time as the need for them is ascertained.

Policies:**Proffer Guidelines:**

Development proffers can be a valuable asset towards funding capital projects in the County's CIP. Proffers are voluntary off-sets for new development to mitigate its capital facilities impacts. Proffers are derived from for individual zoning reclassifications of properties. Proffers are negotiated on a case by case basis between the Board of Supervisors and a land development applicant. Proffers benefiting the CIP usually take two forms 1) cash payments and 2) land dedications. The most prevalent type of proffer received by the County is cash payments.

State Code regulates when and how proffers can be accepted by the County and what they can be used for. Proffers are intended to minimize capital facilities impacts and cannot be used to off-set operating costs or maintenance. Proffers must be used for facility improvements that will increase capacity to serve the new development. Some proffers are designated to specific capital projects. The use of those designated funds would be restricted to the specified capital facility. Cash proffer payments can only be collected at time of final inspection for a new home or business. As a result, payments cannot be considered a reliable funding source. They are made to the County as development occurs and are subject to market conditions and decisions made by individual developers. For CIP planning purposes, the County must project when proffer payments are made.

The County is limited in its ability to expend proffer funds. Expenditure of proffer funds are not only limited to capital facilities but, can only be applied to projects within the CIP. There is a time limit for which proffer funds must be expended. The County has 12 years to expend proffer funds from the date of collecting all proffered payments associated with a specific zoning reclassification. If those funds are not expended, they must be forfeited to the Virginia Commonwealth Transportation Board to be used for construction of road improvements in the County.

CAPITAL IMPROVEMENT PROGRAM

FY2021 Adopted Budget

The state monitors the County's use of proffers. The County is required to provide an annual report to the state on its activities regarding proffers. The County reports to the Virginia Commission on Local Government 1) the aggregate amount of cash proffer payments collected, 2) estimated dollar amount of proffered pledged to the County, and 3) the amount of proffer payments expended. The expended funds report must be broken out by type of public facility. Funds are not expended by the County until the Board of Supervisors has appropriated them to the Capital Budget for an eligible project.

In accordance with Section 15.2-2303.2 (B) of the Code of Virginia, localities are required to include in their capital improvement program a copy of the Survey of Cash Proffers accepted by local governments during the most recent fiscal year.

The table below provides details regarding proffer allocations for FY2019.

	Available Proffer Balance FY2018	Proffers Received in FY2019	Proffers Budgeted and Appropriated in FY2019	Available Proffer Ending Balance FY2019
Schools	\$2,506,260	\$1,949,640	\$0	\$4,455,900
Roads	2,119,146	2,879,974	0	4,999,120
Parks and Recreation	1,210,623	516,612	105,000	1,622,235
Libraries	508,970	72,038	0	581,008
General Government	211,815	0	0	211,815
Fire and Rescue	894,490	318,882	0	1,213,372
Government Center	5,762	6,133	0	11,895
Landfill	813	0	0	813
Other	1,677,488	1,163,383	0	2,840,871
Total	\$9,135,367	\$6,906,662	\$105,000	\$15,937,029

Policies:

Coordinating Capital Budget with Operating Budget:

Operating impacts associated with CIP projects are estimated at the time the project is initially submitted for review. Impacts are broken down into personnel and operating expenses. These impacts are reviewed and updated annually. In the year the project is scheduled to be completed or implemented, costs are moved into the department’s operating budget. See below for summary of all operating budget impacts:

Operating Impacts Summary	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Plan	Future Years
Personnel	0	333,000	340,000	347,000	828,000	6,770,000	6,905,000	7,151,000	7,893,000	8,810,000	1,848,000	37,529,000
Operating	0	223,000	196,000	202,000	1,782,000	2,046,000	1,477,000	1,519,000	1,563,000	3,716,000	2,403,000	10,321,000
Total Personnel and Operating	\$0	\$556,000	\$536,000	\$549,000	\$2,610,000	\$8,816,000	\$8,382,000	\$8,670,000	\$9,456,000	\$12,526,000	\$4,251,000	47,850,000

- Operating impacts of \$556K in FY22 and are associated with the Sheriff’s 3R Body Camera project in FY21 and assumes there will be additional personnel and maintenance costs related to this project that will impact the FY2022 budget.

Debt Service Impacts:

The financial policies define the County’s maximum debt. As part of the efforts to improve the County’s bond rating, the Board amended its financial policies in June 2019. Debt limitations are as follows:

- General obligation debt shall not exceed 2.75% of the assessed valuation of taxable real property.
- General fund debt service expenditures (County and Schools) shall not exceed 10% of the general government and schools operating budgets.
- The County intends to maintain a 10-year pay-out ratio at or above 60%. To the extent possible, future debt for County facilities will be issued with level principal payments.
- When the County finances capital improvements or other projects through bonds or capital leases, it will repay the debt within a period not to exceed the expected useful life of the projects.
- Debt ratios do not include debt to be repaid from identified revenue sources outside the General Fund. In the case of special service districts, the Board of Supervisors intends to set tax rates to cover any debt to be funded with the revenue.
- Capital lease debt service shall not exceed 1% of the general government budget. Capital lease debt may only be used if all the following four criteria are met:
 1. Capital lease purchase is eligible under state law for such financing;
 2. Useful life of the purchase equals or exceeds the term of the debt;
 3. Total purchase exceeds \$100,000; and
 4. Sufficient funds are available to service the capital lease debt.

Debt Service Impacts:

Although the adopted CIP will add an additional \$355,153,794 in bond funded debt over the ten-year period, the additional debt to be incurred for these projects would still be below the County’s guidelines.

Debt Capacity Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Plan	All Years
Total Borrow	9,445,359	12,719,870	51,034,190	59,093,440	33,092,378	22,738,210	10,963,956	62,262,429	53,850,892	39,953,070	148,854,177	355,153,794
Debt Capacity	86,539,000	33,886,000	34,983,000	30,011,000	13,906,000	24,366,000	12,095,000	28,429,000	54,602,000	50,946,000	199,325,000	369,763,000
Cumulative (Deficit)/Surplus	77,093,641	98,259,771	82,208,581	53,126,141	33,939,763	35,567,553	36,698,597	2,865,168	3,616,276	14,609,206	33,939,763	14,609,206

Total Debt Service:

The following chart illustrates the year to year adjustment in the County’s total debt.

Debt Service Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 year Balanced CIP	5 Year Planning Period	Total
Existing Debt Service for Governmental Funds	43,103,170	40,857,228	38,816,247	36,707,675	35,135,122	34,927,838	33,862,715	33,355,675	31,708,501	27,718,661	194,619,443	161,573,389	356,192,832
Debt Service Approved Not Borrowed	1,041,560	2,447,489	2,447,489	2,447,489	2,447,489	2,447,489	2,447,489	2,447,489	2,447,489	2,447,489	10,831,514	12,237,443	23,068,957
New Debt Service	0	1,243,000	2,613,000	7,166,000	12,301,000	15,244,000	17,334,000	19,355,699	25,040,699	30,585,889	23,323,000	107,560,288	130,883,288
Total Debt Service	44,144,730	44,547,717	43,876,736	46,321,164	49,883,610	52,619,326	53,644,204	55,158,863	59,196,689	60,752,038	23,323,000	107,560,288	130,883,288

CAPITAL IMPROVEMENT PROGRAM

FY2021 Adopted Budget

Summary of all Funding Sources:

Projected Sources	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 year Balanced CIP	5 Year Planning Period	Total Projected Sources (Includes PY)
Debt Funding Sources														
County Bond Proceeds	0	0	0	0	0	0	0	0	41,190,716	24,417,725	50,000	0	65,658,441	65,658,441
School Bond Proceeds	0	9,445,359	11,461,000	44,242,000	55,983,440	27,722,378	6,839,270	6,293,956	8,171,713	29,433,167	39,903,070	148,854,177	90,641,176	239,495,353
Transportation Funding	0	0	1,258,870	6,792,190	3,110,000	5,370,000	15,898,940	4,670,000	12,900,000	0	0	16,531,060	33,468,940	50,000,000
Master Lease	0	2,785,185	1,577,686	1,637,677	737,487	760,112	782,545	4,758,781	3,134,815	4,080,639	887,638	7,498,147	13,644,419	21,142,565
Total Debt Funding Sources	\$0	\$12,230,544	\$14,297,556	\$52,671,867	\$59,830,927	\$33,852,490	\$23,520,755	\$15,722,737	\$65,397,244	\$57,931,531	\$40,840,708	\$172,883,384	203,412,976	\$376,296,359
County Sources														
County 3R	0	2,659,336	3,081,763	3,526,906	3,995,985	4,057,034	4,299,735	4,763,477	4,906,382	5,053,573	5,205,180	17,321,024	24,228,347	41,549,371
Use of Prior Year Fund Balance General Fund	2,767,000	564,000	300,000	0	0	0	0	0	0	2,127,163	0	3,631,000	2,127,163	5,758,163
Proffers	0	176,000	251,000	834,330	690,000	2,185,760	170,000	199,888	1,282,048	967,442	0	4,137,090	2,619,378	6,756,468
State Grants	0	0	987,000	0	0	0	0	0	0	200,000	0	987,000	200,000	1,187,000
Asset Forfeiture	0	101,000	0	0	0	0	0	0	0	0	0	101,000	0	101,000
Net Sale from Boat Property	0	0	0	0	0	0	0	0	0	5,600,000	0	0	5,600,000	5,600,000
Radio Funding	0	346,419	0	0	0	0	0	0	0	0	0	346,419	0	346,419
Dedicated Real Estate Tax Revenue	0	188,815	200,314	206,323	212,513	218,888	225,455	232,219	239,185	246,361	246,362	1,026,853	1,189,581	2,216,435
Total County Sources	\$2,767,000	\$4,035,570	\$4,820,077	\$4,567,559	\$4,898,498	\$6,461,682	\$4,695,190	\$5,195,584	\$6,427,615	\$14,194,539	\$5,451,542	\$27,550,386	\$35,964,469	\$63,514,856
Transportation Sources														
Current Revenue - County	1,275,200	620,959	711,310	0	0	0	0	0	0	0	0	2,607,469	0	2,607,469
Use of Prior Year Fund Balance Transportation	5,747,761	0	0	600,000	400,000	0	0	0	25,000	0	0	6,747,761	25,000	6,772,761
Proffers	1,087,603	1,202,230	0	0	0	0	0	0	0	0	0	2,289,833	0	2,289,833
Service District	326,026	1,881,354	0	368,740	25,500	0	0	0	0	700,000	0	2,601,620	700,000	3,301,620
TAP - Transportatin Alternative Program	790,916	1,865,084	0	19,260	754,500	803,200	0	0	0	0	0	4,232,960	0	4,232,960
CMAQ - Congestion Mitigation and Air Quality	0	0	0	787,339	0	1,362,642	0	0	0	0	0	2,149,981	0	2,149,981
RSTP - Regional Service Transportation Program	0	0	86,762	25,000	0	2,543,921	0	0	0	0	0	2,655,683	0	2,655,683
Smart Scale	3,024,800	9,146,300	0	2,367,370	500,000	4,285,091	1,513,430	0	11,600,000	0	7,595,000	19,323,561	20,708,430	40,031,991
Fuel Tax	588,890	126,110	0	0	0	0	0	0	0	0	0	715,000	0	715,000
Revenue Sharing	2,989,324	7,212,610	952,440	7,792,190	1,500,000	2,730,000	6,537,630	730,000	6,900,000	8,500,000	8,300,000	23,176,564	30,967,630	54,144,194
Impact Fees	0	0	1,113,238	120,291	0	108,346	0	0	0	0	0	1,341,875	0	1,341,875
	\$15,830,520	\$22,054,647	\$2,863,750	\$12,080,190	\$3,180,000	\$11,833,200	\$8,051,060	\$730,000	\$18,525,000	\$9,200,000	\$15,895,000	\$67,842,307	\$52,401,060	\$120,243,367
School Sources														
Current Revenue & County Designated 3R	0	1,445,865	1,445,865	1,445,865	1,445,865	1,091,000	1,445,865	1,257,000	1,273,000	1,445,865	1,445,866	6,874,460	6,867,596	13,742,056
Use of Prior Year Fund Balance General Fund	0	1,833,476	24,885	395,735	69,110	0	354,865	0	170,135	145,134	2,323,206	670,134	2,993,340	
Proffers	0	0	0	0	0	2,048,622	0	0	0	6,853,053	1,000,000	2,048,622	7,853,053	9,901,675
Nutrition Capital Funding	0	125,000	131,000	135,000	139,000	143,000	0	0	0	0	0	673,000	0	673,000
Total School Sources	\$0	\$3,404,341	\$1,601,750	\$1,976,600	\$1,653,975	\$3,282,622	\$1,800,730	\$1,257,000	\$1,273,000	\$8,469,053	\$2,591,000	\$11,919,288	\$15,390,783	\$27,310,071
Total Projected Sources	\$18,597,520	\$41,725,102	\$23,583,133	\$71,296,216	\$69,563,400	\$55,429,994	\$38,067,735	\$22,905,321	\$91,622,859	\$89,795,123	\$64,778,250	\$280,195,365	\$307,169,288	\$587,364,653

CAPITAL IMPROVEMENT PROGRAM

FY2021 Adopted Budget

Summary of all Projects:

Projects by Functional Area	Completion											5 year Balanced CIP	5 Year Planning Period	Total Projected	
	Date	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029				FY2030
3R Projects FY22 through FY30 to be determined		0	0	2,729,763	3,526,906	3,995,985	4,057,034	4,299,735	4,763,477	4,906,382	5,053,573	5,205,180	14,309,688	24,228,347	38,538,035
Information Technology															
3R Information Technology		0	993,500	0	0	0	0	0	0	0	0	0	993,500	0	993,500
Judicial															
Courthouse		2,600,000	0	0	0	0	0	0	0	41,343,191	8,143,900	0	2,600,000	49,487,091	52,087,091
Public Safety															
Fire Rescue															
Public Safety Joint Training Center		0	0	0	0	0	0	0	199,888	1,129,573	10,192,430	0	0	11,521,891	11,521,891
3R Ambulance Replacement		0	610,000										610,000		610,000
Apparatus Replacement		0	2,975,000	1,778,000	1,844,000	950,000	979,000	1,008,000	1,038,000	3,374,000	1,101,000	1,134,000	8,526,000	7,655,000	16,181,000
Station Rebuild Placeholder		0	0	0	0	0	0	0	0	0	14,976,000	0	0	14,976,000	14,976,000
Cardiac Equipment Replacement		0	270,000	0	0	0	0	0	3,953,000	0	3,226,000	0	270,000	7,179,000	7,449,000
3R Station Repairs and Maintenance		0	0	0	0	0	0	0	0	0	0	0	0	-	0
Sheriff															
3R Sheriff		0	674,255	0	0	0	0	0	0	0	0	0	674,255	-	674,255
Body Camera		0	101,000	0	0	0	0	0	0	0	0	0	101,000	-	101,000
Stormwater															
Brooks Park Stream Restoration		167,000	0	1,639,000	0	0	0	0	0	0	0	0	1,806,000	0	1,806,000
Parks Recreation and Cultural															
Library #4		0	0	0	0	0	0	0	0	0	0	50,000	-	50,000	50,000
Carl Lewis		0	0	0	71,000	520,000	0	0	0	0	0	0	591,000	-	591,000
Patawomeck Park		0	88,000	75,000	763,330	0	0	0	0	0	0	0	926,330	-	926,330
Mountain View Park		0	0	88,000	0	85,000	1,405,000	0	0	0	0	0	1,578,000	-	1,578,000
Musselman Park		0	88,000	0	0	85,000	780,760	170,000	0	0	0	0	953,760	170,000	1,123,760
Duff Park		0	0	88,000	0	0	0	0	0	0	0	0	88,000	-	88,000
3R Parks Recreation		0	95,000	0	0	0	0	0	0	0	0	0	95,000	-	95,000
3R Community Facilities and Asset Management		0	926,000	0	0	0	0	0	0	0	0	0	926,000	-	926,000
Transportation															
Belmont - Ferry Farm Trail (Phase 6)		850,000	1,820,000	0	0	0	0	0	0	0	0	0	2,670,000	0	2,670,000
Courthouse Road and Route 1 Intersection Improvement		8,065,000	10,655,200	0	0	0	0	0	0	0	0	0	18,720,200	0	18,720,200
Enon Road and Route 1 Improvements		0	0	1,200,000	3,300,000	0	6,100,000	0	0	0	0	0	10,600,000	0	10,600,000
Roadway Safety/Widening Improvements		588,890	126,110	0	0	0	0	0	0	0	0	0	715,000	0	715,000
Route 1 & Telegraph Rd/Woodstock Ln Improvements		4,300,000	4,500,000	0	0	0	0	0	0	0	0	0	8,800,000	0	8,800,000
Stefaniga Road and Mountain View Road Intersection Improvements		0	0	0	600,000	900,000	2,200,000	0	0	0	0	0	3,700,000	0	3,700,000
Tech Center Drive		0	0	0	0	0	0	0	0	25,000	0	0	-	25,000	25,000
Garrisonville Road Widening (Eustance Rd to Shelton Shop Rd)		0	0	0	0	0	2,500,000	7,000,000	1,500,000	18,500,000	0	0	2,500,000	27,000,000	29,500,000
Layhill Road Improvements		0	0	0	0	1,050,000	2,200,000	5,250,000	0	0	0	0	3,250,000	5,250,000	8,500,000
Leeland Road Widening		0	0	1,422,620	5,584,380	0	0	0	0	0	0	0	7,007,000	0	7,007,000
Morton Road Widening		0	0	0	1,000,000	2,060,000	3,400,000	0	0	0	0	0	6,460,000	0	6,460,000
Mountain View Road Improvement (Kellogg Mill Rd to Choptank Rd)		0	0	0	0	0	0	0	2,300,000	7,000,000	1,000,000	15,895,000	-	26,195,000	26,195,000
Onville Road Widening		0	0	0	0	0	0	0	1,600,000	5,900,000	8,200,000	0	-	15,700,000	15,700,000
Shelton Shop Road Improvements		0	0	1,500,000	8,000,000	1,500,000	0	11,700,000	0	0	0	0	11,000,000	11,700,000	22,700,000
Berea Church Road (SR-654) Improvements		1,896,500	4,433,467	0	0	0	0	0	0	0	0	0	6,329,967	0	6,329,967
Flatford Road Sidewalk		130,130	519,870	0	0	0	0	0	0	0	0	0	650,000	0	650,000
Salisbury Drive Sidewalk		0	0	0	198,000	280,000	415,700	0	0	0	0	0	893,700	0	893,700
Staffordboro Boulevard Sidewalk		0	0	0	190,000	500,000	387,500	0	0	0	0	0	1,077,500	0	1,077,500

Summary of all Projects (Continued):

Projects by Functional Area	Completion Date	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 year Balanced CIP	5 Year Planning Period	Total Projected
Education															
Schools 3R Bonds		0	5,022,700	6,961,000	5,042,000	6,212,440	5,027,000	5,714,270	5,028,000	5,544,000	5,053,000	4,698,000	28,265,140	26,037,270	54,302,410
Schools 3R Cash & Nutrition Capital Funding			2,527,000	1,601,750	1,976,600	1,653,975	1,234,000	1,800,730	1,257,000	1,273,000	1,616,000	1,591,000	8,993,325	7,537,730	16,531,055
High School #6	FY2026	0	5,300,000	4,500,000	39,200,000	49,771,000	24,744,000	1,125,000	0	0	0	0	123,515,000	1,125,000	124,640,000
Elementary #18	FY2031	0	0	0	0	0	0	0	1,265,956	2,121,234	26,265,801	24,084,005		53,736,996	53,736,996
ECSE Addition, Phase I	FY2030	0	0	0	0	0	0	0	0	506,479	3,967,419	5,121,065	0	9,594,963	9,594,963
Drew MS Renovation	FY2031	0	0	0	0	0	0	0	0	0	1,000,000	6,000,000		7,000,000	7,000,000
High School #7		0	0	0	0	0	0	0	0	0	0	1,000,000	0	1,000,000	1,000,000
Total Schools Projects		\$0	\$12,849,700	\$13,062,750	\$46,218,600	\$57,637,415	\$31,005,000	\$8,640,000	\$7,550,956	\$9,444,713	\$37,902,220	\$42,494,070	\$160,773,465	\$106,031,959	\$266,805,424
Total All Projects		\$18,597,520	\$41,725,102	\$23,583,133	\$71,296,216	\$69,563,400	\$55,429,994	\$38,067,735	\$22,905,321	\$91,622,859	\$89,795,123	\$64,778,250	\$280,195,365	\$307,169,288	\$587,364,653

*Schedules do not include Utilities projects. Information on projects and funding are in separate sections.

Enrollment Projections:

Stafford County’s New School Planning Policy for the Development of the Capital Improvement Program states When the aggregate school enrollment projections for a school level—i.e. elementary, middle, or high—is at 90% of the aggregate design capacity, staff is directed to begin planning for adding a school to the CIP. The timeline listed in this policy will direct staff’s planning process.

The three major components to consider when adding a new school to the CIP are the following:

- Land Acquisition Planning
- Existing School Capacity
- School Enrollment Projections

Enrollment Projections:

Below is the enrollment projections used in the development of the FY2021-2030 CIP.

ES Design Capacity and Projections	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
ES Capacity	14,609	14,609	14,609	14,609	14,609	14,609	14,609	14,609	14,609	14,609
ES projected Students	13,002	13,201	13,310	13,495	13,695	13,892	14,004	14,192	14,378	14,527
Available Seats	1,607	1,408	1,299	1,114	914	717	605	417	231	82
90% Guideline	89.0%	90.4%	91.1%	92.4%	93.7%	95.1%	95.9%	97.1%	98.4%	99.4%

HS Design Capacity and Projections	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
HS Capacity	10,650	10,650	10,650	10,650	10,650	12,800	12,800	12,800	12,800	12,800
HS Projection	9,912	10,234	10,579	10,779	10,930	11,064	11,190	11,352	11,527	11,727
Available Seats	738	416	71	(129)	(280)	1,736	1,610	1,448	1,273	1,073
90% Guideline	93.1%	96.1%	99.3%	101.2%	102.6%	86.4%	87.4%	88.7%	90.1%	91.6%

Stafford County 3R Projects - FY2022 - FY2030 To Be Determined

Expenditures	Prior Year	FY2021 ¹	FY2022 ²	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (Includes PY Funding)
To Be Determined	0	0	2,777,440	3,526,906	3,995,985	4,057,034	4,299,735	4,763,477	4,906,382	5,053,573	5,205,180	14,357,365	24,228,347	\$38,585,712
Total Expenditures	\$0	\$0	\$2,777,440	\$3,526,906	\$3,995,985	\$4,057,034	\$4,299,735	\$4,763,477	\$4,906,382	\$5,053,573	\$5,205,180	\$14,357,365	\$24,228,347	\$38,585,712
Revenues														
Revenues	Prior Year	FY2021 ¹	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (Includes PY Funding)
Current Revenue - County	0		3,081,763	3,526,906	3,995,985	4,057,034	4,299,735	4,763,477	4,906,382	5,053,573	5,205,180	14,661,688	24,228,347	38,890,035
Total Revenues	\$0	\$0	\$3,081,763	\$3,526,906	\$3,995,985	\$4,057,034	\$4,299,735	\$4,763,477	\$4,906,382	\$5,053,573	\$5,205,180	\$14,661,688	\$24,228,347	\$38,890,035
Operating Impacts														
Operating Impacts		FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (Includes PY Funding)
Total Operating Impacts		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

¹ Current Year 3R projects are presented within each functional area of the CIP

² FY22 expenditures of \$304,323 is presented within the Brooks Park Stream Restoration Project. This project is funded with potential grant funds and 3R funding.

Stafford County 3R Projects: FY2022 – 2030 Public Safety, Information Technology, Parks, Community

Facilities

Project Code		Square Footage/Acreage	
Project Type	3-R	Construction Cost per Sq. Ft.	
Project Status	Planning	Operating Cost per Sq. Ft.	
Functional Area	County Wide	Student Capacity	
Estimated Project Cost	FY22-30 Placeholder	Est. Opening Date	
Current Year Cost		Cost per Linear Ft.	
Debt Service		Funding source	
Full Year Operating Impact			

Project Description:

FY2022 – 2030 3R projects

The County’s 3R projects are funded with current revenue as defined in the Principles of High Performance Financial Management. Which requires a minimum 3% of general government expenditures. During the final development of the FY2021 Adopted Budget, and the projected revenue shortfalls due to the COVID-19 Pandemic, the Board reduced the Financial Policy requirements of 3% to 2% of general fund recurring revenue. Staff was directed to look at all projects and determine if they are essential or non-essential. Essential projects include those that are directly related to limiting the loss of life and/or assets. Department leaders from all departments with projects that were proposed, along with the Chief Financial Officer, the Budget Director and the Sr. Budget Analyst met to review all projects. Each department provided support to determine if a project was essential or supported projects being pushed out into future years. These departments included: Parks, Recreation and Community Facilities; Fire and Rescue; Sheriff’s Department; and Information Technology. This group did not prioritize projects beyond FY2021, as the CIP process will begin again in August for FY2022-31 CIP. FY2022 through FY2030 is included as a placeholder that assumes a plan to reestablish the 3% Financial Policy requirement over FY2022-31.

Current year (FY2021)

3R projects are presented within each functional area of the CIP (see Information Technology, Public Safety, Parks, Recreation, and Community Facilities for more information on FY2021 3R projects).

Stafford County 3R Projects: FY2022 – 2030 Public Safety, Information Technology, Parks, Community Facilities

Operating Impact Summary:

- No operating impacts associated with these project

Relationship to Approved County Policy or Plan:

- Supports the Board’s strategic priorities

Project Summary:

Expenditures	Prior Year	FY2021 ¹	FY2022 ²	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
To Be Determined	0	0	2,777,440	3,526,906	3,995,985	4,057,034	4,299,735	4,763,477	4,906,382	5,053,573	5,205,180
Total Expenditures	\$0	\$0	\$2,777,440	\$3,526,906	\$3,995,985	\$4,057,034	\$4,299,735	\$4,763,477	\$4,906,382	\$5,053,573	\$5,205,180

Revenues	Prior Year	FY2021 ¹	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Current Revenue - County	0		3,081,763	3,526,906	3,995,985	4,057,034	4,299,735	4,763,477	4,906,382	5,053,573	5,205,180
Total Revenues	\$0	\$0	\$3,081,763	\$3,526,906	\$3,995,985	\$4,057,034	\$4,299,735	\$4,763,477	\$4,906,382	\$5,053,573	\$5,205,180

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total Operating Impacts	\$0									

¹ Current Year 3R projects are presented within each functional area of the CIP

² FY22 expenditures of \$304,323 is presented within the Brooks Park Stream Restoration Project. This project is funded with potential grant funds and 3R funding.

CAPITAL IMPROVEMENT PROGRAM

FY2021 Adopted Budget

General Government

Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (Includes PY Funding)
Information Technology 3R	\$0	\$993,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$993,500	\$0	\$993,500
Total Expenditures	\$0	\$993,500	\$0	\$993,500	\$0	\$993,500								
Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (Includes PY Funding)
Current Revenue - County	0	993,500	0	0	0	0	0	0	0	0	0	993,500	0	993,500
Total Revenues	\$0	\$993,500	\$0	\$993,500	\$0	\$993,500								
Operating Impacts		FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (Includes PY Funding)
Operating		0	0	0	0	0	0	0	0	0	0	0	0	0
Total Operating Impacts		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Information Technology: 3R Projects

Project Code	See Project Description Below for Project Code	Square Footage/Acreage	N/A
Project Type	3-R	Construction Cost per Sq. Ft.	
Project Status		Operating Cost per Sq. Ft.	
Functional Area	Information Technology	Student Capacity	
Estimated Project Cost	\$993,500	Est. Opening Date	
Current Year Cost		Funding Source	Current Revenue
Debt Service			
Full Year Operating Impact			

Project Description:

- **Storage Area Network (SAN): Project Code #IT2103**
 Increase storage area network (SAN) capacity. With the ever-growing network storage demands for On Base (document imaging), GIS, public safety, public works and utilities (fiber optic video imagery), the demands are going to grow at a rate necessitating expansion of the County’s storage capacity every two years to keep up. The County deploys redundant storage with automatic failover between County Administration and the Public Safety Building (PSB). Each storage addition involves installing a new “shelf” to each of the two SAN arrays.
- **Backup System Upgrade (Rubrik) – Project Code #IT2101**
 is an appliance-based backup system that backs up to the two appliances and this would increase the capacity of the two appliances. The appliances replicate to the Amazon Web Services (AWS) cloud.
- **Replace Cisco Switches Remote Switches: Project Code #IT2104**
 Serving fire stations, rescue stations, utilities facilities, and parks are using 12+ year old technology and the equipment is past end of life and end of support with Cisco. This eliminates patches, security updates, and other critical support necessary for the network and could directly affect public safety.
- **Cisco Call Manager Upgrade- Project Code #IT2102**
 This would allow us to be to the latest upgrades to utilize on all of the features on the County phones.
- **Server Replacement: Project Code #IT2105**
 As part of a five year replacement cycle, County servers will need to be replaced.

Information Technology: 3R Projects

Operating Impact Summary:

All of these capital expenditures will be replacing existing equipment already covered under maintenance contracts, which should result in little or no changes to maintenance costs.

Location:

- County Administration and PSB
- All Remote Locations – fire stations, rescue stations, public works and utilities, and parks

Relationship to Approved County Policy or Plan:

- IT Strategic Plan.
- Board of Supervisor's priorities under "organizational excellence."

Analysis of Need:

- **Storage Area Network (SAN):** With the ever-growing network storage demands for OnBase (document imaging), GIS, public safety, public works and utilities (fiber optic video imagery), the demands are going to grow at rate necessitating expansion of the County's storage capacity every two years to keep up.
- **Backup System Upgrade (Rubrik):** With the increase in storage capacity, the County's data backup capacity will also need to increase. Rubrik is an appliance-based backup system that backs up to the two appliances and this would increase the capacity of the two appliances. The appliances replicate to the Amazon Web Services (AWS) cloud. The County will need to increase AWS capacity on an annual basis and can do so through the operating budget.
- **Replace Cisco Switches Remote Switches:** All 38 remote switches have reached end of life and end of support with Cisco. These switches are at fire stations, rescue stations and parks and are using 12 year old technology and put service to all these facilities at risk. In FY2022 – 2030, the County will need to replace various Cisco routers and switches that reach end of life and end of Cisco support. Cisco announces equipment every year that impacts the County's network infrastructure and requires replacement.
- **Cisco Call Manager Upgrade:** It would allow us to be to the latest upgrades to utilize on all of the features.
- **Server Replacement:** In FY20201, and each successive year through 2029, County servers will need to be replaced as part of a five-year replacement cycle. Server costs have decreased significantly over the past five years as the County has virtualized more than half of all servers.

Information Technology: 3R Projects

Project Summary:

Project	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Pure - Increase SAN Capacity	0	416,000	0	0	0	0	0	0	0	0	0
Rubrik - Increase Data Backup Capacity	0	269,000	0	0	0	0	0	0	0	0	0
Replace Cisco Call Managers	0	115,000	0	0	0	0	0	0	0	0	0
Replace Cisco Switches	0	160,500	0	0	0	0	0	0	0	0	0
Server Replacements	0	33,000	0	0	0	0	0	0	0	0	0
Total Project Cost	\$0	\$993,500	\$0								

	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Current Revenue - County	0	993,500	0	0	0	0	0	0	0	0	0
Total	\$0	\$993,500	\$0								

	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Operating	0	0	0	0	0	0	0	0	0	0
Total	\$0									

CAPITAL IMPROVEMENT PROGRAM

FY2021 Adopted Budget

Judicial

Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	2025	2026	2027	2028	2029	2030	5 Year Plan (Includes PY Funding)	Future Plan	Ten Year Plan (Includes PY Funding)
Courthouse	\$2,600,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$41,343,191	\$8,143,900	\$0	\$2,600,000	\$49,487,091	\$52,087,091
Total Expenditures	\$2,600,000	\$0	\$41,343,191	\$8,143,900	\$0	\$2,600,000	\$49,487,091	\$52,087,091						

Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	2025	2026	2027	2028	2029	2030	5 Year Plan (Includes PY Funding)	Future Plan	Ten Year Plan (Includes PY Funding)
Bond Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$41,190,716	\$8,143,900	\$0	\$0	\$49,334,616	\$49,334,616
Use of Prior Year Fund Balance General Fund	2,600,000	0	0	0	0	0	0	0	0	0	0	2,600,000	0	2,600,000
Proffers	0	0	0	0	0	0	0	0	152,475	0	0	0	152,475	152,475
Total Revenues	\$2,600,000	\$0	\$41,343,191	\$8,143,900	\$0	\$2,600,000	\$49,487,091	\$52,087,091						

Operating Impacts	FY2021	FY2022	FY2023	FY2024	2025	2026	2027	2028	2029	2030	5 Year Plan	Future Plan	Ten Year Plan
Personnel	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$598,000	\$891,000	\$0	\$1,489,000	\$1,489,000
Operating	0	0	0	0	0	0	0	0	0	976,000	0	\$976,000	976,000
Debt Service	0	0	0	0	0	0	0	0	3,447,000	4,128,000	0	\$7,575,000	7,575,000
Total Operating Impact	\$0	\$4,045,000	\$5,995,000	\$0	\$10,040,000	\$10,040,000							

Judicial: New Circuit Court and Renovation/Expansion of Existing Facility

Project Code	CRTHSE	Square Footage/Acreage	80,000 ft ² New Construction 61,798 Finished/ 18,202 ft ² Shell 64,900 ft ² Renovation 400 ft ² Expansion
Project Type	Building Construction	Construction Cost per Sq. Ft.	New Finished: \$349 New Shell: \$180 Renovation: \$100 Expansion: \$0
Project Status	Design/Engineering	Operating Cost per Sq. Ft.	\$3.84
Functional Area	Circuit Court	Student Capacity	
Estimated Project Cost	\$52.1-million	Est. Opening Date	FY2030
Current Year Cost	\$40.6-million	Funding Source	Virginia Resource Authority (VRA)
Total Debt Service	\$4,128,000	Tax Rate Equivalent	\$0.024
Full Year Operating Impact	\$1,867,000		

Project Description:

The proposed project includes the construction of a new 80,000 ft² Circuit Court building. 61,798 ft² of that will be finished and include four circuit courtrooms and spaces for judges’ chambers, Circuit Court Clerk, security, and other associated court functions. 18,202 ft² will be shelled for the eventual finishing for two additional circuit courtrooms and associated spaces. The project also includes renovations within the existing facility.

Operating Impact Summary:

Below are the operating impacts for the new Circuit Court building:

For building security: a total of seven additional deputies would be required to operate a safe and efficient courthouse.

- o (2) For front security / magnetometer and X-Ray machine.
- o (1) For Control Room: Deputy will monitor all cameras, control cell doors, and certain courtroom doors.

Judicial: New Circuit Court and Renovation/Expansion of Existing Facility

- (2) For security of inmates: Escorting inmates to and from the jail vans to the court holding cells, serving various papers, escorts through the building, high risk inmates, emergency situations and the like.
- (2) Deputies for the fourth circuit court

The total number to support the building is 13 which includes six existing positions at the current courthouse.

For maintenance and custodial:

- (2) Building Maintenance Mechanics.
- (2) Custodians.
- Start-up Costs include equipment and supplies.
- On-going operating costs include additional costs for utilities, contracts, and maintenance.

Location:

1300 Courthouse Road.

Relationship to Approved County Policy or Plan:

Public Safety has been identified by the Board of Supervisors as a major Board priority. Providing the necessary court facilities to handle the growing caseload and ensuring all court facilities meet or exceed the safety standards is essential to our overall public safety mission. The proposed circuit court building and renovation of the existing facility will ensure that these needs are met for the next 10-15 years.

Analysis of Need:

Moseley Architects conducted a detailed court needs analysis in 2016. The result of this analysis was a proposed new court building that would provide for all court needs for the next 20 years at an estimated cost of \$74 million. The proposal would abandon the current facility for future administration use. At the request of the Board, staff reengaged Moseley to reevaluate the proposal utilizing the existing building and keeping all new construction on the current Government Center site with additional parking across Courthouse Road. Utilizing the needs analysis completed in 2016 and updating the data to reflect the most recent years, Moseley presented the proposed circuit court building and the renovated existing facility as the preferred option that was later approved by the Board of Supervisors with the adoption of the FY19 CIP.

Judicial: New Circuit Court and Renovation/Expansion of Existing Facility

Change or Reasons for Revisions:

FY2007 - New project in CIP \$20.6M

FY2008 - Updated construction costs \$33.8M

FY2009 - No change

FY2010 - No change

FY2011 - Consolidate a renovation of the current courthouse project and reduce existing project to an addition due to current conditions in the economy. Project to begin in FY13. \$21.7M

FY2012 - Changed the scope of the project. Added a Courthouse annex project. Due to shortage in affordability, project to begin planning and design in FY17. \$22.9M

FY2013 - Due to conditions in the economy and changes in affordability project will begin planning and design work in FY19. No other changes have been made. \$22.2M

FY2014 - Scope of the project changed to include parking improvements and significant ADA upgrades. \$26.8M

FY2015 - No change

FY2016 - Project cost update. No change in scope of project. \$29M

FY2017 - No change

FY2018 - Change in the scope of project. Project is a new construction for all three courts. New proposed cost is \$71M

FY2019 - As provided above, the proposed project replaces the previously recommended \$71 million project in order to utilize existing facilities to the maximum extent possible and reduce project costs while still providing for all necessary safety improvements and court space needs. New estimated cost is \$42.5M which includes approximately \$1M in proposed design efficiency reductions as directed by the Board and an additional \$1.8M for a parking lot.

FY2020 – Change in ramp-up philosophy. Project now presented as two separate projects, Courthouse construction and a temporary parking lot.

FY2021 - Delayed project Seven years.

Alternative:

The previously approved CIP court project for new court complex across Courthouse Road.

Judicial: New Circuit Court and Renovation/Expansion of Existing Facility

Project Summary:

Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	2025	2026	2027	2028	2029	2030
Courthouse	\$2,600,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$41,343,191	\$8,143,900	\$0
Total Expenditures	\$2,600,000	\$0	\$41,343,191	\$8,143,900	\$0						

Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	2025	2026	2027	2028	2029	2030
Bond Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$41,190,716	\$8,143,900	\$0
Use of Prior Year Fund Balance General Fund	2,600,000	0	0	0	0	0	0	0	0	0	0
Proffers	0	0	0	0	0	0	0	0	152,475	0	0
Total Revenues	\$2,600,000	\$0	\$41,343,191	\$8,143,900	\$0						

Operating Impacts	FY2021	FY2022	FY2023	FY2024	2025	2026	2027	2028	2029	2030
Personnel	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$598,000	\$891,000
Operating	0	0	0	0	0	0	0	0	0	976,000
Debt Service	0	0	0	0	0	0	0	0	3,447,000	4,128,000
Total Operating Impact	\$0	\$4,045,000	\$5,995,000							

CAPITAL IMPROVEMENT PROGRAM

FY2021 Adopted Budget

Public Safety: Fire and Rescue

Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (Includes PY Funding)
Public Safety Joint Training Center	0	0	0	0	0	0	0	199,888	1,129,573	10,192,430	0	0	11,521,891	11,521,891
Apparatus Replacement	0	3,585,000	1,778,000	1,844,000	950,000	979,000	1,008,000	1,038,000	3,374,000	1,101,000	1,134,000	9,136,000	7,655,000	16,791,000
Station Rebuild Placeholder	0	0	0	0	0	0	0	0	0	14,976,000	0	0	14,976,000	14,976,000
Cardiac Equipment Replacement	0	270,000	0	0	0	0	0	3,953,000	0	3,226,000	0	270,000	7,179,000	7,449,000
Total Expenditures	\$0	\$3,855,000	\$1,778,000	\$1,844,000	\$950,000	\$979,000	\$1,008,000	\$5,190,888	\$4,503,573	\$29,495,430	\$1,134,000	\$9,406,000	\$41,331,891	\$50,737,891

Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (Includes PY Funding)
Bond Proceeds	0	0	0	0	0	0	0	0	0	16,273,825	0	\$0	\$16,273,825	\$16,273,825
County 3R	0	610,000	0	0	0	0	0	0	0	0	0	610,000	0	610,000
Use of Prior Year Fund Balance General Fund	0	271,000	0	0	0	0	0	0	0	2,127,163	0	271,000	2,127,163	2,398,163
Master Lease Proceeds	0	2,785,185	1,577,686	1,637,677	737,487	760,112	782,545	4,758,781	3,134,815	4,080,639	887,638	7,498,147	13,644,419	21,142,565
Proffers	0	0	0	0	0	0	0	199,888	1,129,573	967,442	0	0	2,296,903	2,296,903
State Grants - Fire Programs	0	0	0	0	0	0	0	0	0	200,000	0	0	200,000	200,000
Net Sale from Boat Property	0	0	0	0	0	0	0	0	0	5,600,000	0	0	5,600,000	5,600,000
Dedicated Real Estate Tax Revenue	0	188,815	200,314	206,323	212,513	218,888	225,455	232,219	239,185	246,361	246,362	1,026,853	1,189,581	2,216,435
Total Revenues	\$0	\$3,855,000	\$1,778,000	\$1,844,000	\$950,000	\$979,000	\$1,008,000	\$5,190,888	\$4,503,573	\$29,495,430	\$1,134,000	\$9,406,000	\$41,331,891	\$50,737,891

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (Includes PY Funding)
Operating	0	0	0	0	0	0	0	0	0	43,000	0	43,000	43,000
Debt Service	0	0	0	0	0	0	0	0	0	1,361,000	0	1,361,000	1,361,000
Master Lease	0	371,000	566,000	768,000	859,000	953,000	1,049,000	2,036,000	2,422,000	3,347,000	2,564,000	9,807,000	12,371,000
Total Operating Impacts	\$0	\$371,000	\$566,000	\$768,000	\$859,000	\$953,000	\$1,049,000	\$2,036,000	\$2,422,000	\$4,751,000	\$2,564,000	\$11,211,000	\$13,775,000

Fire and Rescue: Public Safety Joint Training Center

Project Code		Square Footage/Acreage	24,300sq. ft./20+ac.
Project Type	Building Construction	Construction Cost per Sq. Ft.	\$300
Project Status	Planning	Operating Cost per Sq. Ft.	
Functional Area	Public Safety - Fire & Rescue	Student Capacity	
Estimated Project Cost	\$11,521,891	Est. Opening Date	FY2030
Current Year Cost	\$8,455,000	Funding Source	VRA, Proffers, Grants, Revenue
Debt Service	\$352,000	Tax Rate Equivalent	\$0.002
Full Year Operating Impact			

Project Description:

A new Joint Training Center is needed to accommodate the Fire and Rescue Department’s current education and fleet functions; including proper classrooms, securable equipment storage, appropriate housing of training simulators and safe apparatus repair facilities. Currently, the department depends upon a repurposed motorboat sales facility to accomplish these tasks. The land and building within this existing space are for sale and being actively marketed.

The project includes site development, 4,800 square feet of classroom space, 12,000 square feet of working space (materials storage, gear areas, locker rooms, etc.), 7,500 square feet of vehicle bays and exterior training grounds with a live fire burn building.

Education and training space is necessary to provide the means to meet classroom and practical needs for various emergency medical services (Paramedic), fire suppression (Career Firefighter and Volunteer), hazardous materials, and technical rescue course offerings.

Fleet maintenance, repair, and logistics high-bay spaces are needed for the safe upkeep of apparatuses. Additionally, planned shared space will incorporate a forensic bay for use by the Sheriff’s Office and Fire Marshal.

The exterior training grounds includes a Class-A live fire burn building, training tower, and educational simulators for use by all Public Safety Personnel.

Operating an appropriately designed and constructed facility will allow for a convenient and centralized location to be used days, nights, and weekend; meeting the demands of our complex combination system.

