



Shenandoah County, Virginia

Capital Improvement Program

Fiscal Years 2017 through 2021





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INTRODUCTION

Capital Improvement Program: An Overview

A Capital Improvement Program (CIP) is a financial planning, budgeting, and management tool that identifies public facility and equipment requirements, places these requirements in order of priority and schedules them for funding and implementation. The CIP consists of an administrative process that leads to the development of two products:

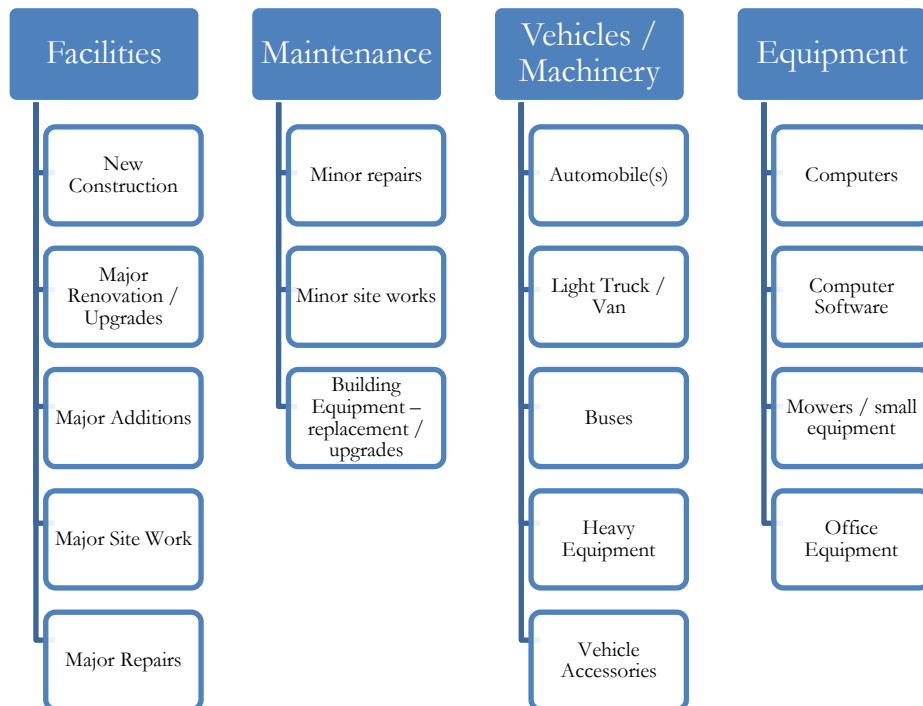
- Capital Improvement Plan – a multi-year plan that identifies all capital projects that are expected to be funded during that period (***subject to annual review and revision***)
- Capital Improvement Budget – a capital spending plan for the current fiscal year

A CIP plays a vital role in a government because it provides for an orderly and routine method of planning and financing a government’s required capital improvements.

It should be noted that the CIP is strictly an advisory document. Once the CIP is adopted, individual project priorities could change throughout the course of the year.

Capital Projects Defined

A capital project is defined as an expenditure for an item that has a useful life of five or more years and has a cost that exceeds \$5,000. A capital project considers all costs to engineer, construct, acquire, repair, renovate, or replace the item. Types of capital projects, as illustrated below, include facilities development and/or improvements as well as vehicle and equipment needs.





Ranking Criteria

To ensure that the most important projects receive funding, the County must provide for a process that will rank items according to uniform standards. The use of ranking criteria to score individual projects provides a level of objectivity to the evaluation process. However, it is important to highlight that the ranking criteria alone is not the sole determinant of the order in which projects are funded. On the CIP request forms, department directors are asked to rank by importance their individual projects so that the CIP Review Committee can determine what each director believes to be the most critical project within their departments.

Evaluation and scoring of the CIP requests were conducted using the following evaluation criteria and weight factors:

Evaluation Criteria	Weight Factor
Public Health and Safety	1.50
Employee Health and Safety	1.25
Regulatory Mandate	1.50
Frequent Problem	1.25
Ability to Finance	1.00
Generates Fees and Revenues	1.20
Generates Cost Savings	1.25
Age/Condition of Existing Asset	1.00
Public Benefit/Value to Citizens	1.10
Public Demand	1.25
Comprehensive Plan Component	1.05

Each project was given a priority factor score ranging from zero (0) to five (5), with a priority factor of 0 being not at all a priority and 5 being a very high priority. Each evaluation criterion was weighted based on importance (e.g., weight factor). The priority factor was multiplied by the weight factor to arrive at a criteria score. The criteria score for each evaluation criterion was added together



Capital Improvement Program – Fiscal Years 2017 – 2021

to achieve a priority ranking score for the project. Additional information regarding the CIP Evaluation Criteria is included in the Appendix of this document.

CIP Development Process

The CIP process began with the submission of capital expenditure requests from County departments, constitutional offices, and other agencies based upon an inventory and assessment of the existing condition of facilities and equipment and forecasted replacement or other needs. As noted previously, each department individually ranked their own projects in order of importance. A CIP Review Committee was established consisting of the County Administrator, Assistant County Administrator, Director of Finance, and Director of Community Development. Each committee member separately and independently scored each project request based on the aforementioned evaluation criteria. Scores were compiled and an arithmetic mean was calculated based on each of the members' priority ranking scores (prior to weighting). The CIP Review Committee met to discuss the final average ranked scores and develop a priority listing of capital projects that are anticipated to be funded in the next five years. Through discussions with department directors and constitutional officers during budget deliberations, the CIP Review Committee ultimately identified the recommended projects using the average ranked scores as well as exercising a degree of subjectivity based on feedback received from staff and an analysis of the funding sources (e.g., grant funding).

