

STORMWATER MANAGEMENT: SM MAINTENANCE CAPITAL

10 YEAR CATEGORY SUMMARY (in \$1,000s)

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Year Total
1. Donaldson Run Outfall/ Channel Repair-24th Rd N	705	685	0	0	0	0	0	0	0	0	1,390
2. Downstream Dumbarton Street Culvert	725	3,000	0	0	0	0	0	0	0	0	3,725
3. Floodplain Channel & Split Stream Maintenance	100	100	105	105	105	105	110	110	110	110	1,060
4. Four Mile Run Flood Control Project Maintenance	3,500	500	0	0	0	625	0	0	0	0	4,625
5. Maintenance of Detention Vaults & Overland Relief	100	100	105	105	105	105	110	110	110	110	1,060
6. Manhole & Catch Basin Rehabilitation	250	250	260	260	265	265	275	275	280	280	2,660
7. Military Road Culvert at Gulf Branch	590	0	3,090	0	0	0	0	0	0	0	3,680
8. Risk Assessment & Management Plan (RAMP)	350	0	0	0	0	0	0	0	0	0	350
9. Sidewalk Underdrains	50	50	50	50	55	55	55	55	55	55	530
10. Stormwater Frames and Covers	250	250	260	260	265	265	275	275	280	280	2,660
11. Stormwater Mains Rehabilitation & Replacement	300	515	2,650	2,730	2,810	2,890	2,970	3,050	3,135	3,135	24,185
12. Terra Cotta/ Corrugated Metal Pipe Upgrades	200	205	210	215	225	235	240	245	250	250	2,275
13. Upstream Dumbarton Street Culvert	425	1,600	0	0	0	0	0	0	0	0	2,025
Total Recommendation	7,545	7,255	6,730	3,725	3,830	4,545	4,035	4,120	4,220	4,220	50,225

CATEGORY FUNDING SOURCES (in \$1,000s)

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10 Year Total
New Funding											
Federal Funding	0	0	0	0	0	0	0	0	0	0	0
State Funding	0	0	0	0	0	0	0	0	0	0	0
Developer Contributions	0	0	0	0	0	0	0	0	0	0	0
New Bond Issue	0	0	3,090	0	0	0	0	0	0	0	3,090
PAYG	0	0	0	0	0	0	0	0	0	0	0
Short Term Finance	0	0	0	0	0	0	0	0	0	0	0
Stormwater Utility Fee Revenue	3,685	2,655	3,640	3,725	3,830	4,545	4,035	4,120	4,220	4,220	38,675
Other Funding	0	0	0	0	0	0	0	0	0	0	0
Subtotal New Funding	3,685	2,655	6,730	3,725	3,830	4,545	4,035	4,120	4,220	4,220	41,765
Previously Approved Funding											
Authorized but Unissued Bonds	665	4,600	0	0	0	0	0	0	0	0	5,265
Issued but Unspent Bonds	0	0	0	0	0	0	0	0	0	0	0
Other Previously Approved Funds	3,195	0	0	0	0	0	0	0	0	0	3,195
Subtotal Previously Approved Funding	3,860	4,600	0	0	0	0	0	0	0	0	8,460
Total Funding Sources	7,545	7,255	6,730	3,725	3,830	4,545	4,035	4,120	4,220	4,220	50,225



1. DONALDSON RUN OUTFALL/ CHANNEL REPAIR-24TH RD N

Project Highlights:

- Project will stabilize erosion at the outfall to an inaccessible channel (e.g., due to steep slopes, limited right-of-way, and / or vegetation) and repair/reconfigure storm sewers in the vicinity.
- Project will result in a new outfall further downstream with a stabilized outfall channel.
- Project includes reconstruction of the failing outfall and stabilization of approximately 650 linear feet of channel.

