

STORMWATER MANAGEMENT: STREAMS AND WATER QUALITY

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. Ballston Pond Watershed Retrofit	3,190	0	0	0	0	0	0	0	0	0	3,190
2. Concord Mews Pond Retrofit	280	225	1,635	0	0	0	0	0	0	0	2,140
3. Green Infrastructure Plan	175	0	0	0	0	0	0	0	0	0	175
4. Green Streets & Infrastructure Program	75	325	365	620	705	970	1,000	1,000	1,025	1,025	7,110
5. Gulf Branch Green Streets	545	300	0	0	0	0	0	0	0	0	845
6. Gulf Branch Stream Resiliency	300	1,360	1,390	0	0	0	0	0	0	0	3,050
7. Quebec Street Outfall Rehabilitation	310	250	0	0	0	0	0	0	0	0	560
8. MS4 Permit Strategic Compliance Plan	300	0	0	0	0	0	0	0	0	0	300
9. N. Utah St. Outfall/ Donaldson Run Trib A	280	0	0	0	0	0	0	0	0	0	280
10. Outfall Rehabilitation Program	255	880	755	1,275	1,360	1,390	1,430	1,460	1,500	1,500	11,805
11. Resilient Streams Plan	125	125	0	0	0	0	0	0	0	0	250
12. Sparrow Pond Watershed Retrofit	1,305	1,275	0	0	0	0	0	0	0	0	2,580
13. Stream Resiliency Program	0	205	210	2,945	235	3,130	490	3,460	3,300	3,300	17,275
14. Washington Boulevard Pond Retrofit	25	165	0	775	0	0	0	0	0	0	965
15. Water Quality Project Feasibility & Concept Design	150	150	155	155	160	160	165	165	170	170	1,600
Total Recommendation	7,315	5,260	4,510	5,770	2,460	5,650	3,085	6,085	5,995	5,995	52,125

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	4,380	4,470	5,770	2,460	5,650	3,085	6,085	5,995	5,995	43,890
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	0	730	40	0	0	0	0	0	0	0	770
Other Funding	0	0	0	0	0	0	0	0	0	0	0
Subtotal New Funding	0	5,110	4,510	5,770	2,460	5,650	3,085	6,085	5,995	5,995	44,660
Previously Approved Funding											
Authorized but Unissued Bonds	1,765	150	0	0	0	0	0	0	0	0	1,915
Issued but Unspent Bonds	3,190	0	0	0	0	0	0	0	0	0	3,190
Other Previously Approved Funds	2,360	0	0	0	0	0	0	0	0	0	2,360
Subtotal Previously Approved Funding	7,315	150	0	0	0	0	0	0	0	0	7,465
Total Funding Sources	7,315	5,260	4,510	5,770	2,460	5,650	3,085	6,085	5,995	5,995	52,125



1. BALLSTON POND WATERSHED RETROFIT

Project Highlights:

- Re-designs Ballston Pond as a constructed wetland. Currently, the pond is not treating or storing the intended stormwater.
- With a drainage area of 450 acres, this project is the most feasible opportunity for a regional stormwater facility in the County and will provide significant Chesapeake Bay Total Maximum Daily Load (TMDL) credits.
- Partnership with DPR will enable trail improvements, habitat enhancement and construction of an overlook for expanded public access supporting Biophilic Cities objectives.

Associated Plan(s):

Storm Water Master Plan

Neighborhood(s):

Ballston-Virginia Square
Bluemont
Waycroft-Woodlawn

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											
Issued but Unspent Bonds	3,190										3,190
Total Funding	3,190	0	0	0	0	0	0	0	0	0	3,190
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Operations Costs (+/-)		5	5	5	5	5					25
Non-Personnel (\$)		10	10	10	10	10	10	10	10	10	90
Total Impact	0	15	15	15	15	15	10	10	10	10	115

Critical Milestones:

- Construction FY 2022 - FY 2023

Project Links:

- Project web site:
<https://www.arlingtonva.us/Government/Projects/Project-Types/Environment-Projects/Ballston-Pond-Restoration>



2. CONCORD MEWS POND RETROFIT

Project Highlights:

- Project will restore the function of an existing dry detention pond.
- Built 50 years ago, the pond currently does not adequately convey, store or treat stormwater.
- The project supports the County's regulatory requirements under its Municipal Separate Storm Sewer System (MS4) permit.
- Nuisance and safety concerns exist due to the current condition of the pond (responds to the Stormwater Program's equity principles and goals).
- Supports Biophilic Cities goals with its location adjacent to heavily used W&OD trail.