Fire and Rescue: Public Safety Joint Training Center

Operating Impact Summary:

There will be minor one-time startup costs for the facility to include instructional supplies such as smart boards, a copy machine, fax machine, projectors, and computers. Other startup costs for the facility include kitchen and janitorial supplies. Current staff will transition to the new Central Training and Logistics Complex - no new staffing costs would be incurred.

Location:

Staff, at the direction of the Public Safety Committee, is pursuing available land options. One Option may be through cooperation with the Stafford Regional Airport, an area of 20+ Acres of land has been identified for the construction of the Fire and Rescue Department's Training and Logistics Center. The Airport Authority is amenable to providing the County of Stafford with deeded land ownership of 20+ Acres, in exchange for the relief of debt (at fair market price). The location is in the northeastern portion of the Airport Authority's land ownership, adjacent to Ramoth Church Road and Blaque Trax Lane.

Relationship to Approved County Policy or Plan:

- Relates to the County Board of Supervisor's Top Priorities (Public Safety)
- Comprehensive Plan (Response Time Standards)
- 2017 Fire and EMS Assessment (Education/Training, Safe Workplace, Volunteer Recruitment and Retention, Career Morale)

Analysis of Need:

The existing commercial space (which is being used for Education, Training, and Fleet) is being marketed for sale. An appropriate replacement must be planned and constructed.

Change or Reasons for Revisions:

FY2012 - Project new to the CIP. Project cost \$5.5M. Project scheduled for completion in FY17.

FY2013 - Project moved out three years. Project scheduled for completion in FY20. Reduction in project cost. \$5.3M

FY2014 - No change

FY2015 - No change

FY2016 - Updated project costs \$6.6M

FY2017 - No Change

FY2018 – Updated project costs \$6.9M. Timing of project will be determined during the FY2019 process.

Fire and Rescue: Public Safety Joint Training Center

FY2019 – Removed from the CIP based on TRC ranking. Scope and cost of project changed to include the needs of the departments of Fire and Rescue and the Sheriff.

FY2020 – Requested as a new project. \$11.5M

FY2021 – No Change to scope of project. Net sale from Boat Property has been applied to project cost resulting in a reduction in bond borrow.

Alternative:

- Removal of marketing efforts and sale of the existing space, with continued use by the Fire and Rescue Department.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	
Planning/Design	0	0	0	0	0	0	0	0	1,129,573	0	0	
Property Acquisition	0	0	0	0	0	0	0	199,888	0	0	0	
Construction / Project	0	0	0	0	0	0	0	0	0	9,772,430	0	
Contingency	0	0	0	0	0	0	0	0	0	420,000	0	
Total	\$0	\$199,888	\$1,129,573	\$10,192,430	\$0							

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Bond Proceeds	0	0	0	0	0	0	0	0	0	4,210,599	0
Proffers	0	0	0	0	0	0	0	199,888	1,129,573	181,831	0
State Grants - Fire Programs	0	0	0	0	0	0	0	0	0	200,000	0
Net Sale from Boat Property	0	0	0	0	0	0	0	0	0	5,600,000	0
Total	\$0	\$199,888	\$1,129,573	\$10,192,430	\$0						

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Operating	0	0	0	0	0	0	0	0	0	43,000
Debt Service	0	0	0	0	0	0	0	0	0	352,340
Total	\$0	\$395,340								

Fire and Rescue: Replacement Apparatus

Project Code	FR2103 – Ambulance FR2102 – Engine Replacement FR2106 – Heavy Rescue Replacement FR2101- Fire Boat Replacement	Square Footage/Acreage	
Project Type	Vehicle/Apparatus/Equipment Replacement	Construction Cost per Sq. Ft.	
Project Status	Property Acquisition	Operating Cost per Sq. Ft.	
Functional Area	Public Safety - Fire & Rescue	Student Capacity	
Estimated Project Cost	\$3,585,000	Est. Opening Date	On-Going
Current Year Cost	\$3,464,000	Funding Source	Master Lease, Current Revenue and Prior year Fund Balance
Debt Service	FY22 - 310,000	Years Financed	10
Full Year Operating Impact			

Project Description:

Stafford County’s Fire and Rescue Department effectively ensures and maintains the viability of the fleet of emergency vehicles with scheduled replacement due to age, mileage and/or engine hour indication. This program provides for the regular replacement of department apparatus based on service life estimates for each vehicle. This includes replacement of ambulances, engines, and specialty apparatus (ladders, heavy rescue apparatus, tankers, and/or boats). Typical service life is 15 years for boats and tankers; 10 years for engines, ladders, heavy rescues, and pumper/tankers; and five years for ambulances. This plan replaces only primary apparatus and supports fleet reduction by not replacing duplicate apparatus. Apparatus assignment is dependent upon Fleet Rotation Policy and therefore difficult to forecast the station at which replacement apparatus will be placed.

Fire and Rescue: Replacement Apparatus

Operating Impact Summary:

There will be additional debt service for equipment purchased using the Master Lease. There will be no additional costs for the operating of the replacement equipment.

Location:

All Fire & Rescue Stations throughout Stafford County.

Relationship to Approved County Policy or Plan:

- The Comprehensive Plan (Standards of Cover/Response Time)
- Stafford County Fire and Rescue Department Fleet Replacement and Rotation Policy
- 2017 Fire and Rescue Department Assessment
- NFPA Standards

Analysis of Need:

The right equipment and apparatus are essential to the success of any rescue whether it be medical, fire, vehicular or any variety of incidents that involve special rescue.

Change or Reasons for Revisions:

FY2021 – Addition of a Fire Boat - The Fire and Rescue Department has an inadequate and aging fleet of existing boats. This compromises dependability and adds to an ineffective response model. The current stock includes boats which were not designed for what they are being used as (pleasure/fishing boats), volunteer agencies “made it work” over the past decades.

Fire and Rescue: Replacement Apparatus

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Ambulance Replacement	0	915,000	0	0	0	0	0	0	0	0	0
Engine Replacement	0	767,000	802,000	1,652,000	851,000	877,000	903,000	930,000	958,000	987,000	1,017,000
Tanker Replacement	0	0	884,000	0	0	0	0	0	0	0	0
Heavy Rescue Replacement	0	1,343,000	0	0	0	0	0	0	1,675,000	0	0
Fire Boat Replacement	0	341,000	0	0	0	0	0	0	425,000	0	0
Equipment for Engines	0	88,000	92,000	192,000	99,000	102,000	105,000	108,000	111,000	114,000	117,000
Equipment for Heavy Rescue	0	131,000	0	0	0	0	0	0	163,000	0	0
Equipment for Fire Boat	0	0	0	0	0	0	0	0	42,000	0	0
Total	\$0	\$3,585,000	\$1,778,000	\$1,844,000	\$950,000	\$979,000	\$1,008,000	\$1,038,000	\$3,374,000	\$1,101,000	\$1,134,000

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
County 3R	0	610,000	0	0	0	0	0	0	0	0	0
Use of Prior Year Fund Balance General Fund	0	271,000	0	0	0	0	0	0	0	0	0
Master Lease Proceeds	0	2,515,185	1,577,686	1,637,677	737,487	760,112	782,545	805,781	3,134,815	854,639	887,638
Dedicated Real Estate Tax Revenue	0	188,815	200,314	206,323	212,513	218,888	225,455	232,219	239,185	246,361	246,362
Total	\$0	\$3,585,000	\$1,778,000	\$1,844,000	\$950,000	\$979,000	\$1,008,000	\$1,038,000	\$3,374,000	\$1,101,000	\$1,134,000

Operating Impacts		FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Master Lease		0	310,000	505,000	707,000	798,000	892,000	988,000	1,087,000	1,473,000	1,578,000
Total	\$0	\$0	\$310,000	\$505,000	\$707,000	\$798,000	\$892,000	\$988,000	\$1,087,000	\$1,473,000	\$1,578,000

Fire and Rescue: Fire Rescue Station Rebuild Placeholder

Project Code		Square Footage/Acreage	TBD (Site Dependent)
Project Type	Building Construction	Construction Cost per Sq. Ft.	TBD (Site Dependent)
Project Status	Planning	Operating Cost per Sq. Ft.	
Functional Area	Public Safety - Fire & Rescue	Student Capacity	
Estimated Project Cost	\$14,976,000	Est. Opening Date	FY2030
Current Year Cost	\$10,989,000	Funding Source	Bond
Debt Service	\$1,009,000	Years Financed	20
Full Year Operating Impact			

Project Description:

The County of Stafford’s Fire and Rescue Department is an all-hazards (Fire/EMS/HazMat/Technical Rescue) response agency which utilizes a combination of full-time staff and volunteer personnel to accomplish our response mission. Similarly, the buildings which our personnel live within and respond from while on-duty have varying levels of ownership, condition, and age. This impacts the daily operations of the Fire and Rescue Department. A majority of the existing facilities were constructed by independent volunteer corporations more than 30 years ago. As such, these buildings were not designed for 24-hour occupancy, nor do they meet the needs of the modern fire and rescue service. Significant redundancy is also found in three areas of the County of Stafford, where both separate Fire Stations and EMS Stations are maintained.

This project is designed to address three separate areas of focus with Stafford County; within the Aquia Harbour area, the Rock Hill area, and the White Oak area.

Operating Impact Summary:

Addressing the aged, inadequate, redundant building stock inventory within the Fire and Rescue Department will allow for more efficient operations and purposeful financial investment of taxpayer dollars.

Fire and Rescue: Fire Rescue Station Rebuild Placeholder

Location:

Site selections and acquisition are to be determined.

Relationship to Approved County Policy or Plan:

- Board of Supervisors Strategic Plan (Public Safety Response)
- County of Stafford Comprehensive Plan (Emergency Response Times)
- Stafford County Fire and Rescue Department Strategic Plan (Infrastructure)
 - Stafford County Fire and Rescue Department Facilities Needs Assessment
- Insurance Standards Organization Public Protection Classification

Analysis of Need:

- Personnel assigned to the Stafford County Fire and Rescue Department's Station 9 protect the densely populated Aquia Harbour and Route 610/Garrisonville/Interstate 95 areas of the northern region of Stafford County. Statistically, this demand zone is one of busiest within the locality, generating thousands of emergency responses on an annual basis. The existing facility, constructed in 1991 and located on a 0.42 acre parcel at 1001 Washington Drive (within Aquia Harbour), is home to a single-depth two-bay station which was designed and constructed by the Aquia Harbour Volunteer Rescue Squad.

The size and capacity of the existing facility/parcel, coupled with the age and condition of the space, make for a poor return on investment regarding building renovations. At the request of the County of Stafford, an independent architectural and engineering firm, Peck Peck & Associates has completed an assessment of short-term stop gap measures which are being reviewed as interim steps before the completion of a facility rebuild. Business needs of the Stafford County Fire and Rescue Department require high density and high call volume areas to be serviced by facilities which can handle the volume of on-duty personnel and various tactical apparatus required.

- Within the County of Stafford's northwestern area (Rockhill), fire suppression and emergency medical services operations are currently delivered from separate buildings, with the Rockhill Volunteer Fire Department being located at 2133 Garrisonville Road and the Rockhill Volunteer EMS Station located at 1565 Garrisonville Road. The existence of separate facilities highlights redundancies and is organizationally inefficient. The proposed Rockhill Fire and Rescue Station (FS8) rebuild combines fire and emergency medical services operations into a single planned and appropriately located public safety facility.

Fire and Rescue: Fire Rescue Station Rebuild Placeholder

- Within the County of Stafford’s southeastern area (White Oak), fire suppression and emergency medical services operations are currently delivered from separate buildings, with the White Oak Volunteer Fire Department being located at 12 Newton Road and the White Oak Volunteer EMS Station located at 535 White Oak Road. The existence of separate facilities highlights redundancies and is organizationally inefficient. The proposed White Oak Fire and Rescue Station (FS7) rebuild combines fire and emergency medical services operations into a single planned and appropriately located public safety facility.

Change or Reasons for Revisions:

FY2021 – New to the CIP

Alternative:

Maintain existing operations and fund facilities rehabilitation requests.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	0	0	0	0	0	0	0	0	0	14,976,000	0
Total	\$0	\$14,976,000	\$0								

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Bond Proceeds	0	0	0	0	0	0	0	0	0	12,063,226	0
Use of Prior Year Fund Balance General Fund	0	0	0	0	0	0	0	0	0	2,127,163	0
Proffers	0	0	0	0	0	0	0	0	0	785,611	0
Total	\$0	\$14,976,000	\$0								

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Debt Service	0	0	0	0	0	0	0	0	0	1,009,000
Total	\$0	\$1,009,000								

Fire and Rescue: Equipment Replacement

Project Code	FR2109	Square Footage/Acreage	
Project Type	Vehicle/Apparatus/Equipment Replacement	Construction Cost per Sq. Ft.	
Project Status	Property Acquisition	Operating Cost per Sq. Ft.	
Functional Area	Public Safety - Fire & Rescue	Student Capacity	
Estimated Project Cost	\$270,000	Est. Opening Date	
Current Year Cost		Funding Source	Master Lease
Debt Service	\$61,000	Years Financed	5
Full Year Operating Impact			

Project Description:

Cardiac monitor/defibrillator equipment is essential to the departments' ALS and emergency medical services program. Replacement of the equipment en masse is necessary in order to maintain consistency, technological standards, and provide optimal care. This acquisition project will spread out the debt service costs associated with the replacement of all of the Fire and Rescue Department's cardiac/monitor/defibrillator and Cardio Pulmonary Resuscitation (CPR) equipment which was obtained in 2009 on a lease purchase program. The lease ended in 2014 and the department purchased the equipment at that time. In FY2019, (45) LifePak 500 Automated External Defibrillators (AEDs) were replaced with the LifePak CR+ (AED) that have a life span of eight years and will not require programming or a service agreement. The LifePak 12 Cardiac Monitor/Defibrillators that are currently equipped on advanced life support (ALS) Fire and Rescue apparatus are now medically outdated and are no longer supported by Physio-Control. In FY2019, (6) LifePak 12 Monitor/Defibrillators were replaced with the updated LifePak 15 version. FY2020 will see the addition of (32) additional LikePak 15s along with (25) LUCAS Chest Compression Systems both of which have a service life of ten years. In FY2021 the purchase of an additional 15 LUCAS systems will bring the Department total to (40) forty, with an estimated project cost of \$270,000 and the addition of 45 LifePak CR+ (AEDS) to bring the County total to 90.

The following is the LifePak and LUCAS replacement plan:

- FY2021 – (15) LUCAS and 45 LifePak CR+ (AEDS)
- FY2027 – 90 LifePak CR+(AEDS)
- FY2029 – (40) LUCAS and 45 LifePak 15

Fire and Rescue: Equipment Replacement

Operating Impact Summary:

No additional operating costs associated with this project.

Location:

Throughout Stafford County.

Relationship to Approved County Policy or Plan:

- Comprehensive Plan
- Heartsafe Community Designation
- Pulsepoint Connected Community
- VA Office of Emergency Medical Services Licensing Requirements

Analysis of Need:

Cardiac monitor/defibrillator equipment is essential to the department's Advanced Life Support (ALS) and emergency medical services program. Replacement of the equipment en masse is necessary in order to maintain consistency, technological standards and provide optimal care.

Change or Reasons for Revisions:

FY2021 – Addition of 90 Lifepak CR+s and Replacement of SCBA Equipment

Fire and Rescue: Equipment Replacement

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
LifePak15 Replacement	0	0	0	0	0	0	0	0	0	2,610,000	0
Lucas System Replacement	0	270,000	0	0	0	0	0	0	0	1,040,000	0
LifePak CR+ and AEDs	0	0	0	0	0	0	0	180,000	0	0	0
Trade in LifePak 15 Monitors		0	0	0	0	0	0	0	0	(278,000)	0
Trade In Lucas Chest Compression Systems		0	0	0	0	0	0	0	0	(146,000)	0
SCBA Equipment Replacement	0	0	0	0	0	0	0	3,773,000	0	0	0
Total	\$0	\$270,000	\$0	\$0	\$0	\$0	\$0	\$3,953,000	\$0	\$3,226,000	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Master Lease Proceeds	0	270,000	0	0	0	0	0	3,953,000	0	3,650,000	0
Trade in LifePak 15 Monitors	0	0	0	0	0	0	0	0	0	(278,000)	0
Trade In Lucas Chest Compression Systems	0	0	0	0	0	0	0	0	0	(146,000)	0
Total	\$0	\$270,000	\$0	\$0	\$0	\$0	\$0	\$3,953,000	\$0	\$3,226,000	\$0

Operating Impacts		FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Master Lease		0	61,000	61,000	61,000	61,000	61,000	61,000	949,000	949,000	1,769,000
Total	\$0	\$0	\$61,000	\$61,000	\$61,000	\$61,000	\$61,000	\$61,000	\$949,000	\$949,000	\$1,769,000

CAPITAL IMPROVEMENT PROGRAM

FY2021 Adopted Budget

Public Safety: Sheriff

Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (Includes PY Funding)
Sheriff 3R	0	674,255	0	0	0	0	0	0	0	0	0	674,255	0	674,255
Body Camera	0	101,000	0	0	0	0	0	0	0	0	0	101,000	0	101,000
Total Expenditures	0	775,255	0	775,255	0	775,255								

Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (Includes PY Funding)
County 3R Funding	0	357,836	0	0	0	0	0	0	0	0	0	\$357,836	\$0	357,836
Radio Funding	0	316,419	0	0	0	0	0	0	0	0	0	316,419	0	316,419
Asset Forfeiture	0	101,000	0	0	0	0	0	0	0	0	0	101,000	0	101,000
Total Expenditures	\$0	\$775,255	\$0	\$775,255	\$0	\$775,255								

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (Includes PY Funding)
Personnel	0	333,000	340,000	347,000	354,000	361,000	368,000	375,000	383,000	385,000	1,374,000	1,872,000	3,246,000
Operating	0	223,000	196,000	202,000	208,000	214,000	220,000	226,000	233,000	234,000	829,000	1,127,000	1,956,000
Total All Projects	\$0	\$556,000	\$536,000	\$549,000	\$562,000	\$575,000	\$588,000	\$601,000	\$616,000	\$619,000	\$2,203,000	\$2,999,000	\$5,202,000

Sheriff: 3R Projects

Project Code	See Below in Project Description		
Project Type	3-R	Construction Cost per Sq. Ft.	
Project Status		Operating Cost per Sq. Ft.	
Functional Area	Public Safety - Sheriff	Student Capacity	
Estimated Project Cost	\$674,255	Est. Opening Date	On-going
Current Year Cost		Funding Source	Current Revenue
Debt Service			
Full Year Operating Impact			

Project Description:

FY2021 Mobile Data Terminal Replacement: Project Code #SH2104

We have 38 Panasonic MDTs that are 8 years old and 26 that are 7 years old. Most computers should be replaced after 5 years and we have a total of 64 MDTs that are well past that point. All County computers must be upgraded to the Windows 10 operating system by the end of CY2019 due to Microsoft ending support of Windows7 in January 2020. Any computers running Windows 7 after Jan 2020 will pose a serious security risk to the county network. The Windows 10 upgrade is not compatible on 7 and 8 year old laptops (soon to be 8 and 9 years old) therefore in order to meet the deadline and also provide current and functional laptops for our deputies to perform critical public safety duties, we must find a way to fund replacement of the 64 aging MDTs this CY.

FY2021 Emergency Communications Tower Sites Battery Replacement Additional Funds Needed: Project Code #SH2101

Stafford County Emergency Radio System operates on 14 tower sites that must maintain electrical service for the emergency radio to function. Each site has a generator powered by propane. Each site also has an Uninterruptable Power Supply (UPS) battery plant consisting of (24) two volt 2000 amp hour batteries. These batteries weight 365 lbs. each and are held in a metal rack in the tower shelter. These batteries keep the computers and other electrical equipment functioning when shore power is lost and until the generator is active. Without these batteries, the tower site will experience a hard shutdown with possible damage to hundreds of thousands of dollars in equipment. The generator automatically exercises weekly, so even without a power outage the tower will go through a hard shutdown and will be offline until the generator activates and the equipment resets. This can cause loss of radio connectivity in addition to damage. These large lead acid batteries do have a shelf life and are beyond their normal life expectancy and in need of replacement. This replacement is necessary to ensure the safety of the system. The removal of the legacy radio system (Old Bus Radios) allows the three original radio towers to be fitted with the same appropriate battery rack system deployed at the ten newer towers. This requires the removal of the old racking system and batteries and replacement with a new racking system and batteries. These three towers will cost more than the remaining ten. This was not anticipated and has taken the estimate for total replacement to be \$60,000 more than budgeted. The three are more critical for

Sheriff: 3R Projects

replacement and must be completed. With the budgeting shortfall, Stafford County can choose less critical sites and postpone their battery replacement until the next fiscal year. This however will increase the overall cost of the project by requiring vendors to redeploy assets for a second project. The increase in project cost to redeploy could be as high as an additional \$40,000.

FY2021 SWAT Gas Mask Replacement: Project Code #SH2102

The team currently has a variety of gas masks that have been given to the team by Stafford Fire and Rescue, DEA, or military surplus masks. After a recent Chemical agent certification class I was informed about fit testing and OSHA requirements. An inventory of our current masks and filters revealed notable deficiencies and expired masks and filters. Additionally most of the team has not been fit tested for their masks as required annually. The masks that we are requesting would elevate the safety of the team as well as provide cutting edge technology for extended wear duration. It would also add to the capabilities of our Lenco armored vehicle response allowing our team to respond in an air compromised environment. The masks would bring our team up to standard and fit testing would be done at the time the masks were issued.

FY2021 In-Car Cameras Replacement: Project Code #SH2106

The Sheriff's Office was notified by our camera vendor in 2018 that our In-Car camera products were no longer going to be supported effective August 2019. Sixty of our In-Car cameras fell into this category. This means the manufacturer will not assist in repairs, replacements of parts, maintenance, or troubleshooting. In addition, we were notified in 2020 that a second series of cameras currently in use have also been removed from support; increasing the number we must replace as they begin to malfunction or die. The cameras are an essential component of our Police Vehicle Fleet and are heavily relied on for their evidentiary value. It is essential that we replace them as soon as possible.

Operating Impact Summary:

- No additional operating impacts are associated with these projects.

Relationship to Approved County Policy or Plan:

- Dedicated and Responsive Public Safety

Sheriff: 3R Projects

Project Summary:

Project	Project Description	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Batteries for Towers - Additional Funding	14 Batteries should be replaced all at the same time - end of life	\$105,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SWAT Gas Masks	Replacement of mask due to end of life	58,825	0	0	0	0	0	0	0	0	0
Mobile Data Terminals replacement	Replacement of MDT's due to end of life	344,381	0	0	0	0	0	0	0	0	0
In-Car Cameras replacement	Replacement of in-car cameras due to end of life	166,049	0	0	0	0	0	0	0	0	0
Total		\$674,255	\$0								

Project Revenues	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Current Revenue - County	357,836	0	0	0	0	0	0	0	0	0
Radio Funding	316,419	0	0	0	0	0	0	0	0	0
Total		\$674,255	\$0							

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total		\$0								

Sheriff: Body Worn Camera

Project Code	SH2105	Square Footage/Acreage	
Project Type	Vehicle/Apparatus/Equipment Replacement	Construction Cost per Sq. Ft.	
Project Status		Operating Cost per Sq. Ft.	
Functional Area	Public Safety - Sheriff	Student Capacity	
Estimated Project Cost	\$101,000	Est. Opening Date	
Current Year Cost	\$92,520	Funding Source	Equipment - Asset Forfeiture
Debt Service	\$0	Years Financed	
Full Year Operating Impact	\$556,000	Tax Rate Equivalent	

Project Description:

The agency proposes to implement an officer body camera program consisting of approximately 100 camera units for full Field Operations deployment. This would include deployment to Patrol, the Traffic Unit, the Special Problems Unit and School Resource Officers. It would include cloud data storage and local software to manage the camera footage. The body camera system can lead to greater transparency, protection from false allegations, be used to hold deputies accountable for proper allegations, have evidentiary value, add to training scenarios and opportunities, and capture use of force incidents, as well as, other value added contributions. The agency has completed a pilot program and confirmed the value of full operational deployment of a body camera system. The equipment will be purchased with Asset Forfeiture Funds.

Operating Impact Summary:

Operating impacts include cloud storage, equipment maintenance, and replacements and annual warranties

Relationship to Approved County Policy or Plan:

- Dedicated and Responsive Public Safety Team

Sheriff: Body Worn Camera

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	0	101,000	0	0	0	0	0	0	0	0	0
Total	\$0	\$101,000	\$0								

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Asset Forfeiture	0	101,000	0	0	0	0	0	0	0	0	0
Total	\$0	\$101,000	\$0								

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Personnel	0	333,000	340,000	347,000	354,000	361,000	368,000	375,000	383,000	385,000
Operating	0	223,000	196,000	202,000	208,000	214,000	220,000	226,000	233,000	234,000
Total	\$0	\$556,000	\$536,000	\$549,000	\$562,000	\$575,000	\$588,000	\$601,000	\$616,000	\$619,000

Public Safety: Brooks Park Stream Restoration

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (Includes PY Funding)
Brooks Park Steam Restoration	\$167,000	\$0	\$1,639,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,806,000	\$0	\$1,806,000
Total Expenditures	\$167,000	\$0	\$1,639,000	\$0	\$1,806,000	\$0	\$1,806,000							

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (Includes PY Funding)
3R County Funding	0	0	352,000	0	0	0	0	0	0	0	0	352,000	0	352,000
Use of Prior Year Fund Balance General Fund	167,000	0	300,000	0	0	0	0	0	0	0	0	467,000	0	467,000
State Grants	0	0	987,000	0	0	0	0	0	0	0	0	987,000	0	987,000
Total Revenues	\$167,000	\$0	\$1,639,000	\$0	\$1,806,000	\$0	\$1,806,000							

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (Includes PY Funding)
Total Operating Impacts	\$0	\$0	\$0										

Storm Water: Brooks Park Stream Restoration

Project Code		Square Footage/Acreage	
Project Type	3-R	Construction Cost per Sq. Ft.	
Project Status	Design/Engineering	Est. Opening Date	
Total Project Cost	\$1,806,000	Student Capacity	
Functional Area	Public Works Stormwater	Funding Sources	Current Revenue, Prior Year Fund Balance, Grant
Total Debt Service			
Full Year Operating Impact			

Project Description:

This Project will restore approximately 1,400 linear feet of an unnamed tributary to the Rappahannock River. The stream segment receives water from 175 acres of urbanized area. The project improvements will restore geomorphic stability, enhance removal of pollutants, and improve water quality of the Rappahannock River Watershed through adjustment of the dimension, pattern, and profile of the stream.

Stafford County has a Multiple Separate Storm Sewer System (MS4) permit [VAR040056] from Virginia’s Department of Environmental Quality. One aspect of the MS4 permit is compliance with the U.S. Environmental Protection Agency’s (EPA)/Virginia Department of Environmental Quality (VDEQ) Chesapeake Bay Total Maximum Daily Load (TMDL) ‘pollution diet’ plan, The TMDL establishes a "pollution diet" for the entire Chesapeake Bay watershed to address pollution (i.e. nutrients/sediment). A state-wide Watershed Implementation Plan (WIP) was developed with pollutant removal goals assigned.

The County has identified and completed final site design for the St. Clair Brooks Park Stream Restoration project to assist with meeting the Pollutant of Concerns (POC) load reduction requirements for total nitrogen, total phosphorus, and sediment as identified in the County’s Chesapeake Bay Total Maximum Daily Load (TMDL) Action Plan developed in accordance with the Multiple Separate Storm Sewer System (MS4) permit [VAR040056] from Virginia’s Department of Environmental Quality.

Location:

St. Clair Brooks Memorial Park.

Storm Water: Brooks Park Stream Restoration

Relationship to Approved County Policy or Plan:

- The stream restoration project located in St. Clair Brooks Memorial Park is related to the EPA-issued TMDL for the Chesapeake Bay, which is coordinated by the VDEQ. Per Stafford County's storm water permit (issued July 1, 2013), we are required to meet 100% of the pollution reductions associated with the TMDL by June 30, 2028. A draft Phase II Chesapeake Bay TMDL Action Plan was required for the MS4 permit renewal (June 2018); within that document, the stream restoration was recognized as the manner to accommodate the pollutant reductions.

Analysis of Need:

Federal and state regulations have signified the need for Stafford County to identify, design, and construct certain storm water retrofit projects that would satisfy the County's TMDL requirement. It is imperative that Stafford County meet this requirement to avoid non-compliance, consent orders, violations and/or fines associated with federal and state regulations. Currently, Stafford County has met the June 30, 2018 deadline for the 5% TMDL reduction goal. However, the County is required to meet the 40% reduction goal by June 30, 2023 and the 100% reduction goal by June 30, 2028.

Change or Reasons for Revisions:

FY2020 –

- The stream restoration project located in St. Clair Brooks Memorial Park will satisfy the 100% MS4 TMDL reduction goal required for June 30, 2028. Due to the extent of the design and construction, it is safe to assume that the estimated schedule for completion would be 18-24 months.

FY2021 –

- The project construction costs are now estimated to be \$1,639,000.00 for FY2022.
- Project requested \$304,323 of 3R funding in FY2022. Normally a minimum 3% of general government expenditures is allocated to 3R projects. During the final development of the FY2021 Adopted Budget, and the projected revenue shortfalls due to the COVID-19 Pandemic, the Board reduced the Financial Policy requirements of 3% of general fund recurring revenue to 2% and staff was directed to review all projects. Department leaders from all departments with projects that were proposed, along with the Chief Financial Officer, the Budget Director and the Sr. Budget Analyst met to review all projects. Each department provided support for to determine if a project was essential or supported projects being pushed out into future years. These departments included: Parks, Recreation and Community Facilities; Fire and Rescue; Sheriff's Department; and Information Technology. This group did not prioritize projects beyond FY2021, as the CIP process will begin again in August for FY2022-31 CIP.
- Staff have reviewed the past information provided relative to the referenced project and introduce additional considerations relative to design/construction costs, operating costs, and maintenance costs. The initial \$1.5M projected costs were attributed to an accumulation of funds at \$300K for 5 consecutive years; this put the estimated construction around 2024. The looming compliance dates of 2023 and 2028 to achieve the respective 40% and 100% pollutant reduction goals have promoted staff to reassess completing the project sooner to minimize construction delays that could adversely influence compliance with the County's MS4 permit (Municipal Separate Storm Sewer System). Staff presumes to proceed through project process following incorporation in the budget; continued protraction of the project may result in greater costs.

Storm Water: Brooks Park Stream Restoration

- Operating costs occurring during construction include oversight by a County project manager / administration at an estimated \$50,000.00 for the duration of the project. The project's permit to impact wetlands (Army Corps of Engineers) calls for a 5-year monitoring period assumed to cost \$5,000.00 annually for a cumulative \$25,000.00.
- Approximately \$167,000.00 has been spent [since Feb 2017] on design costs; a 2018 SLAF grant (Stormwater Local Assistance Fund) was awarded for \$99,999.00; staff has determined to apply for 2019 SLAF grant of \$987,000.00 to replace the 2018 award.

The project has been determined to be the most cost-effective for collective phosphorus (P), nitrogen (N), and sediment (S) reductions. The complete P obligation will be addressed by the project; there will be residual N and S loads to be addressed at marginal costs. These numbers will be better understood/addressed following the stream restoration project.

Alternative:

Additional storm water retrofit projects have been identified in the Rappahannock River watershed to help meet the TMDL requirement. However, the stream restoration project in St. Clair Brooks Memorial Park was selected based on numerous factors that favor Stafford County.

Storm Water: Brooks Park Stream Restoration

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Brooks Park Steam Restoration	\$167,000	\$0	\$1,639,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Expenditures	\$167,000	\$0	\$1,639,000	\$0							

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
3R County Funding	0	0	352,000	0	0	0	0	0	0	0	0
Use of Prior Year Fund Balance General Fund	167,000	0	300,000	0	0	0	0	0	0	0	0
State Grants	0	0	987,000	0	0	0	0	0	0	0	0
Total Revenues	\$167,000	\$0	\$1,639,000	\$0							

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total Operating Impacts	\$0									

CAPITAL IMPROVEMENT PROGRAM

FY2021 Adopted Budget

Parks, Recreation, and Cultural and Community Facilities 3R

Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (Includes PY Funding)
Library #4	0	0	0	0	0	0	0	0	0	0	50,000	0	50,000	50,000
Carl Lewis	0	0	0	71,000	520,000	0	0	0	0	0	0	591,000	0	591,000
Patawomeck Park	0	88,000	75,000	763,330	0	0	0	0	0	0	0	926,330	0	926,330
Mountain View Park	0	0	88,000	0	85,000	1,405,000	0	0	0	0	0	1,578,000	0	1,578,000
Musselman Park	0	88,000	0	0	85,000	780,760	170,000	0	0	0	0	953,760	170,000	1,123,760
Duff Park	0	0	88,000	0	0	0	0	0	0	0	0	88,000	0	88,000
Parks Recreation 3R	0	95,000	0	0	0	0	0	0	0	0	0	95,000	0	95,000
Community Facilities and Asset Management 3R	0	926,000	0	0	0	0	0	0	0	0	0	926,000	0	926,000
Total Expenditures	\$0	\$1,197,000	\$251,000	\$834,330	\$690,000	\$2,185,760	\$170,000	\$0	\$0	\$0	\$50,000	\$5,158,090	\$220,000	\$5,378,090

Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (Includes PY Funding)
Bond Proceeds	0	0	0	0	0	0	0	0	0	0	50,000	0	50,000	50,000
Current Revenue 3R - County	0	698,000	0	0	0	0	0	0	0	0	0	698,000	0	698,000
Use of Prior Year Fund Balance General Fund	0	293,000	0	0	0	0	0	0	0	0	0	293,000	0	293,000
Master Lease Proceeds	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proffers	0	176,000	251,000	834,330	690,000	2,185,760	170,000	0	0	0	0	4,137,090	170,000	4,307,090
Radio Funding	0	30,000	0	0	0	0	0	0	0	0	0	30,000	0	30,000
One Time	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0	0
State Grants	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0	0
Federal Grants	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0	0
Total Revenues	0	\$1,197,000	\$251,000	\$834,330	\$690,000	\$2,185,760	\$170,000	\$0	\$0	\$0	\$50,000	\$5,158,090	\$220,000	\$5,378,090

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (Includes PY Funding)
Personnel	0	0	0	0	0	95,000	96,000	207,000	211,000	216,000	0	825,000	825,000
Operating	0	0	0	0	387,000	65,000	68,000	69,000	70,000	71,000	387,000	343,000	730,000
Cost Savings/Revenue	0	0	0	0	0	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	0	(25,000)	(25,000)
Total Operating Impacts	\$0	\$0	\$0	\$0	\$387,000	\$155,000	\$159,000	\$271,000	\$276,000	\$282,000	\$387,000	\$1,143,000	\$1,530,000

Parks, Recreation, and Cultural: Library #4

Project Code		Square Footage/Acreage	25000
Project Type	Building Construction	Construction Cost per Sq. Ft.	\$776
Project Status	Construction	Operating Cost per Sq. Ft.	\$10
Functional Area	Parks & Recreation	Student Capacity	
Estimated Project Cost	\$19,338,000	Est. Opening Date	FY2032
Current Year Cost	\$14,905,000	Funding Source	Bond
Debt Service	\$1,622,000	Years Financed	20
Full Year Operating Impact	\$252,000	Tax Rate Equivalent	

Project Description:

The Central Rappahannock Regional Library (CRRL) Board of Trustees is recommending the opening of a new branch library in the County to meet current unmet demands and to accommodate projected new population growth. High demand for books, programming, meeting rooms, computers and other library services at the Porter and Howell libraries will be relieved by a forth library facility in the developing residential/commercial Courthouse area. The facility will be needed to keep pace with population growth and the development of core infrastructure by Stafford County to provide comprehensive education and quality of life opportunities for all County residents. Three options for a new facility could include a traditional branch which would be similar to Porter and England Run libraries, or a store front facility which could be located at a retail venue in the downtown courthouse complex.

Operating Impact Summary:

Operating costs associated with the project are estimated. Cost can vary not knowing the size of the facility,

Location:

Recommended to be included in the proposed new Downtown Stafford project

Relationship to Approved County Policy or Plan:

Stafford County 2040 Strategic Plan

Parks, Recreation, and Cultural: Library #4

Analysis of Need:

A new branch library in the County is needed to meet current and projected population growth.

Change or Reasons for Revisions:

FY2013 - New to the CIP, project to begin in FY2022

FY2014 - Project moved to the right one year, reduced funding based on affordability

FY2015 - No Change

FY2016 - Project moved to last year of the CIP (2025) - \$1M for planning and design

FY2017 - Project moving forward - based on affordability

FY2018 - Project moved to last year of CIP (2027) based on affordability

FY2019 - Change in funding amount for planning and design. Change in revenue source.

FY2020 – Project remains in last year of CIP.

FY2021 – Project remains in last year of CIP.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	0	0	0	0	0	0	0	50,000
Total	\$0	\$50,000									

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Bond Proceeds	0	0	0	0	0	0	0	0	0	0	50,000
Total	\$0	\$50,000									

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0									

Parks, Recreation, and Cultural: Carl Lewis Community Center

Project Code		Square Footage/Acreage	1180/sq. ft. structure
Project Type	Building Construction	Construction Cost per Sq. Ft.	\$286
Project Status	Construction	Operating Cost per Sq. Ft.	\$45 per year
Functional Area	Parks & Recreation	Student Capacity	
Estimated Project Cost	\$591,000	Est. Opening Date	FY2025
Current Year Cost	\$487,000	Funding Source	Proffers
Debt Service	No Debt Service	Years Financed	0
Full Year Operating Impact	\$5,000	Tax Rate Equivalent	

Project Description:

The Carl Lewis Community Center is frequently rented by the citizens of Stafford. The facility is also a meeting place for Boy Scouts. Proffer funds can be used to increase capacity by adding on another hall with a commercial kitchen, additional paved ADA parking and ADA accessible restrooms. Proffer funds are available to cover the cost of this expansion. Startup cost includes items for the kitchen and additional tables with chairs.

Operating Impact Summary:

Minimal operation cost with the expansion of utilities, cleaning, trash and parking lot maintenance.

Location:

Carl Lewis Community Center

Relationship to Approved County Policy or Plan:

Park utilization Study - Phase II

- Upgrade outdated amenities at existing parks
- Increase indoor recreation facilities

Parks, Recreation, and Cultural: Carl Lewis Community Center

Analysis of Need:

Carl Lewis is a well rented facility, with a small residential kitchen, located in the North East area of the County. The structure is small and not efficient with non-ADA accessible restrooms and kitchen. Parking lot is gravel and not organized.

Change or Reasons for Revisions:

FY2021 – New project, Proffers funds available and designated for this project

Alternative:

The County can continue using existing structure as is however, patrons with disabilities will find the facility difficult.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	71,000	0	0	0	0	0	0	0
Construction / Project	0	0	0	0	506,000	0	0	0	0	0	0
Contingency	0	0	0	0	14,000	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$71,000	\$520,000	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Proffers	0	0	0	71,000	520,000	0	0	0	0	0	0
Total	\$0	\$0	\$0	\$71,000	\$520,000	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Operating		0	0	0	0	5,000	5,000	5,000	5,000	5,000
Revenue/Savings		0	0	0	0	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Parks, Recreation, and Cultural: Patawomeck Park

Project Code	PRF100	Square Footage/Acreage	
Project Type	Building Construction	Construction Cost per Sq. Ft.	
Project Status	Construction	Operating Cost per Sq. Ft.	
Functional Area	Parks & Recreation	Student Capacity	
Estimated Project Cost	\$1,014,000	Est. Opening Date	FY2029
Current Year Cost		Funding Source	Proffer
Debt Service		Years Financed	
Full Year Operating Impact		Tax Rate Equivalent	

Project Description:

Master Plan Patawomeck Park Phase #2. Possible location of a dog park, community center, and multi-sport venue with rectangle and diamond fields that could increase sports tourism and increase current sports events held throughout the county. Available proffer funds will be used to design and construct recommended amenities consistent with plan as Phase 2A. Complete build out of the park will be through bond funding as Phase 2B. The Master Plan will identify park amenities and facilities. With this information PRCF will be able to give an improved project construction cost.

Operating Impact Summary:

No operating costs associated with this project at this time.

Location:

Patawomeck Park

Parks, Recreation, and Cultural: Patawomeck Park

Relationship to Approved County Policy or Plan:

Park Utilization Study - Phase I – Athletic Fields

- North Central, North West, and South West and South East parts of the County are identified areas with low levels of service for rectangle fields

Park Utilization Study – Phase II

- Add amenities to maintain the current level of service with future growth

Stafford County 2040 Strategic Plan – Parks and Recreation Master Plan

- Heartbeat of Recreation, History and Culture
 - #3.4 Evaluate/Update the Parks and Recreation Master Plan to focus on providing a wider range of recreational opportunities

Analysis of Need:

Utilization Studies identified the need for sport fields in the North area of the County and provide for future population growth. Without Master Plan estimating operating cost is problematic. Type of amenities and their annual cost vary. Park has established entrance, well, irrigation and other utilizes constructed that could minimize some impacts.

Change or Reasons for Revisions:

FY2009 - FY2019 –submitted as Bond project only

FY2020 – postponed

FY2021 – New to the CIP. Funded with Proffers

Alternative:

Delay Master Planning of Patawomeck Park until bond is acquired to build out park without phasing.

Parks, Recreation, and Cultural: Patawomeck Park

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	88,000	75,000	0	0	0	0	0	0	0	0
Construction / Project	0	0	0	763,330	0	0	0	0	0	0	0
Total Project Cost	\$0	\$88,000	\$75,000	\$763,330	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Proffers	0	88,000	75,000	763,330	0	0	0	0	0	0	0
Total	\$0	\$88,000	\$75,000	\$763,330	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Parks, Recreation, and Cultural: Mountain View Property

Project Code		Square Footage/Acreage	~ \$220,000/Acre
Project Type	Building Construction	Construction Cost per Sq. Ft.	
Project Status	Construction	Operating Cost per Sq. Ft.	
Functional Area	Parks & Recreation	Student Capacity	
Estimated Project Cost	\$1,578,000	Est. Opening Date	
Current Year Cost		Funding Source	Proffers
Debt Service		Years Financed	
Full Year Operating Impact		Tax Rate Equivalent	

Project Description:

Master Plan Mountain View property. Possible location of a dog park and sports venue with rectangle or diamond fields that could increase sports tourism and increase current sports events held throughout the county. The Park Utilization Field Study – Phase I identified area as limited services available for rectangle and diamond fields. Upon completion of the Master Plan for the park, design and construct the recommended amenities consistent with the Park Master Plan. Master Plan will better project construction cost. Phase 1 will utilize proffer funds to start project and completion (phase 2) will be through additional proffers as available or future bond funding. Approximately 28 acres south of Margaret Brent Elementary and 11 acres in front of Mountain View High School. Anticipating savings on parking lot construction by sharing overflow parking spaces (tournament) with High School.

Operating Impact Summary:

Staffing park with one part-time employee estimated at \$35,000 a year. Operating estimates based on amenities that proffers could construct and support.

Location:

Mountain View Property

Relationship to Approved County Policy or Plan:

Park Utilization Study - Phase I – Athletic Fields

- Improve conditions and access to rectangle and diamond fields, general field improvements on facilities that will maximize usage and user experience
- Improve parking and traffic flow

Parks, Recreation, and Cultural: Mountain View Property

- North central and Southeast parts of the County are identified areas with low levels of service for Diamond fields
- North central, Northwest, and Southwest and Southeast parts of the County are identified areas with low levels of service for rectangle fields

Park Utilization Study – Phase II

- Add amenities to maintain the current level of service with future growth

Stafford County 2040 Strategic Plan – Parks and Recreation Master Plan

- Heartbeat of Recreation, History and Culture
 - #3.4 Evaluate/Update the Parks and Recreation Master Plan to focus on providing a wider range of recreational opportunities

Analysis of Need:

Utilization Studies identified the need for sport fields in the North Central area of the County and provide for future population growth.