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Capital Improvement Program – Fiscal Years 2017 – 2021

ADOPTED CAPITAL PROJECT LISTING
Fiscal Year 2017

Shenandoah County Capital Improvement Program - Fiscal Year 2017

Capital Project Description	Department	Fiscal Year	Total Project Cost	Average Ranked Scores
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GENERAL FUND - FACILITIES AND MAINTENANCE PROJECTS

Radio System Upgrade - Phase 1	Emergency Communications	FY17	100,000	34.00
County Farm Outbuildings Repairs	General Properties / Cooperative Extension	FY17	15,000	15.00

Fiscal Year 2017 General Fund Facilities and Maintenance Total 115,000

GENERAL FUND - VEHICLE AND EQUIPMENT PROJECTS

Replacement of Two (2) Roll-off Trucks	Refuse Collection	FY17	291,000	37.00
Ambulance Replacement	Fire and Rescue	FY17	250,000	36.00
Welding and Maintenance Truck	Refuse Disposal	FY17	55,000	33.00
Aeration Basin No. 2 Mixer	North Fork WWTP	FY17	11,500	33.00
Law Enforcement Records Management System	Sheriff (Law Enforcement)	FY17	141,110	23.00

Fiscal Year 2017 General Fund Vehicles and Equipment Total 748,610

TOTAL GENERAL FUND CAPITAL PROJECTS 863,610

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Capital Improvement Program – Fiscal Years 2017 – 2021

Shenandoah County Capital Improvement Program - Fiscal Year 2017

Capital Project Description	Department	Fiscal Year	Total Project Cost	Average Ranked Scores
ENTERPRISE FUND - FACILITIES AND MAINTENANCE PROJECTS				
Sewer System Rehabilitation - Section 7	Stoney Creek Sanitary District	FY17	25,000	41.00
Manhole Rehabilitation	Stoney Creek Sanitary District	FY17	50,000	39.00
Reline Pipe Replacement	Stoney Creek Sanitary District	FY17	112,000	39.00
RedZone Sewer Assessment	Stoney Creek Sanitary District	FY17	35,711	39.00
Toms Brook Pump Station 3 Replacement	Toms Brook-Maurertown Sanitary District	FY17	425,000	36.00
SCADA Upgrade - Phase II	Toms Brook-Maurertown Sanitary District	FY17	60,000	34.00
Machine Storage Shed	Stoney Creek Sanitary District	FY17	25,000	31.00

Fiscal Year 2017 Enterprise Fund Facilities and Maintenance Total 732,711

TOTAL ENTERPRISE FUND CAPITAL PROJECTS 732,711

GRAND TOTAL - ALL FUNDS - FISCAL YEAR 2017 1,596,321

Types of Projects





Capital Improvement Program – Fiscal Years 2017 – 2021

Project Name: Radio System Upgrade – Phase 1

Ranked Score: 34.00

Department/Function: Department of Emergency Communications

Project Description:

Phase 1 of this project will provide for a needs assessment and related engineering associated with the upgrade of the County’s radio system (Phase 1).

Justification:

Given its age and the use of outdated technology, the County has received end-of-life notices from Motorola for the currently installed radio equipment, both in the Emergency Communications Center (ECC) as well as the mountain-top transmitters/repeaters. With an end-of-life notice, the support and parts will no longer be available for those units after a specific date (Dispatch Consoles: December 31, 2018; Mountain-Top Transmitters/Repeaters: December 31, 2020).

Impact on Operating Budget:

No significant impact on operating costs anticipated in the fiscal year 2017 annual operating budget.

Sources and Uses of Funding:

While grant programs to assist in funding this project will be pursued, the General Fund is currently anticipated to fund this phase of the project.

	<u>FY 2017</u>
<u>Funding Uses:</u>	<u>Amount</u>
Public Safety	<u>\$100,000</u>
	\$100,000
<u>Funding Sources:</u>	
General Fund	<u>\$100,000</u>
	\$100,000



Capital Improvement Program – Fiscal Years 2017 – 2021

Project Name: County Farm Outbuildings Repairs

Ranked Score: 15.00

Department/Function: General Properties/Cooperative Extension

Project Description:

This project includes the repair of outbuildings at the Shenandoah County Farm, also known as the Alms House property. Specifically, the project consists of the replacement of guttering, roof metal replacement (where needed), and roof painting with a heavy base paint (where needed).



Justification:

Currently, the guttering on most of the buildings is missing, loose, or badly damaged.

The fascia boards in several locations are rotted, damaged, or missing. The roofs on several of the buildings leak very badly. The guttering repairs will keep the rain water from splashing onto the sides of the buildings thereby preventing the lower boards from rotting. Likewise, the roof repairs will keep the rain water from entering the building thereby preventing the roof framing from rotting. Moreover, because the County Farm is currently leased by a farmer who uses the land and outbuildings for his crops and cattle business, preserving the buildings for continued use by the farmer is another benefit of this project. Additionally, several of the outbuildings may be part of the original outbuildings built on the farm property.

Impact on Operating Budget:

No significant impact on operating costs within the fiscal year 2017 annual operating budget.

Sources and Uses of Funding:

It should be noted that because the County leases this property, it receives \$7,000 of lease revenue, which can help offset the costs of the repairs to the outbuildings.

	<u>FY 2017</u>
<u>Funding Uses:</u>	<u>Amount</u>
General Properties	<u>\$15,000</u>
	\$15,000
<u>Funding Sources:</u>	
General Fund	<u>\$15,000</u>
	\$15,000



Capital Improvement Program – Fiscal Years 2017 – 2021

Project Name: Replacement of Two (2) Roll-Off Trucks

Ranked Score: 37.00

Department/Function: Solid Waste (Landfill)

Project Description:

Roll-off trucks are used to haul trash and recyclables from fifteen locations throughout the County. This project will replace two roll-off trucks that are currently used on the public roads.



Justification:

The two most heavily worn, on-road trucks are due to be taken out of rigorous use on public roads. These two trucks (Truck #1 and #2) will be retired to on-site only use at the landfill. Truck #1 is a 1997 Mack truck with 32,000 hours (530,000 miles) and Truck #2 is also a 1997 Mack truck with 22,200 hours (410,000 miles). These two trucks would replace the two 30-year old Mack trucks (#3 and #5) that were taken off the road several years ago.