Associated Plan(s):

Storm Water Master Plan

Neighborhood(s):

Donaldson Run
Old Dominion

Funding Notes:											
New Funding	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Stormwater Utility Fee Revenue	400	685									1,085
Previous Funding											
Other Previously Approved Funds	305										305
Total Funding	705	685	0	0	0	0	0	0	0	0	1,390
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Total Impact	0	0	0	0	0	0	0	0	0	0	0

Critical Milestones:

- Design/Permitting Complete FY 2022
- Construction FY 2023 - FY 2024

Changes from Prior CIP:

Timing of expenditures pushed out one year from prior CIP.



2. DOWNSTREAM DUMBARTON STREET CULVERT

Project Highlights:

- Replacement of the existing Downstream Dumbarton Street Culvert which was damaged in the August 2017 storm.
- Replacement is needed to expand capacity and replace existing headwalls, end walls, and deteriorating culvert barrels. Existing culvert overtops the road during extreme storm events.
- Existing culvert is constructed of corrugated metal pipe, which is deteriorating and requires remediation.

Associated Plan(s):

Storm Water Master Plan

Neighborhood(s):

Rock Spring

Funding Notes:											
New Funding	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Stormwater Utility Fee Revenue	485										485
Previous Funding											
Authorized but Unissued Bonds	240	3,000									3,240
Total Funding	725	3,000	0	0	0	0	0	0	0	0	3,725
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Total Impact	0	0	0	0	0	0	0	0	0	0	0

Critical Milestones:

- Design FY 2021 - FY 2022
- Construction FY 2023 - FY 2024

Changes from Prior CIP:

Timing of expenditures has pushed out one year from prior CIP.



3. FLOODPLAIN CHANNEL & SPLIT STREAM MAINTENANCE

Project Highlights:

- Floodplain channels must be maintained in order to ensure efficiency of the existing conveyance system.
- Split streams are located at Gulf Branch, Little Pimmit Run, and Lucky Run, where the County undergrounded these streams into culverts and diverted a small man-made stream on top for decorative purposes. The diversion structures routinely clog and need maintenance.

Associated Plan(s):

Storm Water Master Plan

Neighborhood(s):

VARIOUS

Funding Notes:											
New Funding	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Stormwater Utility Fee Revenue		100	105	105	105	105	110	110	110	110	960
Previous Funding											
Other Previously Approved Funds	100										100
Total Funding	100	100	105	105	105	105	110	110	110	110	1,060
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Total Impact	0	0	0	0	0	0	0	0	0	0	0

Changes from Prior CIP:

New program for this CIP.



4. FOUR MILE RUN FLOOD CONTROL PROJECT MAINTENANCE

Project Highlights:

- Project is routine maintenance of the Four Mile Run Flood Control Project that is required when sediment accumulation in the channel becomes unacceptable.
- Project is required by U.S. Army Corps of Engineers.
- Project will be completed in cooperation with the City of Alexandria due to the geography of the stream and jurisdictional boundaries.

Associated Plan(s):

Storm Water Master Plan

Neighborhood(s):

Arlington Ridge
Long Branch Creek

Funding Notes:											
New Funding	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Stormwater Utility Fee Revenue	2,000	500				625					3,125
Previous Funding											
Other Previously Approved Funds	1,500										1,500
Total Funding	3,500	500	0	0	0	625	0	0	0	0	4,625
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Total Impact	0	0	0	0	0	0	0	0	0	0	0

Critical Milestones:

- Memorandum of Agreement with City of Alexandria FY 2021
- Dredging construction work FY 2023

Changes from Prior CIP:

Based on timing of inter-agency agreements, contract procurement, and season restrictions, this project was delayed one year from the prior CIP.



5. MAINTENANCE OF DETENTION VAULTS & OVERLAND RELIEF

Project Highlights:

- Underground detention facilities and overland relief paths will require continued maintenance capital efforts as the facilities are constructed to ensure they remain effective.
- Funding is included to maintain the Cardinal School vault and overland relief areas.