Change or Reasons for Revisions:

FY2021 – utilizing proffer funds to Master Plan and start construction of amenities

Alternative:

Postpone Master Planning of Mountain View property until bond is acquired to build out park without phasing

Parks, Recreation, and Cultural: Mountain View Property

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	88,000	0	85,000	0	0	0	0	0	0
Construction / Project	0	0	0	0	0	1,405,000	0	0	0	0	0
Total	\$0	\$0	\$88,000	\$0	\$85,000	\$1,405,000	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Proffers	0	0	88,000	0	85,000	1,405,000	0	0	0	0	0
Total	\$0	\$0	\$88,000	\$0	\$85,000	\$1,405,000	\$0	\$0	\$0	\$0	\$0

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Personnel	0	0	0	0	0	35,000	35,000	36,000	37,000	38,000
Operating	0	0	0	0	145,000	45,000	46,000	47,000	48,000	49,000
Total	\$0	\$0	\$0	\$0	\$145,000	\$80,000	\$81,000	\$83,000	\$85,000	\$87,000

Parks, Recreation, and Cultural: Musselman Property

Project Code	PRF101	Square Footage/Acreage	\$150,000/acre
Project Type	Building Construction	Construction Cost per Sq. Ft.	
Project Status	Construction	Operating Cost per Sq. Ft.	
Functional Area	Parks & Recreation	Student Capacity	
Estimated Project Cost	\$1,123,760	Est. Opening Date	FY2026
Current Year Cost		Funding Source	Proffer
Debt Service		Years Financed	
Full Year Operating Impact		Tax Rate Equivalent	

Project Description:

Master Plan Musselman property. Possible location of passive activities such as trails, picnic areas, with sports similar to Bocce ball and Pickle ball. Upon completion of the Master Plan available proffer funds will be used to design and construct recommended amenities consistent with plan as Phase 1. The Master Plan will identify park amenities and facilities. With this information PRCF will be able to give an improved project construction cost. Complete build out of the park will be through additional proffers as available or future bond funding as Phase 2.

Operating Impact Summary:

Operating Costs in this Planning Period is for the full build out which would include phase 1 and phase 2.

Location:

Musselman Property

Parks, Recreation, and Cultural: Musselman Property

Relationship to Approved County Policy or Plan:

Park Utilization Study - Phase I – Athletic Fields

- North Central and South Eastern parts of the County are identified areas with low levels of service for Diamond fields
- North Central, North East, and South West and South East parts of the County are identified areas with low levels of service for rectangle fields

Park Utilization Study – Phase II

- Add amenities to maintain the current level of service with future growth
- Stafford County 2040 Strategic Plan – Parks and Recreation Master Plan
- Heartbeat of Recreation, History and Culture

#3.4 Evaluate/Update the Parks and Recreation Master Plan to focus on providing a wider range of recreational opportunities

Analysis of Need:

Outdoor recreational activities needed to meet the growth in population.

Change or Reasons for Revisions:

FY2018 - FY2019 –submitted as Bond project only

FY2020 – postponed

FY2021 – Master Planning and phase 1 will be funded with proffers

Alternative:

Delay Master Planning of park until bond is acquired to build out park without phasing.

Parks, Recreation, and Cultural: Musselman Property

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	88,000	0	0	85,000	0	0	0	0	0	0
Construction / Project	0	0	0	0	0	780,760	0	0	0	0	0
Contingency	0	0	0	0	0	0	170,000	0	0	0	0
Total	\$0	\$88,000	\$0	\$0	\$85,000	\$780,760	\$170,000	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Proffers	0	88,000	0	0	85,000	780,760	170,000	0	0	0	0
Total	\$0	\$88,000	\$0	\$0	\$85,000	\$780,760	\$170,000	\$0	\$0	\$0	\$0

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Personnel	0	0	0	0	0	60,000	61,000	171,000	174,000	178,000
Operating	0	0	0	0	242,000	15,000	16,000	16,000	16,000	16,000
Total	\$0	\$0	\$0	\$0	\$242,000	\$75,000	\$77,000	\$187,000	\$190,000	\$194,000

Parks, Recreation, and Cultural: Duff Green Park

Project Code		Square-Footage/Acreage	126/acres
Project Type	Building Construction	Construction Cost per Sq. Ft.	
Project Status	Planning	Operating Cost per Sq. Ft.	
Functional Area	Parks & Recreation	Student Capacity	
Estimated Project Cost	\$88,000	Est. Opening Date	
Current Year Cost		Funding Source	Proffers
Debt Service		Years Financed	
Full Year Operating Impact		Tax Rate Equivalent	

Project Description:

Create a Master Plan Duff Park to include the approximately 126 acres donated by Mr. Green. Possible multi-sport venue with rectangle and diamond fields that could increase sports tourism and increase current sports events held throughout the county. Upon completion, the Master Plan could be used to allocate proffer funds to construct amenities consistent with the Park Master Plan and the Patawomeck Indian Museum. Master Plan will provide details to build a better representative cost estimates of amenities. Build out of park would be a draw to the Patawomeck Indian Museum.

Operating Impact Summary:

No operating costs associated with this project at this time

Location:

Duff Green Park

Relationship to Approved County Policy or Plan:

Park Utilization Study - Phase I – Athletic Fields

- Improve conditions and access to rectangle and diamond fields, general field improvements on facilities that will maximize usage and user experience
- Improve parking and traffic flow
- North central and Southeast parts of the County are identified areas with low levels of service for Diamond fields

Parks, Recreation, and Cultural: Duff Green Park

- North central, Northwest, and Southwest and Southeast parts of the County are identified areas with low levels of service for rectangle fields

Park Utilization Study – Phase II

- Add amenities to maintain the current level of service with future growth
- Stafford County 2040 Strategic Plan – Parks and Recreation Master Plan
- Heartbeat of Recreation, History and Culture
 - #3.4 Evaluate/Update the Parks and Recreation Master Plan to focus on providing a wider range of recreational opportunities

Analysis of Need:

Utilization Studies identified the need for sport fields in the South East area of the County and provide for future population growth.

Change or Reasons for Revisions:

FY2019 – proposed as a future bond project

FY2020 – not submitted

FY2021 – resubmit as a Master Plan project

Alternative:

Keep farming land to maintain property

Parks, Recreation, and Cultural: Duff Green Park

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	88,000	0	0	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$88,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Proffers	0	0	88,000	0	0	0	0	0	0	0	0
Total	\$0	\$0	\$88,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Parks, Recreation, and Cultural: 3R Projects

Project Code	See Below	Square Footage/Acreage	
Project Type	3-R	Construction Cost per Sq. Ft.	
Project Status		Operating Cost per Sq. Ft.	
Functional Area	Parks & Recreation	Student Capacity	
Estimated Project Cost	FY21 - \$95,000	Est. Opening Date	On-going
Current Year Cost			
Debt Service	N/A		
Full Year Operating Impact	N/A		

Project Description:

Parks and Recreation 3R projects for FY2021:

- Pratt Park Pavilion Roof Replacement – Project Code #PRF105
- Embrey Mill - Add protective netting fields 7 and 8 – Project Code #PRF104

Operating Impact Summary:

There will be no additional operating impacts associated with this project.

Location:

Varies Parks

Relationship to Approved County Policy or Plan:

Park Utilization Study – Phase II

- Upgrade outdoor amenities at existing Parks

Parks, Recreation, and Cultural: 3R Projects

Analysis of Need:

Maintain outdoor amenities to a standard of safe use and condition. Projects are based on condition and facility usage by patrons. Project will enhance experiences by protecting, preserving and extending the life of these amenities.

Alternative:

Close or restrict use of amenities as they fail and or become unsafe for patrons use. Restricting field use, closing pools and picnic shelters will have a negative impact on PRCF revenue.

Project Summary:

Location	Description	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Embrey Mill	Netting for Fields 7 and 8	0	66,000	0	0	0	0	0	0	0	0	0
Pratt Park	Roof replacement	0	29,000	0	0	0	0	0	0	0	0	0
Total		\$0	\$95,000	\$0								

	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Current Revenue	0	95,000	0	0	0	0	0	0	0	0	0
Total	\$0	\$95,000	\$0								

Operating Impacts	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Total	\$0									

Parks, Recreation, and Cultural: 3R Community Facilities, Asset Management

Project Code	See Project Description Below	Square Footage/Acreage	
Project Type	3-R	Construction Cost per Sq. Ft.	
Project Status		Operating Cost per Sq. Ft.	
Functional Area	Parks & Recreation	Student Capacity	
Estimated Project Cost	FY21 - \$896,000	Est. Opening Date	On-going
Current Year Cost		Funding Source	
Debt Service	N/A	Years Financed	
Full Year Operating Impact	N/A	Tax Rate Equivalent	

Project Description:

Parks, Recreation and Community Facilities 3R projects for FY2021:

- Community Courthouse Center Replace Roof - Section 2 – Project Code #PRF093
- George L. Gordon Building Public Works & Utilities Renovation and Security Upgrades – Project Code #PRF094
- Courthouse Replace Roof – Section 7 – Project Code #PRF089
- Health Department – Install Backflow Preventer – Project Code #PRF090
- George L. Gordon - Sidewalk Repair – Project Code #PRF095

Operating Impact Summary:

There will be no additional operating impacts associated with this project.

Location:

County Government Facilities and Park Buildings

Relationship to Approved County Policy or Plan:

Repair and replace building system components to preserve and extend the life of County structures.

Parks, Recreation, and Cultural: 3R Community Facilities, Asset Management

Analysis of Need:

Maintain County Facilities to a standard of safe use and condition. Repair and replace building system components to preserve and extend the life of County structures. Provide better ADA access to facilities. County building systems fail or become unreliable with age and usage. The asset management system takes the industry standard for the life of these systems and projects life cycle replacements.

Alternative:

Without a system to replace building systems the County could pay higher cost for systems with a as need emergency practice of replacements. As building become deteriorated repairs can be costly due to extended damage or work performed as an emergency.

Project Summary:

Location	Description	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Community Courthouse Center	Replace roof over gym section 2	0	413,000	0	0	0	0	0	0	0	0	0
Government Building	Public Works & Utilities Renovation and Security Upgrades	0	293,000	0	0	0	0	0	0	0	0	0
Courthouse	Replace section 7 of roof on Courthouse	0	113,000	0	0	0	0	0	0	0	0	0
Health Department	Building has no backflow preventer	0	47,000	0	0	0	0	0	0	0	0	0
Glendie Tower	Repair access road damaged from heavy rain add larger culverts and gravel	0	30,000	0	0	0	0	0	0	0	0	0
Government Center Complex	Sidewalk repair, heaving causing trip hazard	0	30,000	0	0	0	0	0	0	0	0	0
Total		\$0	\$926,000	\$0								

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Current Revenue - County	0	603,000	0	0	0	0	0	0	0	0	0
Use of Prior Year Fund Balance General Fund	0	293,000	0	0	0	0	0	0	0	0	0
Radio Funding`	0	30,000									
Total		\$0	\$926,000	\$0							

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0									

CAPITAL IMPROVEMENT PROGRAM

FY2021 Adopted Budget

Transportation

Projected Uses	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Total Projected Uses (Includes PY Funding)
Belmont - Ferry Farm Trail (Phase 6)	850,000	1,820,000	0	0	0	0	0	0	0	0	0	1,820,000	0	2,670,000
Courthouse Road and Route 1 Intersection Improvement	8,065,000	10,655,200	0	0	0	0	0	0	0	0	0	10,655,200	0	18,720,200
Enon Road and Route 1 Improvements	0	0	1,200,000	3,300,000	0	6,100,000	0	0	0	0	0	10,600,000	0	10,600,000
Roadway Safety/Widening Improvements	588,890	126,110	0	0	0	0	0	0	0	0	0	126,110	0	715,000
Route 1 & Telegraph Rd/Woodstock Ln Improvements	4,300,000	4,500,000	0	0	0	0	0	0	0	0	0	4,500,000	0	8,800,000
Stefaniga Road and Mountain View Road Intersection Improvements	\$0	\$0	\$0	\$600,000	\$900,000	\$2,200,000	\$0	\$0	\$0	\$0	\$0	3,700,000	0	3,700,000
Tech Center Drive	0	0	0	0	0	0	0	0	25,000	0	0	-	25,000	25,000
<i>Bond Funded</i>														
Garrisonville Road Widening (Eustance Rd to Shelton Shop Rd)	0	0	0	0	0	2,500,000	7,000,000	1,500,000	18,500,000	0	0	2,500,000	27,000,000	29,500,000
Layhill Road Improvements	0	0	0	0	1,050,000	2,200,000	5,250,000	0	0	0	0	3,250,000	5,250,000	8,500,000
Leeland Road Widening	0	0	1,422,620	5,584,380	0	0	0	0	0	0	0	7,007,000	0	7,007,000
Morton Road Widening	0	0	0	1,000,000	2,060,000	3,400,000	0	0	0	0	0	6,460,000	0	6,460,000
Mountain View Road Improvement (Kellogg Mill Rd to Choptank Rd)	0	0	0	0	0	0	0	2,300,000	7,000,000	1,000,000	15,895,000	-	26,195,000	26,195,000
Onville Road Widening	0	0	0	0	0	0	0	1,600,000	5,900,000	8,200,000	0	-	15,700,000	15,700,000
Shelton Shop Road Improvements	0	0	1,500,000	8,000,000	1,500,000	0	11,700,000	0	0	0	0	11,000,000	11,700,000	22,700,000
<i>Service Districts</i>														
Berea Church Road (SR-654) Improvements	1,896,500	4,433,467	0	0	0	0	0	0	0	0	0	4,433,467	0	6,329,967
Flatford Road Sidewalk	130,130	519,870	0	0	0	0	0	0	0	0	0	519,870	0	650,000
Salisbury Drive Sidewalk	0	0	0	198,000	280,000	415,700	0	0	0	0	0	893,700	0	893,700
Staffordboro Boulevard Sidewalk	0	0	0	190,000	500,000	387,500	0	0	0	0	0	1,077,500	0	1,077,500
Total Expenditures	\$15,830,520	\$22,054,647	\$4,122,620	\$18,872,380	\$6,290,000	\$17,203,200	\$23,950,000	\$5,400,000	\$31,425,000	\$9,200,000	\$15,895,000	\$68,542,847	\$85,870,000	\$170,243,367

CAPITAL IMPROVEMENT PROGRAM

FY2021 Adopted Budget

Projected Sources	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Total Projected Sources (Includes PY Funding)
Bond Proceeds	0	0	1,258,870	6,792,190	3,110,000	5,370,000	15,898,940	4,670,000	12,900,000	0	0	16,531,060	33,468,940	50,000,000
Current Revenue - County	1,275,200	620,959	711,310	0	0	0	0	0	0	0	0	1,332,269	\$0	2,607,469
Use of Prior Year Fund Balance Transportation	5,747,761	0	0	600,000	400,000	0	0	0	25,000	0	0	1,000,000	25,000	6,772,761
Proffers	1,087,603	1,202,230	0	0	0	0	0	0	0	0	0	1,202,230	0	2,289,833
Service District	326,026	1,881,354	0	368,740	25,500	0	0	0	0	700,000	0	2,275,594	700,000	3,301,620
TAP - Transportatin Alternative Program	790,916	1,865,084	0	19,260	754,500	803,200	0	0	0	0	0	3,442,044	0	4,232,960
CMAQ - Congestion Mitigation and Air Quality	0	0	0	787,339	0	1,362,642	0	0	0	0	0	2,149,981	0	2,149,981
RSTP - Regional Service Transportation Program	0	0	86,762	25,000	0	2,543,921	0	0	0	0	0	2,655,683	0	2,655,683
Smart Scale	3,024,800	9,146,300	0	2,367,370	500,000	4,285,091	1,513,430	0	11,600,000	0	7,595,000	16,298,761	20,708,430	40,031,991
Fuel Tax	588,890	126,110	0	0	0	0	0	0	0	0	0	126,110	0	715,000
Revenue Sharing	2,989,324	7,212,610	952,440	7,792,190	1,500,000	2,730,000	6,537,630	730,000	6,900,000	8,500,000	8,300,000	20,187,240	30,967,630	54,144,194
Impact Fees	0	0	1,113,238	120,291	0	108,346	0	0	0	0	0	1,341,875	0	1,341,875
Total Revenues	\$15,830,520	\$22,054,647	\$4,122,620	\$18,872,380	\$6,290,000	\$17,203,200	\$23,950,000	\$5,400,000	\$31,425,000	\$9,200,000	\$15,895,000	\$68,542,847	\$85,870,000	\$170,243,367

Use of Prior Year Fund Balance General Fund ⁽¹⁾	4,000,000	0	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	8,000,000	5,000,000	\$13,000,000
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⁽¹⁾ FY2021-FY2030 Use of General Fund Prior Year Fund Balance is dependant on Positive Results of Operation (PRO) to cover changes to revenue and expenditures assumptions.

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Total Projected Uses (Includes PY Funding)
Debt Service	0	0	105,000	674,000	934,000	1,383,000	2,714,000	3,104,000	4,184,000	4,184,000	1,713,000	15,569,000	17,282,000
Total	\$0	\$0	\$105,000	\$674,000	\$934,000	\$1,383,000	\$2,714,000	\$3,104,000	\$4,184,000	\$4,184,000	\$1,713,000	\$15,569,000	\$17,282,000

Transportation: Belmont: Ferry Farm Trail: Phase 6

Project Code		Project Length	3,500 feet
Project Type	Trails and Sidewalks	Cost per Linear Foot	\$762 per foot
Project Status	Design/Engineering	Estimated Opening Date	December 1, 2023
Total Project Cost	\$2,670,000		
Functional Area	Transportation		
Total Debt Service			
Full Year Operating Impact			

Project Description:

The project consists of constructing a portion of the Belmont-Ferry Farm Trail. The target segment is Phase 6, which is from the Chatham Bridge to the existing bike lanes on Cool Springs Drive. Design of Phase 6 of the Belmont-Ferry Farm Trail is at the conceptual stage. This project will complete the design, permitting, and construction of Phase 6. This project has been awarded Transportation Alternatives Program (TAP) grant money through VDOT.

Operating Impact Summary:

Once completed, county staff will have personnel provide upkeep of the trail. Staff will be tasked with keeping the trail free of debris and vegetation, repair of damage to the trail over time, etc.

Location:

Proposed improvements are from Chatham Bridge to Jett Drive/Cool Springs Drive.

Relationship to Approved County Policy or Plan:

- The adopted 2016-2036 Comprehensive Plan supports this project.
- The County’s Bicycle and Pedestrian Plan calls for the development of a safe, comprehensive and connected regional network of on-road and off-road bicycle and pedestrian corridors and related facilities.
- Supports the Board of Supervisors Strategic Priority – Responsive Transportation System.

Transportation: Belmont: Ferry Farm Trail: Phase 6

Analysis of Need:

Constructing this final phase of the trail would connect pedestrians to existing bicycle lanes which currently run along Cool Springs Drive.

Change or Reasons for Revisions:

- **FY2019** – Through lengthy coordination efforts with the George Washington Foundation, staff was directed to change the terminus of the trail to connect to the bike lanes located at Cool Springs Road/Jett Drive and Kings Highway (Route 3). The projected costs will likely be reduced, however, for the purposes of this Capital Improvement Program, the existing cost estimates of this project remain the same.
- **FY2020** – Staff continues to evaluate the optimum trail alignment considering existing and proposed development.
- **FY2021** – Minor cost increase from \$2,516,000 to \$2,670,000 due to inflation.

Alternative:

Trail will end with phase 4 on the downstream side of the Chatham Bridge.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	600,000	0	0	0	0	0	0	0	0	0	0
Property Acquisition	250,000	0	0	0	0	0	0	0	0	0	0
Construction / Project	0	1,820,000	0	0	0	0	0	0	0	0	0
Total	\$850,000	\$1,820,000	\$0								

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Current Revenue - County	0	370,812	0	0	0	0	0	0	0	0	0
Use of Prior Year Fund Balance Transportation	163,188	0	0	0	0	0	0	0	0	0	0
TAP - Transportatin Alternative Program	686,812	1,449,188	0	0	0	0	0	0	0	0	0
Total	\$850,000	\$1,820,000	\$0								

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$93,000	\$62,000	\$64,000	\$65,000	\$67,000	\$69,000	\$71,000	\$71,000	\$74,000

Transportation: Courthouse Road and Route 1 Intersection Improvement

Project Code		Project Length	0.65 miles
Project Type	Road Improvements	Cost per Mile	\$28.030 million
Project Status	Property Acquisition	Est. Opening Date	June 1, 2024
Total Project Cost	\$18,720,200	Avg. Annual Daily Traffic	18,000 vehicles
Functional Area	Transportation		
Total Debt Service			
Full Year Operating Impact			

Project Description:

The Jefferson Davis Highway (RT 1) and Courthouse Road Intersection Improvement Project will widen approximately 0.65 miles of RT 1 to provide dedicated left-turn lanes onto Courthouse Road and Bells Hill/Hope Road. RT 1 will be improved to a 4-lane, divided roadway with a concrete median separating northbound and southbound traffic. Dedicated left-turn lanes will be added to RT 1 at Courthouse Road and the Bells Hill/Hope Road intersection to improve traffic signal function and reduce intersection delays. Eastbound Courthouse Road will be widened to provide a dedicated left-turn, right-turn, and through lane. Westbound Courthouse Road will be re-striped to provide a dedicated left-turn, right-turn, and through lane. An 8 foot sidewalk will also be installed along both sides of RT 1.

Operating Impact Summary:

All roadway improvements are done within VDOT right-of-way and therefore the maintenance of this roadway will continue to be VDOT’s responsibility.

Location:

Proposed improvements are planned at the intersection of Courthouse Road and RT 1.

Relationship to Approved County Policy or Plan:

- On September 15, 2015, the Board of Supervisors (BOS) supported the submission of an application to compete for VDOT’s Smart Scale funding program. Project was subsequently awarded \$4.646M in Smart Scale funds.
- Supports the BOS Strategic Priority – Responsive Transportation System.

Transportation: Courthouse Road and Route 1 Intersection Improvement

Analysis of Need:

The intersection of Courthouse Road and RT 1 has a “Level of Service” of "F" during peak morning and afternoon traffic periods. Furthermore, RT 1 serves as the primary alternate route for when backups occur on I-95.

Change or Reasons for Revisions:

- **FY2020** – Project cost has increased due to increase in Right-of-Way acquisition costs (settlements/condemnation) and increase in construction costs associated with inflation. This cost increase has been offset through the addition of proffer funds and additional Revenue Sharing funds.
- **FY2021** – Project cost has increased to \$18,720,200 from \$14,884,567 due to increases in Right-of-Way acquisition costs (settlements/condemnation) and increase in construction costs associated with inflation. This cost increase has been offset through additional Revenue Sharing funds.

Alternative:

Roadway stays in current condition.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	1,065,000	0	0	0	0	0	0	0	0	0	0
Property Acquisition	7,000,000	2,700,200	0	0	0	0	0	0	0	0	0
Construction / Project	0	7,955,000	0	0	0	0	0	0	0	0	0
Total	\$8,065,000	\$10,655,200	\$0								

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Current Revenue - County	0	250,147	0	0	0	0	0	0	0	0	0
Use of Prior Year Fund Balance Transportation	5,584,573	0	0	0	0	0	0	0	0	0	0
Proffers	0	1,202,230	0	0	0	0	0	0	0	0	0
Smart Scale	0	4,646,300	0	0	0	0	0	0	0	0	0
Revenue Sharing	2,480,427	4,556,523	0	0	0	0	0	0	0	0	0
Total	\$8,065,000	\$10,655,200	\$0								

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0									

Transportation: Enon Road and Route 1 Improvements

Project Code		Project Length	0.63 miles
Project Type	Road Improvements	Cost per Mile	\$16.825 million
Project Status	Planning	Est. Opening Date	November 1, 2026
Total Project Cost	\$10,600,000	Avg. Annual Daily Traffic	6,000 vehicles
Functional Area	Transportation		
Total Debt Service			
Full Year Operating Impact			

Project Description:

Project will widen approximately 0.63 miles on Enon Road from 0.02 miles west of the intersection with Beauregard Drive to the intersection with Jefferson Davis Highway (US-1). The project will provide a continuous two-way left turn lane from the intersection with Beauregard Drive to Stafford Indians Lane and dedicated left-turn and right-turn lanes at the intersection with Stafford Indians Lane. The intersection with Porter Lane will also be improved to a 90 degree connection to provide sight distance to current standards. An additional left-turn lane will be added to Route 1 North, and an additional receiving lane will be added to Enon Rd to accommodate the dual left turns from Route 1. The project will also add dedicated left, through, and right-turn lanes for traffic exiting Enon onto Route 1. A 5' concrete sidewalk will also be provided along Enon Road.

Operating Impact Summary:

All roadway improvements are done within VDOT right-of-way and therefore the maintenance of this roadway will continue to be VDOT’s responsibility.

Location:

Proposed improvements are planned along Enon Road, from the intersection with Route 1 to Beauregard Drive, and on Route 1 at the intersection with Enon Road.

Relationship to Approved County Policy or Plan:

- The County’s Comprehensive Plan calls for Enon Road to be improved to a 2-lane upgrade as well as safety improvements along it.
- On March 20, 2018, the Board of Supervisors (BOS) supported the submission of an application to compete for VDOT’s Smart Scale funding program. Project subsequently received \$4.442M in Smart Scale funds.
- Supports the BOS Strategic Priority – Responsive Transportation System.

Transportation: Enon Road and Route 1 Improvements

Analysis of Need:

A traffic study was conducted by staff that highlights the current volumes (approximately 11,000 vehicles per day; multiple peak hours exceeding 900 vehicles per hour) traveling on Enon Road between Route 1 and Stafford Indians Lane (main entrance into Stafford High School). Enon Road is currently a two-lane roadway facility which is not designed to handle this high traffic volume.

Change or Reasons for Revisions:

- **FY2020** – Applied for Smart Scale funding and initially did not receive any funding. Due to some internal program changes, the project was eventually awarded a combination of Smart Scale and CMAQ/RSTP funding.
- **FY2021** – Funding timeline has changed based on late award of Smart Scale funding.

Alternative:

- Roadway stays in current condition.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	1,200,000	0	0	0	0	0	0	0	0
Property Acquisition	0	0	0	3,300,000	0	0	0	0	0	0	0
Construction / Project	0	0	0	0	0	6,100,000	0	0	0	0	0
Total	\$0	\$0	\$1,200,000	\$3,300,000	\$0	\$6,100,000	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
CMAQ - Congestion Mitigation and Air Quality	0	0	0	787,339	0	1,362,642	0	0	0	0	0
RSTP - Regional Service Transportation Program	0	0	86,762	25,000	0	2,543,921	0	0	0	0	0
Smart Scale	0	0	0	2,367,370	0	2,085,091	0	0	0	0	0
Impact Fees	0	0	1,113,238	120,291	0	108,346	0	0	0	0	0
Total	\$0	\$0	\$1,200,000	\$3,300,000	\$0	\$6,100,000	\$0	\$0	\$0	\$0	\$0

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0									

Transportation: Roadway Safety/Widening Improvements

Project Code		Project Length	Variable
Project Type	Road Improvements	Cost per Mile	Variable
Project Status	Planning	Est. Opening Date	Variable
Total Project Cost	\$9,943,350	Avg. Annual Daily Traffic	Variable
Functional Area	Transportation		
Total Debt Service			
Full Year Operating Impact			

Project Description:

Roadway Safety/Widening Improvement Projects will focus on improving the safety of secondary roads of Stafford County. Improvements will vary based on location and needs identified and may consist of: trimming of roadside brush and trees to provide increased sight distance, the widening/hardening of roadway shoulders with asphalt pavement, additional signage/markers, asphalt pavement resurfacing, etc.

Operating Impact Summary:

All roadway improvements are done within VDOT right-of-way and therefore the maintenance of this roadway will continue to be VDOT’s responsibility.

Location:

Proposed improvements are planned, in no particular order, along various routes listed in the 2019 Transportation Bond Referendum and as follows: Woodstock Lane (Rt. 639); Falls Run Drive (Rt. 618); Brooke Road (Rt. 608 – New Hope Church Road to Eskimo Hill Road); Kellogg Mill Road (Rt. 651); Tacketts Mill Road (Rt. 612 – Heflin Road to Aquia Road); Heflin Road (Rt. 612); Brent Point Road (Rt. 658 – Arkendale Road to End); McWhirt Loop (Rt. 700); Stefaniga Road (Rt. 648); Truslow Road (Rt. 652 – Cambridge Street to Berea Church Road); Hartwood Road (Rt. 612); Spotted Tavern Road (Rt.614); Decatur Road (Rt. 635); Little Whim Road (Rt. 669); Potomac Run Road (Rt. 626); Rock Hill Church Road (Rt. 644); Cropp Road (Rt. 615); Brooke Road (Rt. 608 - Eskimo Hill Road to End); Tacketts Mill Road (Rt. 646 – Poplar Road to Heflin Road); Ramoth Church Road (Rt. 628); Andrew Chapel Road (Rt. 629); Poplar Road (Rt. 616 – US 17 to Stefaniga Road); Winding Creek Road (Rt. 628 – Embrey Mill Road to Shelton Shop Road); Telegraph Road (Rt. 637); Joshua Road (Rt. 643); Garrisonville Road (Rt. 610 – Joshua Road to Arrowhead Drive); Enon Road (Rt. 753 – Beauregard Drive to Truslow Road); Courthouse Road (Rt. 630 – Winding Creek Road to Shelton Shop Road); Ferry Road (Rt. 606); Winding Creek Road (Rt. 628 – Courthouse Road to Embrey Mill Road); Barrett Heights Road (Rt. 642); Mountain View Road (Rt. 627 – Centreport Parkway to Kellogg Mill Road); Hope Road (Rt. 687); Garrisonville Road (Rt. 610 – Arrowhead Drive to Faquier CL); Poplar Road (Rt. 616 – Stefaniga Road to Hartwood Road

Transportation: Roadway Safety/Widening Improvements

Relationship to Approved County Policy or Plan:

- Supports the BOS Strategic Priority – Responsive Transportation System.

Analysis of Need:

Improvements to various secondary roads were identified in the County’s Comprehensive Road Evaluation Final Report dated April 2018. The number and frequency of traffic accidents coupled with the existing traffic on the road prioritized these roadways for improvements.

Change or Reasons for Revisions:

FY2021 – List of secondary road improvement projects was included in Stafford County’s 2019 \$50 Million Road Improvement Bond Referendum as a priority for roadway safety & shoulder widening improvements.

Alternative:

Roadways stay in current condition.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	588,890	578,800	500,000	912,556	912,556	912,556	912,556	912,556	912,556	912,556	912,556
Total	\$588,890	\$578,800	\$500,000	\$912,556							
Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Fuel Tax	588,890	578,800	500,000	912,556	912,556	912,556	912,556	912,556	912,556	912,556	912,556
Total	\$588,890	\$578,800	\$500,000	\$912,556							
Operating Impacts		FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total		\$0									

Transportation: Route 1 & Telegraph Road/Woodstock Lane Safety Improvements

Project Code		Project Length	0.57 miles
Project Type	Road Improvements	Cost per Mile	\$15.439 million
Project Status	Design/Engineering	Est. Opening Date	December 1, 2022
Total Project Cost	\$8,800,000	Avg. Annual Daily Traffic	28,000 vehicles
Functional Area	Transportation		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This project will consist of intersection improvements at the intersections of Telegraph Road, Woodstock Lane, and Jefferson Davis Highway (RT 1). At the intersection with Telegraph Road, Telegraph Road will be re-aligned and a new traffic signal will be installed. Route 1 will be widened at the intersection with Woodstock Lane to allow for the installation of a concrete median which will restrict turning movements at this intersection. Following construction of the project, southbound Route 1 traffic will be able to make a left onto Woodstock Lane but due to the median, traffic exiting Woodstock Lane will only be allowed to turn right onto Route 1 northbound.

Operating Impact Summary:

All roadway improvements are done within VDOT right-of-way and therefore the maintenance of this roadway will continue to be VDOT’s responsibility.

Location:

Proposed improvements are planned at the intersections of Telegraph Road & Woodstock Lane and RT 1.

Relationship to Approved County Policy or Plan:

- On September 15, 2015, the Board of Supervisors (BOS) supported the submission of an application to compete for VDOT’s Smart Scale funding program. The project subsequently received \$7.5M in Smart Scale funding
- Supports the BOS Strategic Priority – Responsive Transportation System.

Transportation: Route 1 & Telegraph Road/Woodstock Lane Safety Improvements

Analysis of Need:

VDOT prepared an Intersection Safety Study in 2014 for these two intersections which identified the need for improvements. The improvements will reduce accidents along this stretch of RT 1. It will also help provide a steady flow of traffic by maintaining two through lanes reducing congestion and delays.

Change or Reasons for Revisions:

- **FY2020** – The project scope has changed to include a new connector road, but the project remains fully funded.
- **FY2021** – The project scope has reverted back to the original Smart Scale concept which removes the connector road; project remains fully funded.

Alternative:

Roadway stays in current condition.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	1,100,000	0	0	0	0	0	0	0	0	0	0
Property Acquisition	3,200,000	0	0	0	0	0	0	0	0	0	0
Construction / Project	0	4,500,000	0	0	0	0	0	0	0	0	0
Total	\$4,300,000	\$4,500,000	\$0								

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Current Revenue - County	1,275,200	0	0	0	0	0	0	0	0	0	0
Smart Scale	3,024,800	4,500,000	0	0	0	0	0	0	0	0	0
Total	\$4,300,000	\$4,500,000	\$0								

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0									

Transportation: Stefaniga Road and Mountain View Road Intersection Improvements

Project Code		Project Length	0.5 miles
Project Type	Road Improvements	Cost per Mile	\$7.400 million
Project Status	Planning	Est. Opening Date	December 1, 2026
Total Project Cost	\$3,700,000	Avg. Annual Daily Traffic	7,000 vehicles
Functional Area	Transportation		
Total Debt Service			
Full Year Operating Impact			

Project Description:

The project will realign Stefaniga Road at the intersection with Mountain View Road. This will shift the intersection north to line up with the existing intersection at Lightfoot Drive and convert the intersection into a roundabout. Project will follow FHWA project development and construction procedures due to Federal funds.

Operating Impact Summary:

All roadway improvements are done within VDOT right-of-way and therefore the maintenance of this roadway will continue to be VDOT’s responsibility.

Location:

Proposed improvements are at two intersections of Mountain View Road, Stefaniga Road, and Lightfoot Drive.

Relationship to Approved County Policy or Plan:

- The County’s Comprehensive Plan calls for safety improvements along Mountain View Road.
- On March 20, 2018, the Board of Supervisors (BOS) supported the submission of an application to compete for VDOT’s Smart Scale funding program. Project was subsequently awarded \$2,700,000 in Smart Scale funding.
- Supports the BOS Strategic Priority – Responsive Transportation System.

Transportation: Stefaniga Road and Mountain View Road Intersection Improvements

Analysis of Need:

There is a lack of proper sight distance at the intersection of Stefaniga Road and Mountain View Road due to an existing vertical curve on Mountain View Road that makes it difficult to see oncoming traffic. There have been several accidents at this intersection due to this lack of sight distance. This project seeks to improve the safety of this intersection by realigning the Stefaniga Road and Mountain View intersection so that the roadway is directly across from the Lightfoot Drive and Mountain View intersection which is approximately 200' to the north. The realigned intersection will be converted into a roundabout to improve the safety and sight distance, as well as reduce the delays associated with a stop-controlled intersection. A sidewalk around the roundabout and corresponding curb ramps will be constructed and connected to the existing sidewalk along Lightfoot Drive.

Change or Reasons for Review:

- **FY2020** – New Smart Scale Project added to CIP.
- **FY2021** – No Changes

Alternative:

- Roadway stays in current condition.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	600,000	0	0	0	0	0	0	0
Property Acquisition	0	0	0	0	900,000	0	0	0	0	0	0
Construction / Project	0	0	0	0	0	2,200,000	0	0	0	0	0
Total	\$0	\$0	\$0	\$600,000	\$900,000	\$2,200,000	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Use of Prior Year Fund Balance Transportation	0	0	0	600,000	400,000	0	0	0	0	0	0
Smart Scale	0	0	0	0	500,000	2,200,000	0	0	0	0	0
Total	\$0	\$0	\$0	\$600,000	\$900,000	\$2,200,000	\$0	\$0	\$0	\$0	\$0

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0									

Transportation: Technology Center Drive Improvements

Project Code		Project Length	0.5 miles
Project Type	Road Improvements	Cost per Mile	\$5.200 million
Project Status	Planning	Est. Opening Date	June 1, 2029
Total Project Cost	\$2,600,000	Avg. Annual Daily Traffic	0 vehicles
Functional Area	Transportation		
Total Debt Service			
Full Year Operating Impact			

Project Description:

Road construction that will serve the Technology and Research Park within the Quantico Corporate Center which will include improvements to the intersection with Telegraph Road.

Operating Impact Summary:

All roadway improvements are done within VDOT right-of-way and therefore the maintenance of this roadway will continue to be VDOT’s responsibility.

Location:

Proposed improvements are planned from where Corporate Drive currently terminates to the intersection of Telegraph Road.

Relationship to Approved County Policy or Plan:

- The project promotes economic development opportunities.
- Supports the Board of Supervisors Strategic Priority – Responsive Transportation System.

Analysis of Need:

This is an Economic Development opportunity for the County.

Transportation: Technology Center Drive Improvements

Change or Reasons for Review:

- **FY2020** – No Changes.
- **FY2021** – No Changes.

Alternative:

- Roadway stays in current condition.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	0	0	0	0	0	0	0	0	25,000	0	0
Total	\$0	\$25,000	\$0	\$0							

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Use of Prior Year Fund Balance Transporta	0	0	0	0	0	0	0	0	25,000	0	0
Total	\$0	\$25,000	\$0	\$0							

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0									

Transportation: Garrisonville Road Widening Project (Eustace Rd to Shelton Shop Rd)

Project Code		Project Length	1.40miles
Project Type	Road Improvements	Cost per Mile	\$21.071 million
Project Status	Planning	Est. Opening Date	December 1, 2029
Total Project Cost	\$29,500,000	Avg. Annual Daily Traffic	34,000 vehicles
Functional Area	Transportation		
Total Debt Service			
Full Year Operating Impact			

Project Description:

The Garrisonville Road (RT 610) Widening Project will widen approximately 1.40 miles of Garrisonville Road, between the intersections with Eustance Road (RT 751) and Shelton Shop Road (RT 648), to a six-lane divided roadway with concrete median, curb & gutter and 5’ sidewalks for pedestrians.

Operating Impact Summary:

All roadway improvements are done within VDOT right-of-way and therefore the maintenance of this roadway will continue to be VDOT’s responsibility.

Location:

Proposed improvements are planned along Garrisonville Road (RT 610) between the intersection of Eustance Road (RT 751) and Shelton Shop Road (RT 648).

Relationship to Approved County Policy or Plan:

- The County’s Bicycle and Pedestrian Plan calls for the development of a safe, comprehensive and connected regional network of on-road and off-road bicycle and pedestrian corridors and related facilities.
- Supports the BOS Strategic Priority – Responsive Transportation System.

Transportation: Garrisonville Road Widening Project (Eustace to Shelton Shop)

Analysis of Need:

Improvements to Garrisonville Road were identified in the County’s Comprehensive Road Evaluation Final Report dated April 2018. The number and frequency of traffic accidents coupled with the existing traffic congestion on the road prioritized this roadway for improvements.

Change or Reasons for Revisions:

- **FY2021** – Project was included in Stafford County’s 2019 \$50 Million Road Improvement Bond Referendum as a priority road project for safety & congestion improvements.

Alternative:

Roadway stays in current condition.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	0	0	2,500,000	0	0	0	0	0
Property Acquisition	0	0	0	0	0	0	7,000,000	1,500,000	0	0	0
Construction / Project	0	0	0	0	0	0	0	0	18,500,000	0	0
Total	\$0	\$0	\$0	\$0	\$0	\$2,500,000	\$7,000,000	\$1,500,000	\$18,500,000	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Bond Proceeds	0	0	0	0	0	2,500,000	5,950,000	770,000	0	0	0
Smart Scale	0	0	0	0	0	0	0	0	11,600,000	0	0
Revenue Sharing	0	0	0	0	0	0	1,050,000	730,000	6,900,000	0	0
Total	\$0	\$0	\$0	\$0	\$0	\$2,500,000	\$7,000,000	\$1,500,000	\$18,500,000	\$0	\$0

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Debt Service	0	0	0	0	0	209,000	707,000	771,000	771,000	771,000
Total	\$0	\$0	\$0	\$0	\$0	\$209,000	\$707,000	\$771,000	\$771,000	\$771,000

Transportation: Layhill Road Improvements

Project Code		Project Length	0.50 miles
Project Type	Road Improvements	Cost per Mile	\$4.486 million
Project Status	Planning	Est. Opening Date	December 1, 2027
Total Project Cost	\$8,500,000	Avg. Annual Daily Traffic	5,100 vehicles
Functional Area	Transportation		
Total Debt Service			
Full Year Operating Impact			

Project Description:

The Layhill Road (RT 627) Improvement Project will widen approximately 0.5 miles of RT 627 from the intersection with Jefferson Davis Highway (RT 1) to the intersection with Forbes Street (RT 627) to provide a two-way left-turn lane (TWLTL) down the center of the roadway to provide a refuge area for residents trying to access their driveways to improve safety and reduce congestion. Improvements will also be made at the intersection with RT 1 including longer storage lengths for the turning lanes and improved intersection geometry. Turn lanes will be provided at side-street intersections were warranted.

Operating Impact Summary:

All roadway improvements are done within VDOT right-of-way and therefore the maintenance of this roadway will continue to be VDOT’s responsibility.

Location:

Proposed improvements are planned along Layhill Road (RT 627) between the intersection with Jefferson Davis Highway (RT 1) and the intersection with Forbes Street (RT 627).

Relationship to Approved County Policy or Plan:

- Supports the BOS Strategic Priority – Responsive Transportation System.

Transportation: Layhill Road Improvements

Analysis of Need:

Improvements to Layhill Road were identified in the County’s Comprehensive Road Evaluation Final Report dated April 2018. The number and frequency of traffic accidents coupled with the existing traffic congestion on the road prioritized this roadway for improvements.

Change or Reasons for Revisions:

- **FY2021** – Project was included in Stafford County’s 2019 \$50 Million Road Improvement Bond Referendum as a priority road project for safety & congestion improvements.

Alternative:

Roadway stays in current condition.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	0	1,050,000	0	0	0	0	0	0
Property Acquisition	0	0	0	0	0	2,200,000	0	0	0	0	0
Construction / Project	0	0	0	0	0	0	5,250,000	0	0	0	0
Total	\$0	\$0	\$0	\$0	\$1,050,000	\$2,200,000	\$5,250,000	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Bond Proceeds	0	0	0	0	1,050,000	2,200,000	1,000,000	0	0	0	0
Revenue Sharing	0	0	0	0	0	0	4,250,000	0	0	0	0
Total	\$0	\$0	\$0	\$0	\$1,050,000	\$2,200,000	\$5,250,000	\$0	\$0	\$0	\$0

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Debt Service	0	0	0	0	88,000	272,000	356,000	356,000	356,000	356,000
Total	\$0	\$0	\$0	\$0	\$88,000	\$272,000	\$356,000	\$356,000	\$356,000	\$356,000

Transportation: Leeland Road Widening

Project Code		Project Length	0.30 miles
Project Type	Road Improvements	Cost per Mile	\$23.356 million
Project Status	Design/Engineering	Est. Opening Date	December 1, 2024
Total Project Cost	\$7,007,000	Avg. Annual Daily Traffic	9,800 vehicles
Functional Area	Transportation		
Total Debt Service			
Full Year Operating Impact			

Project Description:

The Leeland Road (RT 626) Improvement Project will expand the scope of a current VDOT Highway Safety Improvement Project (HSIP), UPC# 109477. The current VDOT project will provide a shared-use path along Leeland Road connecting the intersection with Deacon Road (RT 607) to the VRE Station at a cost of approximately \$3,676,000. The VDOT project is funded with Federal Highway Safety Improvement Project (HSIP) funds. The County’s project will include VDOT’s shared-use path along with the construction of a two-way left-turn lane (TWLTL) in the center of the roadway. This widening would extend approximately 0.30 miles along Leeland Road from the intersection with Julian Drive (RT 694) to the intersection with Walnut Drive (RT 622).

