

## STORMWATER PROGRAM

The Stormwater Program is administered by the Utilities Department, which is responsible for developing and overseeing implementation of the Stormwater Program. Two major objectives are achieved by the Stormwater Program:

- 1) Mitigation of flooding by assuring proper conveyance of stormwater runoff via stormwater infrastructure; and
- 2) Compliance with the General Permit for discharges of stormwater from the City's Small Municipal Separate Storm Sewer System (MS4), as issued by the Virginia Department of Environmental Quality.

The MS4 permit requires:

- Reduction in discharges of stormwater pollutants;
- Water quality protection of streams and rivers within the City; and
- Enforcement of State Water Control laws to satisfy water quality requirements.

Capital projects are carefully planned and executed to achieve cost-effective compliance with state and federal stormwater regulations, and to maintain consistency with the City's Comprehensive Plan.



**Cockrell Branch Stormwater Pond**

### **PRIOR YEAR ACCOMPLISHMENTS**

The stormwater utility annually invests in ongoing and new projects to maintain and improve stormwater management. Recent and ongoing projects include:

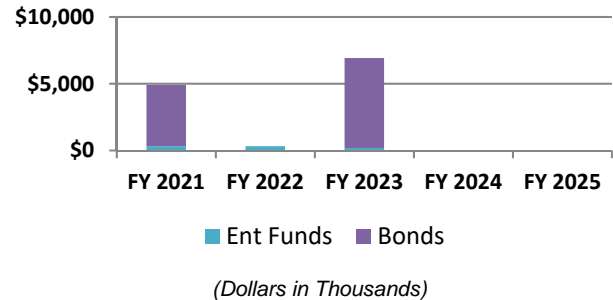
- 1) Prince William Hospital Stormwater Pond construction;
- 2) Stormwater system drainage improvements; and
- 3) Cockrell Branch Stormwater Pond restoration & retrofit (D-032).

Completion of the Prince William Hospital Pond and restoration of Cockrell Branch Pond will accrue sediment and nutrient pollution reduction credits, which help to ensure the City continues to meet the increasingly stringent water quality requirements outlined by the updated MS4 permit issued in FY19.

### **THE FIVE-YEAR PLAN (FY 2021 – FY 2025)**

The FY 2021 Five-Year Capital Improvement Program includes an \$817,000 transfer from Enterprise Funds (Stormwater Fund) and \$11,340,000 in Bonds.

In FY 2021 funding includes a \$311,000 transfer from the Stormwater Fund and \$4,600,000 in Bonds.



### **FY 2021 CAPITAL PROJECTS**

#### Stream Restoration (D-031)

Restore degraded streams in the City of Manassas and within the greater watershed for pollution reduction credits required for MS4 permit compliance by 2023 and 2028 deadlines.

#### Stormwater Pond Retrofits (D-032)

Retrofit of existing City stormwater management ponds for pollution reduction credits required for MS4 permit compliance by 2023 and 2028 deadlines.

### **FY 2021 MAINTENANCE CAPITAL PROJECTS**

Maintenance capital projects in the Stormwater Program include recurring maintenance of stormwater infrastructure to ensure the integrity of the system, extend infrastructure lifespan, and reduce localized flooding issues related to absent, undersized, or insufficient stormwater conveyance infrastructure (D-029 & D-035). A multi-year project to update outdated FEMA floodplain maps (D-030) is also funded.

### **NEW CAPITAL PROJECTS**

- Stream Restoration (D-031)
- Stormwater Pond Retrofits (D-032)
- Alternative Stormwater BMPs (D-033)
- Public Works & Utilities Facility Retrofit (D-034)

## SUMMARY OF STORMWATER CAPITAL PROJECTS

(\$ in Thousands)