Impact on Operating Budget:

No significant impact on operating costs within the fiscal year 2017 annual operating budget.

Sources and Uses of Funding:

The County intends to lease-purchase the two roll-off trucks.

<u>Funding Uses:</u>	<u>FY 2017 Amount</u>
Solid Waste	<u>\$291,000</u>
	\$291,000
<u>Funding Sources:</u>	
General Fund	<u>\$291,000</u>
	\$291,000



Capital Improvement Program – Fiscal Years 2017 – 2021

Project Name: Fire & Rescue Ambulance Replacement

Ranked Score: 36.00

Department/Function: Fire & Rescue

Project Description:

This project will replace the ambulance that is currently assigned to the Toms Brook Fire/EMS district.

Justification:

Staffed by 24/7 SCFR career staff, this ambulance currently has 94,000 miles and at recommended replacement schedule will have approximately 150,000 miles. When replaced, this unit will be used in a reserve capacity and replace a 2002 ambulance that has in excess of 200,000 miles.



Impact on Operating Budget:

No significant impact on operating costs within the fiscal year 2017 annual operating budget.

Sources and Uses of Funding:

The County will apply for a grant from the Virginia Office of Emergency Medical Services, which would provide for 80 percent funding and a 20 percent local match.

<u>Funding Uses:</u>	<u>FY 2017 Amount</u>
Fire and Rescue	<u>\$250,000</u>
	\$250,000
<u>Funding Sources:</u>	
General Fund	\$50,000
State Grant Funding	<u>\$200,000</u>
	\$250,000



Capital Improvement Program – Fiscal Years 2017 – 2021

Project Name: Welding and Maintenance Truck

Ranked Score: 33.00

Department/Function: Solid Waste (Landfill)

Project Description:

This project will replace the 24-year old welding and maintenance truck.

Justification:

The welding and maintenance truck is used as a heavy-duty, mobile tool kit to service heavy equipment and facilities at the landfill and the multiple citizen convenience sites. It is equipped with an air compressor, welder, and many tools used for repair work on and off site. The existing truck is a custom 1991 Ford 350 with 74,000 miles and was in used condition when acquired. There is an antifreeze leak into the engine, and the engine burns and leaks oil. The tool boxes are rusting and are not waterproof. Some of the boxes do not lock shut.



Impact on Operating Budget:

By replacing three of the landfill’s aging pick-up trucks as noted within this CIP, a decrease of several thousand dollars in repairs and maintenance costs will be anticipated within the fiscal year 2017 annual operating budget.

Sources and Uses of Funding:

The County intends to lease-purchase the welding and maintenance truck along with the two roll-off trucks.

<u>Funding Uses:</u>	<u>FY 2017 Amount</u>
Solid Waste	\$55,000
	\$55,000
<u>Funding Sources:</u>	
General Fund	\$55,000
	\$55,000



Capital Improvement Program – Fiscal Years 2017 – 2021

Project Name: Aeration Basin No. 2 Mixer

Ranked Score: 33.00

Department/Function: North Fork Wastewater Treatment Plant

Project Description:

This project will install a mixer in the Aeration Basin No. 2 at the NFWWTP.

Justification:

The Aeration Basin No. 1 mixer was installed in Fiscal Year 2016; with the mixer in Basin No. 2, the County can recognize improved treatment capability and energy efficiency by reducing the run times of the blowers.

Impact on Operating Budget:

With the replacement of the mixer, the County anticipates a reduction in electricity demand and chemical usage.

Sources and Uses of Funding:

<u>Funding Uses:</u>	<u>FY 2017 Amount</u>
Wastewater Treatment	<u>\$11,500</u> \$11,500
<u>Funding Sources:</u>	
General Fund	<u>\$11,500</u> \$11,500



Capital Improvement Program – Fiscal Years 2017 – 2021

Project Name: Upgrade to Law Enforcement Records Management System

Ranked Score: 23.00

Department/Function: Sheriff's Department

Project Description:

This project will replace the operating system's hardware servers and will provide for a complete software upgrade for the system that is currently in use. The hardware and software in the current system is beyond or near its end-of-life service period.

Justification:

The records management system (RMS) is part of the centralized criminal justice recordkeeping operating system that services all law enforcement agencies in Shenandoah County; it also interfaces with the County's computer-aided dispatch (CAD) and mobile field reporting. This project will enable the continued maintenance and storage of law enforcement records as well as the exchange and sharing of critical law enforcement information throughout the County's law enforcement community, without interruption.

Impact on Operating Budget:

No significant impact on operating costs within the fiscal year 2017 annual operating budget.

Sources and Uses of Funding:

Half (\$141,110) of the total cost of this project (\$282,220) was funded for fiscal year 2017.

<u>Funding Uses:</u>	<u>FY 2017 Amount</u>
Sheriff's Department	<u>\$141,110</u>
	\$141,110
<u>Funding Sources:</u>	
General Fund	<u>\$141,110</u>
	\$141,110



Capital Improvement Program – Fiscal Years 2017 – 2021

Project Name: Sewer System Rehabilitation – Section 7

Ranked Score: 41.00

Department/Function: Stoney Creek Sanitary District (SCSD)

Project Description:

This project will replace the current transite (asbestos-cement) pipe of the sewer collection system that currently has significant leakage issues.

Justification:

Rehabilitation of Section 7 of the sewer collection system will enable the continued infiltration-inflow abatement program. Currently, the staff of Stoney Creek Sanitary District is completing rehabilitation of Section 9 extended sewer hollow.

Impact on Operating Budget:

No significant impact on operating costs within the fiscal year 2017 annual operating budget.

Sources and Uses of Funding:

<u>Funding Uses:</u>	<u>FY 2017 Amount</u>
SCSD	<u>\$25,000</u>
	\$25,000
<u>Funding Sources:</u>	
Enterprise Fund	<u>\$25,000</u>
	\$25,000



Capital Improvement Program – Fiscal Years 2017 – 2021

Project Name: Manhole Rehabilitation

Ranked Score: 39.00

Department/Function: Stoney Creek Sanitary District (SCSD)

Project Description:

This project provides for an epoxy spray rehabilitation of fifty (50) manholes in the sewer system.