Operating Impact Summary:

All roadway improvements are done within VDOT right-of-way and therefore the maintenance of this roadway will continue to be VDOT’s responsibility.

Location:

Proposed improvements are planned along Leeland Road (RT 626) from the intersection with Julian Drive (RT 694) to the intersection with Walnut Drive (RT 622).

Relationship to Approved County Policy or Plan:

- The County’s Bicycle and Pedestrian Plan calls for the development of a safe, comprehensive and connected regional network of on-road and off-road bicycle and pedestrian corridors and related facilities.
- Supports the BOS Strategic Priority – Responsive Transportation System.

Transportation: Leeland Road Widening

Analysis of Need:

Improvements to Leeland Road were identified in the County's Comprehensive Road Evaluation Final Report dated April 2018. The number and frequency of traffic accidents coupled with the existing traffic on the road prioritized this roadway for improvements.

Change or Reasons for Revisions:

- **FY2021** – Project was included in Stafford County's 2019 \$50 Million Road Improvement Bond Referendum as a priority road project for safety & congestion improvements.

Alternative:

Roadway stays in current condition.

Project Summary:

Transportation: Leeland Road Widening

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	645,000	0	0	0	0	0	0	0	0	0
Property Acquisition	0	777,620	0	0	0	0	0	0	0	0	0
Construction / Project	0	0	5,584,380	0	0	0	0	0	0	0	0
Total	\$0	\$1,422,620	\$5,584,380	\$0							

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Bond Proceeds	0	0	2,792,190	0	0	0	0	0	0	0	0
Current Revenue - County	0	711,310	0	0	0	0	0	0	0	0	0
Revenue Sharing	0	711,310	2,792,190	0	0	0	0	0	0	0	0
Total	\$0	\$1,422,620	\$5,584,380	\$0							

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Debt Service	0	0	234,000	234,000	234,000	234,000	234,000	234,000	234,000	234,000
Total	\$0	\$0	\$234,000							

Transportation: Morton Road Widening Project

Project Code		Project Length	0.35 miles
Project Type	Road Improvements	Cost per Mile	\$18.457 million
Project Status	Planning	Est. Opening Date	December 1, 2026
Total Project Cost	\$6,460,000	Avg. Annual Daily Traffic	9,400 vehicles
Functional Area	Transportation		
Total Debt Service			
Full Year Operating Impact			

Project Description:

The Morton Road (RT 624) Widening Project will widen approximately 0.35 miles of RT 624 to provide a two-way left-turn lane (TWLTL) down the center of the roadway to provide a refuge area for residents trying to access their driveways to improve safety and reduce congestion. Turn lanes will be provided at intersections were warranted. Project will extend from the intersection with Leeland Road (RT 626) to the intersection with Cherry Laurel Drive (RT 1098).

Operating Impact Summary:

All roadway improvements are done within VDOT right-of-way and therefore the maintenance of this roadway will continue to be VDOT’s responsibility.

Location:

Proposed improvements are planned along Morton Road (RT 624) between the intersection with Leeland Road (RT 626) and the intersection with Cherry Laurel Drive (RT 1098).

Relationship to Approved County Policy or Plan:

- Supports the BOS Strategic Priority – Responsive Transportation System.

Transportation: Morton Road Widening Project

Analysis of Need:

Improvements to Morton Road were identified in the County’s Comprehensive Road Evaluation Final Report dated April 2018. The number and frequency of traffic accidents coupled with the existing traffic congestion on the road prioritized this roadway for improvements.

Change or Reasons for Revisions:

- **FY2021** – Project was included in Stafford County’s 2019 \$50 Million Road Improvement Bond Referendum as a priority road project for safety & congestion improvements.

Alternative:

Roadway stays in current condition.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	1,000,000	0	0	0	0	0	0	0
Property Acquisition	0	0	0	0	2,060,000	0	0	0	0	0	0
Construction / Project	0	0	0	0	0	3,400,000	0	0	0	0	0
Total	\$0	\$0	\$0	\$1,000,000	\$2,060,000	\$3,400,000	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Bond Proceeds	0	0	0	1,000,000	2,060,000	670,000	0	0	0	0	0
Revenue Sharing	0	0	0	0	0	2,730,000	0	0	0	0	0
Total	\$0	\$0	\$0	\$1,000,000	\$2,060,000	\$3,400,000	\$0	\$0	\$0	\$0	\$0

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Debt Service	0	0	0	84,000	256,000	312,000	312,000	312,000	312,000	312,000
Total	\$0	\$0	\$0	\$84,000	\$256,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000

Transportation: Mountain View Road Improvement Project (Kellogg Mill Road to Choptank Road)

Project Code		Project Length	3.13 miles
Project Type	Road Improvements	Cost per Mile	\$8.369 million
Project Status	Planning	Est. Opening Date	December 1, 2031
Total Project Cost	\$26,195,000	Avg. Annual Daily Traffic	7,000 vehicles
Functional Area	Transportation		
Total Debt Service			
Full Year Operating Impact			

Project Description:

The Mountain View Road (RT 627) Improvement Project will widen seek to improve approximately 3.13 miles of RT 627 from the intersection with Kellogg Mill Road (RT 651) to the intersection with Choptank Road (RT 1209). Roadway will be improved utilizing VDOT’s RRR Guidelines and will improve the existing vertical and horizontal geometry while providing 12’ travel lanes and 6’ paved shoulders. Roadside drainage will also be improved through new ditches.

Operating Impact Summary:

All roadway improvements are done within VDOT right-of-way and therefore the maintenance of this roadway will continue to be VDOT’s responsibility.

Location:

Proposed improvements are planned along Mountain View Road (RT 627) from the intersection with Kellogg Mill Road (RT 651) to the intersection with Choptank Road (RT 1209).

Relationship to Approved County Policy or Plan:

- The County’s Bicycle and Pedestrian Plan calls for the development of a safe, comprehensive and connected regional network of on-road and off-road bicycle and pedestrian corridors and related facilities.
- Supports the BOS Strategic Priority – Responsive Transportation System.

Transportation: Mountain View Road Improvement Project (Kellogg Mill to Choptank)

Analysis of Need:

Improvements to Mountain View Road were identified in the County’s Comprehensive Road Evaluation Final Report dated April 2018. The number and frequency of traffic accidents coupled with the substandard roadway geometry prioritized this roadway for improvements.

Change or Reasons for Revisions:

- **FY2021** – Project was included in Stafford County’s 2019 \$50 Million Road Improvement Bond Referendum as a priority road project for safety & congestion improvements.

Alternative:

Roadway stays in current condition.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	
Planning/Design	0	0	0	0	0	0	0	2,300,000	0	0	0	
Property Acquisition	0	0	0	0	0	0	0	0	7,000,000	1,000,000	0	
Construction / Project	0	0	0	0	0	0	0	0	0	0	15,895,000	
Total	\$0	\$2,300,000	\$7,000,000	\$1,000,000	\$15,895,000							

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	
Bond Proceeds	0		0	0	0	0	0	2,300,000	7,000,000	0	0	
Smart Scale	0	0	0	0	0	0	0	0	0	0	7,595,000	
Revenue Sharing	0	0	0	0	0	0	0	0	0	1,000,000	8,300,000	
Total	\$0	\$2,300,000	\$7,000,000	\$1,000,000	\$15,895,000							

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Debt Service	0	0	0	0	0	0	0	192,000	778,000	778,000
Total	\$0	\$192,000	\$778,000	\$778,000						

Transportation: Onville Road Widening Project

Project Code		Project Length	1.12miles
Project Type	Road Improvements	Cost per Mile	\$14.017 million
Project Status	Planning	Est. Opening Date	December 1, 2030
Total Project Cost	\$15,700,000	Avg. Annual Daily Traffic	9,700 vehicles
Functional Area	Transportation		
Total Debt Service			
Full Year Operating Impact			

Project Description:

The Onville Road (RT 641) Widening Project will widen approximately 1.12 miles of RT 641 to provide a two-way left-turn lane (TWLTL) down the center of the roadway and new turn lanes at intersections where warranted.

Operating Impact Summary:

All roadway improvements are done within VDOT right-of-way and therefore the maintenance of this roadway will continue to be VDOT’s responsibility.

Location:

Proposed improvements are planned along Onville Road (RT 641) from the intersection with Worth Avenue (Private Road) to the entrance to Marine Corps Base Quantico (MCQB).

Relationship to Approved County Policy or Plan:

- Supports the BOS Strategic Priority – Responsive Transportation System.

Transportation: Onville Road Widening Project

Analysis of Need:

Improvements to Onville Road were identified in the County’s Comprehensive Road Evaluation Final Report dated April 2018. The number and frequency of traffic accidents coupled with the existing traffic congestion on the road prioritized this roadway for improvements.

Change or Reasons for Revisions:

- **FY2021** - Project was included in Stafford County’s 2019 \$50 Million Road Improvement Bond Referendum as a priority road project for safety & congestion improvements.

Alternative:

Roadway stays in current condition.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	0	0	0	0	1,600,000	0	0	0
Property Acquisition	0	0	0	0	0	0	0	0	5,900,000	0	0
Construction / Project	0	0	0	0	0	0	0	0	0	8,200,000	0
Total	\$0	\$1,600,000	\$5,900,000	\$8,200,000							

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Bond Proceeds	0	0	0	0	0	0	0	1,600,000	5,900,000	0	0
Service District	0	0	0	0	0	0	0	0	0	700,000	0
Revenue Sharing	0	0	0	0	0	0	0	0	0	7,500,000	0
Total	\$0	\$1,600,000	\$5,900,000	\$8,200,000	\$0						

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Debt Service	0	0	0	0	0	0	0	134,000	628,000	628,000
Total	\$0	\$134,000	\$628,000	\$628,000						

Transportation: Shelton Shop Road Improvements

Project Code		Project Length	1.99 miles
Project Type	Road Improvements	Cost per Mile	\$11.407 million
Project Status	Planning	Est. Opening Date	December 1, 2028
Total Project Cost	\$22,700,000	Avg. Annual Daily Traffic	10,000 vehicles
Functional Area	Transportation		
Total Debt Service			
Full Year Operating Impact			

Project Description:

The Shelton Shop Road (RT 648) Improvement Project will widen approximately 1.99 miles of RT 648 to provide center two-way left-turn lane (TWLTL) and dedicated turn lanes at intersections, where warranted. The intersections with Winding Creek Road (RT 628), Courthouse Road (RT 630), and Mountain View (RT 627) would also be improved either through upgraded traffic signalization or conversion to roundabouts to improve safety and traffic flow. Bicycles and pedestrians would be accommodated through the use of paved shoulders or a shared-use path.

Operating Impact Summary:

All roadway improvements are done within VDOT right-of-way and therefore the maintenance of this roadway will continue to be VDOT’s responsibility.

Location:

Proposed improvements are planned along Shelton Shop Road (RT 648) between the intersection of Garrisonville Road (RT 610) and Mountain View Road (RT 627).

Relationship to Approved County Policy or Plan:

- The County’s Bicycle and Pedestrian Plan calls for the development of a safe, comprehensive and connected regional network of on-road and off-road bicycle and pedestrian corridors and related facilities.
- Supports the BOS Strategic Priority – Responsive Transportation System.

Transportation: Shelton Shop Road Improvements

Analysis of Need:

Improvements to Shelton Shop Road were identified in the County’s Comprehensive Road Evaluation Final Report dated April 2018. The number and frequency of traffic accidents coupled with the existing traffic on the road prioritized this roadway for improvements.

Change or Reasons for Revisions:

- **FY2021** – Project was included in Stafford County’s 2019 \$50 Million Road Improvement Bond Referendum as a priority road project for safety & congestion improvements.

Alternative:

Roadway stays in current condition.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	1,500,000	0	0	0	0	0	0	0	0
Property Acquisition	0	0	0	8,000,000	1,500,000	0	0	0	0	0	0
Construction / Project	0	0	0	0	0	0	11,700,000	0	0	0	0
Total	\$0	\$0	\$1,500,000	\$8,000,000	\$1,500,000	\$0	\$11,700,000	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Bond Proceeds	0	0	1,258,870	3,000,000	0	0	8,948,940	0	0	0	0
Smart Scale	0	0	0	0	0	0	1,513,430	0	0	0	0
Revenue Sharing	0	0	241,130	5,000,000	1,500,000	0	1,237,630	0	0	0	0
Total	\$0	\$0	\$1,500,000	\$8,000,000	\$1,500,000	\$0	\$11,700,000	\$0	\$0	\$0	\$0

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Debt Service	0	0	105,000	356,000	356,000	356,000	1,105,000	1,105,000	1,105,000	1,105,000
Total	\$0	\$0	\$105,000	\$356,000	\$356,000	\$356,000	\$1,105,000	\$1,105,000	\$1,105,000	\$1,105,000

Transportation: Berea Church Road Improvements

Project Code		Project Length	1.28 miles
Project Type	Road Improvements	Cost per Mile	\$4.945 million
Project Status	Property Acquisition	Estimated Opening Date	December 1, 2022
Total Project Cost	\$6,329,967	Avg. Annual Daily Traffic	3,400 vehicles
Functional Area	Transportation		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This project will reconstruct Berea Church Road from the intersection with Truslow Road to the intersection with Warrenton Road using VDOT 3R standards. Improvements will include improved roadway geometry, paved shoulders, drainage improvements and wider lanes. Bicycle & pedestrian accommodations will also be included in this project, utilizing the paved shoulder.

Operating Impact Summary:

All roadway improvements are done within VDOT right-of-way and therefore the maintenance of this roadway will continue to be VDOT’s responsibility.

Location:

Proposed improvements are planned from Truslow Road to Warrenton Road along Berea Church Road.

Relationship to Approved County Policy or Plan:

- The County’s Comprehensive Plan calls for Berea Church Road to be improved to a 2-lane upgrade.
- Supports the Board of Supervisors Strategic Priority – Responsive Transportation System.

Analysis of Need:

To provide needed roadway safety improvements from Warrenton Road to Truslow Road. The project includes vertical profile and horizontal improvements for ride and safety. Drainage will be improved with new roadway ditches, culverts, and storm water management swales.

Transportation: Berea Church Road Improvements

Change or Reasons for Revisions:

- **FY2020** – Project costs increased due to additional Right-of-Way impacts on residential properties (impacted parcels increased from 14 to 22) and increased construction costs associated with inflation. Additional cost was offset by additional funds from the Warrenton Road Service District.
- **FY2021** – Project costs increased due to inflation and additional VDOT oversight costs. Increased costs were funded through previous Revenue Sharing funds (\$523,612) that were transferred off the Enon Road project prior to Enon Road receiving Smart Scale funding.

Alternative:

Roadway stays in current condition.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	919,000	0	0	0	0	0	0	0	0	0	0
Property Acquisition	977,500	0	0	0	0	0	0	0	0	0	0
Construction / Project	0	4,433,467	0	0	0	0	0	0	0	0	0
Total	\$1,896,500	\$4,433,467	\$0								

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Proffers	1,087,603	0	0	0	0	0	0	0	0	0	0
Service District	300,000	1,777,380	0	0	0	0	0	0	0	0	0
Revenue Sharing	508,897	2,656,087	0	0	0	0	0	0	0	0	0
Total	\$1,896,500	\$4,433,467	\$0								

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0									

Transportation: Flatford Road Sidewalk

Project Code		Project Length	1,200 feet
Project Type	Trails and Sidewalks	Cost per Linear Foot	\$542 per foot
Project Status	Planning	Est. Opening Date	June 1, 2022
Total Project Cost	\$650,000		
Functional Area	Transportation		
Total Debt Service			
Full Year Operating Impact			

Project Description:

The Project will consist of a five-foot wide sidewalk on the east side of Flatford Road, with a crosswalk to be installed just north of the entrance to Horizons Church to help safely connect pedestrians to the west side of Flatford Road. The proposed sidewalk will then extend to Walpole Street, with another crosswalk installed on Winding Creek Road to connect with the existing sidewalk.

Operating Impact Summary:

All sidewalk improvements are done within VDOT right-of-way and therefore the maintenance of this roadway will continue to be VDOT’s responsibility.

Location:

Proposed improvements are from the terminus of Parkway Boulevard to the terminus of Walpole Street.

Relationship to Approved County Policy or Plan:

- The adopted 2016-2036 Comprehensive Plan supports this project.
- The County’s Bicycle and Pedestrian Plan calls for the development of a safe, comprehensive and connected regional network of on-road and off-road bicycle and pedestrian corridors and related facilities.
- Supports the Board of Supervisors Strategic Priority – Responsive Transportation System.

Transportation: Flatford Road Sidewalk

Analysis of Need:

Constructing this “missing link” will safely connect pedestrians to public facilities including Rodney Thompson Middle School, Park Ridge Elementary School, and John M. Porter Library.

Change or Reasons for Revisions:

- **FY2020** – No Changes.
- **FY2021** – No Changes.

Alternative:

- No sidewalk will exist at this location.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	91,000	0	0	0	0	0	0	0	0	0	0
Construction / Project	0	519,870	0	0	0	0	0	0	0	0	0
Total Project Cost	\$130,130	\$519,870	\$0								

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Service District	26,026	103,974	0	0	0	0	0	0	0	0	0
TAP - Transportation Alternative Program	104,104	415,896	0	0	0	0	0	0	0	0	0
Total	\$130,130	\$519,870	\$0								

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0									

Transportation: Salisbury Drive Sidewalk

Project Code		Project Length	900 feet
Project Type	Trails and Sidewalks	Cost per Linear Foot	\$998 per foot
Project Status	Design/Engineering	Est. Opening Date	November 1, 2026
Total Project Cost	\$898,700		
Functional Area	Transportation		
Total Debt Service			
Full Year Operating Impact			

Project Description:

The project proposed to construct a five-foot wide concrete sidewalk along Salisbury Drive. The sidewalk will connect with existing sidewalk at the intersection with Garrisonville Road (RT 610) and extend approximately 900 linear feet to the VDOT Park & Ride Lot off Mine Road.

Operating Impact Summary:

All sidewalk improvements are done within VDOT right-of-way and therefore the maintenance of this roadway will continue to be VDOT’s responsibility.

Location:

Proposed improvements are from the intersection with Garrisonville Road to the VDOT Park & Ride Lot off Mine Road.

Relationship to Approved County Policy or Plan:

- The County’s Bicycle and Pedestrian Plan calls for the development of a safe, comprehensive and connected regional network of on-road and off-road bicycle and pedestrian corridors and related facilities.
- Supports the Board of Supervisors Strategic Priority – Responsive Transportation System.

Transportation: Salisbury Drive Sidewalk

Analysis of Need:

Constructing this "missing link" from the intersection with Garrisonville Road to the VDOT Park & Ride Lot will provide for safer pedestrian movement along a busy roadway that is frequently used by pedestrians traveling between the VDOT lot and nearby commercial areas along Garrisonville Road.

Change or Reasons for Revisions:

- **FY2021** – Applied for Transportation Alternatives funding to begin design work on project. Timing of project shifted two years.

Alternative:

No sidewalk will exist at this location.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	198,000	0	0	0	0	0	0	0
Property Acquisition	0	0	0	0	280,000	0	0	0	0	0	0
Construction / Project	0	0	0	0	0	415,700	0	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$198,000	\$280,000	\$415,700	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Service District	0	0	0	178,740	0	0	0	0	0	0	0
TAP - Transportation Alternative Program	0	0	0	19,260	280,000	415,700	0	0	0	0	0
Total	\$0	\$0	\$0	\$198,000	\$280,000	\$415,700	\$0	\$0	\$0	\$0	\$0

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0									

Transportation: Staffordboro Boulevard Sidewalk

Project Code		Project Length	1,200 feet
Project Type	Trails and Sidewalks	Cost per Linear Foot	\$842 per foot
Project Status	Design/Engineering	Est. Opening Date	November 1, 2024
Total Project Cost	\$1,077,500		
Functional Area	Transportation		
Total Debt Service			
Full Year Operating Impact			

Project Description:

The project proposed to construct a five-foot wide concrete sidewalk along Staffordboro Boulevard. The sidewalk will connect with existing sidewalk at the VDOT Park & Ride Lot and extend approximately 1,200 linear feet to the intersection with Pike Place.

Operating Impact Summary:

All sidewalk improvements are done within VDOT right-of-way and therefore the maintenance of this roadway will continue to be VDOT’s responsibility.

Location:

Proposed improvements are from the VDOT Park & Ride Lot on Staffordboro Boulevard to the intersection with Pike Place.

Relationship to Approved County Policy or Plan:

- The County’s Bicycle and Pedestrian Plan calls for the development of a safe, comprehensive and connected regional network of on-road and off-road bicycle and pedestrian corridors and related facilities.
- Supports the Board of Supervisors Strategic Priority – Responsive Transportation System.

Transportation: Staffordboro Boulevard Sidewalk

Analysis of Need:

Constructing this "missing link" from the VDOT Park & Ride Lot to Pike Place will provide for safer pedestrian movement along a busy roadway that is frequently used by pedestrians traveling between their homes and nearby commercial areas along Garrisonville Road.

Change or Reasons for Revisions:

- **FY2021** – Applied for Transportation Alternatives funding to begin design work on project.

Alternative:

No sidewalk will exist at this location.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	190,000	0	0	0	0	0	0	0
Construction / Project	0	0	0	0	0	387,500	0	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$190,000	\$500,000	\$387,500	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Service District	0	0	0	190,000	25,500	0	0	0	0	0	0
TAP - Transportation Alternative Program	0	0	0	0	474,500	387,500	0	0	0	0	0
Total	\$0	\$0	\$0	\$190,000	\$500,000	\$387,500	\$0	\$0	\$0	\$0	\$0

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0									

Education

Education	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (includes PY Funding)
High School #6	0	5,300,000	4,500,000	39,200,000	49,771,000	24,744,000	1,125,000	0	0	0	0	123,515,000	1,125,000	124,640,000
High School #7	0	0	0	0	0	0	0	0	0	0	1,000,000	0	1,000,000	1,000,000
Elementary School #18	0	0	0	0	0	0	0	1,265,956	2,121,234	26,265,801	24,084,005	0	53,736,996	53,736,996
Early Childhood Special Education Additional Capacity, Phase I	0	0	0	0	0	0	0	0	506,479	3,967,419	5,121,065	0	9,594,963	9,594,963
Drew Middle School Renovation	0	0	0	0	0	0	0	0	0	1,000,000	6,000,000	0	7,000,000	7,000,000
3R Funded		7,549,700	8,562,750	7,018,600	7,866,415	6,261,000	7,515,000	6,285,000	6,817,000	6,669,000	6,289,000	37,258,465	33,575,000	70,833,465
Total	\$0	\$12,849,700	\$13,062,750	\$46,218,600	\$57,637,415	\$31,005,000	\$8,640,000	\$7,550,956	\$9,444,713	\$37,902,220	\$42,494,070	\$160,773,465	\$106,031,959	\$266,805,424

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (includes PY Funding)
Bond Proceeds	0	9,445,359	11,461,000	44,242,000	55,983,440	27,722,378	6,839,270	6,293,956	8,171,713	29,433,167	39,903,070	148,854,177	90,641,176	239,495,353
Current Revenue & County Designated 3R	0	1,445,865	1,445,865	1,445,865	1,445,865	1,091,000	1,445,865	1,257,000	1,273,000	1,445,865	1,445,866	6,874,460	6,867,596	13,742,056
Use of Prior Year Fund Balance General Fund	0	1,833,476	24,885	395,735	69,110	0	354,865	0	0	170,135	145,134	2,323,206	670,134	2,993,340
Proffers	0	0	0	0	0	2,048,622	0	0	0	6,853,053	1,000,000	2,048,622	7,853,053	9,901,675
Nutrition Capital Funding	0	125,000	131,000	135,000	139,000	143,000	0	0	0	0	0	673,000	0	673,000
Total	\$0	\$12,849,700	\$13,062,750	\$46,218,600	\$57,637,415	\$31,005,000	\$8,640,000	\$7,550,956	\$9,444,713	\$37,902,220	\$42,494,070	\$160,773,465	\$106,031,959	\$266,805,424

Operating Impacts		FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Ten Year Plan (includes PY Funding)
Personnel		0	0	0	0	474,000	6,314,000	6,441,000	6,569,000	6,701,000	7,318,000	474,000	33,343,000	27,503,000
Operating		0	0	0	0	1,187,000	1,772,000	1,194,000	1,229,000	1,265,000	2,397,000	1,187,000	7,857,000	7,272,000
Debt Service		0	870,000	1,940,000	5,722,000	10,506,000	12,906,000	13,569,000	14,176,000	14,948,000	17,491,446	19,038,000	73,090,446	79,222,446
Total	\$0	\$870,000	\$1,940,000	\$5,722,000	\$12,167,000	\$20,992,000	\$21,204,000	\$21,974,000	\$22,914,000	\$27,206,446	\$20,699,000	\$114,290,446	\$113,997,446	

High School #6

Project Code		Square Footage/Acreage	300,000/65
Project Type	Building Construction	Construction Cost per Sq. Ft.	\$237.08/sf + site work
Project Status	Planning	Operating Cost per Sq. Ft.	
Functional Area	Education	Student Capacity	2,150
Estimated Project Cost	\$124,640,000	Est. Opening Date	August 2025 (FY2026)
Current Year Cost	\$117,812,000	Funding Source	VPSA
Debt Service	\$10,185,000	Years Financed	20
Full Year Operating Impact	\$8,086,000	Tax Rate Equivalent	\$0.06

Project Description:

High School (HS) 6 is planned to house 2,150 students and serve grades ninth through twelfth. HS 6 will be designed and constructed utilizing the most current Stafford County Public Schools high school education specifications and in accordance with the Stafford County Public Schools Facility Design Standards. This project includes the construction of the school building, all outbuildings, site development, all on-site road improvements, any necessary off-site road improvements, parking lots, storm water management requirements, utilities, and athletic fields to include bleachers, stadium, and track. Planning and design requirements are included in the project cost, as are furniture, fixtures, equipment, technology infrastructure, and project management.

A Land Acquisition team made up of County and SCPS staff is considering various possible sites for this project. A property acquisition cost is included and assumes a 65 acre site at a cost of \$50,400/ acre. The School’s consultant determined that Current Year site development costs of \$15.2 million, for the Westlake property, should be used for estimating purposes.

SCPS high school education specifications will be updated prior to the start of design, however, staff estimates the total square footage requirement to be at, or near, 300,000 square feet. The Division hired a cost-estimating consultant to provide an accurate cost per square footage for the building, as well as costs associated with the site. These experts have concluded that a rough order magnitude programming level cost estimate of \$237.08 per square foot in current dollars should be used for building only.

HS 6 is planned to be able to achieve a LEED Silver rating and will be designed to achieve an Energy Star rating of 80 or better, as well as an Energy Utilization Index rating of less than 24.

High School #6

Operating Impact Summary:

The principal, librarian, administrative assistant V, and an administrative assistant IV will be funded and hired one year prior to HS 6 opening. When the school opens, there will be 71 positions funded, excluding grade-level teachers, to support the new facility. The instructional startup costs one year prior to HS 6 opening include the purchasing of textbooks, library books, and other instructional startup requirements. After the school has been open for one year, expect a noteworthy drop in operational funds to be observed as the result of all one-time startup items being purchased. HS 6 will be a LEED Silver, energy efficient building with approximately 300,000 square feet. Estimated utilities are included in the operating costs.

Location:

The current location for HS 6 is to be determined.

Relationship to Approved County Policy or Plan:

Stafford County School Board's Strategic Plan:

- Goal 1: Engage, challenge, and prepare every student for success
- Goal 3: Resource stewardship

Stafford County Comprehensive Plan:

- Goal 1: Manage growth and development in a sustainable manner
- Goal 3: Preserve and protect environmental resources
- Goal 8: Support Stafford County as a community for superior education

Stafford County Board of Supervisors' Priorities (Education, Infrastructure)

Analysis of Need:

The methodology for determining the need for additional high school capacity is when the cumulative high school enrollment exceeds 100% capacity utilization. The total capacity of the five high schools within Stafford County amounts to 10,650. The student enrollment projections completed in the fall of 2018 indicates the need for a new high school beginning in the 2023-24 school year, when the high school level is projected to be at 100.9% capacity utilization.

High School #6

Change or Reasons for Revisions:

FY2016 – New project in CIP, open in FY2026; \$106.3M.

FY2017 – Project moved from FY2026 to FY2028, updated construction cost; \$120.3M.

FY2018 – No change

FY2019 – Project moved from FY2028 to FY2026, project cost lowered at request of BOS; \$121.3M.

FY2020 – No Change.

FY2021 – Include cost for land of \$3.3M. Removed projected proffers of \$2.3M and revenue from the sale of Moncure Elementary School of \$6.3M. Added use of prior year fund balance of \$877,341.

Alternative:

The alternative to this project is overcrowding at the high school level as the student population increases with no additional capacity added.

High School #6

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	2,000,000	4,500,000	2,000,000	621,000	450,000	0	0	0	0	0
Property Acquisition	0	3,300,000	0	0	0	0	0	0	0	0	0
Construction / Project	0	0	0	35,800,000	46,800,000	23,384,000	1,000,000	0	0	0	0
Contingency	0	0	0	1,400,000	2,350,000	910,000	125,000	0	0	0	0
Total Project Cost	\$0	\$5,300,000	\$4,500,000	\$39,200,000	\$49,771,000	\$24,744,000	\$1,125,000	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Bond Proceeds	0	4,422,659	4,500,000	39,200,000	49,771,000	22,695,378	1,125,000	0	0	0	0
Current Revenue - Schools	0	0	0	0	0	0	0	0	0	0	0
Use of Prior Year Fund Balance General Fund	0	877,341	0	0	0	0	0	0	0	0	0
Proffers	0	0	0	0	0	2,048,622	0	0	0	0	0
Total	\$0	\$5,300,000	\$4,500,000	\$39,200,000	\$49,771,000	\$24,744,000	\$1,125,000	\$0	\$0	\$0	\$0

\$0

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Personnel	0	0	0	0	474,000	6,314,000	6,441,000	6,569,000	6,701,000	6,835,000
Operating	0	0	0	0	1,187,000	1,772,000	1,194,000	1,229,000	1,265,000	1,301,000
Debt Service	0	370,000	747,000	4,027,000	8,192,000	10,091,000	10,185,000	10,185,000	10,185,000	10,185,000
Total	\$0	\$370,000	\$747,000	\$4,027,000	\$9,853,000	\$18,177,000	\$17,820,000	\$17,983,000	\$18,151,000	\$18,321,000

High School #7

Project Code		Square Footage/Acreage	300,000/65
Project Type	Building Construction	Construction Cost per Sq. Ft.	/sf + site work
Project Status	Planning	Operating Cost per Sq. Ft.	
Functional Area	Education	Student Capacity	2,150
Estimated Project Cost	Placeholder	Est. Opening Date	
Current Year Cost		Funding Source	VPSA
Debt Service		Years Financed	20
Full Year Operating Impact		Tax Rate Equivalent	

Project Description:

High School (HS) 7 is planned to house 2,150 students and serve grades ninth through twelfth. HS 7 will be designed and constructed utilizing the most current Stafford County Public Schools high school education specifications and in accordance with the Stafford County Public Schools Facility Design Standards. This project includes the construction of the school building, all outbuildings, site development, all on-site road improvements, any necessary off-site road improvements, parking lots, storm water management requirements, utilities, and athletic fields to include bleachers, stadium, and track. Planning and design requirements are included in the project cost, as are furniture, fixtures, equipment, technology infrastructure, and project management.

A Land Acquisition team made up of County and SCPS staff will be considering various possible sites for this project.

SCPS high school education specifications will be updated prior to the start of design, however, staff estimates the total square footage requirement to be at, or near, 300,000 square feet. The Division hired a consultant to provide an accurate cost estimate for the building, as well as costs associated with the site.

HS 7 is planned to be able to achieve a LEED Silver rating and will be designed to achieve an Energy Star rating of 80 or better, as well as an Energy Utilization Index rating of less than 24.

Operating Impact Summary:

The principal, librarian, administrative assistant V, and an administrative assistant IV will be funded and hired one year prior to HS 7 opening. When the school opens, there will be 71 positions funded, excluding grade-level teachers, to support the new facility. The instructional startup costs one year prior to HS 7 opening include the purchasing of textbooks, library books, and other instructional startup requirements. After the school has been open for one year, expect a noteworthy

High School #7

drop in operational funds to be observed as the result of all one-time startup items being purchased. HS 7 will be a LEED Silver, energy efficient building with approximately 300,000 square feet. Estimated utilities are included in the operating costs.

Location:

The current location for HS 7 is to be determined.

Relationship to Approved County Policy or Plan:

Stafford County School Board's Strategic Plan:

- Goal 1: Engage, challenge, and prepare every student for success
- Goal 3: Resource stewardship

Stafford County Comprehensive Plan:

- Goal 1: Manage growth and development in a sustainable manner
- Goal 3: Preserve and protect environmental resources
- Goal 8: Support Stafford County as a community for superior education

Stafford County Board of Supervisors' Priorities (Education, Infrastructure)

Analysis of Need:

The methodology for determining the need for additional high school capacity is when the cumulative high school enrollment exceeds 100% capacity utilization.

Change or Reasons for Revisions:

FY2021 – Included in the CIP for the first time

Alternative:

The alternative to this project is overcrowding at the high school level as the student population increases with no additional capacity added.

Project Summary:

- High School #7 was added as a placeholder for the FY2021-2030 CIP.

Elementary School 18

Project Code		Square Footage/Acreage	107,500/20
Project Type	Building Construction	Construction Cost per Sq. Ft.	\$220/sf + site work
Project Status	Planning	Operating Cost per Sq. Ft.	
Functional Area	Education	Student Capacity	964
Estimated Project Cost	\$54,322,416	Est. Opening Date	August 2030 (FY2031)
Current Year Cost	\$39,271,000	Funding Source	VPSA, Proffers
Debt Service (Ten year Period)	\$1,908,446	Years Financed	20
Full Year Operating Impact	\$1,579,000	Tax Rate Equivalent	\$0.023

Project Description:

Elementary School (ES) 18 is planned to house 964 students and serve grades kindergarten through fifth. ES 18 will be designed and constructed utilizing the most current Stafford County Public Schools elementary school education specifications and in accordance with the Stafford County Public Schools Facility Design Standards. This project includes the construction of the school building, all outbuildings, site development, all on-site road improvements, any necessary off-site road improvements, parking lots, storm water management requirements and utilities. Planning and design requirements are included in the project cost, as are furniture, fixtures, equipment, technology infrastructure, and project management. Estimates do not include cost of land or acquisition thereof. Land acquisition team will need to advise on costs. Elementary School #18 will allow for transition space for ECSE prior to the completion of permanent ECSE space.

SCPS elementary school education specifications will be updated prior to the start of design, however, staff estimates the total square footage requirement to be at, or near, 107,500 square feet.

Operating Impact Summary:

The principal, librarian, administrative assistant III, and an administrative assistant IV will be funded and hired one year prior to ES 18 opening. When the school opens, there will be 25 positions funded, excluding grade-level teachers, to support the new facility. The instructional startup costs one year prior to ES 18 opening include the purchasing of textbooks, library books, and other instructional startup requirements. After the school has been open for one year, expect a noteworthy drop in operational funds to be observed as the result of all one-time startup items being purchased. Estimated utilities are included in the operating costs.

Location:

The current location for additional elementary school capacity is to be determined.

Elementary School 18

Relationship to Approved County Policy or Plan:

Stafford County School Board's Strategic Plan:

- Goal 1: Engage, challenge, and prepare every student for success
- Goal 3: Resource stewardship

Stafford County Comprehensive Plan:

- Goal 1: Manage growth and development in a sustainable manner
- Goal 3: Preserve and protect environmental resources
- Goal 8: Support Stafford County as a community for superior education

Stafford County Board of Supervisors' Priorities (Education, Infrastructure)

Analysis of Need:

The methodology for determining the need for additional elementary school capacity is when the cumulative elementary school enrollment exceeds 90% design capacity. The total capacity of the 17 elementary schools within Stafford County amounts to 14,609. The student enrollment projections completed in the fall of 2018 indicate the need for a new elementary school beginning in the 2023-24 school year.

Change or Reasons for Revisions:

FY2013 – New project in CIP, included Head Start, open FY2022; \$36.9M.

FY2014 – Project moved from FY2022 to FY2023; \$37.9M.

FY2015 – Change in scope, finalized site location; \$39.8M.

FY2016 – Change in scope, Head Start removed, project moved from FY2023 to FY2028; \$32.3M.

FY2017 – Change in scope, new elementary educational specification, \$38M.

FY2018 – No change.

FY2019 – Project cost updated, cost per square foot and escalation rate adjusted; \$50.9M.

FY2020 – Removed from CIP. In Place was elementary school capacity of \$25M.

FY2021 – New Elementary School #18 added to CIP. Proposed to open when design capacity is at 100%.

Alternative:

The alternative to this project is overcrowding at the elementary school level as the student population increases with no additional capacity added.

Elementary School 18

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	0	0	0	0	1,265,956	2,121,234	568,810	500,000
Construction / Project	0	0	0	0	0	0	0	0	0	24,696,991	22,584,005
Contingency	0	0	0	0		0	0	0	0	1,000,000	1,000,000
Total Project Cost	\$0	\$1,265,956	\$2,121,234	\$26,265,801	\$24,084,005						

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Bond Proceeds	0	0	0	0	0	0	0	1,265,956	2,121,234	19,412,748	24,084,005
Proffers	0	0	0	0	0	0	0	0	0	6,853,053	0
Total	\$0	\$1,265,956	\$2,121,234	\$26,265,801	\$24,084,005						

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Personnel	0	0	0	0	0	0	0	0	0	483,000
Operating	0	0	0	0	0	0	0	0	0	1,096,000
Debt Service	0	0	0	0	0	0	0	106,000	284,000	1,908,446
Total	\$0	\$106,000	\$284,000	\$3,487,446						

Early Childhood Special Education Addition

Project Code		Square Footage/Acreage	15,258/0
Project Type	Building Construction	Construction Cost per Sq. Ft.	\$275 + site work
Project Status	Planning	School Board Priority Number	4
Functional Area	Education	Student Capacity	80
Estimated Project Cost	\$9,594,963	Est. Opening Date	August 2029 (FY2030)
Current Year Cost	\$6,949,000	Funding Source	VPSA
Debt Service	\$	Years Financed	20
Full Year Operating Impact	N/A	Tax Rate Equivalent	\$

Project Description:

In the upcoming 2019-20 school year, early childhood special education will be housed at two centers within Stafford County that are primarily focused on housing early childhood special education and head start students. The northern campus is North Star Early Education Center (formerly known as Fredericksburg Christian School, Stafford Campus) in Stafford, while the southern campus is located at the Gari Melchers Complex in Fredericksburg. The project consists of new construction to house ten classrooms, with restrooms, specifically designed for early childhood special education, supporting space, site work, project management, furniture, fixtures, equipment, and technology infrastructure.

Operating Impact Summary:

This new facility will be subjected to SCPS’ standard maintenance and operation costs, to include custodial support, internal and external preventative maintenance, and utility costs.

Early Childhood Special Education Addition, Phase I

Location:

The current location for the additional early childhood special education capacity is to be determined.

Relationship to Approved County Policy or Plan:

Stafford County School Board's Strategic Plan:

- Goal 1: Engage, challenge, and prepare every student for success
- Goal 3: Resource stewardship

Stafford County Comprehensive Plan:

- Goal 1: Manage growth and development in a sustainable manner
- Goal 3: Preserve and protect environmental resources
- Goal 8: Support Stafford County as a community for superior education

Stafford County Board of Supervisors' Priorities (Education, Infrastructure)

Analysis of Need:

The early childhood special education (ECSE) student population is expected to grow at a rate of 5% annually, which equates to approximately two additional ECSE classrooms per year. The basis of this projected growth rate is the concatenation of multiple data sources, including the Virginia Department of Education (3.8-4.7%), the Department of Behavioral Health and Development Services (5%), and the Parent Education-Infant Development (PE-ID) Region 3 staff (5%). These projects are in line with growth experienced within SCPS since 2013.

With North Star Early Childhood Education Center opening at, or very near, full capacity, this project plans to address the expected continuous ECSE growth by providing additional classrooms outside of elementary schools. When ECSE programs are placed within elementary schools, the program(s) occupy classrooms that would otherwise be available to serve the elementary population. This reduces the capacity at elementary schools where ECSE programs are housed.

Change or Reasons for Revisions:

FY2020 – New project proposed in CIP.

FY2021 – Added to CIP based on School Boards requested opening date.

Early Childhood Special Education Addition, Phase I

Alternative:

The alternative to this project is ECSE program placement within elementary schools. As the ECSE student population continues to grow, the number of required programs will exceed the Northern and Southern ECSE-Head Start Campuses’ capacities. Programs unable to be located within the North Star Early Education Center or Gari Melchers Complex will be housed within elementary schools, reducing the capacities at those schools.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	0	0	0	0	0	436,479	150,000	87,521
Construction / Project	0	0	0	0	0	0	0	0	0	3,667,419	4,881,544
Contingency	0	0	0	0	0	0	0	0	70,000	150,000	152,000
Total Project Cost	\$0	\$506,479	\$3,967,419	\$5,121,065							

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Bond Proceeds	0	0	0	0	0	0	0	0	506,479	3,967,419	5,121,065
Total	\$0	\$506,479	\$3,967,419	\$5,121,065							

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Operating	0	0	0	0	0	0	0	0	24,000	24,000
Debt Service	0	0	0	0	0	0	0	0	42,000	374,000
Total	\$0	\$66,000	\$398,000							

Drew Middle School Renovation/Addition

Project Code		Square Footage/Acreage	106,900/0
Project Type	Building Renovation	Construction Cost per Sq. Ft.	\$170/\$275 + site work
Project Status	Planning	Operating Cost per Sq. Ft.	
Functional Area	Education	Student Capacity	
Estimated Project Cost	\$25,000,000	Est. Opening Date	August 2030 (FY2031)
Current Year Cost		Funding Source	VPSA
Debt Service (Ten Year Period)	\$586,000	Years Financed	20
Full Year Operating Impact	N/A	Tax Rate Equivalent	\$0.012

Project Description:

This project is the renovation/additions to Edward E. Drew, Jr. Middle School (MS). Drew MS, originally constructed in 1951, is located on a 15.3-acre site. There have been additions built onto the original building. The project scope includes renovating the entire building, 98,900 square feet, and building a small addition sized at 8,000 square feet. This project is currently planned to include the upgrading and modernization of the following systems: ADA accessibility, electrical, fire alarm, fire suppression sprinklers, HVAC, life safety, and plumbing. Additionally, architectural items such as floors, doors, hardware, and windows will be replaced, as will the data and network plant, public address system, and lighting within the building. The exterior brick façade will be repaired and re-pointed. This project also includes the re-development of the site and upgrading the storm water management system and parking areas. The addition for this project is planned to address an 8,000 square feet space deficiency for the middle school program.

Modular classrooms will be utilized as swing space during the renovation to house the areas of the building that are actively being worked on. Drew MS renovation and additions will be designed and constructed in accordance with the most current middle school education specifications and in conjunction with the Stafford County Public Schools Facility Design Standards. Planning, design, furniture, fixtures, equipment, project management, technology infrastructure, and site work are all included in the project cost. Working with Virginia Department of Education, consultants, and historic data, staff estimate a minimum of \$170 per square foot for renovation and \$275 per square foot for the new building cost.