Associated Plan(s):

Storm Water Master Plan

Neighborhood(s):

Douglas Park
Green Valley

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		225	1,635								1,860
Previous Funding											
Other Previously Approved Funds	280										280
Total Funding	280	225	1,635	0	0	0	0	0	0	0	2,140
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Non-Personnel (\$)				15	15	15	15	15	10	10	95
Total Impact	0	0	0	15	15	15	15	15	10	10	95

Critical Milestones:

- Planning FY 2022
- Design FY 2023
- Construction FY 2024 - 2025

Changes from Prior CIP:

New project for this CIP.



3. GREEN INFRASTRUCTURE PLAN

Project Highlights:

- This plan will prioritize "green infrastructure" projects that improve the resiliency and environmental performance of streams, ponds, and wetlands, along with 'green streets' projects that provide storage and treatment for polluted runoff in public rights-of-way.
- This plan will build upon the watershed retrofit assessment component of the Stormwater Master Plan (2014) to prioritize projects to address flood and climate change resiliency, mitigate increasing impervious surfaces and temperatures, and promote equity.

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
Previous Funding											
Other Previously Approved Funds	175										175
Total Funding	175	0	0	0	0	0	0	0	0	0	175
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:

- Procurement FY 2022
- Final plan FY 2023

Project Links:

- MS4 Stormwater Permit:
<https://www.arlingtonva.us/Government/Programs/Sustainability-and-Environment/Stormwater/Stormwater-Watersheds/MS4-Permit>



4. GREEN STREETS & INFRASTRUCTURE PROGRAM

Project Highlights:

- Green infrastructure projects include re-construction and enhancement of existing stormwater ponds to improve water quality performance and "green streets" streetscape bioretention systems to store and filter stormwater runoff from nearby streets and homes. These projects help offset the continued increase in impervious cover in our community.
- They help the County address the nutrient and sediment reduction requirements of its MS4/Chesapeake Bay TMDL regulatory mandate.
- They contribute to the County's overall resiliency to climate change by reducing heat island impacts and providing storage for stormwater an also support Biophilic Cities goals.
- A proposed Green Infrastructure plan will prioritize projects to meet the challenges of a changing climate and its impacts in the community.

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
New Bond Issue		325	365	620	705	970	1,000	1,000	1,025	1,025	7,035
Previous Funding											
Other Previously Approved Funds	75										75
Total Funding	75	325	365	620	705	970	1,000	1,000	1,025	1,025	7,110
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Non-Personnel (\$)			5	10	20	30	45	45	45	45	245
Total Impact	0	0	5	10	20	30	45	45	45	45	245

Changes from Prior CIP:

This CIP provides for an increased number of projects to be completed during the ten-year period.



5. GULF BRANCH GREEN STREETS

Project Highlights:

- Three streetscape green infrastructure projects will be installed in the Gulf Branch watershed downstream of Military Road. These projects provide storage and treatment for polluted runoff.
- Contribute to the watershed approach for Gulf Branch.
- Provide Municipal Separate Storm Sewer System (MS4) and Chesapeake Bay Total Maximum Daily Load (TMDL) credit for the 2nd permit cycle.

Associated Plan(s):

Storm Water Master Plan

Neighborhood(s):

Bellevue Forest

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		150									150
Previous Funding											
Authorized but Unissued Bonds		150									150
Other Previously Approved Funds	545										545
Total Funding	545	300	0	0	0	0	0	0	0	0	845
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Non-Personnel (\$)			15	15	15	15	15	15	15	15	120
Total Impact	0	0	15	15	15	15	15	15	15	15	120

Critical Milestones:

- Design FY 2022
- Construction FY 2023 - FY 2024

Changes from Prior CIP:

In the prior CIP, this project was included as part of the Green Infrastructure Program and not a specifically named project.



6. GULF BRANCH STREAM RESILIENCY

Project Highlights:

- Project improves the 2500 linear feet of stream to provide for the long-term resiliency of Gulf Branch stream above Military Road.
- Project addresses severe erosion, outfall repair, and sanitary sewer crossing protection.
- Project will also protect Gulf Branch Nature Center.
- Priority project for Chesapeake Bay Total Maximum Daily Load (TMDL) credits.