Associated Plan(s):

Storm Water Master Plan

Neighborhood(s):

VARIOUS

Funding Notes:											
New Funding	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Stormwater Utility Fee Revenue		100	105	105	105	105	110	110	110	110	960
Previous Funding											
Other Previously Approved Funds	100										100
Total Funding	100	100	105	105	105	105	110	110	110	110	1,060
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Total Impact	0	0	0	0	0	0	0	0	0	0	0

Changes from Prior CIP:

New program for this CIP.



6. MANHOLE & CATCH BASIN REHABILITATION

Project Highlights:

- Rehabilitation and replacement of manholes and catch basins that have been damaged or are in need of maintenance. This is completed through lining and/or structural rebuilds when necessary.
- The stormwater system inspection program identifies structures that need to be replaced or rehabilitated. Major storm events can damage structures which necessitate actions.
- This work is necessary for the proper functioning of the stormwater drainage system.

Associated Plan(s):

Storm Water Master Plan

Neighborhood(s):

VARIOUS

Funding Notes:											
New Funding	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Stormwater Utility Fee Revenue	50	250	260	260	265	265	275	275	280	280	2,460
Previous Funding											
Other Previously Approved Funds	200										200
Total Funding	250	250	260	260	265	265	275	275	280	280	2,660
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Total Impact	0	0	0	0	0	0	0	0	0	0	0

Changes from Prior CIP:

This program increased annual funding from \$50 thousand to \$250 thousand starting FY 2024 based on system need.



7. MILITARY ROAD CULVERT AT GULF BRANCH

Project Highlights:

- Culvert frequently overtops during storms, flooding the area including the nearby Gulf Run pump station building.
- Replacement is needed to expand capacity and replace deteriorating culvert structure.
- Project will be done in conjunction with the adjacent Gulf Branch Stream Resiliency project.
- Existing culvert overtops the road during extreme storm events.

Associated Plan(s):

Storm Water Master Plan

Neighborhood(s):

Gulf Branch
Old Glebe

Funding Notes:											
New Funding	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
New Bond Issue			3,090								3,090
Previous Funding											
Other Previously Approved Funds	590										590
Total Funding	590	0	3,090	0	0	0	0	0	0	0	3,680
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Total Impact	0	0	0	0	0	0	0	0	0	0	0

Critical Milestones:

- Design FY 2023
- Construction FY 2025

Changes from Prior CIP:

New project for this CIP.



8. RISK ASSESSMENT & MANAGEMENT PLAN (RAMP)

Project Highlights:

- Risk Assessment and Management Plan (RAMP) builds from an updated climate change projection over 2040, 2070 and 2100, focused on urban flooding and sea level rise (lower Four Mile Run), to map near-, mid- and long-term inundation patterns in critical watersheds.
- Provides Vulnerability Assessments for 13 watersheds.
- Provides Risk Assessments for 7 watersheds.
- Calculates fiscal and financial loss from repetitive, acute flooding and demonstrates the cost-of-inaction for four watersheds.
- Provides gaps analysis and system improvement plan.

Associated Plan(s):

Storm Water Master Plan
Watershed Management Plan

Neighborhood(s):

VARIOUS

Funding Notes:											
New Funding	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Previous Funding											
Other Previously Approved Funds	350										350
Total Funding	350	0	0	0	0	0	0	0	0	0	350
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Total Impact	0	0	0	0	0	0	0	0	0	0	0

Critical Milestones:

- Plant Completion FY 2023

Changes from Prior CIP:

The scope of this project has increased since the prior CIP, increasing the cost for this project. Key changes are informed by early deliverables that revealed critical vulnerabilities in other watersheds which also triggered action under the RAMP's Equity element.



9. SIDEWALK UNDERDRAINS

Project Highlights:

- Underdrains are necessary in some locations to prevent icing of sidewalks and reduction of hazards to pedestrians.
- Drainage from hillsides, sump pumps, and other poorly drained areas often seeps across sidewalks and can cause slippery conditions due to algae growth in warm months.