Drew Middle School Renovation/Addition

Operating Impact Summary:

This project will result in the entire school building and the new additional space being more energy efficient than the current facility. Space within the school will better align with educational specifications, and ADA accessibility entering and traversing within the school facility will be improved. Swing space in the form of modular buildings will be utilized to house the affected areas of the school while construction is occurring. Additional personnel and operating costs will be associated with this renovation and addition project.

Location:

Drew Middle School is located at 501 Cambridge Street, Fredericksburg, VA 22405.

Relationship to Approved County Policy or Plan:

Stafford County School Board's Strategic Plan:

- Goal 1: Engage, challenge, and prepare every student for success
- Goal 3: Resource stewardship

Stafford County Comprehensive Plan:

- Goal 1: Manage growth and development in a sustainable manner
- Goal 3: Preserve and protect environmental resources
- Goal 8: Support Stafford County as a community for superior education

Stafford County Board of Supervisors' Priorities (Education, Infrastructure)

Analysis of Need:

A facility assessment for Drew MS was complete in May 2008 and was updated in 2017. This assessment of the school's condition showed a significant level of investment needed by FY2028 (\$15M in today's cost). This level of investment, when escalated, exceeds the industry standard of 75% replacement value and therefore merits consideration of a rebuild. However, the school division currently does not plan to relocate the school to another site and feels the current site is too small to rebuild on the existing campus with the school open. Rebuilding a school on the same site while the existing school remains used consumes an exorbitant amount of space because two schools essentially have to be created on the same piece of property. In this case, it does not seem feasible for this to occur at Drew MS. In addition to the condition of this school, program deficiencies exist at this facility.

Change or Reasons for Revisions:

FY2017 – New project approved in CIP, open FY2028; \$24.2M.

FY2018 – No change.

Drew Middle School Renovation/Addition

FY2019 – Project not included in approved CIP.

FY2020 –Project cost lowered at direction of BOS; \$25M.

FY2021 – No change.

Alternative:

The alternative to this project is the continuation of the degradation to the existing Drew Middle School building. If renovating this building does not occur in a timely manner, the School Division will be forced to expend funds to address areas of need. Any pre-renovation dollars spent in areas that would be impacted by this project feature a low return on investment.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	0	0	0	0	0	0	1,000,000	1,000,000
Construction / Project	0	0	0	0	0	0	0	0	0	0	5,000,000
Total Project Cost	\$0	\$1,000,000	\$6,000,000								

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Bond Proceeds	0	0	0	0	0	0	0	0	0	1,000,000	6,000,000
Total	\$0	\$1,000,000	\$6,000,000								

Operating Impacts	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Debt Service	0	0	0	0	0	0	0	0	0	84,000
Total	\$0	\$84,000								

Capital Maintenance: Schools Infrastructure

Project Code		Square Footage/Acreage	
Project Type	3R Projects	Construction Cost per Sq. Ft.	
Project Status		Operating Cost per Sq. Ft.	
Functional Area	Education	Student Capacity	
Estimated Project Cost	\$7,549,700	Est. Opening Date	
Current Year Cost	\$6,913,700	Funding Source	Bonds/Current Revenue/Nutrition
Debt Service	N/A	Years Financed	Bonds 15 years
Full Year Operating Impact		Tax Rate Equivalent	\$0.003

Project Description:

Improvements and upgrades to various schools, buildings, equipment, and grounds to improve deficiencies related to facilities safety and maintenance. Work will include Repair, Replacement and Renovation of school facilities.

Operating Impact Summary:

These improvement and upgrade projects are needed to continue to supply the students in Stafford County with learning environments that are conducive to learning, poising students for educational success.

Location:

Various Stafford County Public Schools’ facilities across the county.

Relationship to Approved County Policy or Plan:

Stafford County School Board’s Strategic Plan:

- Goal 1: Engage, challenge, and prepare every student for success
- Goal 3: Resource stewardship

Stafford County Comprehensive Plan:

- Goal 1: Manage growth and development in a sustainable manner
- Goal 3: Preserve and protect environmental resources
- Goal 8: Support Stafford County as a community for superior education

Stafford County Board of Supervisors’ Priorities (Education, Infrastructure)

Analysis of Need:

Ongoing improvements and upgrades are a necessary component of preparing buildings, equipment, and grounds to maintain adequate educational facilities.

Stafford County School's 3R Infrastructure

Project	Location	Funding Source	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Repair Pavement & Parking Lot Lighting	GMC	Bond Proceeds	1,060,000									
Replace Chiller	PRES	Bond Proceeds	655,700	0	0	0	0	0	0	0	0	0
Repair Pavement & Parking Lot Lighting	FFES	Bond Proceeds	995,000	0	0	0	0	0	0	0	0	0
Rebuild Chillers	BPHS & MVHS	Bond Proceeds	510,000	0	0	0	0	0	0	0	0	0
Replace Tennis Courts	CFHS	Bond Proceeds	819,000	0	0	0	0	0	0	0	0	0
Repair Interior Finishes - Phase I	HHPMS	Bond Proceeds	983,000	0	0	0	0	0	0	0	0	0
Repair Mechanical Systems (Chiller, AHU's, Kitchen A/C) - Phase I	NSHS	Prior Year + Current Revenue - Schools	2,402,000	0	0	0	0	0	0	0	0	0
Replace Walk-In Freezer & Refrigerators	WCES	Nutrition Capital Funding	125,000	0	0	0	0	0	0	0	0	0
Install Kitchen A/C (9 schools)	DMS, FFES, HOES, HES SMS, PRES, RRES, WES WCES	Unfunded	1,617,000	0	0	0	0	0	0	0	0	0
Install VOIP and Upgrade Network	All Locations	Unfunded	2,348,000	0	0	0	0	0	0	0	0	0
Replace Fire Alarm System	PRES	Unfunded	273,000	0	0	0	0	0	0	0	0	0
Replace Fire Alarm System	RTMS	Unfunded	328,000	0	0	0	0	0	0	0	0	0
Replace Media Retrieval & PA Systems	NSHS	Unfunded	218,000	0	0	0	0	0	0	0	0	0
Replace Media Retrieval & PA Systems	SMS	Unfunded	186,000	0	0	0	0	0	0	0	0	0
Repair Mechanical Systems (Chiller) - Addition	SES	Unfunded	382,000	0	0	0	0	0	0	0	0	0
Replace Roof (SS)	FFES	Unfunded	382,000	0	0	0	0	0	0	0	0	0
Replace Roof (Addition SS & Library Overhang)	GVES	Unfunded	382,000	0	0	0	0	0	0	0	0	0
Replace Roof (Area E & Outbuildings SS)	SES	Unfunded	349,000	0	0	0	0	0	0	0	0	0
Repair Mechanical Systems (RTAA Chiller-MDF HVAC)	CFHS	Unfunded	328,000	0	0	0	0	0	0	0	0	0
Improvements to Auditorium Systems	MVHS	Unfunded	328,000	0	0	0	0	0	0	0	0	0
Repair Cafeteria Flooring (Insurance)	BPHS	Unfunded	110,000	0	0	0	0	0	0	0	0	0
Replace Generator	PRES	Unfunded	164,000	0	0	0	0	0	0	0	0	0
Replace Generator	RES	Unfunded	164,000	0	0	0	0	0	0	0	0	0
Repair Main Road Entrances	NSHS	Unfunded	874,000	0	0	0	0	0	0	0	0	0
Install Generator	Support Services	Unfunded	164,000	0	0	0	0	0	0	0	0	0
Repair Field Drainage	CFHS	Unfunded	273,000	0	0	0	0	0	0	0	0	0
Replace Gym/Team Lockers	BPHS	Unfunded	124,245	0	0	0	0	0	0	0	0	0
Repair Mechanical Systems - Phase II	NSHS	Bond Proceeds	0	3,651,000	0	0	0	0	0	0	0	0
Repair Interior Finishes - Phase II	HHPMS	Bond Proceeds	0	3,310,000	0	0	0	0	0	0	0	0
Replace Fire Alarm System	RRES	Current Revenue - Schools	0	343,000	0	0	0	0	0	0	0	0
Replace Media Retrieval & PA Systems	KWBES	Current Revenue - Schools	0	285,000	0	0	0	0	0	0	0	0
Replace Media Retrieval & PA Systems	RRES	Current Revenue - Schools	0	285,000	0	0	0	0	0	0	0	0
Replace Media Retrieval & PA Systems	TBGMS	Current Revenue - Schools	0	228,000	0	0	0	0	0	0	0	0
Replace Walk-In Freezer & Refrigerators	WES	Nutrition Capital Funding	0	131,000	0	0	0	0	0	0	0	0
Repair Roof (SS)	HES	Prior Year + Current Revenue - Schools	0	329,750	0	0	0	0	0	0	0	0
Replace Roof (Area A SS)	RES	Unfunded	0	388,000	0	0	0	0	0	0	0	0
Repair Roof (Standing seam & Outbuildings; Ext painting)	BPHS	Unfunded	0	799,000	0	0	0	0	0	0	0	0
Replace Fiber Optic Cabling (Interior)	BPHS, TBGMS, NSHS & RTMS	Unfunded	0	399,000	0	0	0	0	0	0	0	0
Install Additional Security Lighting - ES Playgrounds	All 17 ES	Unfunded	0	106,500	0	0	0	0	0	0	0	0
Repair Erosion & Drainage - Phases 4, 7 - 9	DSMS	Unfunded	0	457,000	0	0	0	0	0	0	0	0
Repair Pavement	SMS	Unfunded	0	572,000	0	0	0	0	0	0	0	0
Construct Vehicle and Equipment Canopy	Support Services	Unfunded	0	143,000	0	0	0	0	0	0	0	0
Construct Snow Removal Storage (Salt)	Coal Landing	Unfunded	0	343,000	0	0	0	0	0	0	0	0
Replace CTE Dust Collection Systems	SMS	Unfunded	0	285,000	0	0	0	0	0	0	0	0
Improvements to Auditorium Systems	NSHS	Unfunded	0	343,000	0	0	0	0	0	0	0	0
Replace & Add Storage Buildings	CFHS, HOES, RES & RRES	Unfunded	0	385,600	0	0	0	0	0	0	0	0
Install Playground & Play Area	WCES	Unfunded	0	183,000	0	0	0	0	0	0	0	0
Repair Tennis Court	NSHS	Unfunded	0	457,000	0	0	0	0	0	0	0	0
Repair Pavement	PRES	Unfunded	0	913,000	0	0	0	0	0	0	0	0
Replace Generator	DMS	Unfunded	0	457,000	0	0	0	0	0	0	0	0

CAPITAL IMPROVEMENT PROGRAM

FY2021 Adopted Budget

Project	Location	Funding Source	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Replace Generator	WES	Unfunded	0	457,000	0	0	0	0	0	0	0	0
Repair Pavement	RES	Unfunded	0	684,000	0	0	0	0	0	0	0	0
Repair Playground & Play Area	PRES	Unfunded	0	92,000	0	0	0	0	0	0	0	0
Repair Tracks	RRES & WCES	Unfunded	0	171,000	0	0	0	0	0	0	0	0
Replace HVAC Dampers	AYBAC	Unfunded	0	137,000	0	0	0	0	0	0	0	0
Install Sound System Gym/Activity Room	GVES & HES	Unfunded	0	115,000	0	0	0	0	0	0	0	0
Upgrade CTE Lab	CFHS	Unfunded	0	41,000	0	0	0	0	0	0	0	0
Upgrade Library	KWBES	Unfunded	0	56,000	0	0	0	0	0	0	0	0
Upgrade CTE Tech Ed Lab	HHPMS	Unfunded	0	228,000	0	0	0	0	0	0	0	0
Repair Athletic Fields	TBGMS, HHPMS, RTMS & SMS	Unfunded	0	228,000	0	0	0	0	0	0	0	0
Upgrade CTE Labs - FACS	DMS	Unfunded	0	228,000	0	0	0	0	0	0	0	0
Repair Library	RRES	Unfunded	0	56,000	0	0	0	0	0	0	0	0
Repair Mechanical Systems (VAV-AHU-BAS-Kitchen A/C)	PRES	Bond Proceeds	0	0	2,350,000	0	0	0	0	0	0	0
Repair Roof	AYBAC	Bond Proceeds	0	0	1,046,000	0	0	0	0	0	0	0
Repair Interior Finishes - Phase I	NSHS	Bond Proceeds	0	0	1,646,000	0	0	0	0	0	0	0
Construct Snow Removal Storage (Salt)	Support Services	Current Revenue - Schools	0	0	235,000	0	0	0	0	0	0	0
Repair Long Jump & South D Ring	SHS	Current Revenue - Schools	0	0	316,000	0	0	0	0	0	0	0
Construct Storage Buildings	ABES, AYBAC, GVES & WCES	Current Revenue - Schools	0	0	294,000	0	0	0	0	0	0	0
Repair Bathroom Floor	ABES	Current Revenue - Schools	0	0	177,000	0	0	0	0	0	0	0
Install Messaging Marquees (Manual)	AGWMS/GES/RES	Current Revenue - Schools	0	0	76,000	0	0	0	0	0	0	0
Construct Stairs at Football Stadium	RTMS	Current Revenue - Schools	0	0	158,100	0	0	0	0	0	0	0
Upgrade Library	PRES	Current Revenue - Schools	0	0	58,000	0	0	0	0	0	0	0
Replace Walk-In Freezer & Refrigerators	FFES	Nutrition Capital Funding	0	0	135,000	0	0	0	0	0	0	0
Construct Bus Parking - Phase I	TBD	Prior Year + Current Revenue - Schools	0	0	527,500	0	0	0	0	0	0	0
Repair Interior Finishes	RES	Unfunded	0	0	1,389,415	0	0	0	0	0	0	0
Repair Exterior Envelope (Windows) and Board Room Overhang	AYBAC	Unfunded	0	0	259,000	0	0	0	0	0	0	0
Replace Hallway Lockers	SMS	Unfunded	0	0	135,560	0	0	0	0	0	0	0
Install Messaging Marquees (Manual)	RTMS	Unfunded	0	0	76,000	0	0	0	0	0	0	0
Replace Generator	SMS	Unfunded	0	0	471,000	0	0	0	0	0	0	0
Replace Media Retrieval & PA Systems	PRES	Unfunded	0	0	235,000	0	0	0	0	0	0	0
Replace Roof (SS)	FES	Unfunded	0	0	376,000	0	0	0	0	0	0	0
Replace Roof (SS-All areas)	RTMS	Unfunded	0	0	2,704,000	0	0	0	0	0	0	0
Upgrade CTE Labs - FACS & Tech Ed Lab	NSHS	Unfunded	0	0	705,000	0	0	0	0	0	0	0
Repair Tracks	PRES	Unfunded	0	0	176,000	0	0	0	0	0	0	0
Repair Playground & Play Area	GES	Unfunded	0	0	95,000	0	0	0	0	0	0	0
Repair Library	AGWMS	Unfunded	0	0	58,000	0	0	0	0	0	0	0
Improvements to Auditorium Systems	BPHS	Unfunded	0	0	353,000	0	0	0	0	0	0	0
Repair Mechanical Systems (O'Shannessy Building)	GMC	Bond Proceeds	0	0	0	1,029,000	0	0	0	0	0	0
Repair Interior Finishes	PRES	Bond Proceeds	0	0	0	1,431,415	0	0	0	0	0	0
Repair Interior Finishes - Phase II	NSHS	Bond Proceeds	0	0	0	2,543,000	0	0	0	0	0	0
Renovate Aimee Building	SHS	Prior Year + Current Revenue - Schools	0	0	0	303,000	0	0	0	0	0	0
Repair Mechanical Systems	FFES	Bonds +Current Revenue	0	0	0	2,421,000	0	0	0	0	0	0
Replace Walk-In Freezer & Refrigerators	HES	Nutrition Capital Funding	0	0	0	139,000	0	0	0	0	0	0
Replace Generator	FFES	Unfunded	0	0	0	485,000	0	0	0	0	0	0
Replace Media Retrieval & PA Systems	CFHS	Unfunded	0	0	0	242,000	0	0	0	0	0	0
Replace Fire Alarm System	MBES	Unfunded	0	0	0	364,000	0	0	0	0	0	0
Replace Roof (SS)	PRES	Unfunded	0	0	0	423,000	0	0	0	0	0	0
Repair Pavement	AYBAC	Unfunded	0	0	0	787,000	0	0	0	0	0	0
Repair Tracks	AGWMS & RES	Unfunded	0	0	0	181,000	0	0	0	0	0	0
Repair Tracks	KWBES	Unfunded	0	0	0	181,000	0	0	0	0	0	0
Repair Playground & Play Area	RES	Unfunded	0	0	0	194,000	0	0	0	0	0	0
Upgrade CTE Labs	TBD	Unfunded	0	0	0	242,000	0	0	0	0	0	0
Repair Playground & Play Area	GMC	Unfunded	0	0	0	98,000	0	0	0	0	0	0
Repair Library	CES	Unfunded	0	0	0	60,000	0	0	0	0	0	0

CAPITAL IMPROVEMENT PROGRAM

FY2021 Adopted Budget

Project	Location	Funding Source	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Improvements to Auditorium Systems	CFHS	Unfunded	0	0	0	364,000	0	0	0	0	0	0
Replace Roof	AGWMS/GES	Bond Proceeds	0	0	0	0	3,155,000	0	0	0	0	0
Repair Interior Finishes - Phase III	NSHS	Bond Proceeds	0	0	0	0	1,872,000	0	0	0	0	0
Repair Mechanical Systems	AYBAC	Current Revenue - Schools	0	0	0	0	1,091,000	0	0	0	0	0
Replace Walk-In Freezer & Refrigerators	HOES	Nutrition Capital Funding	0	0	0	0	143,000	0	0	0	0	0
Repair Mechanical Systems	WCES	Unfunded	0	0	0	0	2,494,000	0	0	0	0	0
Repair Mechanical Systems - Phase I	SMS	Unfunded	0	0	0	0	1,123,000	0	0	0	0	0
Repair Pavement	HES	Unfunded	0	0	0	0	748,000	0	0	0	0	0
Repair Pavement - (Student Lot)	NSHS	Unfunded	0	0	0	0	748,000	0	0	0	0	0
Repair Exterior Envelope	AGWMS/GES	Unfunded	0	0	0	0	625,000	0	0	0	0	0
Repair Library	HHPMS	Unfunded	0	0	0	0	62,000	0	0	0	0	0
Replace Media Retrieval & PA Systems	FFES	Unfunded	0	0	0	0	249,000	0	0	0	0	0
Replace Fire Alarm System	WCES	Unfunded	0	0	0	0	375,000	0	0	0	0	0
Repair Mechanical Systems - Phase I	BPHS	Bond Proceeds	0	0	0	0	0	2,440,000	0	0	0	0
Replace Roof	WCES	Bond Proceeds	0	0	0	0	0	2,569,000	0	0	0	0
Repair Mechanical Systems - Phase II	SMS	Bond Proceeds + Prior Year + Current Revenue - Schools	0	0	0	0	0	2,506,000	0	0	0	0
Repair Athletic Fields	NSHS	Unfunded	0	0	0	0	0	770,000	0	0	0	0
Repair Electrical System (Complex)	GMC	Unfunded	0	0	0	0	0	995,000	0	0	0	0
Repair Exterior Envelope	HHPMS	Unfunded	0	0	0	0	0	1,223,000	0	0	0	0
Repair Exterior Envelope	WES	Unfunded	0	0	0	0	0	644,000	0	0	0	0
Repair Library	ABES	Unfunded	0	0	0	0	0	64,000	0	0	0	0
Replace Media Retrieval & PA Systems	HES	Unfunded	0	0	0	0	0	256,000	0	0	0	0
Repair Playground & Play Area	KWBES	Unfunded	0	0	0	0	0	109,000	0	0	0	0
Repair Playground & Play Area	RRES	Unfunded	0	0	0	0	0	109,000	0	0	0	0
Upgrade CTE Labs	TBD	Unfunded	0	0	0	0	0	256,000	0	0	0	0
Repair Mechanical Systems - Phase II	BPHS	Bond Proceeds	0	0	0	0	0	0	2,251,000	0	0	0
Repair Pavement	DMS	Bond Proceeds	0	0	0	0	0	0	992,000	0	0	0
Repair Interior Finishes	WCES	Bond Proceeds	0	0	0	0	0	0	1,785,000	0	0	0
Construct Bus Parking - Phase II	TBD	Current Revenue - Schools	0	0	0	0	0	0	926,000	0	0	0
Construct Storage Buildings	DSMS, FFES, TBGMW & KWBES	Current Revenue - Schools	0	0	0	0	0	0	331,000	0	0	0
Renovate Front Office Suite	NSHS	Unfunded	0	0	0	0	0	0	198,000	0	0	0
Repair Athletic Fields	BPHS	Unfunded	0	0	0	0	0	0	663,000	0	0	0
Repair Athletic Fields	MVHS	Unfunded	0	0	0	0	0	0	663,000	0	0	0
Repair Exterior Envelope	RES	Unfunded	0	0	0	0	0	0	663,000	0	0	0
Repair Exterior Envelope (Doors & Windows)	GMC	Unfunded	0	0	0	0	0	0	663,000	0	0	0
Repair Library	RTMS	Unfunded	0	0	0	0	0	0	66,000	0	0	0
Repair Playground & Play Area	MBES	Unfunded	0	0	0	0	0	0	112,000	0	0	0
Repair Stormwater Management	SHS	Unfunded	0	0	0	0	0	0	1,986,000	0	0	0
Repair Mechanical Systems (AHU, Chiller, Fans)	RRES	Bond Proceeds	0	0	0	0	0	0	0	2,319,000	0	0

CAPITAL IMPROVEMENT PROGRAM

FY2021 Adopted Budget

Project	Location	Funding Source	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Repair Roof (SS-All Areas)	HOES	Bond Proceeds	0	0	0	0	0	0	0	2,725,000	0	0
Repair Pavement	CFHS	Bond Proceeds + Current Revenue - Schools	0	0	0	0	0	0	0	1,773,000	0	0
Construct Exterior Bleachers	DSMS	Unfunded	0	0	0	0	0	0	0	410,000	0	0
Construct Outdoor Classroom	GVES & RRES	Unfunded	0	0	0	0	0	0	0	817,000	0	0
Repair Athletic Fields	CFHS	Unfunded	0	0	0	0	0	0	0	683,000	0	0
Repair Exterior Envelope	HOES	Unfunded	0	0	0	0	0	0	0	683,000	0	0
Repair Playground & Play Area	CES	Unfunded	0	0	0	0	0	0	0	115,000	0	0
Repair Mechanical Systems - Phase I	RTMS	Bond Proceeds	0	0	0	0	0	0	0	0	1,615,000	0
Repair Interior Finishes	AYBAC	Bond Proceeds	0	0	0	0	0	0	0	0	1,684,000	0
Repair Interior Finishes - Phase I	SMS	Bond Proceeds	0	0	0	0	0	0	0	0	1,754,000	0
Repair Pavement	KWBES	Current Revenue - Schools	0	0	0	0	0	0	0	0	703,000	0
Repair Pavement	MBES	Prior Year + Current Revenue - Schools	0	0	0	0	0	0	0	0	913,000	0
Construct Outdoor Classroom	SHS	Unfunded	0	0	0	0	0	0	0	0	1,826,000	0
Repair Pavement	MVHS	Unfunded	0	0	0	0	0	0	0	0	1,826,000	0
Repair Athletic Fields	SHS	Unfunded	0	0	0	0	0	0	0	0	703,000	0
Repair Library	DSMS	Unfunded	0	0	0	0	0	0	0	0	70,000	0
Repair Playground & Play Area	ABES	Unfunded	0	0	0	0	0	0	0	0	118,000	0
Repair Interior Finishes - Phase II	SMS	Bond Proceeds	0	0	0	0	0	0	0	0	0	1,807,000
Repair Mechanical Systems - Phase II	RTMS	Bond Proceeds	0	0	0	0	0	0	0	0	0	2,891,000
Upgrade CTE Labs	TBD	Current Revenue - Schools	0	0	0	0	0	0	0	0	0	288,000
Repair Playground & Play Area	TBD	Current Revenue - Schools	0	0	0	0	0	0	0	0	0	146,000
Repair Pavement	TBD	Current Revenue - Schools	0	0	0	0	0	0	0	0	0	1,157,000
Replace Media Retrieval & PA Systems	TBD	Unfunded	0	0	0	0	0	0	0	0	0	362,000
Repair Athletic Fields	TBD	Unfunded	0	0	0	0	0	0	0	0	0	1,085,000
Repair Exterior Envelope	TBD	Unfunded	0	0	0	0	0	0	0	0	0	867,000
Paint Exterior (Two Schools)	TWO LOCATIONS	Unfunded	0	0	0	0	0	0	0	0	0	85,000
		FUNDED	7,549,700	8,562,750	7,018,600	7,866,415	6,261,000	7,515,000	6,285,000	6,817,000	6,669,000	6,289,000
		UNFUNDED	8,994,245	8,724,100	7,032,975	3,621,000	6,424,000	4,426,000	5,014,000	2,708,000	4,543,000	2,399,000
		Total Yearly Project Cost	\$16,543,945	\$17,286,850	\$14,051,575	\$11,487,415	\$12,685,000	\$11,941,000	\$11,299,000	\$9,525,000	\$11,212,000	\$8,688,000

Project Revenues		FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Bond Proceeds		5,022,700	6,961,000	5,042,000	6,212,440	5,027,000	5,714,270	5,028,000	5,544,000	5,053,000	4,698,000
Current Revenue - County		1,445,865	1,445,865	1,445,865	1,445,865	1,091,000	1,445,865	1,257,000	1,273,000	1,445,865	1,445,866
Use of Prior Year Fund Balance General Fund		956,135	24,885	395,735	69,110	0	354,865	0	0	170,135	145,134
Nutrition Capital Funding		125,000	131,000	135,000	139,000	143,000	0	0	0	0	0
Total		\$7,549,700	\$8,562,750	\$7,018,600	\$7,866,415	\$6,261,000	\$7,515,000	\$6,285,000	\$6,817,000	\$6,669,000	\$6,289,000

Operating Impacts		FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Debt Service		0	500,000	1,193,000	1,695,000	2,314,000	2,815,000	3,384,000	3,885,000	4,437,000	4,940,000
Total		\$0	\$500,000	\$1,193,000	\$1,695,000	\$2,314,000	\$2,815,000	\$3,384,000	\$3,885,000	\$4,437,000	\$4,940,000

CAPITAL IMPROVEMENT PROGRAM
FY2021 Adopted Budget

Utilities

Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Total Projected Uses (Included PY Funding)
Water	4,637,285	6,280,000	8,725,000	14,535,000	3,875,200	9,156,800	6,650,000	7,842,000	8,243,000	3,050,000	3,150,000	42,572,000	28,935,000	76,144,285
Waste Water	7,177,500	6,485,000	27,844,200	13,194,200	7,876,600	10,609,800	3,387,100	2,516,000	4,002,000	2,746,000	2,796,000	66,009,800	15,447,100	88,634,400
Other	2,349,200	1,028,700	878,200	977,800	3,015,300	820,500	555,200	1,008,300	585,300	585,300	6,962,300	6,720,500	9,696,400	18,766,100
Total Expenditures	\$14,163,985	\$13,793,700	\$37,447,400	\$28,707,000	\$14,767,100	\$20,587,100	\$10,592,300	\$11,366,300	\$12,830,300	\$6,381,300	\$12,908,300	\$115,302,300	\$54,078,500	\$183,544,785

Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Total Projected Uses (Included PY Funding)
Bond Proceeds	0	0	9,700,000	8,900,000	0	0	0	0	0	0	0	18,600,000	0	18,600,000
Availabilities	850,000	3,300,000	4,119,650	3,976,850	5,767,000	7,408,000	400,000	450,000	500,000	550,000	550,000	24,571,500	2,450,000	27,871,500
User Fees	12,293,735	10,134,500	23,277,750	15,480,150	8,380,100	10,429,100	9,842,300	10,566,300	11,980,300	5,481,300	12,008,300	67,701,600	49,878,500	129,873,835
Regional Contributions	0	0	0	0	270,000	2,400,000	0	0	0	0	0	2,670,000	0	2,670,000
Pro Rata Reimbursements	1,020,250	359,200	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	1,759,200	1,750,000	4,529,450
Prior Year Fund Fund Balance	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Revenues	\$14,163,985	\$13,793,700	\$37,447,400	\$28,707,000	\$14,767,100	\$20,587,100	\$10,592,300	\$11,366,300	\$12,830,300	\$6,381,300	\$12,908,300	\$115,302,300	\$54,078,500	\$183,544,785

"User Fee" revenues are offset by prior year fund balance and the expected pro rata reimbursements.

Utilities

Water Project Expenditures:	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Total Projected Uses (Included PY Funding)
310-10 Construct 24" main from I-95 to 12" main along Jefferson Davis Highway near Sunnyside Drive	0	0	175,000	917,000	0	0	0	0	0	0	0	1,092,000	0	1,092,000
342-01 24" Main from Olde Forge Drive to Cambridge Street	0	0	6,000,000	0	0	0	0	0	0	0	0	6,000,000	0	6,000,000
342-02 24" Main from Cambridge Street to Cool Springs Road	0	0	0	5,000,000	0	0	0	0	0	0	0	5,000,000	0	5,000,000
342-06 - 24" Main from Truslow Road/I-95 to Enon Road Water Tank	300,000	4,000,000	0	0	0	0	0	0	0	0	0	4,000,000	0	4,300,000
342-15 24" Main from Enon Road Tank to Centreport Parkway	100,000	0	100,000	3,900,000	0	0	0	0	0	0	0	4,000,000	0	4,100,000
433-05 16" Main along Courthouse Road from PS at 433/370 Zone to Rollinswood Lane	0	0	0	0	0	0	0	0	793,000	0	0	0	793,000	793,000
472-100 - Construct 0.5 Million Gallon Storage Tank along Garrisonville Road near Ripley Road	0	0	0	0	145,200	1,306,800	0	0	0	0	0	1,452,000	0	1,452,000
472-200 Construct 0.9 MGD pumping station along Mountain View Road near Lightfoot Road	0	0	0	0	0	0	0	292,000	0	0	0	0	292,000	292,000
480-01 Construct 16" main from the existing 16" main at Celebrate VA Tank to the existing 12" main at Jewett Lane and Celebrate Virginia Parkway	0	0	0	418,000	0	0	0	0	0	0	0	418,000	0	418,000
480-02 Construct 16" main to connect existing 12" main at CVA Parkway under US 17 to existing 12" main at Warrenton Road and International Parkway	0	0	0	0	535,000	0	0	0	0	0	0	535,000	0	535,000
Hydrant Valves Replacement Program	100,000	100,000	100,000	100,000	100,000	150,000	200,000	250,000	300,000	350,000	400,000	550,000	1,500,000	2,150,000
Lake Mooney Additional Modules for Interconnection	0	0	0	0	945,000	0	0	0	0	0	0	945,000	0	945,000
Lake Mooney Permanganate	0	0	350,000	0	0	0	0	5,000,000	4,650,000	0	0	350,000	9,650,000	10,000,000
LMWTP -002 Lake Mooney Thickener Tank and Equipment	0	800,000	0	0	0	0	0	0	0	0	0	800,000	0	800,000
LMWTP-007 - Lake Mooney WTP Replace membrane cassettes	0	0	0	0	0	1,500,000	0	0	0	0	0	1,500,000	0	1,500,000
SLWTP-001 Smith Lake WTP - Filter Repairs	0	0	0	0	0	300,000	4,350,000	0	0	0	0	300,000	4,350,000	4,650,000
SLWTP-002 Smith Lake WTP - Facility Upgrades	0	0	400,000	2,700,000	0	0	0	0	0	0	0	3,100,000	0	3,100,000
Redundant Gate Replacement for Abel Lake and Smith Lake	80,000	80,000	0	0	0	0	0	0	0	0	0	80,000	0	160,000
Regional Water Interconnection	0	0	0	0	450,000	4,000,000	0	0	0	0	0	4,450,000	0	4,450,000
Tank Removal	0	0	100,000	0	0	0	0	0	0	0	0	100,000	0	100,000

CAPITAL IMPROVEMENT PROGRAM
FY2021 Adopted Budget

Water Project Expenditures:	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Total Projected Uses (Included PY Funding)
Water Distribution Rehab - Neighborhood Systems	495,285	500,000	500,000	500,000	550,000	600,000	650,000	700,000	750,000	800,000	850,000	2,650,000	3,750,000	6,895,285
Water Distribution Rehab - Small Water Projects	150,000	300,000	250,000	250,000	300,000	350,000	400,000	450,000	500,000	550,000	550,000	1,450,000	2,450,000	4,050,000
Water Distribution Rehab - Transmission Lines Replacement	500,000	500,000	500,000	500,000	550,000	600,000	650,000	700,000	750,000	800,000	800,000	2,650,000	3,700,000	6,850,000
Water Extension Projects	250,000	0	250,000	250,000	300,000	350,000	400,000	450,000	500,000	550,000	550,000	1,150,000	2,450,000	3,850,000
Total	\$4,637,285	\$6,280,000	\$8,725,000	\$14,535,000	\$3,875,200	\$9,156,800	\$6,650,000	\$7,842,000	\$8,243,000	\$3,050,000	\$3,150,000	\$42,572,000	\$28,935,000	\$76,144,285

Utilities: Water Main Installation: 310-10 Construct 24” main from I-95 to 12” main along Jefferson Davis Highway near Sunnyside Drive

Project Code	BHC029	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07-2021 to 06-2024
Total Project Cost	\$1,092,000		
Functional Area	Utilities	Length of Pipeline	2,120
Total Debt Service		Construction Cost per LF.	\$515
Full Year Operating Impact			

Project Description:

This project (310-10) includes design and construction of a 24” water main from I-95 to the 12” water main along Jefferson Davis Highway (RT 1) near Sunnyside Drive (2,120 feet).

Operating Impact Summary:

This project does not have any stand-alone operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

From I-95 to the 12-inch main along Jefferson Davis Highway near Sunnyside Drive (2,120 feet)

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: Water Main Installation: 310-10 Construct 24” main from I-95 to 12” main along Jefferson Davis Highway near Sunnyside Drive

Analysis of Need:

The purpose of this project is to increase transmission capacity from Smith Lake WTP to the 12-inch mains along Jefferson Davis Highway to improve flows to customers along the Jefferson Davis Highway corridor.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Alternative:

If the project is not constructed there will be insufficient water transmission capability.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	175,000	0	0	0	0	0	0	0	0
Construction / Project	0	0	0	917,000	0	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$175,000	\$917,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	175,000	917,000	0	0	0	0	0	0	0
Total	\$0	\$0	\$175,000	\$917,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: Water Main Installation: 342-01 24” Main from Olde Forge Drive to Cambridge Street

Project Code	BHC030	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07-2021 to 06-2023
Total Project Cost	\$6,000,000		
Functional Area	Utilities	Length of Pipeline	8,200'
Total Debt Service		Construction Cost per LF.	\$730
Full Year Operating Impact		Pro Rata Water Zone	342 - Falmouth

Project Description:

This project (342-01) involves design and construction of a 24” water main from Olde Forge Drive to Cambridge Street.

Operating Impact Summary:

This project does not have any stand-alone operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be constructed from Old Forge Drive through undeveloped property passing near Belmont; then connecting with existing water distribution mains near Cambridge Street.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: Water Main Installation: 342-01 24” Main from Olde Forge Drive to Cambridge Street

Analysis of Need:

This transmission main is necessary to convey water to the southeastern portion of the 342 Pressure Zone as water demands increase through the planning period.

Change or Reasons for Revisions:

FY 2020: This project has been reconfigured to better reflect the intent and content of the Adopted 2018 Water and Sewer Master Plan.

FY 2021: No changes

Alternative:

If the project is not constructed there will be insufficient water transmission capability.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	0	0	6,000,000	0	0	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$6,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Bond Proceeds	0	0	6,000,000	0	0	0	0	0	0	0	0
Total	\$0	\$0	\$6,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Debt Service		0	0	502,000	502,000	502,000	502,000	502,000	502,000	502,000	502,000
Total	\$0	\$0	\$0	\$502,000	\$502,000	\$502,000	\$502,000	\$502,000	\$502,000	\$502,000	\$502,000

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees in as show on the CIP summary sheet.

Utilities: 342-02 24” Main from Cambridge Street to Cool Springs Road

Project Code	BHC031	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07-2022 to 06-2024
Total Project Cost	\$5,000,000		
Functional Area	Utilities	Length of Pipeline	7,100’
Total Debt Service		Construction Cost per LF.	\$700
Full Year Operating Impact		Pro Rata Water Zone	342 - Aquia

Project Description:

This project (342-02) involves design and construction of a 24” water main from Cambridge Street to Cool Springs Road.

Operating Impact Summary:

This project does not have any stand-alone operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be constructed from Cambridge Street along the Rappahannock River, through Saint Claire Brooks Park to Cool Springs Road.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Analysis of Need:

This transmission main is necessary to convey water to the southeastern portion of the 342 Pressure Zone as water demands increase through the planning period.

Utilities: 342-02 24" Main from Cambridge Street to Cool Springs Road

Change or Reasons for Revisions:

FY2020: This project has been reconfigured to better reflect the intent and content of the Adopted 2018 Water and Sewer Master Plan.

FY2021: No changes

Alternative:

If the project is not constructed there will be insufficient water transmission capability.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	0	0	0	5,000,000	0	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$5,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	0	0	0	0	0	0	0	0	0
Total	\$0	\$0	\$0	\$5,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees as show on the CIP summary sheet.

Utilities: 342-06 - 24" Main from Truslow Road/I-95 to Enon Road Water Tank

Project Code	BHC026	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2019 to 12/2021
Total Project Cost	\$4,300,000		
Functional Area	Utilities	Length of Pipeline	8,400'
Total Debt Service		Construction Cost per LF.	\$400
Full Year Operating Impact		Pro Rata Water Zone	342 - Falmouth

Project Description:

This project (342-06) involves design and construction of a 24" main from Truslow Road /I-95 to the Enon Road Water Storage Tank.

Operating Impact Summary:

This project does not have any stand-alone operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be constructed from the northern end of the 342-05 project (Truslow Road at I-95) and either along Truslow Road or through undeveloped land to the Enon Road Water Storage Tank (342-101).

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: 342-06 - 24" Main from Truslow Road/I-95 to Enon Road Water Tank

Analysis of Need:

The purpose of the project is to convey flows from the 30" main connecting Lake Mooney WTP to the northern section of the 342 Pressure Zone. This project is in conjunction with the Enon Road Elevated Water Storage Tank (342-101) and will serve the 342 Pressure Zone and the expected/desired growth in the Centreport/Airport Area.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Revised cost estimate.

Alternative:

If the project is not constructed there will be insufficient water transmission capability.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	300,000	0	0	0	0	0	0	0	0	0	0
Construction / Project	0	4,000,000	0	0	0	0	0	0	0	0	0
Total Project Cost	\$300,000	\$4,000,000	\$0								

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Pro Rata	150,000	0	0	0	0	0	0	0	0	0	0
User Fees	150,000	4,000,000	0	0	0	0	0	0	0	0	0
Total	\$300,000	\$4,000,000	\$0								

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0										

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees in as show on the CIP summary sheet.

Utilities: 342-15 24” Main from Enon Road Tank to Centreport Parkway

Project Code	BHC027	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2019 to 12/2023
Total Project Cost	\$4,100,000		
Functional Area	Utilities	Length of Pipeline	8,800’
Total Debt Service		Construction Cost per LF.	\$466
Full Year Operating Impact		Pro Rata Water Zone	342 - Falmouth

Project Description:

This project (342-15) involves design and construction of a 24 inch main from the Enon Road Water Storage Tank to Centreport Parkway.

Operating Impact Summary:

This project does not have any stand-alone operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be constructed from the Enon Road Elevated Water Storage Tank, along Hulls Chapel Road, then along Morewood Lane, through Lake Estates to Mountain View Road/Centreport Parkway.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: 342-15 24” Main from Enon Road Tank to Centreport Parkway

Analysis of Need:

This transmission main is necessary to convey water to the northern portion of the 342 Pressure Zone as water demands increase through the planning period. This transmission main will serve the pressure zone as well as convey emergency water needed in the northern part of the County in the event of water system failures. This transmission main is also critical for the expected and desired growth in the Centreport/Airport Area.

Change or Reasons for Revisions:

FY2020: This project was changed from 342-15, 16 to 342-15 as the Adopted Water and Sewer Master Plan combined them into one project to be called 342-15.
 FY2021: Fund timing changed. \$100,000 used in FY2020, \$100,000 moved from FY2020 to FY2021 (design) , \$3,900,000 moved from FY2020 to FY2022 (construction).

Alternative:

If the project is not constructed there will be insufficient water transmission capability.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	100,000	0	100,000	0	0	0	0	0	0	0	0
Construction / Project	0	0	0	3,900,000	0	0	0	0	0	0	0
Total Project Cost	\$100,000	\$0	\$100,000	\$3,900,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Pro Rata	100,000	0	0	0	0	0	0	0	0	0	0
User Fees	0	0	100,000	0	0	0	0	0	0	0	0
Total	\$100,000	\$0	\$100,000	\$3,900,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$326,000	\$326,000	\$326,000	\$326,000	\$326,000	\$326,000	\$326,000

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees as show on the CIP summary sheet.

Utilities: 433-05 16” Main Construction along Courthouse Road from PS at 433/370 Zone to Rollinswood Lane

Project Code	BHC033	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2027 to 01/2029
Total Project Cost	\$793,000		
Functional Area	Utilities	Length of Pipeline	2,720'
Total Debt Service		Construction Cost per LF.	\$292
Full Year Operating Impact		Pro Rata Water Zone	433 - Garrisonville

Project Description:

This project (433-05) includes design and construction of a 16 inch water main along Courthouse Road from the pump station located at the 433/370N Zone boundary to Rollinswood Lane.

Operating Impact Summary:

This project does not have any stand-alone operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be constructed along Courthouse Road from the pump station located at the 433/370 Pressure Zone Boundary and connecting to an existing 12 inch water main at Rollinswood Lane.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: 433-05 16” Main Construction along Courthouse Road from PS at 433/370 Zone to Rollinswood Lane

Analysis of Need:

The purpose of the project is to provide flow from the pumping station to the 12 inch mains on Courthouse Road, Danielle Way, and Ramoth Church Road. This pumping station will provide a second source of supply to the 433 Zone and utilize the transmission system in the southern portion of the 433 Zone to deliver flow to the customers in the southern portion of the 433 Zone and to the 472 Zone.

Change or Reasons for Revisions:

FY2020: No changes
 FY2021: No changes

Alternative:

If the project is not constructed there will be insufficient water transmission capability.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	0	0	0	0	0	135,000	0	0
Construction / Project	0	0	0	0	0	0	0	0	658,000	0	0
Total Project Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$793,000	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	0	0	0	0	0	0	793,000	0	0
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$793,000	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees as show on the CIP summary sheet.

Utilities: 472-100 - Construct 0.5 Million Gallon Storage Tank along Garrisonville Road near Ripley Road

Project Description:

Project Code	BHC036	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	01/2024 to 12/ 2025
Total Project Cost	\$1,452,000		
Functional Area	Utilities	Volume of Tank	500,000 Gal
Total Debt Service		Construction Cost per Gallon	\$2.90
Full Year Operating Impact		Pro Rata Water Zone	472 - Garrisonville

This project (472-100) includes design and construction of a 500,000 gallon elevated water storage tank.

Operating Impact Summary:

This project has minimal operating costs such as electricity and fuel for the emergency generator. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance and hard costs. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be constructed along Garrisonville Road in the area of Ripley Lane.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan

Analysis of Need:

This tank will provide water storage to the northern portion of the 472 Pressure Zone.

Utilities: 472-100 - Construct 0.5 Million Gallon Storage Tank along Garrisonville Road near Ripley Road

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Alternative:

If the project is not constructed there will be insufficient water transmission capability.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	0	145,200	0	0	0	0	0	0
Construction / Project	0	0	0	0	0	1,306,800	0	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$0	\$145,200	\$1,306,800	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	0	0	145,200	1,306,800	0	0	0	0	0
Total	\$0	\$0	\$0	\$0	\$145,200	\$1,306,800	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees as show on the CIP summary sheet.