Associated Plan(s):

Storm Water Master Plan

Neighborhood(s):

Bellevue Forest
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		1,360	1,390								2,750
Previous Funding											
Authorized but Unissued Bonds	300										300
Total Funding	300	1,360	1,390	0	0	0	0	0	0	0	3,050
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Non-Personnel (\$)				5	5	5	5	5			25
Total Impact	0	0	0	5	5	5	5	5	0	0	25

Critical Milestones:

- Final design FY 2023
- Construction FY 2024 - FY 2025

Project Links:

- Project web site:
<https://www.arlingtonva.us/Government/Projects/Project-Types/Environment-Projects/Gulf-Branch-Stream-Project>

Changes from Prior CIP:

Scope of the project has decreased from the prior CIP.



7. QUEBEC STREET OUTFALL REHABILITATION

Project Highlights:

- Rehabilitation of the outfall and slope erosion adjacent to the Dover Run Pumping Station.
- Acute damage resulted from the July 2019 storm.
- May supply Chesapeake Bay Total Maximum Daily Load (TMDL) credits.

Associated Plan(s):

Storm Water Master Plan

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		250									250
Previous Funding											
Authorized but Unissued Bonds	160										160
Other Previously Approved Funds	150										150
Total Funding	310	250	0	0	0	0	0	0	0	0	560
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 2022
- Procurement FY 2023
- Construction FY 2023 - FY 2024

Changes from Prior CIP:

In the prior CIP, this project was included as part of the Outfall Rehabilitation Program and not an individually named project.



8. MS4 PERMIT STRATEGIC COMPLIANCE PLAN

Project Highlights:

- Strategic plan for the Municipal Separate Storm Sewer System (MS4) permit to provide a roadmap for achieving compliance in the third permit cycle (FY 2027 - FY 2031).
- Synergize with multiple master planning efforts in the program.
- Maximize cost-effectiveness and co-benefits to the Arlington community and environment.

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
Previous Funding											
Other Previously Approved Funds	300										300
Total Funding	300	0	0	0	0	0	0	0	0	0	300
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:

- Procurement FY 2022
- Final Plan FY 2023

Project Links:

- MS4 Stormwater Permit:
<https://www.arlingtonva.us/Government/Programs/Sustainability-and-Environment/Stormwater/Stormwater-Watersheds/MS4-Permit>

Changes from Prior CIP:

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



9. N. UTAH ST. OUTFALL/ DONALDSON RUN TRIB A

Project Highlights:

- Rehabilitation of the North Utah Street outfall for Donaldson Run Tributary A, necessitated by overland flow during the July 2019 storm
- Includes concurrent in-stream repairs
- Protects the County's prior investment in the Donaldson Run Tributary A restoration (project completion 2006)

Associated Plan(s):

Storm Water Master Plan

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	280										280
Total Funding	280	0	0	0	0	0	0	0	0	0	280
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:

- Procurement FY 2022
- Construction FY 2023

Changes from Prior CIP:

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



10. OUTFALL REHABILITATION PROGRAM

Project Highlights:

- Outfall Rehabilitation Program funds priority capital maintenance of outfalls, as identified in the Stormwater Master Plan.
- Outfall rehabilitations and repairs are necessary to protect other public and private infrastructure and increase the resiliency of the integrated stream and stormwater network.
- Failed or failing outfalls is a source of erosion and sediment which degrades water quality. Stabilization of the outfalls reduces erosion and sedimentation and protects private and public property, as well as mature trees.
- This program contributes to meeting Chesapeake Bay Total Maximum Daily Load (TMDL) requirements.

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
New Bond Issue		880	755	1,275	1,360	1,390	1,430	1,460	1,500	1,500	11,550
Previous Funding											
Other Previously Approved Funds	255										255
Total Funding	255	880	755	1,275	1,360	1,390	1,430	1,460	1,500	1,500	11,805
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Non-Personnel (\$)	5	5	5	5	5	5	5	5	5	5	50
Total Impact	5	5	5	5	5	5	5	5	5	5	50

Changes from Prior CIP:

This CIP provides for an increased number of outfalls to be rehabilitated during the ten-year period.