Justification:

The epoxy spray rehabilitation to the wastewater collection system consisting of at least 1,400 manholes, the majority of which are compromised and leak, will help reduce infiltration and inflow (I/I) as well as flow impact to the wastewater treatment plant. The reduction of I/I will help avoid regulatory enforcement actions from the Department of Environmental Quality (DEQ) and will help reduce operating and capital costs by limiting the flows to the wastewater treatment plant. Because the average costs for the epoxy materials are \$750 to \$1,000 per manhole, depending on the depth, this project will rehabilitate fifty manholes in fiscal year 2017 with the anticipation of continuing this process for the remaining manholes in subsequent fiscal years.

Impact on Operating Budget:

No significant impact on operating costs within the fiscal year 2017 annual operating budget.

Sources and Uses of Funding:

<u>Funding Uses:</u>	<u>FY 2017 Amount</u>
SCSD	<u>\$50,000</u>
	\$50,000
<u>Funding Sources:</u>	
Enterprise Fund	<u>\$50,000</u>
	\$50,000



Capital Improvement Program – Fiscal Years 2017 – 2021

Project Name: Reline Pipe Replacement

Ranked Score: 39.00

Department/Function: Stoney Creek Sanitary District (SCSD)

Project Description:

This project continues the annual sewer pipe relining project in order to restore piping and reduce Infiltration and Inflow (I/I) into the 320,000 total linear feet of sewer system. Approximately 38,000 linear feet of sewer pipe has been relined to date with the anticipation of continuing to reline 7,000 linear feet per fiscal year. It is anticipated to ultimately reline approximately 150,000 linear feet of pipe due to the condition of asbestos-concrete and terra-cotta clay materials. The project costs include the materials as the labor associated with the project will be performed by the District’s staff.

Justification:

This relining project helps to reduce infiltration and inflow (I/I) as well as flow impact to the wastewater treatment plant. The reduction of I/I will help avoid regulatory enforcement actions from the Department of Environmental Quality (DEQ) and will help reduce operating and capital costs by limiting the flows to the wastewater treatment plant.

Impact on Operating Budget:

No significant impact on operating costs within the fiscal year 2017 annual operating budget.

Sources and Uses of Funding:

Estimated costs for fiscal year 2017 are based on the following: 7,000 feet at \$16/ft = \$112,000

<u>Funding Uses:</u>	<u>FY 2017 Amount</u>
SCSD	<u>\$112,000</u>
	\$112,000
<u>Funding Sources:</u>	
Enterprise Fund	<u>\$112,000</u>
	\$112,000



Capital Improvement Program – Fiscal Years 2017 – 2021

Project Name: RedZone Sewer Assessment

Ranked Score: 39.00

Department/Function: Stoney Creek Sanitary District (SCSD)

Project Description:

This project is an on-going annual program (Year 4 of 7) that provides for an extensive sewer system asset management plan for inspection, evaluation, prioritization of the sewer system in order to implement the most efficient, cost-effective means of relining and replacing piping and manhole rehabilitation in order to ensure sustainability in the future.

Justification:

Since beginning this sewer assessment and asset management program, over 240,000 linear feet of sewer mains have been digitally inspected, evaluated, and rated for defects, which have enabled the SCSD to identify the most efficient and cost-effective approach for rehabilitation processes. Since inception of the program, the SCSD has decreased Infiltration and Inflow (I/I) by over 35 percent by focusing on the worst 10 percent of the sewer system.

Impact on Operating Budget:

No significant impact on operating costs within the fiscal year 2017 annual operating budget.

Sources and Uses of Funding:

<u>Funding Uses:</u>	<u>FY 2017 Amount</u>
SCSD	<u>\$35,711</u>
	\$35,711
<u>Funding Sources:</u>	
Enterprise Fund	<u>\$35,711</u>
	\$35,711



Capital Improvement Program – Fiscal Years 2017 – 2021

Project Name: Toms Brook Pump Station 3 Replacement

Ranked Score: 36.00

Department/Function: Toms Brook-Maurertown Sanitary District (TBMSD)

Project Description:

This project replaces a 30-year old below-ground main sewer pump station similar to the Toms Brook Pump Station 4 replacement project that was completed in fiscal year 2016.

Justification:

The existing 30-year old below ground main sewer pump station is inefficient and deteriorated. Replacement of the pump station will eliminate confined space entry by employees who need to descend a 25-foot ladder to access the sewer pumps and will also result in increased efficiencies over a 30-year old technology.

Impact on Operating Budget:

No significant impact on operating costs within the fiscal year 2017 annual operating budget.

Sources and Uses of Funding:

This project is anticipated to be funded through debt financing.

	<u>FY 2017</u>
<u>Funding Uses:</u>	<u>Amount</u>
TBMSD	<u>\$425,000</u>
	\$425,000
<u>Funding Sources:</u>	
Enterprise Fund	<u>\$425,000</u>
	\$425,000



Capital Improvement Program – Fiscal Years 2017 – 2021

Project Name: SCADA Upgrade – Phase 2

Ranked Score: 34.00

Department/Function: Toms Brook-Maurertown Sanitary District (TBMSD)

Project Description:

This project will continue the upgrade to the existing Supervisory Control and Data Acquisition (SCADA) system. Phase 1 completed the water system and wastewater plant while Phase 2 will upgrade the sewer pump stations.

Justification:

The SCADA system is the “brain” of the utilities system and is used to monitor and control two water plants, two storage tanks, one water booster station, eight sewer pump stations, and one wastewater treatment plant by means of one master control and thirteen remote telemetric units. The existing SCADA system is 20 years old and the software is obsolete and no longer supportable; it utilizes telephone landlines. The upgraded SCADA system will utilize cellular or radio for communication and can be protected by back-up in the “cloud.”