Utilities: 472-200 Construct 0.9 MGD pumping station along Mountain View Road near Lightfoot Road

Project Code	BHC037	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2026 to 12/2027
Total Project Cost	\$292,000		
Functional Area	Utilities	Volume of Pumping Station	0.9 MGD
Total Debt Service		Construction Cost per MGD	\$325,000
Full Year Operating Impact		Pro Rata Water Zone	472 – Garrisonville

Project Description:

This project (472-200) includes the design and construction of a 0.9 million gallons a day (MGD) water booster pump station.

Operating Impact Summary:

This project has minimal operating costs such as electricity and fuel for the emergency generator. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance and hard costs. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be constructed along Mountain View Road in the area of Lightfoot Road.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: 472-200 Construct 0.9 MGD pumping station along Mountain View Road near Lightfoot Road

Analysis of Need:

This booster pump station will provide water into elevated storage areas in the northern portion of the 472 Pressure Zone. This is needed as demand rises in the pressure zone.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Alternative:

If the project is not constructed there will be insufficient water transmission capability.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	0	0	0	0	30,000	0	0	0
Construction / Project	0	0	0	0	0	0	0	262,000	0	0	0
Total Project Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$292,000	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	0	0	0	0	0	292,000	0	0	0
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$292,000	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees as show on the CIP summary sheet.

Utilities: 480-01 Construct 16” main from the existing 16” main at Celebrate VA Tank to the existing 12” main at Jewett Lane and Celebrate Virginia Parkway

Project Code	BHC034	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2022 to 01/2024
Total Project Cost	\$418,000		
Functional Area	Utilities	Length of Pipeline	600'
Total Debt Service		Construction Cost per LF.	\$697
Full Year Operating Impact			

Project Description:

This project (480-01) includes the design and construction of 600 feet of a 16 inch water main.

Operating Impact Summary:

This project does not have any stand-alone operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be constructed from an existing 16 inch water main at Celebrate Virginia Water Storage Tank along Jewett Lane to an existing 12 inch water main at Celebrate Virginia Parkway.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: 480-01 Construct 16” main from the existing 16” main at Celebrate VA Tank to the existing 12” main at Jewett Lane and Celebrate Virginia Parkway

Analysis of Need:

This water line will provide additional flow and pressure as demands along Warrenton Road increases.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Alternative:

If the project is not constructed there will be insufficient water transmission capability.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	0	0	0	418,000	0	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$418,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	0	418,000	0	0	0	0	0	0	0
Total	\$0	\$0	\$0	\$418,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: 480-02 Construct 16” main to connect existing 12” main at CVA Parkway under US 17 to existing 12” main at Warrenton Road and International Parkway

Project Code	BHC035	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2023 to 12/2024
Total Project Cost	\$535,000		
Functional Area	Utilities	Length of Pipeline	500'
Total Debt Service		Construction Cost per LF.	\$1,070
Full Year Operating Impact			

Project Description:

This project (480-02) includes the design and construction of 500 feet of a 16 inch water main.

Operating Impact Summary:

This project does not have any stand-alone operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be constructed from an existing 12 inch main at Celebrate Virginia Parkway and Warrenton Road, under Warrenton Road, and connect to an existing 12 inch main at International Parkway.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: 480-02 Construct 16” main to connect existing 12” main at CVA Parkway under US 17 to existing 12” main at Warrenton Road and International Parkway

Analysis of Need:

This water main will provide additional flow and pressure as demands along Warrenton Road increases.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Alternative:

If the project is not constructed there will be insufficient water transmission capability.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	0	0	0	0	535,000	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$0	\$535,000	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	0	0	535,000	0	0	0	0	0	0
Total	\$0	\$0	\$0	\$0	\$535,000	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: Fire Hydrant and Valve Replacement Program

Project Code	H&V021	Square Footage/Acreage	
Project Type	Utilities 3R	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Yearly
Total Project Cost	\$100,000		
Functional Area	Utilities	Number of FH's/Valves	Varies
Total Debt Service		Construction Cost per Unit	Varies
Full Year Operating Impact			

Project Description:

This project includes the programmatic replacement of defective, obsolete, and failing fire hydrants and in-line valves in the general distribution system.

Operating Impact Summary:

The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance and hard costs. These operating costs are considered and evaluated during each budget cycle.

Location:

The project focuses on fire hydrants and in-line valves in the general water distribution system.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program and is proposed for each fiscal year of the Utilities Division's Capital Improvement Program as a part of the Board of Supervisors proposed Healthy Growth priority.

Utilities: Fire Hydrant and Valve Replacement Program

Analysis of Need:

This annual program is dedicated to identifying and replacing defective, obsolete, and failing fire hydrants and in-line valves. These items are critical in the overall operation of the system and are used often for a variety of operational needs. When these items are needed and have unknowingly failed, it burdens the Field Crews during emergencies to resort to alternative plans on very short notice. Fire hydrants are critical for fire suppression and valves are most critical for isolating sections of pipe to be replaced in the event of a break. This work is intended to be performed by the Utilities Division Field Crews.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Project List FY2021:

Approximately 40 fire hydrants, determined to be extremely old or unreliable, have been earmarked for replacement.

Approximately 20 non-operable valves have been identified for scheduled replacement.

Alternative:

Non-functioning valves and fire hydrants will remain a part of the system.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	100,000	100,000	100,000	100,000	100,000	150,000	200,000	250,000	300,000	350,000	400,000
Total Project Cost	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$150,000	\$200,000	\$250,000	\$300,000	\$350,000	\$400,000

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	100,000	100,000	100,000	100,000	100,000	150,000	200,000	250,000	300,000	350,000	400,000
Total	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$150,000	\$200,000	\$250,000	\$300,000	\$350,000	\$400,000

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: Lake Mooney: Additional Modules for Interconnection

Project Code	BHC038	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2023 to 07/2025
Total Project Cost	\$945,000		
Functional Area	Utilities	Number of Modules	5 MGD
Total Debt Service		Construction Cost per Mod.	\$189,000
Full Year Operating Impact			

Project Description:

This project includes purchase and installation of five million gallons per day (MGD) of additional water treatment modules at the Lake Mooney Water Treatment Facility.

Operating Impact Summary:

These modules have minimal operating costs. The modules have a useful life of approximately ten years. The replacement costs will be factored into the appropriate yearly budget cycle or will be included in future Capital Improvement Programs.

Location:

Lake Mooney Water Treatment Facility.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program.

Utilities: Lake Mooney: Additional Modules for Interconnection

Analysis of Need:

These modules will provide water treatment capacity at the Lake Mooney Water Treatment Facility as part of the Regional Water Interconnection between Stafford County, Spotsylvania County, and the City of Fredericksburg.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Alternative:

There will continue to be no regional interconnection.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Contingency	0	0	0	0	945,000	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$0	\$945,000	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Availabilities	0	0	0	0	945,000	0	0	0	0	0	0
Total	\$0	\$0	\$0	\$0	\$945,000	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: Lake Mooney: Permanganate

Project Code	BHC039	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2020 to 07/2027
Total Project Cost	\$10,000,000		
Functional Area	Utilities	Volume of Tank	500,000 Gal
Total Debt Service		Construction Cost per Gallon	\$2.90
Full Year Operating Impact			

Project Description:

This project consists of the installation of a manganese removal system in addition to the permanganate contact process currently in place at the Lake Mooney Water Treatment Facility.

Operating Impact Summary:

This project has minimal operating costs such as electricity, periodic maintenance, and chemicals. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance and hard costs. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be constructed at the Lake Mooney Water Treatment Facility.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program and embodies the Board of Supervisors proposed Healthy Growth priority.

Utilities: Lake Mooney: Permanganate

Analysis of Need:

This additional equipment at a new facility is due to the existing chemical make-up of the raw water in the new reservoir. Manganese is a naturally occurring element and is currently removed in the water treatment process, but due to the amount, additional treatment capacity is necessary. This process study and equipment cost is a place-holder and will allow the installation upon complete analysis and presentation of recommendations by the consulting engineers and staff.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Alternative:

The Lake Mooney Water Treatment Facility will not have the ability to efficiently treat spiked levels of manganese.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	0	0	350,000	0	0	0	0	5,000,000	4,650,000	0	0
Total Project Cost	\$0	\$0	\$350,000	\$0	\$0	\$0	\$0	\$5,000,000	\$4,650,000	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	350,000	0	0	0	0	5,000,000	4,650,000	0	0
Total	\$0	\$0	\$350,000	\$0	\$0	\$0	\$0	\$5,000,000	\$4,650,000	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: LMWTP -002 Lake Mooney Thickener Tank and Equipment

Project Code	BHC041	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2020 to 07/2021
Total Project Cost	\$800,000		
Functional Area	Utilities	Volume of Tank	235,000 Gal
Total Debt Service		Construction Cost per Gallon	\$3.40
Full Year Operating Impact			

Project Description:

This project (LMWTP-002) includes the design and construction of a 235,000 gallon sludge thickener storage tank.

Operating Impact Summary:

This project has minimal operating costs. This second thickener will not increase operating costs as both thickeners will not be operated at the same time.

Location:

The project will be constructed at the Lake Mooney Water Treatment Plant.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Analysis of Need:

This additional sludge thickener tank will provide the ability for maintenance on the primary sludge thickener tank and equipment. During the initial design of the Lake Mooney Water Treatment Plant, a value engineering exercise eliminated the second sludge thickener tank. This decision was based on adding the additional tank within 5 to 10 years after the facility begins to operate.

Utilities: LMWTP -002 Lake Mooney Thickener Tank and Equipment

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Reduced operations cost from FY2020 plan. Project title change

Alternative:

If the single thickener is taken offline for maintenance, the plant will have to be shut down. The Lake Mooney Water Treatment Plant is a 24-hour facility and taking the plant off line is risky.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	0	800,000	0	0	0	0	0	0	0	0	0
Total Project Cost	\$0	\$800,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Availabilities	0	800,000	0	0	0	0	0	0	0	0	0
Total	\$0	\$800,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: LMWTP-007 - Lake Mooney WTP Replace Membrane Cassettes

Project Code	BHC043	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2024 to 12/2025
Total Project Cost	\$1,500,000		
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This project (LMWTP-007) consists of replacing the membrane cartridges at 10 years of operation.

Operating Impact Summary:

This project has periodic (approximately 10 years) replacement costs.

Location:

This work is located at the Lake Mooney Water Treatment Plant.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program and is part of the Board Of Supervisor’s proposed “Healthy Growth” priority.

Analysis of Need:

Lake Mooney Water Treatment Plant went into operation in December 2014. The membrane cartridges which are a key part of the filtration process have an expected useful life of about 10 years. The Utilities Division has therefore programmed the replacement of the existing membrane cassettes when they reach 10 years of operation.

Utilities: LMWTP-007 - Lake Mooney WTP Replace membrane cassettes

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Project title change

Alternative:

The existing membrane cartridges will exceed their use-full life and fail.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	0	0	0	0	0	1,500,000	0	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	0	0	0	1,500,000	0	0	0	0	0
Total	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: SLWTP-001 Smith Lake Water Treatment Plant - Filter Repairs

Project Code	JLS017	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	2026
Total Project Cost	\$4,650,000		
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This project (SLWTP-001) consists of replacing the existing eight filters.

Operating Impact Summary:

This project will replace existing filters and will not add any operational costs.

Location:

This work is located at the Smith Lake Water Treatment Plant.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program and is part of the Board of Supervisor’s proposed “Healthy Growth” priority.

Analysis of Need:

Smith Lake Water Treatment Plant has experienced failures in the existing filter underdrains. The failures have been investigated and it has been determined that the filters must be repaired in order to maintain rated plant capacity and to achieve water quality objectives.

Utilities: SLWTP-001 Smith Lake Water Treatment Plant - Filter Repairs

Change or Reasons for Revisions:

FY2020: This project was previously projected to occur in FY 18 or FY19. Filter media materials have been replaced, allowing this capital project to be completed in a later time frame.

FY2021: Project title change

Alternative:

If filters need replacement and it is not performed, the water treatment plant will fail to meet demand and/or quality requirements.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	0	0	300,000	0	0	0	0	0
Construction / Project	0	0	0	0	0	0	4,350,000	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$0	\$0	\$300,000	\$4,350,000	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	0	0	0	300,000	4,350,000	0	0	0	0
Total	\$0	\$0	\$0	\$0	\$0	\$300,000	\$4,350,000	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: SLWTP-002 Smith Lake Water Treatment Plant - Facility Upgrades

Project Code	BHC044	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2021 to 12/2023
Total Project Cost	\$3,100,000		
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This project (SLWTP-002) may consist of upgrading or replacing electrical motor controls, instrumentation, clarification, structural facilities, and the finished water pumps.

Operating Impact Summary:

This project will not increase operational costs. These replacements will be in-kind and likely create a more efficient operation, with lower operational costs.

Location:

This work is located at the Smith Lake Water Treatment Plant.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program and is part of the Board of Supervisor’s proposed “Healthy Growth” priority.

Utilities: SLWTP-002 Smith Lake Water Treatment Plant - Facility Upgrades

Analysis of Need:

In addition to planning for more treatment capacity and excellent water quality, the Utilities Division is also committed to meeting its customer’s expectations for a high level of reliability. With aging assets, Smith Lake Water Treatment Plant is now approaching 30 years of reliable operations. Most mechanical and electrical components have useful lifetimes of 15 to 30 years. The Utilities Division expects the need for reinvestment into critical equipment at Smith Lake Water Treatment Plant to increase in the future. A detailed condition assessment is being performed to define and schedule renovations. Until that assessment is completed, this project assumes the need to upgrade or replacement of several systems.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Project title change

Alternative:

If any part of the required repair/replacement/rehabilitation is not performed, the water treatment plant may fail to meet demand.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	400,000	0	0	0	0	0	0	0	0
Construction / Project	0	0	0	2,700,000	0	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$400,000	\$2,700,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	400,000	2,700,000	0	0	0	0	0	0	0
Total	\$0	\$0	\$400,000	\$2,700,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: Abel and Smith Lakes: Gate Replacements and Installations

Project Code	BHC045	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2019 to 12/2020
Total Project Cost	\$160,000		
Functional Area	Utilities	Number of Gates	4
Total Debt Service		Construction Cost per Gate	\$75,000
Full Year Operating Impact			

Project Description:

This project includes the design and construction of two replacement spillway sluice gates and two additional redundant sluice gates on the emergency spillways at Abel and Smith Lakes.

Operating Impact Summary:

These gates are exercised periodically, but have no direct operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance and hard costs. These operating costs are considered and evaluated during each budget cycle.

Location:

These gates will be installed on the emergency spillways at Abel and Smith Lakes.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Plan.

Utilities: Abel and Smith Lakes: Gate Replacements and Installations

Analysis of Need:

The original existing sluice gates, one at each of the emergency spillways have reached their useful lives. Both gates have been submerged in the water for more than 40 years and 30 years. Based on past operations, they are not dependable for lowering the lake level for dam repairs or preemptive flood control. In addition to replacing the existing gates, a redundant gate will be installed at both emergency spillways in the event the primary gates are actuated and will not close.

Change or Reasons for Revisions:

FY2020: In the FY19 Capital Improvement Program, only the redundant gates were planned. After additional inspections and risk evaluation, redundant gates will be installed for reliability. The cost increase is primarily attributed to the cost of replacing the existing gates, which are both in 70' of water and require specialty underwater construction crews for installation.

FY2021: Changed opening date

Alternative:

The spillway at Abel Lake will continue to have a non-functioning primary release gate and Smith Lake will continue to have a tenuous release gate system.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	80,000	80,000	0	0	0	0	0	0	0	0	0
Total Project Cost	\$80,000	\$80,000	\$0								

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	80,000	80,000	0	0	0	0	0	0	0	0	0
Total	\$80,000	\$80,000	\$0								

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0										

Utilities: Regional Water Interconnection

Project Code	BHC046	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2023 to 12/2025
Total Project Cost	\$4,450,000		
Functional Area	Utilities	Length of Pipeline	7,500'
Total Debt Service		Construction Cost per LF.	\$593
Full Year Operating Impact			

Project Description:

This project is a construction of a 24" water transmission pipeline between Stafford County and Spotsylvania County (provides water to City of Fredericksburg).

Operating Impact Summary:

This project does not have any stand-alone operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

This project will be constructed between the end of Greenbank Road in Stafford County and near the Motts Run Water Treatment Facility in Spotsylvania County.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program. This interconnection embodies the Board of Supervisors proposed Healthy Growth priority as it pertains to public safety. Water is important to the public health of the citizens both for drinking and fire protection. The funding of this project in the Capital Improvement Program is based on a Study Agreement with Spotsylvania County and City of Fredericksburg and is shared 40/40/20. This project will need a formal agreement prior to moving forward.

Utilities: Regional Water Interconnection

Analysis of Need:

These regional partners have long worked to create an interconnection for water transmission. This project is proposed to address that need.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Alternative:

There will continue to be no regional water interconnection.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	0	450,000	0	0	0	0	0	0
Construction / Project	0	0	0	0	0	4,000,000	0	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$0	\$450,000	\$4,000,000	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	0	0	180,000	1,600,000	0	0	0	0	0
Regional Contributions	0	0	0	0	270,000	2,400,000	0	0	0	0	0
Total	\$0	\$0	\$0	\$0	\$450,000	\$4,000,000	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: Water Storage Tank Removal

Project Code	BHC061	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2020 to 12/2021
Total Project Cost	\$100,000		
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This project includes the removal of the Cranes Corner and Bandy elevated water storage tanks. These two tanks are multi-legged 500,000 gallon tanks. These tanks will require more than \$100,000 to remove. However, the cost of removal is offset by the value of the steel that the contractor will recover for salvage.

Operating Impact Summary:

This project has no operating costs and reduces the cost of overall maintenance for the system.

Location:

The Cranes Corner tank is located just east of Stafford High School, near the football field. The Bandy tank is located on Warrenton Road, across from Old Forge Drive.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan and the Adopted General Water and Sewer Improvement Program.

Utilities: Water Storage Tank Removal

Analysis of Need:

The removal of these tanks will provide more efficiency in the water supply and storage system as they are being replaced with the new Enon Road two million gallon Elevated Water Storage Tank (342-101). These tanks require constant maintenance and more costly maintenance based the tank type.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Alternative:

The tanks will continue to stand and require extensive maintenance.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	0	0	100,000	0	0	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	100,000	0	0	0	0	0	0	0	0
Total	\$0	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: Water Distribution System Rehabilitation: Neighborhood Systems

Project Code	NEI021	Square Footage/Acreage	
Project Type	Utilities 3R	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Yearly
Total Project Cost	\$500,000	Funding per Year	\$500,000
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This project includes rehabilitation of various water distribution mains throughout neighborhoods in the County.

Operating Impact Summary:

The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance and hard costs. These operating costs are considered and evaluated during each budget cycle.

Location:

The locations of these replacement projects are located on distribution mains throughout neighborhoods in the County.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program and is proposed for each fiscal year of the Utilities Division’s Capital Improvement Program and embodies the Board of Supervisors proposed Healthy Growth priority.

Utilities: Water Distribution System Rehabilitation: Neighborhood Systems

Analysis of Need:

These projects are typically located in older neighborhoods that consist of pipes made from cast iron, galvanized steel, clay, asbestos concrete, or thin-walled PVC. The goal and intent of this replacement work is to eventually replace all of these types of pipes where they exist in any neighborhood. This work is intended to be performed by the Utilities Division Field Crews.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Project List FY2021:

Ferry Farms Water Main Replacement – To be conducted in several phases, at one phase per year through the foreseeable future.

Alternative:

There will be no dedicated replacement program for these pipelines. They will continue to merely be repaired when broken, causing substantial dedication of resources.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	495,285	500,000	500,000	500,000	550,000	600,000	650,000	700,000	750,000	800,000	850,000
Total Project Cost	\$495,285	\$500,000	\$500,000	\$500,000	\$550,000	\$600,000	\$650,000	\$700,000	\$750,000	\$800,000	\$850,000

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	495,285	500,000	500,000	500,000	550,000	600,000	650,000	700,000	750,000	800,000	850,000
Total	\$495,285	\$500,000	\$500,000	\$500,000	\$550,000	\$600,000	\$650,000	\$700,000	\$750,000	\$800,000	\$850,000

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: Water Distribution System Rehabilitation: Small Water Projects

Project Code	SMW021	Square Footage/Acreage	
Project Type	Utilities 3R	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Yearly
Total Project Cost	\$300,000	Funding per Year (initial)	\$300,000
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This includes small rehabilitation projects for various distribution lines throughout the County to solve operational issues such as looping, pipe size increases, conflict resolution, and elimination of deteriorated pipe. These projects are of short distance and isolated.

Operating Impact Summary:

This project does not have any stand-alone operating costs.

Location:

The locations of these replacement projects are located on distribution lines throughout the entire distribution system in the County.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program and is proposed for each fiscal year of the Utilities Division’s Capital Improvement Program that embodies the Board of Supervisors proposed Healthy Growth priority.

Utilities: Water Distribution System Rehabilitation: Small Water Projects

Analysis of Need:

These projects are typically located on older pipelines that consist of cast iron, galvanized steel, clay, asbestos concrete, or thin-walled PVC. Additionally, these projects exist in areas of infill development and are a result of the creation of dead-end lines or conflicts resulting from the cumulative expansion of the system. The goal and intent of this replacement work is to eventually address all of these types of situations to enable the system to operate more efficiently. The proposed FY20-24 Capital Improvement Program shows periodic increases of funding in addition to the yearly escalation factor as feasible. This work is intended to be performed by the Utilities Division Field Crews.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Project List FY2021:

Shelton Shop Water Main

Other Projects to be assigned as System Deficiencies are Identified

Alternative:

There will be no dedicated replacement program for these pipelines. They will continue to merely be repaired when broken, causing substantial dedication of resources.

Utilities: Water Distribution System Rehabilitation: Small Water Projects

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	150,000	300,000	250,000	250,000	300,000	350,000	400,000	450,000	500,000	550,000	550,000
Total Project Cost	\$150,000	\$300,000	\$250,000	\$250,000	\$300,000	\$350,000	\$400,000	\$450,000	\$500,000	\$550,000	\$550,000

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	150,000	300,000	250,000	250,000	300,000	350,000	400,000	450,000	500,000	550,000	550,000
Total	\$150,000	\$300,000	\$250,000	\$250,000	\$300,000	\$350,000	\$400,000	\$450,000	\$500,000	\$550,000	\$550,000

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: Water Distribution System Rehabilitation: Transmission Lines Replacement

Project Code	TRN021	Square Footage/Acreage	
Project Type	Utilities 3R	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Yearly
Total Project Cost	\$500,000	Funding per Year (initial)	\$500,000
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This includes rehabilitation and replacement projects for various transmission lines throughout the County to solve operational issues such as looping, pipe size increases, conflict resolution, and elimination of deteriorated pipe. These projects are of short distance and isolated.

Operating Impact Summary:

This project does not have any stand-alone operating costs.

Location:

The locations of these replacement projects are located on transmission lines throughout the entire distribution system in the County.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program and is proposed for each fiscal year of the Utilities Division’s Capital Improvement Program and embodies the Board of Supervisors proposed Healthy Growth priority.

Utilities: Water Distribution System Rehabilitation: Transmission Lines Replacement

Analysis of Need:

These projects are typically located on sections of transmission lines that have problem areas due to break repairs, head loss due to directional changes, deterioration, exposure to, or other impacts from nature. The goal and intent of this replacement work is to eventually address all of these types of situations which will enable the system to operate more efficiently. The proposed FY20-24 Capital Improvement Program shows periodic increases of funding in addition to the yearly escalation factor as feasible. This work is intended to be performed by the Utilities Division Field Crews.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Project List FY2021:

No projects currently identified. Analysis of transmission mains continues and will result in some scheduled project work.

Alternative:

There will be no dedicated replacement program for these pipelines. They will continue to merely be repaired when broken, causing substantial dedication of resources.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	500,000	500,000	500,000	500,000	550,000	600,000	650,000	700,000	750,000	800,000	800,000
Total Project Cost	\$500,000	\$500,000	\$500,000	\$500,000	\$550,000	\$600,000	\$650,000	\$700,000	\$750,000	\$800,000	\$800,000

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	500,000	500,000	500,000	500,000	550,000	600,000	650,000	700,000	750,000	800,000	800,000
Total	\$500,000	\$500,000	\$500,000	\$500,000	\$550,000	\$600,000	\$650,000	\$700,000	\$750,000	\$800,000	\$800,000

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: Water Extension Projects

Project Code	WXT021	Square Footage/Acreage	
Project Type	Utilities, Water	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Yearly
Total Project Cost	\$250,000	Funding per Year	\$250,000
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This project includes design and construction of water extension projects throughout the County. These projects are not Master Plan, General Water & Sewer Improvement Program, or 3R, but are included in a 3R-type line item to maintain project selection flexibility. These projects are created for citizens and/or groups of citizens whom apply for connections to the water distribution system and the properties are located more than 300’ away from the County’s infrastructure.

Operating Impact Summary:

The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance and hard costs. These operating costs are considered and evaluated during each budget cycle.

Location:

These projects vary in location and are infrequent.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program and is proposed for each fiscal year of the Utilities Division’s Capital Improvement Program and embodies the Board of Supervisors proposed Healthy Growth priority.

Utilities: Water Extension Projects

Analysis of Need:

These projects are created from the County’s Water and Sewer Extension Policy. Funding is appropriated each year as a placeholder in the event a project application is granted approval for design and construction. Each project differs in size, scope, and does not occur every year. This work is intended to be performed by the Utilities Division Field Crews.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Project List FY2021:

The public requests for water service has not yet resulted in scheduling of any projects for FY2021. As public requests are received, the County can respond using funds from this line item.

Alternative:

There will be no dedicated funding for water extension projects.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	250,000	0	250,000	250,000	300,000	350,000	400,000	450,000	500,000	550,000	550,000
Total Project Cost	\$250,000	\$0	\$250,000	\$250,000	\$300,000	\$350,000	\$400,000	\$450,000	\$500,000	\$550,000	\$550,000

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Availabilities	250,000	0	250,000	250,000	300,000	350,000	400,000	450,000	500,000	550,000	550,000
Total	\$250,000	\$0	\$250,000	\$250,000	\$300,000	\$350,000	\$400,000	\$450,000	\$500,000	\$550,000	\$550,000

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

CAPITAL IMPROVEMENT PROGRAM
FY2021 Adopted Budget

Utilities

Wastewater Expenditures:	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Total Projected Uses (Included PY Funding)
A-18 - Replace 24" with 36" Gravity Line, Whitsons Run to Austin Run Pump Station	0	0	139,300	1,253,700	0	0	0	0	0	0	0	1,393,000	-	1,393,000
A-205 - Expand Upper Accokeek Pump Station	0	0	0	0	0	0	0	170,000	1,456,000	0	0	-	1,626,000	1,626,000
A-37 - Construct 8" Gravity Line from Marshall to Heritage Oaks II Pump Station	0	0	0	55,500	499,500	0	0	0	0	0	0	555,000	-	555,000
AWWTF-002 - Aquia WWTF General Upgrades - Electrical, Headworks and Ancillary	605,000	971,000	2,301,500	2,202,500	0	0	0	0	0	0	0	5,475,000	-	6,080,000
AWWTF-003 - Aquia WWTF Solids Handling - Sludge Storage Expansion	0	0	0	0	1,022,000	4,358,000	0	0	0	0	0	5,380,000	-	5,380,000
AWWTF-005 - Aquia WWTF General Upgrades - Filtration, UV, Controls, Miscellaneous	0	0	209,000	1,881,000	0	0	0	0	0	0	0	2,090,000	-	2,090,000
Gravity Lines & Interceptor Maintenance	500,000	500,000	500,000	500,000	550,000	600,000	650,000	700,000	750,000	800,000	800,000	2,650,000	3,700,000	6,850,000
Infiltration & Inflow Maintenance	250,000	250,000	250,000	250,000	300,000	350,000	400,000	450,000	500,000	550,000	600,000	1,400,000	2,500,000	4,150,000
LFR-120: Construct a 24-inch force main from Falls Run PS to Claiborne Run Parallel FM	250,000	0	3,643,000	0	0	0	0	0	0	0	0	3,643,000	-	3,893,000
LFR-129 - Replace 8" with 16" Force Main from Potomac Creek Pump Station	0	264,000	2,376,000	0	0	0	0	0	0	0	0	2,640,000	-	2,640,000
LFR-15 - Replace 18", 15" and 12" with 24" Line along Claiborne Run from Morton Road to Kings Hill Road	206,300	0	1,856,700	0	0	0	0	0	0	0	0	1,856,700	-	2,063,000
LFR-204 - Expand future Celebrate Virginia Pump Station	0	0	0	0	45,000	405,000	0	0	0	0	0	450,000	-	450,000
LFR-209 - Replace Falls Run Pump Station	684,200	500,000	5,658,200	0	0	0	0	0	0	0	0	6,158,200	-	6,842,400
LFR-217 - Expand Stratford Place Pump Station	0	0	0	0	80,000	0	0	0	0	0	0	80,000	-	80,000
LFR-228 - Expand Ingleside Pump Station	0	0	0	214,000	0	0	0	0	0	0	0	214,000	-	214,000
LFR-3 - Falls Run Interceptor, Phase 2	400,000	0	3,700,000	0	0	0	0	0	0	0	0	3,700,000	-	4,100,000
LFR-30 - Construct 12" Gravity Line in England Run Pump Station to Days Inn Pump Station	0	0	0	0	118,100	1,062,900	0	0	0	0	0	1,181,000	-	1,181,000
LFR-31 Replace 15" with 21" gravity main along Falls Run from Pennsbury Court to vicinity of Averil Court	0	0	217,000	2,246,000	0	0	0	0	0	0	0	2,463,000	-	2,463,000
LFR-51 - Construct 10" Line to serve future Central PDA Growth	0	0	24,500	220,500	0	0	0	0	0	0	0	245,000	-	245,000
LFR-58 - Replace 8" with 15" Line along Cambridge Street from Force Mail to Michael Street	0	0	135,000	0	0	0	0	0	0	0	0	135,000	-	135,000
LFR-59 - Replace 8" with 10" from Nelms Circle to Auction Drive	0	0	0	0	0	137,900	1,241,100	0	0	0	0	137,900	1,241,100	1,379,000
LFR-226 Expand Potomac Creek Pump Station	0	0	0	125,000	866,000	0	0	0	0	0	0	991,000	-	991,000
LWWTF-002 - Little Falls Run WWTF General Upgrades - Headworks and Effluent Filter	400,000	1,000,000	2,250,000	350,000	0	0	0	0	0	0	0	3,600,000	-	4,000,000
LWWTF-003 - Little Falls Run WWTF Denitrification Upgrade Solids Handling Silos and Systems	600,000	2,500,000	3,000,000	900,000	0	0	0	0	0	0	0	6,400,000	-	7,000,000
LWWTF-004 - Little Falls Run WWTF Bio Treatment and Chem Feed	0	0	800,000	2,200,000	3,500,000	2,700,000	0	0	0	0	0	9,200,000	-	9,200,000
Pump Stations Rehabilitation and Replacement	500,000	500,000	500,000	500,000	550,000	600,000	650,000	700,000	750,000	800,000	800,000	2,650,000	3,700,000	6,850,000
Sewer Extension Projects	262,000	0	284,000	296,000	346,000	396,000	446,000	496,000	546,000	596,000	596,000	1,322,000	2,680,000	4,264,000
Total	\$7,177,500	\$6,485,000	\$27,844,200	\$13,194,200	\$7,876,600	\$10,609,800	\$3,387,100	\$2,516,000	\$4,002,000	\$2,746,000	\$2,796,000	\$66,009,800	\$15,447,100	\$88,634,400

Utilities: A-18 - Replace 24" with 36" Gravity Line, Whitsons Run to Austin Run Pump Station

Project Code	BHC047	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2021 to 12/2023
Total Project Cost	\$1,393,000		
Functional Area	Utilities	Length of Pipe	2,400
Total Debt Service		Construction Cost per LF.	\$580
Full Year Operating Impact			

Project Description:

This project (A-18) includes the replacement of an existing 24 inch gravity sewer with a 36 inch gravity sewer.

Operating Impact Summary:

This project does not have any stand-alone operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of periodic maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be constructed along Austin Run from Whitson’s Run to the Austin Run Pump Station.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: A-18 - Replace 24" with 36" Gravity Line, Whitsons Run to Austin Run Pump Station

Analysis of Need:

This project is one of four interceptors (large gravity main) that serves the northern part of the County. This interceptor is currently adequate for buildout conditions for its use for County properties. However, it also serves Quantico Marine Corps Base and is a major source of flow impacting the timing for the replacement this existing interceptor. Delays in the quantity of flow from Quantico Marine Corps Base could delay the construction of this project. Public Works staff continues to work with Base staff regarding the timing of any necessary improvements to this interceptor. The cost estimate and timing is a placeholder in the event the project is necessary.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Change in project title

Alternative:

There would be risk of exceeding pipe capacity and overflow of wastewater at upstream manholes. In addition, if the Base increases its flows through its Camp Barrett Pump Station, it would impact Base operations.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	139,300	0	0	0	0	0	0	0	0
Construction / Project	0	0	0	1,253,700	0	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$139,300	\$1,253,700	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Availabilities	0	0	69,650	626,850	0	0	0	0	0	0	0
User Fees	0	0	69,650	626,850	0	0	0	0	0	0	0
Total	\$0	\$0	\$139,300	\$1,253,700	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: A-205 - Expand Upper Accokeek Pump Station

Project Code	BHC056	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2026 to 12/2027
Total Project Cost	\$1,626,000		
Functional Area	Utilities	Volume of Upgrade MGD	1.15
Total Debt Service		Construction Cost per MGD	\$1,414,000
Full Year Operating Impact		Pro Rata Sewer Shed	Upper Accokeek

Project Description:

This project (A-205) includes the expansion of the Upper Accokeek Pump Station by 1.15 million gallons a day (mgd).

Operating Impact Summary:

This project has minimal operating costs such as electricity and fuel for the emergency generator. This project will cause an incremental increase to those costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance and hard costs. These operating costs are considered and evaluated during each budget cycle.

Location:

This project will occur at the Upper Accokeek Wastewater Pump Station off of Ramoth Church Road.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: A-205 - Expand Upper Accokeek Pump Station

Analysis of Need:

The purpose of the project is to increase the capacity of the pump station. The timing for construction of this project is dependent on the timing of flows in this area.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Change in construction cost per MGD

Alternative:

The pump station will not be able to convey flows to the wastewater treatment facility.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	0	0	0	0	170,000	1,456,000	0	0
Total Project Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$170,000	\$1,456,000	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	0	0	0	0	0	170,000	1,456,000	0	0
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$170,000	\$1,456,000	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees as show on the CIP summary sheet.

Utilities: A-37 Construct 8” Gravity Line form Marshall to Heritage Oaks II Pump Station

Project Code	BHC048	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2022 to 12/2024
Total Project Cost	\$555,000		
Functional Area	Utilities	Length of Pipe	2,635
Total Debt Service		Construction Cost per LF.	\$211
Full Year Operating Impact			

Project Description:

This project (A-37) includes the design and construction of an 8 inch gravity sewer.

Operating Impact Summary:

This project does not have any stand-alone operating costs. However, this project will eliminate an existing pump station and the associated maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be constructed along Austin Run from Heritage Oaks Pump Station II to an existing gravity main near the intersection of Winding Creek Road and Walpole Street.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: A-37 Construct 8” Gravity Line form Marshall to Heritage Oaks II Pump Station

Analysis of Need:

The Utilities Division of Public Works accepts pump stations as part of approved development projects on a frequent basis. On certain occasions when land development infills certain areas, it is possible to eliminate the need for existing pump stations.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Alternative:

The pump station will continue to be operational and continue to require regular maintenance and operating costs.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	55,500	0	0	0	0	0	0	0
Construction / Project	0	0	0	0	499,500	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$55,500	\$499,500	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	0	55,500	499,500	0	0	0	0	0	0
Total	\$0	\$0	\$0	\$55,500	\$499,500	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: AWWTF-002 Aquia Wastewater Treatment Facility – Electrical, Headworks and Ancillary

Project Code	BHC028	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Late 2022
Total Project Cost	\$6,080,000		
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

These upgrades (AWWTF-Electrical, Headworks and Ancillary) include on-going concrete repair to process units, power distribution main tie-in configuration, and potential headworks upgrade.

Operating Impact Summary:

This project will not increase operational costs. These replacements will be in-kind and likely create a more efficient operation.

Location:

The project will be constructed at the Aquia Wastewater Treatment Facility.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program and is proposed for each Fiscal Year of the Utilities Division’s Capital Improvement Program as a part of the Board’s proposed Healthy Growth priority. The specific areas of work have been defined through a Wastewater Treatment Facilities Plan.

Utilities: AWWTF-002 Aquia Wastewater Treatment Facility – Electrical, Headworks and Ancillary

Analysis of Need:

In addition to planning for more treatment capacity and excellent water quality, the Utilities Division is also committed to meeting its customer’s expectations for a high level of reliability. With aging assets, the Aquia Wastewater Treatment Facility is now approaching 30 years of reliable operations. Most mechanical and electrical components have useful lifetimes of 15 to 30 years. The Utilities Division expects the need for reinvestment into critical equipment at Aquia Wastewater Treatment Facility to increase in the future. A detailed condition assessment has been performed to define and schedule renovations. These specific areas of work have been defined through a Wastewater Treatment Facilities Plan completed in 2019.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Change in project title and scope of work

Alternative:

If any part of the required repair/replacement/rehabilitation is not performed, the wastewater treatment may fail to meet quality standards for the discharge of treated wastewater.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	605,000	971,000	2,301,500	2,202,500	0	0	0	0	0	0	0
Total Project Cost	\$605,000	\$971,000	\$2,301,500	\$2,202,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	605,000	971,000	2,301,500	2,202,500	0	0	0	0	0	0	0
Total	\$605,000	\$971,000	\$2,301,500	\$2,202,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: AWWTF-003 Aquia Wastewater Treatment Facility – Solids Storage Expansion

Project Code	BHC028	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Late 2026
Total Project Cost	\$5,380,000		
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

These upgrades (AWWTF-Solids Storage Expansion) include structural, mechanical and control upgrades to sludge storage systems..

Operating Impact Summary:

There are no direct operational costs as these upgrades are in-kind expansion and will likely increase operational efficiency.

Location:

The project will be constructed at the Aquia Wastewater Treatment Facility.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program and is proposed for each Fiscal Year of the Utilities Division’s Capital Improvement Program as a part of the Board’s proposed Healthy Growth priority. The specific areas of work have been defined through a Wastewater Treatment Facilities Plan, completed in 2019.

Utilities: AWWTF-003 Aquia Wastewater Treatment Facility – Solids Storage Expansion

Analysis of Need:

In addition to planning for more treatment capacity and excellent water quality, the Utilities Division is also committed to meeting its customer’s expectations for a high level of reliability. With aging assets, the Aquia Wastewater Treatment Facility is now approaching 30 years of reliable operations. Most mechanical and electrical components have useful lifetimes of 15 to 30 years. There is an upcoming need for higher sludge dewatering capacity to optimize its current solids processing operation. The current sludge storage (aerobic digestion) capacity is less than the rated plant capacity sludge production levels, and additional sludge storage would improve sludge stabilization prior to dewatering and disposal, and facilitate the use of a higher capacity centrifuge. Supplemental sludge storage tankage, with aeration/ mixing/pumping, is proposed. This specific area of work has been identified in the Wastewater Treatment Facilities Plan of 2019.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Change in project title and scope of work

Alternative:

If any part of the required capacity increase is not performed, the wastewater treatment plant may fail to meet quality standards. This is a critical part of the treatment process.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	0	0	0	0	1,022,000	4,358,000	0	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$0	\$1,022,000	\$4,358,000	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Availabilities	0	0	0	0	1,022,000	4,358,000	0	0	0	0	0
Total	\$0	\$0	\$0	\$0	\$1,022,000	\$4,358,000	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: AWWTF-005 Aquia Wastewater Treatment Facility – UV System

Project Code	BHC028	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	2023
Total Project Cost	\$2,090,000		
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This project (AWWTF-UV System) includes the design and construction of a replacement Ultraviolet Disinfection System.

Operating Impact Summary:

This project will not increase operational costs. These replacements will be in-kind and likely create a more efficient operation.

Location:

The project will be constructed at the Aquia Wastewater Treatment Facility.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan. The specific areas of work have been defined through a Wastewater Treatment Facilities Plan, completed in 2019.

Analysis of Need:

The Utilities Division has identified the need for a more reliable and maintainable Ultraviolet Disinfection System. The specific areas of work have been defined through a Wastewater Treatment Facilities Plan completed in 2019.

Utilities: AWWTF-005 Aquia Wastewater Treatment Facility – UV System

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Change in project title and scope of work

Alternative:

If the required upgrade is not completed, the facility will risk failure to properly disinfect wastewater effluent at the discharge of the plant.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	0	0	209,000	1,881,000	0	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$209,000	\$1,881,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	209,000	1,881,000	0	0	0	0	0	0	0
Total	\$0	\$0	\$209,000	\$1,881,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: 3R Gravity Sewers and Interceptor Maintenance

Project Code	SEW021	Square Footage/Acreage	
Project Type	Utilities 3R	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Yearly
Total Project Cost	\$500,000		
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This work consists of the replacement and/or lining of significant lengths of aging and deteriorated large and small diameter wastewater gravity interceptors throughout the County. Replacement of sewers to increase capacity are identified in other CIP line items. The 3R gravity interceptors under this line item are considered adequate in capacity, but require replacement or rehabilitation to restore reliable serve.

Operating Impact Summary:

This project does not have any stand-alone operating costs. However, these sections of preemptive replacements avoid future expensive emergency repairs.

Location:

These projects are located on older interceptors throughout the wastewater collection system.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program and is proposed for each fiscal year of the Utilities Division’s Capital Improvement Program as a part of the Board of Supervisors proposed Healthy Growth priority.

Utilities: 3R Gravity Sewers and Interceptor Maintenance

Analysis of Need:

These projects are located on older interceptors throughout the wastewater collection system that consists of pipes made from asbestos concrete, thin-walled PVC, or have some other existing problem. The goal and intent of this replacement work is to eventually replace all of these types of pipes where they exist in the interceptors. This work is intended to be performed by the Utilities Division Field Crews and vendors providing sewer lining services.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Change in project title and scope of work

FY2021 Project List:

Sewer lining for 162 individual sewer segments, averaging 183 feet in length (total 29,700 feet) of sewer ranging from 8-inch to 24-inch in diameter. Replacement of 6 non-functioning air release valves. Manhole repair and rehabilitation in 20 locations.

Alternative:

There would likely need to be expensive emergency repairs to these known areas.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	500,000	500,000	500,000	500,000	550,000	600,000	650,000	700,000	750,000	800,000	800,000
Total Project Cost	\$500,000	\$500,000	\$500,000	\$500,000	\$550,000	\$600,000	\$650,000	\$700,000	\$750,000	\$800,000	\$800,000

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	500,000	500,000	500,000	500,000	550,000	600,000	650,000	700,000	750,000	800,000	800,000
Total	\$500,000	\$500,000	\$500,000	\$500,000	\$550,000	\$600,000	\$650,000	\$700,000	\$750,000	\$800,000	\$800,000

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: Infiltration and Inflow Removal

Project Code	I&I021	Square Footage/Acreage	
Project Type	Utilities 3R	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Yearly
Total Project Cost	\$250,000+		
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This project includes the continual inspection, assessment, and correction of infiltration and inflow into the sewer collection system.

Operating Impact Summary:

This project is designed to correct as much infiltration and inflow as possible in order to reduce operational costs.

Location:

This project will be performed at various locations throughout the sewer collection system.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program and is proposed with periodic increases for each fiscal year. It is part of the Utilities Division’s Capital Improvement Program and embodies the Board of Supervisors proposed Healthy Growth priority.