Project Links:

- MS4 Permit: <https://www.arlingtonva.us/Government/Programs/Sustainability-and-Environment/Stormwater/Stormwater-Watersheds/MS4-Permit>



11. RESILIENT STREAMS PLAN

Project Highlights:

- Stream and outfall assessment and prioritization effort focused on stream resiliency and infrastructure protection.
- Includes best practices evaluation

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		125									125
Previous Funding											
Other Previously Approved Funds	125										125
Total Funding	125	125	0	0	0	0	0	0	0	0	250
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:

- Procurement FY 2023
- Final plan FY 2024

Changes from Prior CIP:

The scope of this plan has increased and will now extend into FY 2024.

Project Links:

- MS4 Stormwater Permit:
<https://www.arlingtonva.us/Government/Programs/Sustainability-and-Environment/Stormwater/Stormwater-Watersheds/MS4-Permit>



12. SPARROW POND WATERSHED RETROFIT

Project Highlights:

- Sparrow Pond is an existing wet pond requiring re-construction due to eroded sediment filling the pond. Re-vegetation will help to restore the pond's function.
- Project provides significant Chesapeake Bay Total Maximum Daily Load (TMDL) credits.
- Ultimately, project will be easier and less costly to maintain.
- The project will also provide enhanced wetland habitat, which is relatively rare in Arlington.
- Project supports Biophilic Cities goals with its location along the heavily used W&OD trail and will also include new interpretive signage.
- Addresses concerns about public safety and flood storage by bringing the pond and its outflow to current design standards.

Associated Plan(s):

Storm Water Master Plan

Neighborhood(s):

Arlington Forest
Barcroft

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		1,275									1,275
Previous Funding											
Authorized but Unissued Bonds	1,305										1,305
Total Funding	1,305	1,275	0	0	0	0	0	0	0	0	2,580
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Non-Personnel (\$)			15	15	15	15	15	10	10	10	105
Total Impact	0	0	15	15	15	15	15	10	10	10	105

Critical Milestones:

- Final design FY 2022
- Procurement FY 2023
- Construction FY 2023 - FY 2024

Project Links:

- Project web site:
<https://www.arlingtonva.us/Government/Projects/Project-Types/Environment-Projects/Sparrow-Pond-Restoration>

Changes from Prior CIP:

Timing of expenditures has moved up one year from the prior CIP. Construction will now start in FY 2023 and conclude in FY 2024.



13. STREAM RESILIENCY PROGRAM

Project Highlights:

- Stream resiliency projects repair eroding and acutely degraded stream channels
- At the same time, they protect critical infrastructure such as sanitary sewer mains
- Funding in this category is urgently needed to respond to increased storm intensity and frequency
- Most cost-effective source of Chesapeake Bay Total Maximum Daily Load (TMDL) credits

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
New Bond Issue			210	2,945	235	3,130	490	3,460	3,300	3,300	17,070
Stormwater Utility Fee Revenue		205									205
Previous Funding											
Total Funding	0	205	210	2,945	235	3,130	490	3,460	3,300	3,300	17,275
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Non-Personnel (\$)					5	5	10	10	15	20	65
Total Impact	0	0	0	0	5	5	10	10	15	20	65

Changes from Prior CIP:

This CIP provides for an increased number of streams to be rehabilitated during the ten-year period.



14. WASHINGTON BOULEVARD POND RETROFIT

Project Highlights:

- This project improves Washington Boulevard Pond, an existing dry detention pond, to enhance performance.
- The project would increase stormwater quality treatment, and add co-benefits including habitat, sense of place and aesthetics, supporting Biophilic Cities goals.
- The project supports the County's regulatory requirements under its Municipal Separate Storm Sewer System (MS4) permit.

Associated Plan(s):

Storm Water Master Plan

Neighborhood(s):

Penrose

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		165		775							940
Previous Funding											
Other Previously Approved Funds	25										25
Total Funding	25	165	0	775	0	0	0	0	0	0	965
Operating Impact	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total
Non-Personnel (\$)					7	7	7	7	7	7	42
Total Impact	0	0	0	0	7	7	7	7	7	7	42

Critical Milestones:

- Assessment and Planning FY 2023
- Design FY 2024
- Construction FY 2025

Changes from Prior CIP:

New project for this CIP.



15. WATER QUALITY PROJECT FEASIBILITY & CONCEPT DESIGN

Project Highlights:

- Feasibility and concept design work for new projects
- Improves execution efficiency

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
New Bond Issue			115	155	160	160	165	165	170	170	1,260
Stormwater Utility Fee Revenue		150	40								190
Previous Funding											
Other Previously Approved Funds	150										150
Total Funding	150	150	155	155	160	160	165	165	170	170	1,600
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