Impact on Operating Budget:

No significant impact on operating costs within the fiscal year 2017 annual operating budget.

Sources and Uses of Funding:

<u>Funding Uses:</u>	<u>FY 2017 Amount</u>
TBMSD	<u>\$60,000</u>
	\$60,000
<u>Funding Sources:</u>	
Enterprise Fund	<u>\$60,000</u>
	\$60,000



Capital Improvement Program – Fiscal Years 2017 – 2021

Project Name: Machine Storage Shed

Ranked Score: 31.00

Department/Function: Stoney Creek Sanitary District (SCSD)

Project Description:

This project will provide for a 30' x 60' machine shed to protect equipment from outdoor elements.

Justification:

Currently, several pieces of equipment sit out in the weather at the shop.

Impact on Operating Budget:

No significant impact on operating costs within the fiscal year 2017 annual operating budget.



Sources and Uses of Funding:

	<u>FY 2017</u>
<u>Funding Uses:</u>	<u>Amount</u>
SCSD	<u>\$25,000</u>
	\$25,000
<u>Funding Sources:</u>	
Enterprise Fund	<u>\$25,000</u>
	\$25,000



CAPITAL PROJECT FUNDING

A central and critical feature of the capital planning process is the identification of available sources of funding. The County has a full range of funding options available to it – from external sources such as federal and state grants, asset forfeiture funding, private contributions and donations, low- or no-interest subsidized loan programs to its own-source financing mechanisms such as pay-as-you-go financing and debt financing.

Shenandoah County Capital Improvement Program FY17 to FY21

			FUNDING SOURCES				
Capital Project Description	Department	Total Project Cost	General Fund	Enterprise Fund	Federal and State Grant Funds	Asset Forfeiture Funds	Total Funding Sources
GENERAL FUND - FACILITIES AND MAINTENANCE PROJECTS							
Radio System Upgrade - Phase 1	Emergency Communications	100,000	100,000	-	-	-	100,000
County Farm Outbuildings Repairs	General Properties / Cooperative Extension	15,000	15,000	-	-	-	15,000
Fiscal Year 2017 General Fund Facilities and Maintenance Total		115,000	115,000	0	0	0	115,000
GENERAL FUND - VEHICLE AND EQUIPMENT PROJECTS							
Replacement of Two (2) Roll-off Trucks	Refuse Collection	291,000	291,000	-	-	-	291,000
Ambulance Replacement	Fire and Rescue	250,000	50,000	-	200,000	-	250,000
Welding and Maintenance Truck	Refuse Disposal	55,000	55,000	-	-	-	55,000
Aeration Basin No. 2 Mixer	North Fork WWTP	11,500	11,500	-	-	-	11,500
Law Enforcement Records Management System	Sheriff (Law Enforcement)	114,110	114,110	-	-	-	114,110
Fiscal Year 2017 General Fund Vehicles and Equipment Total		721,610	521,610	0	200,000	0	721,610
TOTAL GENERAL FUND CAPITAL PROJECTS		836,610	636,610	0	200,000	0	836,610



Capital Improvement Program – Fiscal Years 2017 – 2021

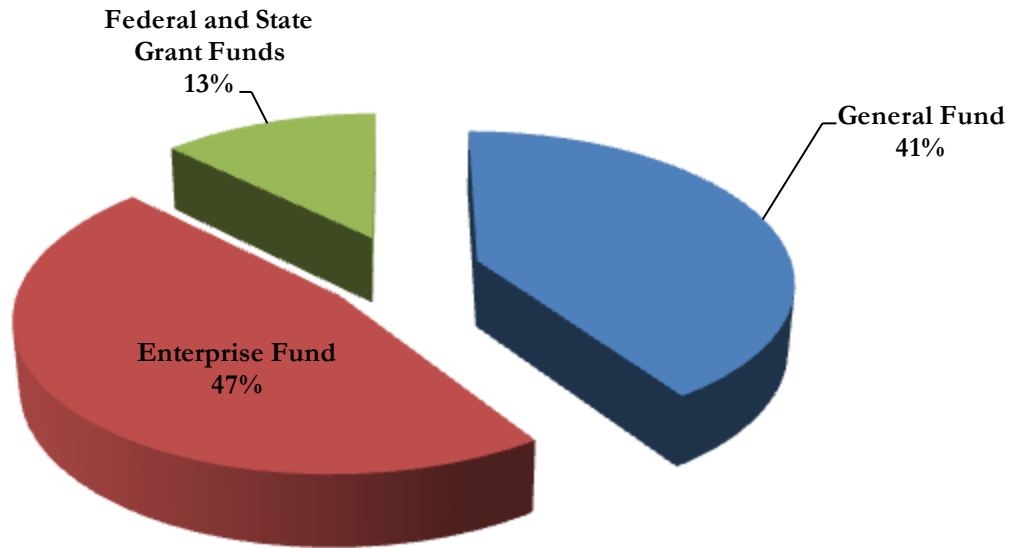
Shenandoah County Capital Improvement Program FY17 to FY21

			FUNDING SOURCES				
Capital Project Description	Department	Total Project Cost	General Fund	Enterprise Fund	Federal and State Grant Funds	Asset Forfeiture Funds	Total Funding Sources
ENTERPRISE FUND - FACILITIES AND MAINTENANCE PROJECTS							
Sewer System Rehabilitation - Section 7	Stoney Creek Sanitary District	25,000	-	25,000	-	-	25,000
Manhole Rehabilitation	Stoney Creek Sanitary District	50,000	-	50,000	-	-	50,000
Reline Pipe Replacement	Stoney Creek Sanitary District	112,000	-	112,000	-	-	112,000
RedZone Sewer Assessment	Stoney Creek Sanitary District	35,711	-	35,711	-	-	35,711
Toms Brook Pump Station 3 Replacement	Toms Brook-Maurertown Sanitary District	425,000	-	425,000	-	-	425,000
SCADA Upgrade - Phase II	Toms Brook-Maurertown Sanitary District	60,000	-	60,000	-	-	60,000
Machine Storage Shed	Stoney Creek Sanitary District	25,000	-	25,000	-	-	25,000
Fiscal Year 2017 Enterprise Fund Facilities and Maintenance Total		732,711	0	732,711	0	0	732,711
TOTAL ENTERPRISE FUND CAPITAL PROJECTS		732,711	0	732,711	0	0	732,711
GRAND TOTAL - ALL FUNDS - FISCAL YEAR 2017		1,569,321	636,610	732,711	200,000	0	1,569,321