Analysis of Need:

Over time, pipes and manholes crack, pipe joints fail and ground water begins to seep into non-pressurized pipelines. This causes an undue treatment burden on the wastewater treatment process.

Utilities: Infiltration and Inflow Removal

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Change in project title

FY2021 Project List:

This work includes approximately 50,000 linear feet of pipe analysis using Focused Electrode Leak Location (FELL) technology to identify sewer leak locations in the gravity sewer collection system. The vast majority of testing will be in the Aquia Harbour collection system, in asbestos cement pipe. Sewer segments identified as candidates for repair and/or lining will be referred to 3R Gravity Sewers and Interceptor Maintenance and scheduled for work on the FY2022 CIP.

Alternative:

Infiltration and inflow will continue to burden the wastewater conveyance and treatment processes.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	250,000	250,000	250,000	250,000	300,000	350,000	400,000	450,000	500,000	550,000	600,000
Total Project Cost	\$250,000	\$250,000	\$250,000	\$250,000	\$300,000	\$350,000	\$400,000	\$450,000	\$500,000	\$550,000	\$600,000

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	250,000	250,000	250,000	250,000	300,000	350,000	400,000	450,000	500,000	550,000	600,000
Total	\$250,000	\$250,000	\$250,000	\$250,000	\$300,000	\$350,000	\$400,000	\$450,000	\$500,000	\$550,000	\$600,000

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: LFR-120: Construct a 24-inch force main from Falls Run PS to Claiborne Run Parallel FM

Project Code	BHC003	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Late 2021
Total Project Cost	\$3,893,000		
Functional Area	Utilities	Length of Pipe	12,500
Total Debt Service		Construction Cost per LF.	\$312
Full Year Operating Impact		Pro Rata Sewer Shed	Falls Run

Project Description:

This project (LFR-120) includes the design and construction for replacement of an existing 16 inch force main with a 24 inch force main. The replacement will be in a new alignment.

Operating Impact Summary:

This project does not have any stand-alone operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be replacing an existing 16 inch force that currently transmits flows from the Falls Run Pump Station in Falmouth to the Claiborne Run Interceptor near the intersection of Butler Road and Chatham Heights Road. The new 24 inch force main will transmit flows from the Falls Run Pump Station through Falmouth, along River Road, under Kings Highway, along Naomi Drive to a tie-in point with the new Parallel Claiborne Run 24 inch Force Main project.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: LFR-120: Construct a 24-inch force main from Falls Run PS to Claiborne Run Parallel FM

Analysis of Need:

The purpose of the project is to increase the conveyance capacity of Falls Run Pump Station. The current operation of the Falls Run Pump Station and the Claiborne Run Pump Station is one of “piggybacking.” The Falls Run Pump Station pumps to an interceptor that flows into the Claiborne Run Pump Station. The previous Master Plan (2007) indicated that both pump stations need an increase to their capacity during the 2015 to 2018 time frame. After careful analysis, the most logical way to address several operational issues between these two pump stations is to convey their flows separately and directly to the Little Falls Run Wastewater Treatment Facility. This new operational scenario would take advantage of the parallel line being added to the Claiborne Run Force Main and dedicate it to the Falls Run Force Main with the addition of the new force main as described in the “Location” section above. This reconfiguration saved between \$6M and possibly as much as \$10M.

Change or Reasons for Revisions:

FY2020: There is no change to this project from the FY19 Capital Improvement Program (CIP); however, it is important to describe the proposed reconfiguration for the record as part of the FY20 CIP.

FY2021: Fund timing change.

Alternative:

There will be substantial and unnecessary costs associated with upgrading both the Falls Run Pump Station and the Claiborne Run Pump Station or significant wastewater overflows would occur. This project is one of two projects that eliminate this need and allows the pump stations to operate well within their current capacity and save substantial costs for construction.

Utilities: LFR-120: Construct a 24-inch force main from Falls Run PS to Claiborne Run Parallel FM

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	250,000	0	0	0	0	0	0	0	0	0	0
Construction / Project	0	0	3,643,000	0	0	0	0	0	0	0	0
Total Project Cost	\$250,000	\$0	\$3,643,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Pro Rata	125,000	0	0	0	0	0	0	0	0	0	0
User Fees	125,000	0	3,643,000	0	0	0	0	0	0	0	0
Total	\$250,000	\$0	\$3,643,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees in as show on the CIP summary sheet.

Utilities: LFR-129 - Replace 8" with 16" Force Main from Potomac Creek Pump Station

Project Code	BHC055	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2020 to 12/2022
Total Project Cost	\$2,640,000		
Functional Area	Utilities	Length of Pipe	9,100
Total Debt Service		Construction Cost per LF.	\$290
Full Year Operating Impact		Pro Rata Sewer Shed	Potomac Creek

Project Description:

This project (LFR-129) includes the design and construction for replacement of the existing 8 inch force main with a 16 inch force main from Potomac Creek Pump Station.

Operating Impact Summary:

This project does not have any stand-alone operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

This project will be constructed from the Potomac Creek Pump Station southeasterly to near the intersection of Jefferson Davis Highway and Enon Road.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: LFR-129 - Replace 8" with 16" Force Main from Potomac Creek Pump Station

Analysis of Need:

The purpose of the project is to increase the capacity of the force main and pump station. The timing for construction of this project is dependent on the timing of increased flows in this area.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Change in project title

Alternative:

The pump station and force main will not be able to convey flows to the wastewater treatment facility.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	264,000	0	0	0	0	0	0	0	0	0
Construction / Project	0	0	2,376,000	0	0	0	0	0	0	0	0
Total Project Cost	\$0	\$264,000	\$2,376,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	264,000	2,376,000	0	0	0	0	0	0	0	0
Total	\$0	\$264,000	\$2,376,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees as show on the CIP summary sheet.

Utilities: LFR-15 - Replace 18", 15" and 12" with 24" Line along Claiborne Run from Morton Road to Kings Hill Road

Project Code	BHC049	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2019 to 06/2022
Total Project Cost	\$2,063,000		
Functional Area	Utilities	Length of Pipe	6,200
Total Debt Service		Construction Cost per LF.	\$332
Full Year Operating Impact		Pro Rata Sewer Shed	Claiborne Run

Project Description:

This project (LFR-15) includes replacement of existing 12 inch, 15 inch, and 18 inch gravity sewers with a 24 inch gravity sewer.

Operating Impact Summary:

This project does not have any stand-alone operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of periodic maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be constructed along Claiborne Run, near Morton Road to Kings Hill Road.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: LFR-15 - Replace 18", 15" and 12" with 24" Line along Claiborne Run from Morton Road to Kings Hill Road

Analysis of Need:

The purpose of the project is to increase the conveyance capacity of gravity main. Prior to replacing the existing gravity sewer, flow-monitoring and/or sewer modeling will be performed to assess the available capacity remaining in the existing gravity sewer.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Change in project title

Alternative:

There would be risk of exceeding pipe capacity and overflow of wastewater at upstream manholes.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	206,300	0	0	0	0	0	0	0	0	0	0
Construction / Project	0	0	1,856,700	0	0	0	0	0	0	0	0
Total Project Cost	\$206,300	\$0	\$1,856,700	\$0							

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Pro Rata	103,150	0	0	0	0	0	0	0	0	0	0
User Fees	103,150	0	1,856,700	0	0	0	0	0	0	0	0
Total	\$206,300	\$0	\$1,856,700	\$0							

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0										

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees as show on the CIP summary sheet.

Utilities: LFR-204 - Expand future Celebrate Virginia Pump Station

Project Code	BHC057	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2023 to 12/2025
Total Project Cost	\$450,000		
Functional Area	Utilities	Volume of Upgrade MGD	1.53
Total Debt Service		Construction Cost per MGD	\$295,000
Full Year Operating Impact		Pro Rata Sewer Shed	Rocky Pen Run

Project Description:

This project (LFR-204) includes the design and construction of the expansion of the Celebrate Virginia Pump Station by 1.53 million gallons a day (mgd).

Operating Impact Summary:

This project has minimal operating costs such as electricity and fuel for the emergency generator. This project will cause an incremental increase to those costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance and hard costs. These operating costs are considered and evaluated during each budget cycle.

Location:

This project will occur at the Celebrate Virginia Pump Station just to the east of Del Webb along England Run.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Analysis of Need:

The purpose of the project is to increase the capacity of the pump station. The timing for construction of this project is dependent on the timing of flows in this area.

Utilities: LFR-204 - Expand future Celebrate Virginia Pump Station

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Alternative:

The pump station will not be able to convey flows to the wastewater treatment facility.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	0	45,000	405,000	0	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$0	\$45,000	\$405,000	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	0	0	45,000	405,000	0	0	0	0	0
Total	\$0	\$0	\$0	\$0	\$45,000	\$405,000	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees as show on the CIP summary sheet.

Utilities: LFR-209 - Replace Falls Run Pump Station

Project Code	BHC021	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Late 2022
Total Project Cost	\$6,842,400		
Functional Area	Utilities	Volume of Upgrade MGD	17.6
Total Debt Service		Construction Cost per MGD	\$390,000
Full Year Operating Impact		Pro Rata Sewer Shed	Falls Run

Project Description:

This project (LFR-209) includes the design and construction of the expansion of the Falls Run Pump Station by 17.6 million gallons a day (MGD).

Operating Impact Summary:

This project will have significantly more operating costs such as electricity, chemical treatment, and fuel for the emergency generator as the project almost doubles its current capacity. This increase will be realized over time. These operating costs are considered and evaluated during each budget cycle.

Location:

This project will occur at the Falls Run Pump Station on Washington Street in Falmouth. The project will begin with a Preliminary Engineering Report that will assess the needs and any constraints. There will be a significant analysis to determine if the station would be better located at another part of Fall Run. Relocation could benefit the station from an operational standpoint as well as benefiting the local residents of Falmouth Bottom.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: LFR-209 - Replace Falls Run Pump Station

Analysis of Need:

The purpose of the project is to increase the capacity of the pump station. The timing for construction of this project is dependent on the timing of flows in this area. Projects of this nature are continuously modelled as this is a significant investment and a critical station. This project is currently shown in the near term and may be adjusted in a later Capital Improvement Program (CIP).

Change or Reasons for Revisions:

FY2020: This project shows a change to the estimated cost from last year’s CIP. The estimated cost for this project was increased from \$5,388,000 to \$6,842,400 due to complexities in estimating the required capacity increase associated with the replacement.

FY2021: No changes

Alternative:

The pump station will not be able to convey flows to the wastewater treatment facility.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	684,200	500,000	5,658,200	0	0	0	0	0	0	0	0
Total Project Cost	\$684,200	\$500,000	\$5,658,200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Pro Rata	342,100	0	0	0	0	0	0	0	0	0	0
User Fees	342,100	500,000	5,658,200	0	0	0	0	0	0	0	0
Total	\$684,200	\$500,000	\$5,658,200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees as show on the CIP summary sheet.

Utilities: LFR-217 - Expand Stratford Place Pump Station

Project Code	BHC058	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2023 to 12/2024
Total Project Cost	\$80,000	Pro Rata Sewer Shed	Claiborne Run
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This project (LFR-217) includes the design and construction of the expansion of the Stratford Place Pump Station by 0.165 million gallons a day (MGD). This is an electrical upgrade with Dominion Power and does not include any equipment upgrades.

Operating Impact Summary:

This project has minimal operating costs such as electricity and fuel for the emergency generator. This project will cause an incremental increase to those costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance and hard costs. These operating costs are considered and evaluated during each budget cycle.

Location:

This project will occur at the Stratford Place Pump Station on Little Whim Road near Landsberry Park Drive.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: LFR-217 - Expand Stratford Place Pump Station

Analysis of Need:

The purpose of the project is to increase the capacity of the pump station. The timing for construction of this project is dependent on the timing of flows in this area.

Change or Reasons for Revisions:

FY2020: The previous Capital Improvement Program (CIP) indicated the project would be performed over a two year period. Additionally, with the completion of the 2018 Master Plan, the estimated construction costs for this project increased from \$45,000 to \$80,000. Also, the FY 2020 CIP includes all the costs for this project in a single year.

FY2021: No changes

Alternative:

The pump station will not be able to convey flows to the wastewater treatment facility.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	0	0	0	0	80,000	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$0	\$80,000	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	0	0	80,000	0	0	0	0	0	0
Total	\$0	\$0	\$0	\$0	\$80,000	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees as show on the CIP summary sheet.

Utilities: LFR-228 - Expand Ingleside Pump Station

Project Code	BHC060	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2022 to 12/2023
Total Project Cost	\$214,000		
Functional Area	Utilities	Volume of Upgrade MGD	0.311 MGD
Total Debt Service		Construction Cost per MGD	\$688,100
Full Year Operating Impact		Pro Rata Sewer Shed	Falls Run

Project Description:

This project (LFR-228) includes the design and construction of the expansion of the Ingleside Pump Station by 0.311 million gallons a day (MGD).

Operating Impact Summary:

This project has minimal operating costs such as electricity and fuel for the emergency generator. This project will cause an incremental increase to those costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance and hard costs. These operating costs are considered and evaluated during each budget cycle.

Location:

This project will occur at the Ingleside Drive Pump Station on Ingleside Drive near Belmont.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Analysis of Need:

The purpose of the project is to increase the capacity of the pump station. The timing for construction of this project is dependent on the timing of flows in this area.

Utilities: LFR-228 - Expand Ingleside Pump Station

Change or Reasons for Revisions:

FY2020: The previous Capital Improvement Program (CIP) indicated the project would be performed over a two year period. Also, the FY 2020 CIP includes all the costs for this project is a single year.

FY2021: No changes

Alternative:

The pump station will not be able to convey flows to the wastewater treatment facility.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	21,400	0	0	0	0	0	0	0
Construction / Project	0	0	0	192,600	0	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$214,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	0	214,000	0	0	0	0	0	0	0
Total	\$0	\$0	\$0	\$214,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees as show on the CIP summary sheet.

Utilities: LFR-3 – Little Falls Run Interceptor, Phase 2

Project Code	CPC001	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Late 2022
Total Project Cost	\$4,100,000		
Functional Area	Utilities	Length of Pipe	12,400
Total Debt Service		Construction Cost per LF.	\$330
Full Year Operating Impact		Pro Rata Sewer Shed	Falls Run

Project Description:

This project (LFR-3) includes replacement of existing 12” with 15” gravity sewer with a 24” gravity sewer.

Operating Impact Summary:

This project does not have any stand-alone operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of periodic maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be constructed along Falls Run from the England Run neighborhood, near Stanstead Road to Pennsbury Court.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Analysis of Need:

The purpose of the project is to increase the conveyance capacity of gravity sewer. Sewer modeling has been performed to confirm the required increase in sewer capacity at this location.

Utilities: LFR-3 – Little Falls Run Interceptor, Phase 2

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Change in project title

Alternative:

There would be risk of exceeding pipe capacity and overflow of wastewater at upstream manholes.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	400,000	0	0	0	0	0	0	0	0	0	0
Construction / Project	0	0	3,700,000	0	0	0	0	0	0	0	0
Total Project Cost	\$400,000	\$0	\$3,700,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Bond Proceeds	0	0	3,700,000	0	0	0	0	0	0	0	0
Pro Rata	200,000	0	0	0	0	0	0	0	0	0	0
User Fees	200,000	0	0	0	0	0	0	0	0	0	0
Total	\$400,000	\$0	\$3,700,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$310,000	\$310,000	\$310,000	\$310,000	\$310,000	\$310,000	\$310,000	\$310,000

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees as show on the CIP summary sheet.

Utilities: LFR-30 - Construct 12" Gravity Line in England Run Pump Station to Days Inn Pump Station

Project Code	BHC050	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2023 to 12/2025
Total Project Cost	\$1,181,000		
Functional Area	Utilities	Length of Pipe	4,500
Total Debt Service		Construction Cost per LF.	\$263
Full Year Operating Impact			

Project Description:

This project (LFR-30) includes the design and construction of a 12 inch gravity sewer.

Operating Impact Summary:

This project does not have any stand-alone operating costs. However, this project will eliminate an existing pump station and the associated maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be constructed along a tributary of England Run from the England Run Pump Station to the Days Inn Pump Station.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Analysis of Need:

The Utilities Division of Public Works accepts pump stations as part of approved development projects on a frequent basis. On certain occasions, when land development infills certain areas, it is possible to eliminate the need for existing pump stations.

Utilities: LFR-30 - Construct 12" Gravity Line in England Run Pump Station to Days Inn Pump Station

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Change in project title

Alternative:

The pump station would continue to be operational and continue to require regular maintenance and operating costs.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	0	118,100	0	0	0	0	0	0
Construction / Project	0	0	0	0	0	1,062,900	0	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$0	\$118,100	\$1,062,900	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	0	0	118,100	1,062,900	0	0	0	0	0
Total	\$0	\$0	\$0	\$0	\$118,100	\$1,062,900	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: LFR-31 Replace 15” with 21” gravity main along Falls Run from Pennsbury Court to vicinity of Averil Court

Project Code	BHC051	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2021 to 12/2023
Total Project Cost	\$2,463,000		
Functional Area	Utilities	Length of Pipe	5,987
Total Debt Service		Construction Cost per LF.	\$411
Full Year Operating Impact			

Project Description:

This project (LFR-31) includes the replacement of an existing 15 inch gravity sewer with a 21 inch gravity sewer.

Operating Impact Summary:

This project does not have any stand-alone operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of periodic maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be constructed along Falls Run from Pennsbury Court to the vicinity of Averil Court.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: LFR-31 Replace 15” with 21” gravity main along Falls Run from Pennsbury Court to vicinity of Averil Court

Analysis of Need:

The purpose of the project is to increase the conveyance capacity of the gravity sewer. Prior to replacing the existing gravity sewer, flow-monitoring and/or sewer modeling will be performed to assess the available capacity remaining in the existing gravity sewer.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Change in project title

Alternative:

There would be risk of exceeding pipe capacity and overflow of wastewater at upstream manholes.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	217,000	0	0	0	0	0	0	0	0
Construction / Project	0	0	0	2,246,000	0	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$217,000	\$2,246,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	217,000	2,246,000	0	0	0	0	0	0	0
Total	\$0	\$0	\$217,000	\$2,246,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: LFR-51 - Construct 10" Line to serve future Priority Development Area Growth

Project Code	BHC052	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2021 to 12/2023
Total Project Cost	\$245,000		
Functional Area	Utilities	Length of Pipe	1,000
Total Debt Service		Construction Cost per LF.	\$245
Full Year Operating Impact		Pro Rata Sewer Shed	Potomac Creek

Project Description:

This project (LFR-51) includes the design and construction of a 10 inch gravity sewer.

Operating Impact Summary:

This project does not have any stand-alone operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be constructed along a practical path from an area north of Enon Road and west of I-95, to across the collector road for the Centreport Interchange to the Centreport Area.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: LFR-51 - Construct 10" Line to serve future Priority Development Area Growth

Analysis of Need:

The purpose of this gravity sewer is to serve a targeted growth area in the Centreport area. This proposed project is schematic and the project may vary substantially. The estimated cost and timing are placeholders in the event development begins to occur in this area.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Change in project title

Alternative:

There would be no plan to serve this area with sewer.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	24,500	0	0	0	0	0	0	0	0
Construction / Project	0	0	0	220,500	0	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$24,500	\$220,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	24,500	220,500	0	0	0	0	0	0	0
Total	\$0	\$0	\$24,500	\$220,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees as show on the CIP summary sheet.

Utilities: LFR-58 - Replace 8" with 15" Line along Cambridge Street from Force Mail to Michael Street

Project Code	BHC053	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2021 to 06/2022
Total Project Cost	\$135,000		
Functional Area	Utilities	Length of Pipe	480
Total Debt Service		Construction Cost per LF.	\$282
Full Year Operating Impact		Pro Rata Sewer Shed	Claiborne Run

Project Description:

This project (LFR-58) includes the replacement of the an existing 8 inch sewer with a 15 inch gravity sewer along Cambridge Street.

Operating Impact Summary:

This project does not have any stand-alone operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be replacing a section of an existing gravity sewer along Cambridge Street between Michael Street and Enon Road.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Analysis of Need:

The purpose of the project is to increase the conveyance capacity of gravity sewer. Prior to replacing the existing gravity sewer, flow-monitoring and/or sewer modeling will be performed to assess the available capacity remaining in the existing gravity sewer.

Utilities: LFR-58 - Replace 8" with 15" Line along Cambridge Street from Force Mail to Michael Street

Change or Reasons for Revisions:

FY2020: This project has changed from the previous CIP. The entire cost of the project was moved into FY 2021.

FY2021: The entire cost of the project was moved into FY 2022.

Alternative:

There would be risk of exceeding pipe capacity and overflow of wastewater at upstream manholes.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	0	0	135,000	0	0	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$135,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	135,000	0	0	0	0	0	0	0	0
Total	\$0	\$0	\$135,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees as show on the CIP summary sheet.

Utilities: LFR-59 - Replace 8" with 10" from Nelms Circle to Auction Drive

Project Code	BHC054	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2024 to 12/2026
Total Project Cost	\$1,379,000		
Functional Area	Utilities	Length of Pipe	5,650
Total Debt Service		Construction Cost per LF.	\$245
Full Year Operating Impact		Pro Rata Sewer Shed	Falls Run

Project Description:

This project (LFR-59) includes the replacement of an existing 8 inch gravity sewer with a 10 inch gravity sewer.

Operating Impact Summary:

This project does not have any stand-alone operating costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance. These operating costs are considered and evaluated during each budget cycle.

Location:

The project will be from Nelms Circle, through Carter’s Crossing Shopping Center to Auction Drive.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: LFR-59 - Replace 8" with 10" from Nelms Circle to Auction Drive

Analysis of Need:

The purpose of the project is to increase the conveyance capacity of gravity sewer. Prior to replacing the existing gravity sewer, flow-monitoring and/or sewer modeling will be performed to assess the available capacity remaining in the existing gravity sewer.

Alternative:

There would be risk of exceeding pipe capacity and overflow of wastewater at upstream manholes.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	0	0	137,900	0	0	0	0	0
Construction / Project	0	0	0	0	0	0	1,241,100	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$0	\$0	\$137,900	\$1,241,100	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	0	0	0	137,900	1,241,100	0	0	0	0
Total	\$0	\$0	\$0	\$0	\$0	\$137,900	\$1,241,100	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project expenditures are eligible for 100% pro rata reimbursements. Estimated pro rata revenue will offset user fees as show on the CIP summary sheet.

Utilities: LFR-226 Expand Potomac Creek Pump Station

Project Code	BHC059	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	07/2022 to 12/2024
Total Project Cost	\$991,000		
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This project (LFR-226) includes the expansion of the Potomac Creek Pump Station by 2.04 million gallons a day (MGD).

Operating Impact Summary:

This project has minimal operating costs such as electricity and fuel for the emergency generator. This project will cause an incremental increase to those costs. The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance and hard costs. These operating costs are considered and evaluated during each budget cycle.

Location:

This project is located at the Potomac Creek Pump Station.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted 2018 Water and Sewer Master Plan.

Utilities: LFR-226 Expand Potomac Creek Pump Station

Analysis of Need:

The purpose of the project is to increase the capacity of the pump station. The timing for construction of this project is dependent on the timing of flows in this area.

Change or Reasons for Revisions:

FY2020: The previous Capital Improvement Program (CIP) indicated the project would be performed over a two year period. Also, the FY 2020 CIP includes all the costs for this project in a single year.

FY2021: No changes

Alternative:

The pump station will not be able to convey flows to the wastewater treatment facility.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Planning/Design	0	0	0	125,000	0	0	0	0	0	0	0
Construction / Project	0	0	0	0	866,000	0	0	0	0	0	0
Total Project Cost	\$0	\$0	\$0	\$125,000	\$866,000	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	0	125,000	866,000	0	0	0	0	0	0
Total	\$0	\$0	\$0	\$125,000	\$866,000	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: LWWTF-002 - Little Falls Run WWTF General Upgrades - Headworks and Effluent Filter

Project Code	BHC028	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Late 2022
Total Project Cost	\$4,000,000		
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

These upgrades (LWWTF-Headworks and Effluent Filter) include on-going concrete repair to process units, potential headworks upgrade, and effluent filter updates.

Operating Impact Summary:

This project will not increase operational costs. These replacements will be in-kind and likely create a more efficient operation.

Location:

The project will be constructed at the Little Falls Run Wastewater Treatment Facility.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program and is proposed for each Fiscal Year of the Utilities Division’s Capital Improvement Program as a part of the Board of Supervisor’s proposed “Healthy Growth” priority. The specific areas of work have been defined in a Wastewater Treatment Plant Facilities Plan, completed in 2019.

Utilities: LWWTF-002 - Little Falls Run WWTF General Upgrades - Headworks and Effluent Filter

Analysis of Need:

In addition to planning for more treatment capacity and excellent water quality, the Utilities Division is also committed to meeting its customer’s expectations for a high level of reliability. With aging assets, the Little Falls Run Wastewater Treatment Facility is now approaching 30 years of reliable operations. Most mechanical and electrical components have useful lifetimes of 15 to 30 years. The Utilities Division expects the need for reinvestment into critical equipment at Little Falls Run Wastewater Treatment Facility to increase in the future. This specific area of work has been defined in the Wastewater Treatment Plant Facilities Plan, completed in 2019.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Change in project title and scope of work

Alternative:

If any part of the required repair/replacement/rehabilitation is not performed, the wastewater treatment may fail to meet effluent water quality requirements.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	400,000	1,000,000	2,250,000	350,000	0	0	0	0	0	0	0
Total Project Cost	\$400,000	\$1,000,000	\$2,250,000	\$350,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	400,000	1,000,000	2,250,000	350,000	0	0	0	0	0	0	0
Total	\$400,000	\$1,000,000	\$2,250,000	\$350,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: LWWTF-003 - Little Falls Run WWTF Denitrification Upgrade Solids Handling Silos and Systems

Project Code	BHC028	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Late 2024
Total Project Cost	\$7,000,000		
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

These upgrades (LWWTF-Solids Handling Silos and Systems) include structural, mechanical and control upgrades to sludge storage systems.

Operating Impact Summary:

There are no direct operational costs as these upgrades are in-kind expansion and will likely increase operational efficiency.

Location:

The project will be constructed at the Little Falls Run Wastewater Treatment Facility.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program and is proposed for each Fiscal Year of the Utilities Division’s Capital Improvement Program as a part of the Board’s proposed Healthy Growth priority. The specific areas of work have been defined through a Wastewater Treatment Facilities Plan, completed in 2019.

Utilities: LWWTF-003 - Little Falls Run WWTF Denitrification Upgrade Solids Handling Silos and Systems

Analysis of Need:

In addition to planning for more treatment capacity and excellent water quality, the Utilities Division is also committed to meeting its customer’s expectations for a high level of reliability. With aging assets, the Little Falls Run Wastewater Treatment Facility is now approaching 30 years of reliable operations. Most mechanical and electrical components have useful lifetimes of 15 to 30 years. There is an upcoming need for higher sludge dewatering capacity to optimize its current solids processing operation. The current sludge storage (aerobic digestion) capacity is less than the rated plant capacity sludge production levels, and additional sludge storage would improve sludge stabilization prior to dewatering and disposal, and facilitate the use of a higher capacity centrifuge. Supplemental sludge storage tankage, with aeration/ mixing/pumping, is proposed. This specific area of work has been identified in the Wastewater Treatment Facilities Plan of 2019.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Change in project title and scope of work

Alternative:

If any part of the required capacity increase is not performed, the wastewater treatment plant may fail to meet quality standards. This is a critical part of the treatment process.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	600,000	2,500,000	3,000,000	900,000	0	0	0	0	0	0	0
Total Project Cost	\$600,000	\$2,500,000	\$3,000,000	\$900,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Availabilities	600,000	2,500,000	3,000,000	900,000	0	0	0	0	0	0	0
Total	\$600,000	\$2,500,000	\$3,000,000	\$900,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: LWWTF-004 - Little Falls Run WWTF Bio Treatment and Chem Feed

Project Code	BHC028	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Late 2024
Total Project Cost	\$9,200,000		
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This project (LWWTF-Biological Treatment and Chemical Feed) specifically addresses the likely requirement that the Virginia Department of Environmental Quality (VaDEQ) will modify the post-denitrification (Post-DN) requirements of all discharges into the Rappahannock River over the next few years.

Operating Impact Summary:

This project may encounter minimal additional operational costs with the likely addition of small equipment and processes.

Location:

The project will be constructed at the Little Falls Run Wastewater Treatment Facility.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program and is proposed for each Fiscal Year of the Utilities Division’s Capital Improvement Program as a part of the Board of Supervisor’s proposed “Healthy Growth” priority. The specific area of work has been defined in the Wastewater Treatment Plant Facilities Plan, completed in 2019.

Utilities: LWWTF-004 - Little Falls Run WWTF Bio Treatment and Chem Feed

Analysis of Need:

The Little Falls Run Wastewater Treatment Facility’s Virginia Pollutant Discharge Elimination System (VPDES) Permit expires in September 2020; the DEQ is proposing a Rappahannock River Water Quality Policy due to low downstream dissolved oxygen levels, so the reapplication process may identify other upgrades or modifications. The Fresh Water Nutrient Criteria / Ammonia rule will likely be adopted by VA and DEQ by mid-2019, the Rappahannock Policy is expected by the time of other VPDES Permit renewals in the same reach of the river (Spotsylvania County, City of Fredericksburg; 2017-8). These regulatory changes suggest biological treatment system and/or chemical feed upgrades. This specific area of work is defined in the Wastewater Treatment Facilities Plan of 2019.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: Change in project title and scope of work

Alternative:

If any part of the required upgrades is not performed, the wastewater treatment plant may fail to meet discharge water quality requirements.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	0	0	800,000	2,200,000	3,500,000	2,700,000	0	0	0	0	0
Total Project Cost	\$0	\$0	\$800,000	\$2,200,000	\$3,500,000	\$2,700,000	\$0	\$0	\$0	\$0	\$0

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Availabilities	0	0	800,000	2,200,000	3,500,000	2,700,000	0	0	0	0	0
Total	\$0	\$0	\$800,000	\$2,200,000	\$3,500,000	\$2,700,000	\$0	\$0	\$0	\$0	\$0

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: Pump Station Rehabilitation and Replacement

Project Code	WPS021	Square Footage/Acreage	
Project Type	Utilities 3R	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Yearly
Total Project Cost	\$500,000		
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This work consists of the replacement of entire small wastewater pump stations or portions of larger wastewater pump stations throughout the collection system. The Master Plan identifies which pump stations require capacity upgrades or replacement, but not rehabilitation or replacement due to age or condition.

Operating Impact Summary:

These projects have minimal operating costs such as electricity and fuel for the emergency generator in the event the station is enlarged. If the project does not increase the power or generator size, the current operating costs remain. These operating costs are considered and evaluated during each budget cycle.

Location:

These projects are located at pump stations throughout the wastewater collection system.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program and is proposed for each fiscal year of the Utilities Division’s Capital Improvement Program and embodies the Board of Supervisors proposed Healthy Growth priority.

Utilities: Pump Station Rehabilitation and Replacement

Analysis of Need:

These projects are located at pump stations throughout the wastewater collection system. They exhibit a serious need for total replacement or equipment rehabilitation. This work is not part of the overall operational budget for maintenance. The goal and intent of this replacement work is to eventually keep the wastewater pump stations fully functional and efficient. This work is intended to be performed by the Utilities Division Field Crews.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

FY2021 Projects:

Potomac Creek Pump Station – Flood Protection

630 at I-95 Pump Station – Full Replacement of the Pump Station

Heritage Oaks Pump Station – Construction of Sewer Interconnect to allow abandonment of this Pump Station

Autumn Ridge Pump Station – Construction of Sewer Interconnect and Relocation of this Pump Station on an adjacent parcel

Alternative:

There would likely need to be expensive emergency repairs to these known pump stations.

Utilities: Pump Station Rehabilitation and Replacement

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	500,000	500,000	500,000	500,000	550,000	600,000	650,000	700,000	750,000	800,000	800,000
Total Project Cost	\$500,000	\$500,000	\$500,000	\$500,000	\$550,000	\$600,000	\$650,000	\$700,000	\$750,000	\$800,000	\$800,000

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	500,000	500,000	500,000	500,000	550,000	600,000	650,000	700,000	750,000	800,000	800,000
Total	\$500,000	\$500,000	\$500,000	\$500,000	\$550,000	\$600,000	\$650,000	\$700,000	\$750,000	\$800,000	\$800,000

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: Sewer Extension Projects

Project Code	SXT021	Square Footage/Acreage	
Project Type	Utilities, Sewer	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Yearly
Total Project Cost	\$273,000	Funding per Year	\$250,000
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This project includes design and construction of sewer extension projects throughout the County. These projects are not Master Plan, General Water & Sewer Improvement Program, and are not 3R. These projects are created after citizens and/or groups of citizens apply for connections to the sewer collection system for properties that are more than 300’ away from the County’s infrastructure. The projects are funded in like manner to the 3R fund items.

Operating Impact Summary:

The cumulative addition of water and sewer infrastructure will require additional operating costs consisting of maintenance and hard costs. These operating costs are considered and evaluated during each budget cycle.

Location:

These projects vary in location and are infrequent.

Relationship to Approved County Policy or Plan:

This project is part of the Adopted General Water and Sewer Improvement Program and is proposed for each fiscal year of the Utilities Division’s Capital Improvement Program which embodies the Board of Supervisors proposed Healthy Growth priority.

Utilities: Sewer Extension Projects

Analysis of Need:

These projects are created from the County’s Water and Sewer Extension Policy. Funding is appropriated each year as a placeholder in the event a project application is granted approval for design and construction. Each project differs in size and scope and does not occur every year. This work is intended to be performed by the Utilities Division Field Crews.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Project List FY2021:

The public requests for sewer service has not yet resulted in scheduling of any projects for FY2021. As public requests are received, the County can respond using funds from this line item.

Alternative:

There will be no dedicated funding for sewer extension projects.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	262,000	0	284,000	296,000	346,000	396,000	446,000	496,000	546,000	596,000	596,000
Total Project Cost	\$262,000	\$0	\$284,000	\$296,000	\$346,000	\$396,000	\$446,000	\$496,000	\$546,000	\$596,000	\$596,000

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	262,000	0	284,000	296,000	346,000	396,000	446,000	496,000	546,000	596,000	596,000
Total	\$262,000	\$0	\$284,000	\$296,000	\$346,000	\$396,000	\$446,000	\$496,000	\$546,000	\$596,000	\$596,000

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities

Other Expenditures:	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	5 Year Balanced CIP	5 Year Planning Period	Total Projected Uses (Included PY Funding)
Public Works - Utilities Division Complex	0	0	0	0	0	0	0	423,000	0	0	6,077,000	0	6,500,000	6,500,000
Vehicle and Equipment Replacement	972,200	443,000	426,000	662,000	383,000	458,000	400,000	400,000	400,000	400,000	400,000	2,886,200	2,458,000	5,344,200
Contingency Allowance	1,377,000	585,700	452,200	315,800	2,632,300	362,500	155,200	185,300	185,300	185,300	485,300	5,363,000	1,558,900	6,921,900
Total	\$2,349,200	\$1,028,700	\$878,200	\$977,800	\$3,015,300	\$820,500	\$555,200	\$1,008,300	\$585,300	\$585,300	\$6,962,300	\$8,249,200	\$10,516,900	\$18,766,100

Utilities: Division Complex

Project Code		Square Footage/Acreage	20 acres/18,000 sf
Project Type	Utilities, Other	Construction Cost per Sq. Ft	\$360 incl. site
Project Status	Planning	Est. Opening Date	2031
Total Project Cost	\$6,500,000		
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This project includes the design and construction for a Utilities Division Administration and Maintenance Facility (Complex) to enable the Utilities Division to operate its Customer Service Center, Capital Construction, and Field Operations & Maintenance functions.

Operating Impact Summary:

There will be operational costs associated with this new facility. It will be the intent of the design that all additional operating costs will be less than the current operations costs at current facilities.

Location:

This project would be located on land owned by the County near the Regional Jail for use by Fire & Rescue, Parks and Recreation and the Department of Public Works (Utilities Division).

Relationship to Approved County Policy or Plan:

This project will support the Board of Supervisor’s “Healthy Growth” priority.

Utilities: Division Complex

Analysis of Need:

Currently the Customer Service Center is located in the Government Center. For the long term, this may be the best location for this feature. However, it has been envisioned being at a Utilities Division Complex. The Capital Construction offices currently operate from leased space and the Utilities Division Field Operations and Maintenance sections currently operate in space near the Aquia Wastewater Treatment Facility (AWWTF). The space used at the AWWTF has been outgrown and there is no longer expansion area. This operations area has been filled with a variety of multipurpose buildings over the years and has become inefficient. This proposed project would create office and land space for these operations with additional area for future growth. Additionally, in the next decade or so, the AWWTF will need this current field operations area for expansion of its wastewater treatment capacity.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Alternative:

The Utilities Division Field Operations & Maintenance and Capital Construction functions will remain in their current locations.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	0	0	0	0	0	0	0	423,000	0	0	6,077,000
Total Project Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$423,000	\$0	\$0	\$6,077,000

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	0	0	0	0	0	0	0	423,000	0	0	6,077,000
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$423,000	\$0	\$0	\$6,077,000

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: Replacement: Vehicles and Equipment

Project Code		Square Footage/Acreage	
Project Type	Utilities, Other	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Yearly
Total Project Cost	\$443,200		
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

These proposed expenditures include the replacement of vehicles and major pieces of equipment due to high mileage, excess repair and maintenance cost, or condition issues.

Operating Impact Summary:

As many of the existing vehicles age and require increasing operational costs, this program is designed to minimize any additional operating costs from new vehicles through greater efficiency. The addition of vehicles will require an increase in operational costs based on individual vehicle operational costs.

Location:

This expenditure applies to the fleet of vehicles and major equipment for the Department Public Works, Utilities Division.

Relationship to Approved County Policy or Plan:

It is part of the Board of Supervisor’s proposed “Healthy Growth” priority.

Utilities: Replacement: Vehicles and Equipment

Analysis of Need:

The vehicles currently operated by the Utilities Division experience significant use and often require replacement prior to vehicles used under normal circumstances. The Utilities Division has a task force to evaluate the use and operational costs of each vehicle, each year. The intent of the task force is to replace only the vehicles and equipment that need replacement and that all vehicles and equipment are used correctly and efficiently.

Change or Reasons for Revisions:

FY2020: No changes

FY2021: No changes

Alternative:

With no vehicle replacement program, all vehicles and equipment would be used and repaired as necessary. These repair costs would far exceed the value of the vehicle or equipment. The ability of staff to perform assigned duties would diminish.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	972,200	443,000	426,000	662,000	383,000	458,000	400,000	400,000	400,000	400,000	400,000
Total Project Cost	\$972,200	\$443,000	\$426,000	\$662,000	\$383,000	\$458,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	972,200	443,000	426,000	662,000	383,000	458,000	400,000	400,000	400,000	400,000	400,000
Total	\$972,200	\$443,000	\$426,000	\$662,000	\$383,000	\$458,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Utilities: Contingency Allowance

Project Code		Square Footage/Acreage	
Project Type	Utilities, Other	Construction Cost per Sq. Ft	
Project Status	Planning	Est. Opening Date	Yearly
Total Project Cost	\$585,700		
Functional Area	Utilities		
Total Debt Service			
Full Year Operating Impact			

Project Description:

This expenditure is a contingency item for the budget year for all capital projects. For the initial budget year the amount is 8% of proposed expenditures.

Operating Impact Summary:

There are no operating costs for this potential expenditure.

Location:

N/A

Relationship to Approved County Policy or Plan:

N/A

Analysis of Need:

As with any contingency, this expenditure is planned in the event that capital spending exceeds the projected revenue need. The Capital Construction section will work diligently to operate within the planned budget and appropriations. However, in the event additional funds are required to meet the projects' intent, these funds are available in the Fund Balance.

Utilities: Contingency Allowance

Change or Reasons for Revisions:

FY2020: This expenditure changes each year based on the proposed expenditures.

FY2021: No changes

Alternative:

If capital spending exceeds its annual budget and appropriation there would be no contingency. This could necessitate the need to borrow or to delay future projects to meeting funding requirements.

Project Summary:

Project Expenditures	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Construction / Project	1,377,000	585,700	452,200	315,800	2,632,300	362,500	155,200	185,300	185,300	185,300	485,300
Total Project Cost	\$1,377,000	\$585,700	\$452,200	\$315,800	\$2,632,300	\$362,500	\$155,200	\$185,300	\$185,300	\$185,300	\$485,300

Project Revenues	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
User Fees	1,377,000	585,700	452,200	315,800	2,632,300	362,500	155,200	185,300	185,300	185,300	485,300
Total	\$1,377,000	\$585,700	\$452,200	\$315,800	\$2,632,300	\$362,500	\$155,200	\$185,300	\$185,300	\$185,300	\$485,300

Operating Impacts	Prior Year	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Debt Management Policy Statement:

The Government Finance Officers Association's Committee on Governmental Debt and Fiscal Policy issued a statement regarding Recommended Practice on Debt Policy Management in 1995, and revised it in 2003. The following comments were made in the introduction to the statement:

“Debt management policies are written guidelines and restrictions that affect the amount and type of debt issued by a state or local government, the issuance process, and the management of a debt portfolio. A debt management policy improves the quality of decisions, provides justification for the structure of debt issuance, identifies policy goals, and demonstrates a commitment to long-term financial planning, including a multi-year capital plan. Adherence to a debt management policy signals to rating agencies and the capital markets that a government is well managed and should meet its obligations in a timely manner. Debt levels and their related annual costs are important long-term obligations that must be managed within available resources. An effective debt management policy provides guidelines for a government to manage its debt program in line with those resources.”

Accordingly, Stafford County examined its debt program and the Board of Supervisors adopted debt policy limits to ensure that no undue burden is placed on the County and its citizens. The County's debt policies are included in the Board's Principles of High Performance Financial Management. The Policy was updated June 4, 2019, by Resolution R19-182. The debt limitations are as follows:

- General obligation debt shall not exceed 2.75% of the assessed valuation of taxable real property.
- General fund debt service expenditures (County and Schools) shall not exceed 10% of the general government and schools operating budgets.
- The County intends to maintain a 10-year pay-out ratio at or above 60%. To the extent possible, future debt for County facilities will be issued with level principal payments.
- When the County finances capital improvements or other projects through bonds or capital leases, it will repay the debt within a period not to exceed the expected useful life of the projects.
- Debt ratios do not include debt to be repaid from identified revenue sources outside the General Fund. In the case of special service districts, the Board of Supervisors intends to set tax rates to cover any debt to be funded with the revenue.
- Capital lease debt service shall not exceed 1% of the general government budget. Capital lease debt may only be used if all the following four criteria are met:
 1. Capital lease purchase is eligible under state law for such financing;
 2. Useful life of the purchase equals or exceeds the term of the debt;
 3. Total purchase exceeds \$100,000; and
 4. Sufficient funds are available to service the capital lease debt.