<b>Cost Estimates:</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>Future</b>	<b>Total Project</b>	<b>5-Year CIP</b>
Planning	-	945	81	84	-	-	-	1,110	1,110
Land	-	-	-	-	-	-	-	-	-
Construction	10	3,966	241	6,840	-	-	19,860	30,917	11,047
<b>Total Cost</b>	<b>10</b>	<b>4,911</b>	<b>322</b>	<b>6,924</b>	<b>-</b>	<b>-</b>	<b>19,860</b>	<b>32,027</b>	<b>12,157</b>
<b>Funding Sources:</b>									
General Fund	-	-	-	-	-	-	-	-	-
Sewer Fund	-	-	-	-	-	-	-	-	-
Water Fund	-	-	-	-	-	-	-	-	-
Electric Fund	-	-	-	-	-	-	-	-	-
Stormwater Fund	10	311	322	184	-	-	-	827	817
Airport Fund	-	-	-	-	-	-	-	-	-
School Fund	-	-	-	-	-	-	-	-	-
Bonds	-	4,600	-	6,740	-	-	19,860	31,200	11,340
State	-	-	-	-	-	-	-	-	-
Federal	-	-	-	-	-	-	-	-	-
NVTA	-	-	-	-	-	-	-	-	-
Other Sources	-	-	-	-	-	-	-	-	-
<b>Total Funding</b>	<b>10</b>	<b>4,911</b>	<b>322</b>	<b>6,924</b>	<b>-</b>	<b>-</b>	<b>19,860</b>	<b>32,027</b>	<b>12,157</b>
<b>Operating Impacts:</b>									
Revenue	-	-	-	-	-	-	-	-	-
Staffing (Costs) Savings	-	-	-	-	-	-	-	-	-
Facility (Costs) Savings	-	-	-	-	-	-	-	-	-
Program (Costs) Saving	-	-	-	-	-	-	-	-	-
Debt Service	-	-	(368)	(368)	(908)	(908)	(35,966)	(38,518)	(2,552)
<b>Net Revenue</b>	<b>-</b>	<b>-</b>	<b>(368)</b>	<b>(368)</b>	<b>(908)</b>	<b>(908)</b>	<b>(35,966)</b>	<b>(38,518)</b>	<b>(2,552)</b>

**STORMWATER CAPITAL PROJECT LISTING***(\$ in Thousands)*

<b>Project Name</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>Future</b>	<b>Total Project</b>	<b>5-Year CIP</b>
Stream Restoration	-	3,200	-	2,770	-	-	19,860	25,830	5,970
Stormwater Pond Retrofi	10	1,400	-	3,970	-	-	-	5,380	5,370
Alternative Stormwater B	-	61	322	184	-	-	-	567	567
Public Works & Utilities	-	250	-	-	-	-	-	250	250
<b>Total</b>	<b>10</b>	<b>4,911</b>	<b>322</b>	<b>6,924</b>	<b>-</b>	<b>-</b>	<b>19,860</b>	<b>32,027</b>	<b>12,157</b>

## D-031 Stream Restoration

**Year Introduced:** 2021  
**Change:** New Project  
**Associated Proj:** N/A  
**Program Area:** Stormwater  
**Managing Dept:** Utilities  
**Manager:** L. Kilby

**Plan Conformance:**  
 Comprehensive Plan 7.7

**Est. Start:** 7/1/2021  
**Est. Complete:** 6/30/2028



### Description:

Restore degraded streams in the City of Manassas and within the greater watershed, per DEQ stream restoration requirements, to build TMDL pollution reduction credits required for MS4 permit compliance by 2023 and 2028 permit cycle deadlines.

<b>Cost Estimate:</b> (\$ in 1,000s)	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>Future</b>	<b>Total Project</b>
Planning	-	530	-	-	-	-	-	530
Land	-	-	-	-	-	-	-	-
Construction	-	2,670	-	2,770	-	-	19,860	25,300
<b>Total Cost</b>	<b>-</b>	<b>3,200</b>	<b>-</b>	<b>2,770</b>	<b>-</b>	<b>-</b>	<b>19,860</b>	<b>25,830</b>

<b>Funding Sources:</b> (\$ in 1,000s)	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>Future</b>	<b>Total Project</b>
General Fund	-	-	-	-	-	-	-	-
Sewer Fund	-	-	-	-	-	-	-	-
Water Fund	-	-	-	-	-	-	-	-
Electric Fund	-	-	-	-	-	-	-	-
Stormwater Fund	-	-	-	-	-	-	-	-
Airport Fund	-	-	-	-	-	-	-	-
School Fund	-	-	-	-	-	-	-	-
Bonds	-	3,200	-	2,770	-	-	19,860	25,830
State	-	-	-	-	-	-	-	-
Federal	-	-	-	-	-	-	-	-
NVTA	-	-	-	-	-	-	-	-
Other Sources	-	-	-	-	-	-	-	-
<b>Total Funding</b>	<b>-</b>	<b>3,200</b>	<b>-</b>	<b>2,770</b>	<b>-</b>	<b>-</b>	<b>19,860</b>	<b>25,830</b>

<b>Operating Impacts:</b> (\$ in 1,000s)	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>Future</b>	<b>Total Project</b>
Revenue	-	-	-	-	-	-	-	-
Staffing (Costs) Savings	-	-	-	-	-	-	-	-
Facility (Costs) Savings	-	-	-	-	-	-	-	-
Program (Costs) Savings	-	-	-	-	-	-	-	-
Debt Service	-	-	(256)	(256)	(478)	(478)	(28,457)	(29,925)
<b>Net Revenue</b>	<b>-</b>	<b>-</b>	<b>(256)</b>	<b>(256)</b>	<b>(478)</b>	<b>(478)</b>	<b>(28,457)</b>	<b>(29,925)</b>