Associated Plan(s):

Storm Water Master Plan

Neighborhood(s):

VARIOUS

Funding Notes:											
New Funding	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Stormwater Utility Fee Revenue	50	50	50	50	55	55	55	55	55	55	530
Previous Funding											
Total Funding	50	50	50	50	55	55	55	55	55	55	530
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Total Impact	0	0	0	0	0	0	0	0	0	0	0



10. STORMWATER FRAMES AND COVERS

Project Highlights:

- Required adjustments to stormwater structure frames and covers in conjunction with annual paving operations.
- Adjustments involve raising or lowering a casting or precast top from its existing elevation to line up in harmony with the adjacent grade, pavement, curb, etc.

Associated Plan(s):

Storm Water Master Plan

Neighborhood(s):

VARIOUS

Funding Notes:											
New Funding	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Stormwater Utility Fee Revenue	200	250	260	260	265	265	275	275	280	280	2,610
Previous Funding											
Other Previously Approved Funds	50										50
Total Funding	250	250	260	260	265	265	275	275	280	280	2,660
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Total Impact	0	0	0	0	0	0	0	0	0	0	0

Changes from Prior CIP:

Annual funding for this program has increased \$50 thousand annually starting in FY 2024 based on the pace of the paving program.



11. STORMWATER MAINS REHABILITATION & REPLACEMENT

Project Highlights:

- Program funds the rehabilitation and replacement of existing storm drainage pipes within the system.
- Systematic rehabilitation and replacement of system assets will strengthen system integrity and reliability, protects public health and safety, reduces impacts on interconnected infrastructure, and increases long-term cost-effectiveness.

Associated Plan(s):

Storm Water Master Plan

Neighborhood(s):

VARIOUS

Funding Notes: Funding is available for a nominal number of projects, depending on scale.											
New Funding	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Stormwater Utility Fee Revenue	300	515	2,650	2,730	2,810	2,890	2,970	3,050	3,135	3,135	24,185
Previous Funding											
Total Funding	300	515	2,650	2,730	2,810	2,890	2,970	3,050	3,135	3,135	24,185
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Total Impact	0	0	0	0	0	0	0	0	0	0	0



12. TERRA COTTA/ CORRUGATED METAL PIPE UPGRADES

Project Highlights:

- Replacement of existing, poor condition terra cotta (TC) and corrugated metal pipe (CMP) with reinforced concrete pipe or other modern pipe materials, which have longer life spans. Failure of existing, aged TC and CMP is a leading cause of various maintenance activities.
- Replacement of TC and CMP within the stormwater conveyance system is a program goal. TC pipe is often in poor condition due to age and limitations of the pipe material. CMP is often in poor condition and has a shorter lifespan than reinforced concrete pipe.

Associated Plan(s):

Storm Water Master Plan

Neighborhood(s):

VARIOUS

Funding Notes:											
New Funding	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Stormwater Utility Fee Revenue	200	205	210	215	225	235	240	245	250	250	2,275
Previous Funding											
Total Funding	200	205	210	215	225	235	240	245	250	250	2,275
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Total Impact	0	0	0	0	0	0	0	0	0	0	0



13. UPSTREAM DUMBARTON STREET CULVERT

Project Highlights:

- Replacement of the existing Upstream Dumbarton Street Culvert which was damaged in the August 2017 storm.
- Replacement is necessary to expand capacity and replace existing headwalls, end walls, and deteriorating culvert barrels.
- Existing culvert is constructed of corrugated metal pipe, which is deteriorating and requires remediation.
- Existing culvert overtops the road during major storm events.

Associated Plan(s):

Storm Water Master Plan

Neighborhood(s):

Rock Spring

Funding Notes:											
New Funding	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Previous Funding											
Authorized but Unissued Bonds	425	1,600									2,025
Total Funding	425	1,600	0	0	0	0	0	0	0	0	2,025
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Total Impact	0	0	0	0	0	0	0	0	0	0	0

Critical Milestones:

- Design FY 2021 - FY 2022
- Construction FY 2023 - FY 2024

Changes from Prior CIP:

Timing of expenditures has pushed out one year from the prior CIP.