Funding Sources – Pie Chart

Sources of Funding



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Capital Improvement Program – Fiscal Years 2017 – 2021

RECOMMENDED CAPITAL IMPROVEMENT PLAN

Fiscal Years 2017 – 2021

Note that the projects listed below were recommended by the Office of the County Administrator in undertaking long-term capital planning for the County; however, not all projects that were recommended during the Fiscal Year 2017 capital budget development process were adopted and funded by the Board of Supervisors. Moreover, the Sheriff's Office Facilities project was approved during Fiscal Year 2016 and funds will be carried over in Fiscal Year 2017. Those projects that were not adopted and funded will be considered in future fiscal years.

Shenandoah County Capital Improvement Program FY17 to FY21

Capital Project Description	Department	Fiscal Year	Total Project Cost	Average Ranked Scores
GENERAL FUND - FACILITIES AND MAINTENANCE PROJECTS				
Radio System Upgrade - Phase 1	Emergency Communications	FY17	100,000	34.00
Handicap Door Push Buttons	General Properties	FY17	5,128	32.00
Sheriff's Office Facilities	Sheriff (Law Enforcement)	FY17	6,000,000	26.00
County Farm Outbuildings Repairs	General Properties / Cooperative Extension	FY17	15,000	15.00
Fiscal Year 2017 Facilities and Maintenance Total			6,120,128	
Radio System Upgrade - Phase 2	Emergency Communications	FY18	15,300,000	37.00
ADA Upgrades at Maurertown Park	Parks and Recreation	FY18	175,000	31.00
Building Repairs to County Govt Center	General Properties	FY18	10,000	24.00
Playground Expansion/ADA Upgrades	Parks and Recreation	FY18	150,000	24.00
Landfill Office Building	Refuse Disposal	FY18	85,000	23.00
Security Cameras - County Govt Center	General Properties	FY18	5,500	20.00
Park Lighting Upgrade and Additions	Parks and Recreation	FY18	125,000	15.00
Painting County Farm Buildings	General Properties / Cooperative Extension	FY18	30,000	14.00
M & Z Wagner Reg. Park - Phase I	Parks and Recreation	FY18	100,000	13.00
Keister Tract - Phase I Development	Parks and Recreation	FY18	100,000	12.00
Fiscal Year 2018 Facilities and Maintenance Total			16,080,500	
Terrazzo Floor - County Govt Center	General Properties	FY19	76,800	24.00
Keister Tract - Phase II Development	Parks and Recreation	FY19	300,000	14.00
Fiscal Year 2019 Facilities and Maintenance Total			376,800	



Capital Improvement Program – Fiscal Years 2017 – 2021

Shenandoah County Capital Improvement Program FY17 to FY21

Capital Project Description	Department	Fiscal Year	Total Project Cost	Average Ranked Scores
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GENERAL FUND - FACILITIES AND MAINTENANCE PROJECTS

Keister Tract - Phase III Development	Parks and Recreation	FY20	300,000	12.00
Dog Park Addition	Parks and Recreation	FY20	10,000	12.00
Outdoor Fitness Trail & Equipment	Parks and Recreation	FY20	50,000	11.00

Fiscal Year 2020 Facilities and Maintenance Total 360,000

Paving of Landfill Road	Refuse Disposal	FY21	350,000	38.00
Central Citizens Convenience Center	Refuse Disposal	FY21	500,000	34.00
Recreation Master Plan Update	Parks and Recreation	FY21	35,000	25.00
Expand and Renovate Library Building	Library Administration	FY21	1,510,000	24.00
Recreational Facility - Phase I	Parks and Recreation	FY21	2,500,000	22.00
Keister Tract - Phase IV Development	Parks and Recreation	FY21	500,000	12.00

Fiscal Year 2021 Facilities and Maintenance Total 5,395,000

GENERAL FUND FACILITIES AND MAINTENANCE TOTAL 28,332,428

GENERAL FUND - VEHICLE AND EQUIPMENT PROJECTS

Replacement of Two (2) Roll-off Trucks	Refuse Collection	FY17	291,000	37.00
Ambulance Replacement	Fire and Rescue	FY17	250,000	36.00
Law Enforcement Replacement Vehicles (6)	Sheriff (Law Enforcement)	FY17	310,644	33.00
Welding and Maintenance Truck	Refuse Disposal	FY17	55,000	33.00
Aeration Basin No. 2 Mixer	North Fork WWTP	FY17	11,500	33.00
Inspection Replacement Vehicle	Building Code Enforcement	FY17	21,800	32.00
Personal Protective Equipment	Fire and Rescue	FY17	14,800	31.00
Courthouse Security Cameras	Sheriff (Courts)	FY17	28,031	26.00
Replacement of Computers	Information Systems	FY17	22,800	25.00
Office Computers (6)	Sheriff (Law Enforcement)	FY17	15,768	25.00
Law Enforcement Records Management System	Sheriff (Law Enforcement)	FY17	282,220	23.00