## D-032 Stormwater Pond Retrofits

**Year Introduced:** 2021  
**Change:** New Project  
**Associated Proj:** N/A  
**Program Area:** Stormwater  
**Managing Dept:** Utilities  
**Manager:** L. Kilby

**Plan Conformance:**  
 Comprehensive Plan 7.7

**Est. Start:** 7/1/2021  
**Est. Complete:** 6/30/2028



### Description:

Retrofit of existing City stormwater management (SWM) ponds, per DEQ wet pond requirements, to build TMDL pollution reduction credits required for MS4 permit compliance by 2023 and 2028 permit cycle deadlines.

<b>Cost Estimate:</b> (\$ in 1,000s)	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>Future</b>	<b>Total Project</b>
Planning	-	350	-	-	-	-	-	350
Land	-	-	-	-	-	-	-	-
Construction	10	1,050	-	3,970	-	-	-	5,030
<b>Total Cost</b>	<b>10</b>	<b>1,400</b>	<b>-</b>	<b>3,970</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5,380</b>
<b>Funding Sources:</b> (\$ in 1,000s)								
General Fund	-	-	-	-	-	-	-	-
Sewer Fund	-	-	-	-	-	-	-	-
Water Fund	-	-	-	-	-	-	-	-
Electric Fund	-	-	-	-	-	-	-	-
Stormwater Fund	10	-	-	-	-	-	-	10
Airport Fund	-	-	-	-	-	-	-	-
School Fund	-	-	-	-	-	-	-	-
Bonds	-	1,400	-	3,970	-	-	-	5,370
State	-	-	-	-	-	-	-	-
Federal	-	-	-	-	-	-	-	-
NVTA	-	-	-	-	-	-	-	-
Other Sources	-	-	-	-	-	-	-	-
<b>Total Funding</b>	<b>10</b>	<b>1,400</b>	<b>-</b>	<b>3,970</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5,380</b>
<b>Operating Impacts:</b> (\$ in 1,000s)								
Revenue	-	-	-	-	-	-	-	-
Staffing (Costs) Savings	-	-	-	-	-	-	-	-
Facility (Costs) Savings	-	-	-	-	-	-	-	-
Program (Costs) Savings	-	-	-	-	-	-	-	-
Debt Service	-	-	(112)	(112)	(430)	(430)	(7,509)	(8,593)
<b>Net Revenue</b>	<b>-</b>	<b>-</b>	<b>(112)</b>	<b>(112)</b>	<b>(430)</b>	<b>(430)</b>	<b>(7,509)</b>	<b>(8,593)</b>





# STORMWATER MAINTENANCE CAPITAL PROJECT LISTING

(\$ in Thousands)

The City identifies Capital Projects as projects with a cost greater than \$100,000 **and** a useful life of 10+ years. The City recognizes that there are additional projects/needs that are capital in nature but do not meet the requirement set forth for a capital project. These additional projects/needs are considered Maintenance Capital Projects, a list of which is provided below for the Stormwater Program.

Project Name	Prior Years	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Future	Total Project	5-Year CIP
Stormwater / Drainage M	70	35	35	35	35	35	-	245	175
Floodplain Mapping Upd	130	65	65	65	65	65	-	455	325
Drainage Maintenance &	230	163	163	163	163	163	-	1,045	815
<b>Total Cost</b>	<b>430</b>	<b>263</b>	<b>263</b>	<b>263</b>	<b>263</b>	<b>263</b>	-	<b>1,745</b>	<b>1,315</b>

## Funding Sources

General Fund	-	-	-	-	-	-	-	-	-
Sewer Fund	-	-	-	-	-	-	-	-	-
Water Fund	-	-	-	-	-	-	-	-	-
Electric Fund	-	-	-	-	-	-	-	-	-
Stormwater Fund	430	263	263	263	263	263	-	1,745	1,315
Airport Fund	-	-	-	-	-	-	-	-	-
School Fund	-	-	-	-	-	-	-	-	-
Bonds	-	-	-	-	-	-	-	-	-
State	-	-	-	-	-	-	-	-	-
Federal	-	-	-	-	-	-	-	-	-
NVTA	-	-	-	-	-	-	-	-	-
Other Sources	-	-	-	-	-	-	-	-	-
<b>Total Funding</b>	<b>430</b>	<b>263</b>	<b>263</b>	<b>263</b>	<b>263</b>	<b>263</b>	-	<b>1,745</b>	<b>1,315</b>