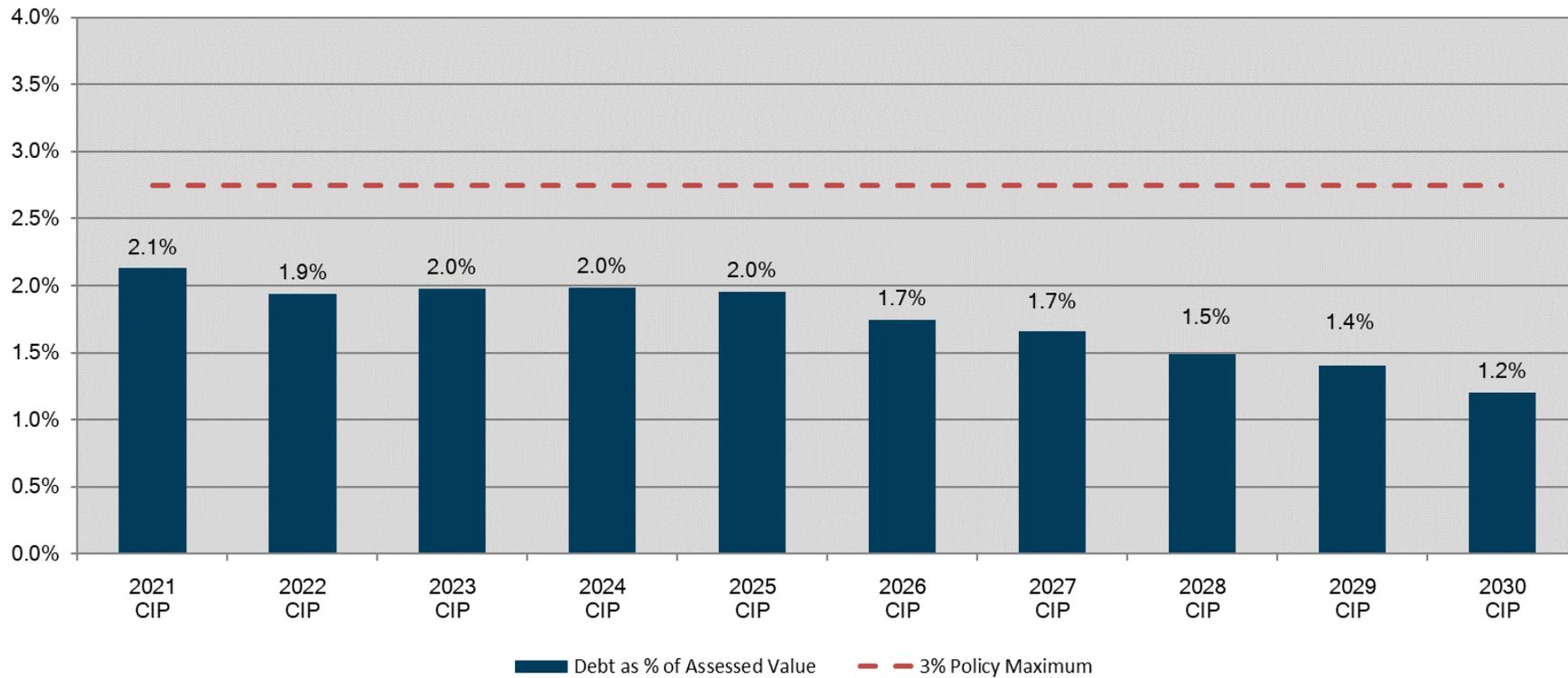
The adopted CIP fully complies with the financial policies.

Financial Analysis:

The following graphs indicate that the FY2021-2030 Adopted CIP is in compliance with the Board’s fiscal policy guidelines.

Debt as a Percentage of Assessed Value:

The County’s financial policy “Principles of High Performance Financial Management” state that general obligation debt shall not exceed 2.75% of the assessed valuation of taxable real property. Below is a graph illustrating the County’s compliance with the policy.

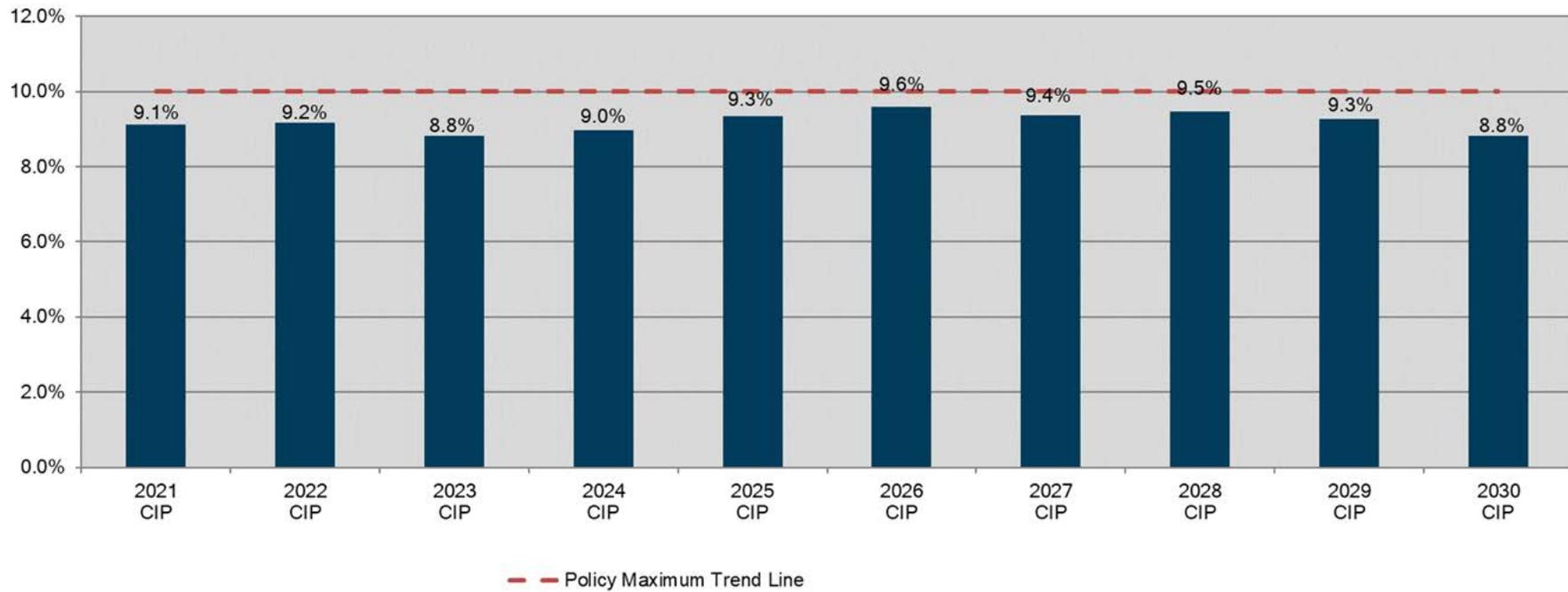


Financial Analysis:

Debt Service as a Percentage of General Government Budget:

The County’s Financial Policy states general fund debt service expenditures (County and Schools) shall not exceed 10% of the general government and schools operating budgets and shall not exceed 10%. Below is a graph presenting the County’s compliance with the policy.

Debt Service to General Fund Expenditures Ratio (Not to Exceed 10%)



Payout Ratio:

The payout ratio is an assessment of the speed at which the County repays its debt. At the beginning of FY2021 the total County debt is estimated at \$377 million. At the end of FY2030 (ten fiscal years beyond FY2021) the County will have repaid \$272 million or 67.7% of that outstanding debt.

10 Year Payout Ratio (Must be 60% or greater)	
Fiscal Year	Payout Ratio
FY2021	67.70%
FY2022	68.40%
FY2023	68.60%
FY2024	70.00%
FY2025	72.80%

Bond Rating:

The County’s bond ratings are shown below:

	Moody’s	Standard & Poor’s	Fitch
General Obligation	Aaa	AAA	AAA

In November, 2018 Stafford County joined 47 counties and 33 cities across the nation in acquiring its third AAA bond rating — the highest credit rating available. Moody’s Investors Service announced the bond rating upgrade this week, citing Stafford’s current healthy financial position as well as its emphasis on strategically planning for the future. Stafford previously received AAA bond ratings from Fitch Ratings in October 2016 and Standard & Poor’s in July 2015.

“Gaining three AAA bond ratings is the result of a lot of hard work by both current and former members of the Board of Supervisors as well as a host of County staff,” said Board of Supervisors Meg Bohmke, Falmouth District.

Moody’s Investors Service reviewed Stafford’s credit strengths and challenges, debts and obligations. Key indicators include the County’s diverse, growing economy along with its proximity to the expanding, stabilizing presence of Quantico and the more than 25,000 direct jobs it provides. Moody’s praised Stafford County on being “positioned favorably to maintain its strong financial position with sound reserve levels, strong financial management and ample financial flexibility.”

“This report from Moody’s confirms the culmination of many years of work and preparation by current and former Board of Supervisors as well as exceptional staff including the leadership and effort from our Chief Financial Officer, Maria Perrotte. This achievement does not happen overnight; financial planning has become a year-round process for us,” said Stafford County Administrator Tom Foley. “In the end, gaining three AAA bond ratings is tangible proof that we are good stewards of taxpayer funds.”

An AAA bond rating indicates a high level of confidence that a locality can meet its obligations today and in the future. More importantly, this rating allows localities to borrow money for essential public facilities at a lower interest rate, saving taxpayers money.

The Board will continue its work to retain the County’s bond rating.

DEPARTMENTAL GOALS/OBJECTIVES:

- Further enhancing the County’s General Obligation Bond rating to promote financial integrity
- Work with the Board to provide a plan to re-establish cash capital at 3% of the operating budget
- Ensure fiscal integrity by achieving and maintaining our goal of a 10% debt service to general fund expenditures
- Maintain and/or update our well-diversified management planning tools and policies
- Maintain our revenue stabilization, capital projects and opportunity fund reserves

The above goals support the Principles of High Performance Financial Management and the Board of Supervisors Priorities for the community.

SERVICE LEVELS:

	FY2019 Actual	FY2020 Budget	FY2021 Plan
Outcomes			
Debt Service	\$44,925,682	\$45,479,097	44,144,730
Debt Service per Capita	\$300	\$297	\$282
Standard & Poor’s	AAA	AAA	AAA
Moody’s	Aaa	Aaa	Aaa
Fitch	AAA	AAA	AAA

DEPARTMENTAL ACCOMPLISHMENTS:

- November 2018 Moody's upgraded the County's bond rating to Aaa.
- May 2017 Fitch upgraded the County's bond rating from AA+ to AAA.
- July 2015 Standard & Poor's upgraded the County's bond rating to AAA.
- The goal to budget 3% of the operating budget for Repairs, Replacements and Rehabilitations was not accomplished in the FY21 adopted budget.
 - Due to the COVID-19 Pandemic, the Board reduced the Financial Policy requirements of 3% of general fund recurring revenue to 2%. Staff was directed to look at all projects and determine if they are essential or non-essential. Department leaders from all departments with projects that were proposed, along with the Chief Financial Officer, the Budget Director and the Sr. Budget Analyst met to review all projects. Each department provided support to determine if a project was essential or supported projects being pushed out into future years. This group did not prioritize projects beyond FY2021, as the CIP process will begin again in August for FY2022-31 CIP.

Analysis of Outstanding Debt

General Obligation Bonds

School Bond - VPSA			
Fiscal Year	Balance July 1	Principal Payments	Balance June 30
2021	271,027,439	18,820,408	252,207,031
2022	252,207,031	19,030,176	233,176,855
2023	233,176,855	18,845,183	214,331,672
2024	214,331,672	19,496,672	194,835,000
2025	194,835,000	19,496,672	175,338,328

Literary Fund Loans			
Fiscal Year	Balance July 1	Principal Payments	Balance June 30
2021	432,292	216,149	216,143
2022	216,143	216,143	0

Bonds for County Projects			
Fiscal Year	Balance July 1	Principal Payments	Balance June 30
2021	36,910,001	2,805,000	34,105,001
2022	34,105,001	2,780,000	31,325,001
2023	31,305,001	2,325,000	28,980,001
2024	28,980,001	2,325,000	26,655,001
2025	26,655,000	2,325,000	24,330,000

Total General Obligation Bonds			
Fiscal Year	Balance July 1	Principal Payments	Balance June 30
2021	308,369,732	21,841,557	286,528,175
2022	286,528,175	22,026,319	264,501,856
2023	264,481,856	21,170,183	243,311,673
2024	243,311,673	21,821,672	221,490,001
2025	221,490,000	21,821,672	199,668,328

Revenue Bonds

Lease Revenue Bonds			
Fiscal Year	Balance July 1	Principal Payments	Balance June 30
2021	7,635,396	2,145,039	5,490,357
2022	5,490,357	999,763	4,490,594
2023	4,490,594	1,026,521	3,464,073
2024	3,464,074	1,054,027	2,410,047
2025	2,410,047	664,387	1,745,660

General Government - Financing Lease - Crow's Nest			
Fiscal Year	Balance July 1	Principal Payments	Balance June 30
2021	4,397,447	506,703	3,890,744
2022	3,890,745	518,424	3,372,321
2023	3,372,320	530,416	2,841,904
2024	2,841,904	542,686	2,299,218
2025	2,299,218	555,240	1,743,978

Financing Lease - VRA

General Government			
Fiscal Year	Balance July 1	Principal Payments	Balance June 30
2021	66,940,000	4,705,000	62,235,000
2022	62,235,000	4,810,000	57,425,000
2023	57,425,000	4,920,000	52,505,000
2024	52,505,000	3,400,000	49,105,000
2025	49,105,000	3,500,000	45,605,000

Other Debt

Other- Landfill			
Fiscal Year	Balance July 1	Principal Payments	Balance June 30
2021	1,015,000	235,000	780,000
2022	780,000	245,000	535,000
2023	535,000	260,000	275,000
2024	275,000	275,000	0

Analysis of Outstanding Debt

Utilities Fund

Revenue Bonds			
Fiscal Year	Balance July 1	Principal Payments	Balance June 30
2021	89,609,872	3,861,760	85,748,112
2022	85,748,112	3,985,877	81,762,235
2023	81,762,235	4,115,454	77,646,781
2024	77,646,781	4,255,496	73,391,285
2025	73,391,285	4,416,017	68,975,268

Total Utilities Debt			
Fiscal Year	Balance July 1	Principal Payments	Balance June 30
2021	89,609,872	3,861,760	85,748,112
2022	85,748,112	3,985,877	81,762,235
2023	81,762,235	4,115,454	77,646,781
2024	77,646,781	4,255,496	73,391,285
2025	73,391,285	4,416,017	68,975,268

All Funds

Total All Funds Debt			
Fiscal Year	Balance July 1	Principal Payments	Balance June 30
2021	477,967,447	28,590,059	382,437,388
2022	444,672,389	27,775,383	354,662,006
2023	412,067,005	27,102,574	327,539,431
2024	380,044,432	27,948,881	299,590,551
2025	348,695,550	27,457,316	272,133,234

General Fund Bond Debt

Virginia Resource Authority, Crows Nest Series 2008				
Fiscal Year	Principal	Interest	Total	Balance
2008				\$9,500,001
2009	352,741	269,707	622,448	9,147,260
2010	363,402	271,713	635,115	8,783,858
2011	374,386	260,729	635,115	8,409,472
2012	385,702	249,413	635,115	8,023,770
2013	397,360	237,755	635,115	7,626,410
2014	420,460	184,487	604,947	7,205,950
2015	441,736	163,211	604,947	6,764,214
2016	451,954	152,993	604,947	6,312,260
2017	462,409	142,538	604,947	5,849,851
2018	473,106	131,841	604,947	5,376,745
2019	484,050	120,897	604,947	4,892,695
2020	495,247	109,700	604,947	4,397,448
2021	506,703	98,244	604,947	3,890,745
2022	518,424	86,523	604,947	3,372,321
2023	530,416	74,530	604,946	2,841,905
2024	542,686	62,261	604,947	2,299,219
2025	555,240	49,707	604,947	1,743,979
2026	568,084	36,863	604,947	1,175,895
2027	581,225	23,722	604,947	594,670
2028	594,670	10,277	604,947	0
	\$9,500,001	\$2,737,111	\$12,237,112	

General Government General Obligation Bonds, Parks, Recreation and Transportation Series 2013				
Fiscal Year	Principal	Interest	Total	Balance
2014				\$18,785,000
2015	935,000	436,923	1,371,923	17,850,000
2016	935,000	840,825	1,775,825	16,915,000
2017	940,000	808,100	1,748,100	15,975,000
2018	940,000	765,900	1,705,900	15,035,000
2019	940,000	718,900	1,658,900	14,095,000
2020	940,000	671,900	1,611,900	13,155,000
2021	940,000	624,900	1,564,900	12,215,000
2022	940,000	577,900	1,517,900	11,275,000
2023	940,000	530,900	1,470,900	10,335,000
2024	940,000	483,900	1,423,900	9,395,000
2025	940,000	436,900	1,376,900	8,455,000
2026	940,000	389,900	1,329,900	7,515,000
2027	940,000	342,900	1,282,900	6,575,000
2028	940,000	295,900	1,235,900	5,635,000
2029	940,000	248,900	1,188,900	4,695,000
2030	940,000	206,600	1,146,600	3,755,000
2031	940,000	169,000	1,109,000	2,815,000
2032	940,000	131,400	1,071,400	1,875,000
2033	940,000	93,800	1,033,800	935,000
2034	935,000	56,200	991,200	0
	\$18,785,000	\$8,831,648	\$27,616,648	

General Fund Bond Debt

General Government General Obligation Bonds, Refunding Series 2012				
Fiscal Year	Principal	Interest	Total	Balance
2012				\$4,810,000
2013	0	191,595	191,595	4,810,000
2014	700,000	205,325	905,325	4,110,000
2015	695,000	177,578	872,578	3,415,000
2016	505,000	148,878	653,878	2,910,000
2017	500,000	125,375	625,375	2,410,000
2018	490,000	102,256	592,256	1,920,000
2019	485,000	79,447	564,447	1,435,000
2020	480,000	56,894	536,894	955,000
2021	480,000	32,294	512,294	475,000
2022	475,000	9,997	484,997	0
	\$4,810,000	\$1,129,639	\$5,939,639	

Transportation Service District General Obligation Bonds, Garrisonville District Series 2013				
Fiscal Year	Principal	Interest	Total	Balance
2014		\$123,076	\$123,076	\$5,290,000
2015	260,000	236,900	496,900	5,030,000
2016	260,000	227,800	487,800	4,770,000
2017	265,000	215,975	480,975	4,505,000
2018	265,000	202,725	467,725	4,240,000
2019	265,000	189,475	454,475	3,975,000
2020	265,000	176,225	441,225	3,710,000
2021	265,000	162,975	427,975	3,445,000
2022	265,000	149,725	414,725	3,180,000
2023	265,000	136,475	401,475	2,915,000
2024	265,000	123,225	388,225	2,650,000
2025	265,000	109,975	374,975	2,385,000
2026	265,000	96,725	361,725	2,120,000
2027	265,000	83,475	348,475	1,855,000
2028	265,000	70,225	335,225	1,590,000
2029	265,000	58,300	323,300	1,325,000
2030	265,000	47,700	312,700	1,060,000
2031	265,000	37,100	302,100	795,000
2032	265,000	26,500	291,500	530,000
2033	265,000	15,900	280,900	265,000
2034	265,000	5,300	270,300	0
	\$5,290,000	\$2,495,776	\$7,785,776	

General Fund Bond Debt

General Government General Obligation Bonds - Series 2015, Parks, Recreation				
Fiscal Year	Principal	Interest	Total	Balance
2016	\$0	\$113,557	\$113,557	\$5,947,629
2017	299,832	235,977	535,809	5,647,797
2018	299,832	226,982	526,814	5,347,965
2019	299,832	214,989	514,821	5,048,133
2020	296,949	200,069	497,018	4,751,184
2021	296,949	185,222	482,171	4,454,235
2022	296,949	170,374	467,323	4,157,286
2023	296,949	155,527	452,476	3,860,337
2024	296,949	140,680	437,629	3,563,388
2025	296,949	125,832	422,781	3,266,439
2026	296,949	110,985	407,934	2,969,490
2027	296,949	96,137	393,086	2,672,541
2028	296,949	81,290	378,239	2,375,592
2029	296,949	69,412	366,361	2,078,643
2030	296,949	60,503	357,452	1,781,694
2031	296,949	51,595	348,544	1,484,745
2032	296,949	42,686	339,635	1,187,796
2033	296,949	33,592	330,541	890,847
2034	296,949	24,313	321,262	593,898
2035	296,949	14,847	311,796	296,949
2036	296,949	5,011	301,960	0
	\$5,947,629	\$2,359,582	\$8,307,211	

General Government General Obligation Bonds - Series 2017, Parks, Recreation				
Fiscal Year	Principal	Interest	Total	Balance
2017				\$2,653,200
2018	0	67,439	67,439	2,653,200
2019	133,100	107,531	240,631	2,520,100
2020	133,100	100,876	233,976	2,387,000
2021	133,100	94,221	227,321	2,253,900
2022	133,100	87,566	220,666	2,120,800
2023	133,100	80,911	214,011	1,987,700
2024	133,100	74,256	207,356	1,854,600
2025	133,100	67,604	200,704	1,721,500
2026	133,100	60,946	194,046	1,588,400
2027	133,100	54,291	187,391	1,455,300
2028	133,100	47,636	180,736	1,322,200
2029	133,100	41,646	174,746	1,189,100
2030	133,100	36,322	169,422	1,056,000
2031	132,000	31,020	163,020	924,000
2032	132,000	26,400	158,400	792,000
2033	132,000	22,440	154,440	660,000
2034	132,000	18,480	150,480	528,000
2035	132,000	14,520	146,520	396,000
2036	132,000	10,478	142,478	264,000
2037	132,000	6,353	138,353	132,000
2038	132,000	2,145	134,145	0
	\$2,653,200	\$1,053,081	\$3,706,281	

General Fund Bond Debt

General Government General Obligation Bonds - Series 2015, Transportation				
Fiscal Year	Principal	Interest	Total	Balance
2016		\$83,386	\$83,386	\$4,367,371
2017	220,168	173,279	393,447	4,147,203
2018	220,168	166,674	386,842	3,927,035
2019	220,168	157,867	378,035	3,706,867
2020	218,051	146,912	364,963	3,488,816
2021	218,051	136,009	354,060	3,270,765
2022	218,051	125,107	343,158	3,052,714
2023	218,051	114,204	332,255	2,834,663
2024	218,051	103,302	321,353	2,616,612
2025	218,051	92,399	310,450	2,398,561
2026	218,051	81,497	299,548	2,180,510
2027	218,051	70,594	288,645	1,962,459
2028	218,051	59,691	277,742	1,744,408
2029	218,051	50,969	269,020	1,526,357
2030	218,051	44,428	262,479	1,308,306
2031	218,051	37,886	255,937	1,090,255
2032	218,051	31,345	249,396	872,204
2033	218,051	24,667	242,718	654,153
2034	218,051	17,853	235,904	436,102
2035	218,051	10,903	228,954	218,051
2036	218,051	3,680	221,731	0
	\$4,367,371	\$1,732,652	\$6,100,023	

General Government General Obligation Bonds Series 2017, Transportation				
Fiscal Year	Principal	Interest	Total	Balance
2017				\$9,406,800
2018	0	239,101	239,101	9,406,800
2019	471,900	381,245	853,145	8,934,900
2020	471,900	357,650	829,550	8,463,000
2021	471,900	334,055	805,955	7,991,100
2022	471,900	310,460	782,360	7,519,200
2023	471,900	286,865	758,765	7,047,300
2024	471,900	263,270	735,170	6,575,400
2025	471,900	239,675	711,575	6,103,500
2026	471,900	216,080	687,980	5,631,600
2027	471,900	192,485	664,385	5,159,700
2028	471,900	168,890	640,790	4,687,800
2029	471,900	147,654	619,554	4,215,900
2030	471,900	128,778	600,678	3,744,000
2031	468,000	109,980	577,980	3,276,000
2032	468,000	93,600	561,600	2,808,000
2033	468,000	79,560	547,560	2,340,000
2034	468,000	65,520	533,520	1,872,000
2035	468,000	51,480	519,480	1,404,000
2036	468,000	37,148	505,148	936,000
2037	468,000	22,523	490,523	468,000
2038	468,000	7,605	475,605	0
	\$9,406,800	\$3,733,618	\$13,140,418	

General Fund Bond Debt

Virginia Resource Authority 2017, Animal Shelter				
Fiscal Year	Principal	Interest	Total	Balance
2017				\$5,430,000
2018	190,000	199,187	389,187	5,240,000
2019	180,000	206,769	386,769	5,060,000
2020	190,000	200,563	390,563	4,870,000
2021	195,000	192,722	387,722	4,675,000
2022	205,000	182,472	387,472	4,470,000
2023	215,000	171,709	386,709	4,255,000
2024	230,000	160,306	390,306	4,025,000
2025	240,000	148,263	388,263	3,785,000
2026	250,000	135,706	385,706	3,535,000
2027	265,000	122,509	387,509	3,270,000
2028	275,000	110,572	385,572	2,995,000
2029	285,000	100,972	385,972	2,710,000
2030	295,000	91,909	386,909	2,415,000
2031	310,000	80,306	390,306	2,105,000
2032	320,000	66,063	386,063	1,785,000
2033	335,000	53,578	388,578	1,450,000
2034	345,000	42,738	387,738	1,105,000
2035	355,000	31,294	386,294	750,000
2036	370,000	19,213	389,213	380,000
2037	380,000	6,484	386,484	0
	\$5,430,000	\$2,323,334	\$7,753,334	

Virginia Resource Authority 2017C, 2008 Refunding				
Fiscal Year	Principal	Interest	Total	Balance
2017				\$4,085,000
2018		68,178		4,085,000
2019	2,485,000	112,753	2,597,753	1,600,000
2020	0	77,650	77,650	1,600,000
2021	0	77,650	77,650	1,600,000
2022	0	77,650	77,650	1,600,000
2023	0	77,650	77,650	1,600,000
2024	0	77,650	77,650	1,600,000
2025	0	77,650	77,650	1,600,000
2026	0	77,650	77,650	1,600,000
2027	0	77,650	77,650	1,600,000
2028	0	77,650	77,650	1,600,000
2029	0	77,650	77,650	1,600,000
2030	0	77,650	77,650	1,600,000
2031	0	77,650	77,650	1,600,000
2032	805,000	58,122	863,122	795,000
2033	795,000	19,297	814,297	0
	\$4,085,000	\$1,190,150	\$5,206,972	

General Fund Bond Debt

Virginia Resource Authority 2017C, Station 14				
Fiscal Year	Principal	Interest	Total	Balance
2018				\$5,890,000
2019	290,000	118,820	408,820	5,600,000
2020	295,000	253,575	548,575	5,305,000
2021	295,000	243,184	538,184	5,010,000
2022	295,000	231,391	526,391	4,715,000
2023	295,000	218,322	513,322	4,420,000
2024	295,000	204,228	499,228	4,125,000
2025	295,000	190,134	485,134	3,830,000
2026	295,000	175,016	470,016	3,535,000
2027	295,000	159,897	454,897	3,240,000
2028	295,000	144,778	439,778	2,945,000
2029	295,000	129,659	424,659	2,650,000
2030	295,000	114,966	409,966	2,355,000
2031	295,000	100,697	395,697	2,060,000
2032	295,000	86,428	381,428	1,765,000
2033	295,000	72,159	367,159	1,470,000
2034	295,000	57,891	352,891	1,175,000
2035	295,000	45,097	340,097	880,000
2036	295,000	33,778	328,778	585,000
2037	295,000	23,509	318,509	290,000
2038	290,000	14,163	304,163	0
	\$5,890,000	\$2,622,404	\$8,507,692	

Virginia Resource Authority 2014B, Refunding of Series 2006 and 2008, Embrey Mill Park Improvements and Indoor Recreation Center				
Fiscal Year	Principal	Interest	Total	Balance
2015	\$0	\$2,034,800	\$2,034,800	\$64,335,000
2016	1,300,000	2,826,863	4,126,863	63,035,000
2017	1,340,000	2,788,831	4,128,831	61,695,000
2018	1,395,000	2,729,547	4,124,547	60,300,000
2019	1,460,000	2,660,663	4,120,663	58,840,000
2020	4,095,000	2,526,641	6,621,641	54,745,000
2021	4,175,000	2,327,122	6,502,122	50,570,000
2022	4,265,000	2,117,097	6,382,097	46,305,000
2023	4,365,000	1,895,953	6,260,953	41,940,000
2024	2,830,000	1,711,581	4,541,581	39,110,000
2025	2,920,000	1,568,763	4,488,763	36,190,000
2026	3,020,000	1,422,975	4,442,975	33,170,000
2027	3,115,000	1,276,966	4,391,966	30,055,000
2028	3,215,000	1,133,659	4,348,659	26,840,000
2029	3,315,000	985,878	4,300,878	23,525,000
2030	3,420,000	833,494	4,253,494	20,105,000
2031	3,515,000	691,959	4,206,959	16,590,000
2032	2,685,000	578,791	3,263,791	13,905,000
2033	2,790,000	477,813	3,267,813	11,115,000
2034	2,885,000	372,109	3,257,109	8,230,000
2035	2,995,000	262,572	3,257,572	5,235,000
2037	2,675,000	52,828	2,727,828	0
	\$64,335,000	\$33,433,122	\$97,768,122	

General Fund Bond Debt

Virginia Resource Authority 2016C, Hidden Lake				
Fiscal Year	Principal	Interest	Total	Balance
				460,000
2020	40,000	22,175	62,175	420,000
2021	40,000	20,350	60,350	380,000
2022	45,000	18,322	63,322	335,000
2023	45,000	16,016	61,016	290,000
2024	45,000	13,709	58,709	245,000
2025	45,000	11,403	56,403	200,000
2026	45,000	9,097	54,097	155,000
2027	50,000	6,663	56,663	105,000
2028	50,000	4,100	54,100	55,000
2029	55,000	1,409	56,409	0
	\$460,000	\$123,243	\$583,243	

Virginia Resource Authority 2015D, LandFill				
Fiscal Year	Principal	Interest	Total	Balance
				1,855,000
2016		39,830		1,855,000
2017	195,000	84,922	234,830	1,660,000
2018	205,000	76,622	289,922	1,455,000
2019	215,000	65,859	291,622	1,240,000
2020	225,000	54,584	290,859	1,015,000
2021	235,000	44,397	289,584	780,000
2022	245,000	33,697	289,397	535,000
2023	260,000	20,756	293,697	275,000
2024	275,000	7,047	295,756	0
	\$1,855,000	\$427,714	\$2,275,667	

General Fund Lease Debt

Communications System				
Fiscal Year	Principal	Interest	Total	Balance
2011	\$0	\$0	\$0	\$8,707,998
2012	845,765	269,390	1,115,155	7,862,233
2013	880,846	234,309	1,115,155	6,981,387
2014	908,562	206,593	1,115,155	6,072,825
2015	937,149	178,006	1,115,155	5,135,676
2016	966,636	148,519	1,115,155	4,169,040
2017	997,051	118,104	1,115,155	3,171,990
2018	1,028,423	86,732	1,115,155	2,143,567
2019	692,504	58,641	751,145	1,451,062
2020	714,294	36,851	751,145	736,769
2021	736,769	14,376	751,145	0
	\$8,707,998	\$1,351,522	\$10,059,520	

Fire Rescue Self-Contained Breathing Apparatus (SCBA), Fire Rescue Heavy Rescue, Public Safety Computer Aided Dispatch				
Fiscal Year	Principal	Interest	Total	Balance
2014				\$5,980,906
2015	776,915	129,278	906,193	5,203,991
2016	792,808	113,386	906,193	4,411,183
2017	809,044	97,149	906,193	3,602,139
2018	825,634	80,560	906,193	2,776,506
2019	842,583	63,610	906,193	1,933,923
2020	366,915	48,281	415,196	1,567,008
2021	376,591	38,605	415,196	1,190,416
2022	386,523	28,674	415,196	803,894
2023	396,716	18,480	415,196	407,178
2024	407,178	8,018	415,196	0
	\$5,980,906	\$626,042	\$6,606,948	

Radio System FCC Mandated Upgrade to TDMA				
Fiscal Year	Principal	Interest	Total	Balance
2016	\$0	\$0	\$0	\$2,100,000
2017	405,709	33,511	439,220	1,694,291
2018	412,732	26,488	439,220	1,281,560
2019	419,876	19,344	439,220	861,684
2020	427,145	12,075	439,220	434,539
2021	434,539	4,681	439,220	0
	\$2,100,000	\$96,100	\$5,575,775	

Fire Rescue Heavy Rescue				
Fiscal Year	Principal	Interest	Total	Balance
2016				\$3,028,339
2017	276,506	58,209	334,715	2,751,833
2018	282,049	52,665	334,715	2,469,784
2019	287,704	47,011	334,715	2,182,080
2020	293,472	41,242	334,715	1,888,607
2021	299,356	35,359	334,715	1,589,251
2022	305,358	29,357	334,715	1,283,893
2023	311,480	23,235	334,715	972,413
2024	317,725	16,990	334,715	654,688
2025	324,095	10,620	334,715	330,593
2026	330,593	4,122	334,715	0
	\$3,028,339	\$318,810	\$3,347,149	

General Fund Lease Debt

2 Fire Trucks				
Fiscal Year	Principal	Interest	Total	Balance
				\$2,194,073
2019	\$92,314	\$39,010	131,325	2,101,759
2020	189,582	73,067	262,649	1,912,177
2021	196,383	66,266	262,649	1,715,793
2022	203,429	59,220	262,649	1,512,364
2023	210,727	51,922	262,649	1,301,638
2024	218,287	44,362	262,649	1,083,351
2025	226,118	36,531	262,649	857,232
2026	234,230	28,419	262,649	623,002
2027	242,633	20,016	262,649	380,369
2028	251,338	11,311	262,649	129,031
2029	129,031	2,294	131,325	0
	\$2,194,073	\$432,419	\$2,626,492	

Ladder Truck				
Fiscal Year	Principal	Interest	Total	Balance
				\$1,145,881
2020	\$49,584	17,119.46	66,703	1,096,297
2021	101,401	32,005.51	133,406	994,896
2022	104,453	28,953.02	133,406	890,443
2023	107,598	25,808.64	133,406	782,845
2024	110,837	22,569.61	133,406	672,008
2025	114,173	19,233.06	133,406	557,835
2026	117,610	15,796.08	133,406	440,225
2027	121,151	12,255.63	133,406	319,074
2028	124,798	8,608.60	133,406	194,276
2029	128,555	4,851.78	133,406	65,721
2030	65,721	981.88	66,703	(0)
	\$1,145,881	\$188,183	\$1,334,064	

Cardiac Equipment				
Fiscal Year	Principal	Interest	Total	Balance
				\$1,439,020
2021	276,297.07	27,816.99	304,114	1,162,723
2022	281,934.37	22,179.69	304,114	880,789
2023	287,686.68	16,427.38	304,114	593,102
2024	293,556.36	10,557.70	304,114	299,546
2025	299,545.80	4,568.26	304,114	(0)
	\$1,439,020	\$81,550	\$1,520,570	

3 2019 Spartan Fire Trucks				
Fiscal Year	Principal	Interest	Total	Balance
				\$1,970,602
2021	\$174,554	17,119.46	51,053	1,796,048
2022	179,208	32,005.51	46,398	1,616,840
2023	183,987	28,953.02	41,620	1,432,854
2024	188,893	25,808.64	36,714	1,243,961
2025	193,930	22,569.61	31,677	1,050,031
2026	199,101	19,233.06	26,505	850,930
2027	204,410	15,796.08	21,196	646,520
2028	209,861	12,255.63	15,746	436,659
2029	215,457	8,608.60	10,150	221,202
2030	221,202	4,851.78	4,404	0
	\$1,970,602	\$187,201	\$285,463	

Utilities Fund Bond Debt

Virginia Resource Authority - Little Falls Run				
Fiscal Year	Principal	Interest	Total	Balance
				\$9,326,573
2012	179,131	640,886	820,017	9,147,442
2013	365,351	321,513	686,864	8,782,091
2014	378,429	308,435	686,864	8,403,662
2015	393,034	260,813	653,847	8,010,628
2016	405,681	215,150	620,831	7,604,947
2017	416,791	204,039	620,830	7,188,156
2018	428,204	192,626	620,830	6,759,952
2019	439,931	180,899	620,830	6,320,021
2020	451,978	168,852	620,830	5,868,043
2021	464,356	156,474	620,830	5,403,687
2022	477,072	143,758	620,830	4,926,615
2023	490,137	130,694	620,831	4,436,478
2024	503,559	117,271	620,830	3,932,919
2025	517,349	103,482	620,831	3,415,570
2026	531,516	89,314	620,830	2,884,054
2027	546,072	74,758	620,830	2,337,982
2028	561,027	59,804	620,831	1,776,955
2029	576,390	44,440	620,830	1,200,565
2030	592,174	28,655	620,829	608,391
2031	608,391	12,439	620,830	0
	\$9,326,573	\$3,454,302	\$12,780,875	

Virginia Resources Authority - 2014 Various water distribution projects and infrastructure improvements.				
Fiscal Year	Principal	Interest	Total	Balance
2015		\$597,721		\$16,010,000
2016	525,000	624,678	2,314,858	15,485,000
2017	545,000	605,234	1,150,234	14,940,000
2018	570,000	580,237	1,150,237	14,370,000
2019	600,000	552,006	1,152,006	13,770,000
2020	625,000	529,041	1,154,041	13,145,000
2021	645,000	507,247	1,152,247	12,500,000
2022	670,000	482,450	1,152,450	11,830,000
2023	700,000	454,069	1,154,069	11,130,000
2024	730,000	422,125	1,152,125	10,400,000
2025	765,000	388,616	1,153,616	9,635,000
2026	800,000	350,863	1,150,863	8,835,000
2027	840,000	311,288	1,151,288	7,995,000
2028	880,000	271,063	1,151,063	7,115,000
2029	915,000	236,816	1,151,816	6,200,000
2030	945,000	207,578	1,152,578	5,255,000
2031	975,000	176,184	1,151,184	4,280,000
2032	1,010,000	141,800	1,151,800	3,270,000
2033	1,050,000	104,116	1,154,116	2,220,000
2034	1,090,000	63,656	1,153,656	1,130,000
2035	1,130,000	21,475	1,151,475	0
	\$16,010,000	\$7,628,263	\$24,205,722	

Utilities Fund Bond Debt

Virginia Resources Authority - Aquia				
Fiscal Year	Principal	Interest	Total	Balance
				\$23,386,038
2012	536,481	475,248	1,011,729	22,849,557
2013	1,064,593	353,935	1,418,528	21,784,964
2014	1,074,248	344,280	1,418,528	20,710,716
2015	1,091,505	327,023	1,418,528	19,619,211
2016	1,124,655	247,521	1,372,176	18,494,556
2017	1,152,860	172,967	1,325,827	17,341,696
2018	1,163,838	161,989	1,325,827	16,177,858
2019	1,174,920	150,906	1,325,826	15,002,938
2020	1,186,109	139,717	1,325,826	13,816,829
2021	1,197,404	128,423	1,325,827	12,619,425
2023	1,220,317	105,509	1,325,826	10,190,303
2024	1,231,937	93,889	1,325,826	8,958,366
2025	1,243,668	82,158	1,325,826	7,714,698
2026	1,255,511	70,315	1,325,826	6,459,187
2027	1,267,467	58,359	1,325,826	5,191,720
2028	1,279,537	46,290	1,325,827	3,912,183
2029	1,291,721	34,105	1,325,826	2,620,462
2030	1,304,022	21,804	1,325,826	1,316,440
2031	1,316,440	9,388	1,325,828	0
	\$23,386,038	\$3,140,846	\$26,526,884	

Virginia Resources Authority - 2015				
Fiscal Year	Principal	Interest	Total	Balance
				\$8,620,000
2016		168,467		8,620,000
2017	270,000	367,856	637,856	8,350,000
2018	280,000	356,463	636,463	8,070,000
2019	295,000	341,728	636,728	7,775,000
2020	310,000	326,225	636,225	7,465,000
2021	325,000	312,153	637,153	7,140,000
2022	340,000	297,313	637,313	6,800,000
2023	355,000	279,503	634,503	6,445,000
2024	375,000	260,797	635,797	6,070,000
2025	395,000	241,066	636,066	5,675,000
2027	435,000	202,678	637,678	4,825,000
2028	455,000	182,672	637,672	4,370,000
2029	475,000	161,791	636,791	3,895,000
2030	495,000	143,384	638,384	3,400,000
2031	510,000	127,681	637,681	2,890,000
2032	530,000	107,831	637,831	2,360,000
2033	555,000	83,416	638,416	1,805,000
2034	580,000	59,613	639,613	1,225,000
2035	600,000	36,563	636,563	625,000
2036	625,000	12,391	637,391	0
	\$8,620,000	\$4,291,299	\$12,742,831	

Utilities Fund Bond Debt

Virginia Resources Authority - 2012 Rocky Pen Run Dam and Reservoir, Rocky Pen Run Water Treatment Facility, Various water distribution projects and infrastructure improvements.				
Fiscal Year	Principal	Interest	Total	Balance
				\$15,000,000
2013	0	2,314,858	0	15,000,000
2014	810,000	2,606,713	3,416,713	14,190,000
2015	845,000	2,573,679	3,418,679	13,345,000
2016	885,000	2,531,847	3,416,847	12,460,000
2017	930,000	1,506,616	2,436,616	11,530,000
2018	975,000	479,078	1,454,078	10,555,000
2019	1,020,000	432,531	1,452,531	9,535,000
2020	1,070,000	383,550	1,453,550	8,465,000
2021	1,125,000	327,303	1,452,303	7,340,000
2022	1,180,000	273,487	1,453,487	6,160,000
2023	1,235,000	218,703	1,453,703	4,925,000
2024	0	188,906	188,906	4,925,000
2025	0	188,906	188,906	4,925,000
2026	0	188,906	188,906	4,925,000
2027	455,000	181,797	636,797	4,470,000
2028	475,000	167,266	642,266	3,995,000
2029	495,000	152,109	647,109	3,500,000
2030	0	144,375	144,375	3,500,000
2031	0	144,375	144,375	3,500,000
2032	0	144,375	144,375	3,500,000
2033	0	144,375	144,375	3,500,000
2034	640,000	131,175	771,175	2,860,000
2035	0	117,975	117,975	2,860,000
2036	0	117,975	117,975	2,860,000
2037	0	117,975	117,975	2,860,000
2038	0	117,975	117,975	2,860,000
2039	0	117,975	117,975	2,860,000
2040	0	117,975	117,975	2,860,000
2041	905,000	99,309	1,004,309	1,955,000
2042	950,000	61,050	1,011,050	1,005,000
2043	1,005,000	20,728	1,025,728	0
	\$15,000,000	\$16,313,867	\$28,999,009	

Virginia Resources Authority - 2016				
Fiscal Year	Principal	Interest	Total	Balance
				\$41,140,000
2017		826,134		41,140,000
2018	95,000	1,801,466	2,314,858	41,045,000
2019	95,000	1,798,322	1,893,322	40,950,000
2020	100,000	1,793,775	1,893,775	40,850,000
2021	105,000	1,789,022	1,894,022	40,745,000
2022	110,000	1,783,863	1,893,863	40,635,000
2023	115,000	1,778,097	1,893,097	40,520,000
2024	1,415,000	1,738,891	3,153,891	39,105,000
2025	1,495,000	1,664,322	3,159,322	37,610,000
2026	1,570,000	1,585,781	3,155,781	36,040,000
2027	1,195,000	1,514,928	2,709,928	34,845,000
2028	1,255,000	1,452,147	2,707,147	33,590,000
2029	1,310,000	1,386,419	2,696,419	32,280,000
2030	1,895,000	1,305,941	3,200,941	30,385,000
2031	1,995,000	1,207,909	3,202,909	28,390,000
2032	2,100,000	1,103,225	3,203,225	26,290,000
2033	2,195,000	1,004,391	3,199,391	24,095,000
2034	1,650,000	925,088	2,575,088	22,445,000
2035	2,385,000	841,866	3,226,866	20,060,000
2036	2,490,000	741,319	3,231,319	17,570,000
2037	2,590,000	636,544	3,226,544	14,980,000
2038	2,695,000	530,859	3,225,859	12,285,000
2039	2,800,000	431,344	3,231,344	9,485,000
2040	2,900,000	327,863	3,227,863	6,585,000
2041	2,115,000	228,009	2,343,009	4,470,000
2042	2,195,000	139,116	2,334,116	2,275,000
2043	2,275,000	46,922	2,321,922	0
	\$41,140,000	\$30,383,559	\$71,115,817	