Fiscal Year 2017 Vehicles and Equipment Total 1,303,563



Capital Improvement Program – Fiscal Years 2017 – 2021

Shenandoah County Capital Improvement Program FY17 to FY21

Capital Project Description	Department	Fiscal Year	Total Project Cost	Average Ranked Scores
GENERAL FUND - VEHICLE AND EQUIPMENT PROJECTS				
Ambulance Replacement	Fire and Rescue	FY18	250,000	36.00
Rebuild of a Track Loader	Refuse Disposal	FY18	165,000	35.00
Law Enforcement Replacement Vehicles (6)	Sheriff (Law Enforcement)	FY18	319,963	33.00
Excavator	Refuse Disposal	FY18	300,000	33.00
Inspection Replacement Vehicle	Building Code Enforcement	FY18	28,600	32.00
Cylinder Replacement	Fire and Rescue	FY18	24,000	31.00
Replace Four (4) Circulation Work Stations	Library Administration	FY18	5,260	28.00
Animal Control Replacement Vehicle	Animal Control	FY18	47,158	27.00
GPS Receiver	Geographic Information Systems	FY18	7,000	26.00
Breathing Apparatus	Fire and Rescue	FY18	26,127	26.00
Replacement of Computers	Information Systems	FY18	22,800	25.00
Office Computers (6)	Sheriff (Law Enforcement)	FY18	15,768	25.00
Emergency Medical Dispatch Upgrade	Emergency Communications	FY18	115,000	23.00
Recreational Software Upgrade	Parks and Recreation	FY18	40,000	21.00
Passenger Van Purchase	Parks and Recreation	FY18	50,000	19.00
Utility vehicle (UTV)	Parks and Recreation	FY18	17,000	15.00
Fiscal Year 2018 Vehicles and Equipment Total			1,433,676	
Law Enforcement Replacement Vehicles (6)	Sheriff (Law Enforcement)	FY19	329,562	33.00
Vehicle Replacement - E&S Inspections	Planning and Zoning	FY19	28,600	32.00
Landfill Compactor	Refuse Disposal	FY19	675,000	30.00
GIS Server	Geographic Information Systems	FY19	7,000	29.00
Replace Four (4) Circulation Work Stations	Library Administration	FY19	5,260	28.00
Library Data Server Replacement	Library Administration	FY19	9,000	27.00
Replacement of Firewall/Router	Information Systems	FY19	7,000	26.00
Replacement of Computers	Information Systems	FY19	22,800	25.00
Replace File Server	Information Systems	FY19	15,000	25.00
Office Computers (6)	Sheriff (Law Enforcement)	FY19	15,768	25.00
Staff Replacement Vehicle	Fire and Rescue	FY19	37,797	24.00
Tractor Replacement	Parks and Recreation	FY19	25,000	24.00
Fiscal Year 2019 Vehicles and Equipment Total			1,177,787	



Capital Improvement Program – Fiscal Years 2017 – 2021

Shenandoah County Capital Improvement Program FY17 to FY21

Capital Project Description	Department	Fiscal Year	Total Project Cost	Average Ranked Scores
GENERAL FUND - VEHICLE AND EQUIPMENT PROJECTS				
Law Enforcement Replacement Vehicles (6)	Sheriff (Law Enforcement)	FY19	329,562	33.00
Vehicle Replacement - E&S Inspections	Planning and Zoning	FY19	28,600	32.00
Landfill Compactor	Refuse Disposal	FY19	675,000	30.00
GIS Server	Geographic Information Systems	FY19	7,000	29.00
Replace Four (4) Circulation Work Stations	Library Administration	FY19	5,260	28.00
Library Data Server Replacement	Library Administration	FY19	9,000	27.00
Replacement of Firewall/Router	Information Systems	FY19	7,000	26.00
Replacement of Computers	Information Systems	FY19	22,800	25.00
Replace File Server	Information Systems	FY19	15,000	25.00
Office Computers (6)	Sheriff (Law Enforcement)	FY19	15,768	25.00
Staff Replacement Vehicle	Fire and Rescue	FY19	37,797	24.00
Tractor Replacement	Parks and Recreation	FY19	25,000	24.00
Fiscal Year 2019 Vehicles and Equipment Total			1,177,787	
Law Enforcement Replacement Vehicles (6)	Sheriff (Law Enforcement)	FY20	339,449	33.00
Articulated Dump Truck	Refuse Disposal	FY20	250,000	32.00
Front-end Loader	Refuse Disposal	FY20	190,000	32.00
Vehicle Replacement - Comm Develop	Planning and Zoning	FY20	28,200	28.00
Backhoe	Refuse Disposal	FY20	125,000	28.00
Animal Control Replacement Vehicle	Animal Control	FY20	48,573	27.00
Digital Microfilm Scanner/Reader	Library Administration	FY20	7,277	27.00
Replacement of Computers	Information Systems	FY20	22,800	25.00
Office Computers (6)	Sheriff (Law Enforcement)	FY20	15,768	25.00
Large Format Plotter/Scanner	Geographic Information Systems	FY20	10,000	21.00
Fiscal Year 2020 Vehicles and Equipment Total			1,037,067	
Law Enforcement Replacement Vehicles (6)	Sheriff (Law Enforcement)	FY21	349,632	33.00
Replacement of Computers	Information Systems	FY21	22,800	25.00
Office Computers (6)	Sheriff (Law Enforcement)	FY21	15,768	25.00
Replace Active Directory Server	Information Systems	FY21	15,000	23.00
Fiscal Year 2021 Vehicles and Equipment Total			403,200	
GENERAL FUND VEHICLES AND EQUIPMENT TOTAL			5,355,293	



Capital Improvement Program – Fiscal Years 2017 – 2021

Shenandoah County Capital Improvement Program FY17 to FY21

Capital Project Description	Department	Fiscal Year	Total Project Cost	Average Ranked Scores
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ENTERPRISE FUND - FACILITIES AND MAINTENANCE PROJECTS

Sewer System Rehabilitation - Section 7	Stoney Creek Sanitary District	FY17	25,000	41.00
Manhole Rehabilitation	Stoney Creek Sanitary District	FY17	50,000	39.00
Reline Pipe Replacement	Stoney Creek Sanitary District	FY17	112,000	39.00
RedZone Sewer Assessment	Stoney Creek Sanitary District	FY17	35,711	39.00
Toms Brook Pump Station 3 Replacement	Toms Brook-Maurertown Sanitary District	FY17	425,000	36.00
SCADA Upgrade - Phase II	Toms Brook-Maurertown Sanitary District	FY17	60,000	34.00
Machine Storage Shed	Stoney Creek Sanitary District	FY17	25,000	31.00

Fiscal Year 2017 Facilities and Maintenance Total 732,711

ENTERPRISE FUND FACILITIES AND MAINTENANCE TOTAL 732,711

GRAND TOTAL - *Fiscal Year 2017* - All Funds and Types 8,156,402

GRAND TOTAL - *All Fiscal Years* - All Funds and Types 34,420,432



Capital Improvement Program – Fiscal Years 2017 – 2021

APPENDIX A

Fiscal Year 2017 Capital Project Listing by Department

Shenandoah County Capital Improvement Program			
Capital Project Description	Fiscal Year	Total Project Cost	Average Ranked Scores
31200 Sheriff (Law Enforcement)			
Records Management System Upgrade	FY17	141,110	23.00
Total Sheriff (Law Enforcement)		141,110	
32500 Fire and Rescue			
Ambulance Replacement	FY17	250,000	36.00
Total Fire and Rescue		250,000	
35500 Emergency Communications			
Radio System Upgrade - Phase 1	FY17	100,000	34.00
Total Emergency Communications		100,000	
43200 General Properties			
County Farm Outbuildings Repairs	FY17	15,000	15.00
Total General Properties		15,000	
503-42300/503-42400 Solid Waste			
Replacement of Two (2) Roll-off Trucks	FY17	291,000	37.00
Welding and Maintenance Truck	FY17	55,000	33.00
Total Solid Waste		346,000	
501-42700 North Fork WWTP			
Aeration Basin No. 2 Mixer	FY17	11,500	33.00
Total North Fork WWTP		11,500	
513-42800 Stoney Creek Sanitary District			
Sewer System Rehabilitation - Section 7	FY17	25,000	41.00
Manhole Rehabilitation	FY17	50,000	39.00
Reline Pipe Replacement	FY17	112,000	39.00
RedZone Sewer Assessment	FY17	35,711	39.00
Machine Storage Shed	FY17	25,000	31.00
Total Stoney Creek Sanitary District		247,711	
514-42900 Toms Brook-Maurertown Sanitary District			
Toms Brook Pump Station 3 Replacement	FY17	425,000	36.00
SCADA Upgrade - Phase II	FY17	60,000	34.00
Total Toms Brook-Maurertown Sanitary District		485,000	
GRAND TOTAL - FISCAL YEAR 2017		1,596,321	



APPENDIX B

CIP Evaluation Criteria

All capital improvement projects and equipment purchases will be evaluated on the criteria below with a priority factor ranging from zero (0) to five (5), with a priority factor of 0 being not at all and 5 being a very high priority. Each evaluation criteria is weighted based on importance. The priority factor is multiplied by the weight factor to arrive at a criteria score. The scores are added together to achieve a priority ranking for the project.

Criteria	Weight Factor
<p>Public Health and Safety</p> <p>Does the project or purchase improve the health and/or safety of the general public? A priority factor of 0 would be it does affect the well-being of the general public and a priority factor of 5 would be it very much affects the well-being of the general public.</p>	1.50
<p>Employee Health and Safety</p> <p>Does the project or purchase improve the health and/or safety of County employees? A priority factor of 0 would be it does affect the well-being of County employees and a priority factor of 5 would be it very much affects the well-being of the County employees.</p>	1.25
<p>Regulatory Mandate</p> <p>Is the project or purchase required by a Federal, State, or other governing body mandate (e.g., legal, compliance, or regulatory mandate)? A priority factor of 0 would be there is no mandate requiring the purchase and a priority factor of 5 would be there is a current mandate.</p>	1.50
<p>Frequent Problem</p> <p>Are there frequent problems or issues that require the project to be completed? Problems could be that the equipment requires frequent repairs or the design of something causes frequent accidents. A priority factor of 0 would be no problems while a priority factor of 5 would be frequent problems or issues.</p>	1.25
<p>Ability to Finance</p> <p>Does the County have the ability to pay for the project or equipment purchase? Are there grants or other financial aid available to finance the project or purchase? A priority factor of 0 would mean that there is no funding available to finance the project or purchase and a rating of 5 would mean that the County has the ability to partially or wholly fund the project or purchase. Other items to consider would be if funds are not currently available, how easily would it be to fund the project in the future?</p>	1.00



Capital Improvement Program – Fiscal Years 2017 – 2021

Criteria	Weight Factor
<p>Generate Fees or Revenues</p> <p>By constructing the project or purchasing the asset, can the County generate funds? An example may be that the construction of a park shelter in the County’s park could generate rental of the park by the public and additional revenues to the County. Priority factor of 0 would be no fees or revenues would be generated from the project or purchase and a rating of 5 would be a large amount of funds could be generated.</p>	1.20
<p>Generates Cost Savings</p> <p>Does the project or purchase result in reduced expenditures for maintenance and repairs? The higher the cost savings, the higher the priority factor would be.</p>	1.25
<p>Age/Condition of Existing Asset</p> <p>If the County has an existing asset that is being replaced, what is the age or condition of the existing asset? A very old asset that is in very poor condition would have a priority factor of 5.</p>	1.00
<p>Public Benefit/Value to Citizens</p> <p>Does the project or purchase provide any benefit to the general public? For example, a park improvement project may provide additional services to citizens, which would be considered a public benefit, whereas the purchase of a parks pick-up truck may not provide any public benefit. Those projects with high value to citizens would receive a higher priority factor.</p>	1.10
<p>Public Demand</p> <p>Are the citizens requesting the project be performed or the equipment purchased? For example, the citizens may desire the purchase and installation of new playground equipment in a park. A priority factor of 5 would be high public demand versus zero for no public demand.</p>	1.25
<p>Comprehensive Plan Component</p> <p>Does the project or purchase held achieve a component of the County’s Comprehensive Plan? If achieving a component of the County Comprehensive Plan, the project would be rated a 5 as a priority factor.</p>	1.05