Proposed Capital Improvement Plan (CIP)

FY 2027 – FY 2036

Submission of a 10-Year Plan for Stormwater

May 2026

ARLINGTON
VIRGINIA

Stormwater Capital Program Goals

Focused on Climate, Environment, and Flood Resiliency

Building, improving, and maintaining a system more resilient to severe weather events and reducing risks to life, safety, and property

Maintaining a state of good repair

Meeting regulatory and environmental stewardship commitments to improve water quality and the condition of the County's natural stream network

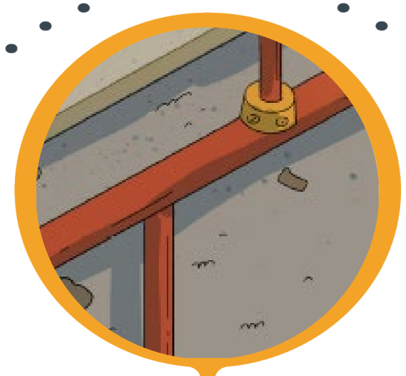
Investments are informed by:

- Stormwater Master Plan (2014)
- Risk Assessment and Management Plan (RAMP) (2023)
- County's MS4 permit requirements

Stormwater CIP Programs

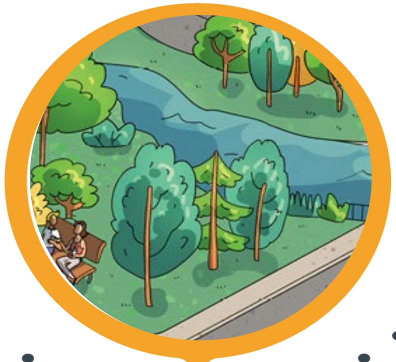
Stormwater Maintenance Capital

Re-investment in the County's 300-mile storm drainage network and its tens of thousands of stormwater structures



Stormwater Infrastructure & Capacity Improvements

Increase system capacity and establish overland relief pathways in the areas of highest flood risk – taking a watershed scale approach



Streams & Water Quality

Local water quality improvements and pollutant reductions required by MS4 Permit requirements and the Chesapeake Bay Total Maximum Daily Load. Benefits include, but are not limited to public safety, infrastructure protection, and ecological improvements

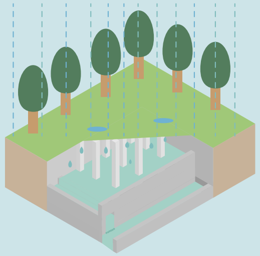
System Snapshot*

8,632
private SWMFs**

Managing
248 impervious acres

212
public SWMFs**

Managing
296 impervious acres

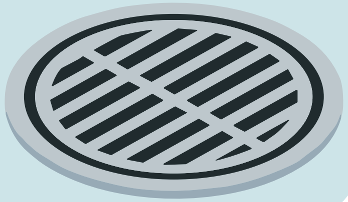


47%
of County covered by impervious area

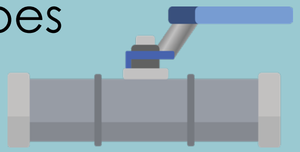
18,900

structures

(Inlets, catch basins, manholes, endwalls, SWMFs)



300
miles of pipes



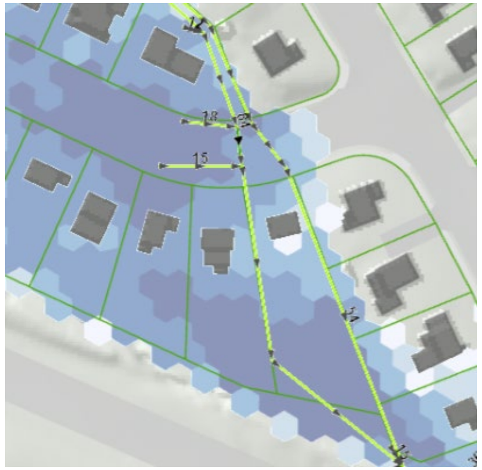
32
miles of streams

*Through FY25
**SWMF = Storm Water Management Facilities (included in structures total)

Equitable Investments Based on Risk, Condition, and Opportunities

Capacity

- Focus on critical watersheds with repetitive flooding
- Infrastructure access



Capital Maintenance

- Highest risk locations and materials
- Results of system inspection

Streams and Water Quality

- Erosion severity
- At risk co-located infrastructure
- Maximizing runoff capture for green infrastructure
- Partnering with other capital projects
- Navigating utility conflicts

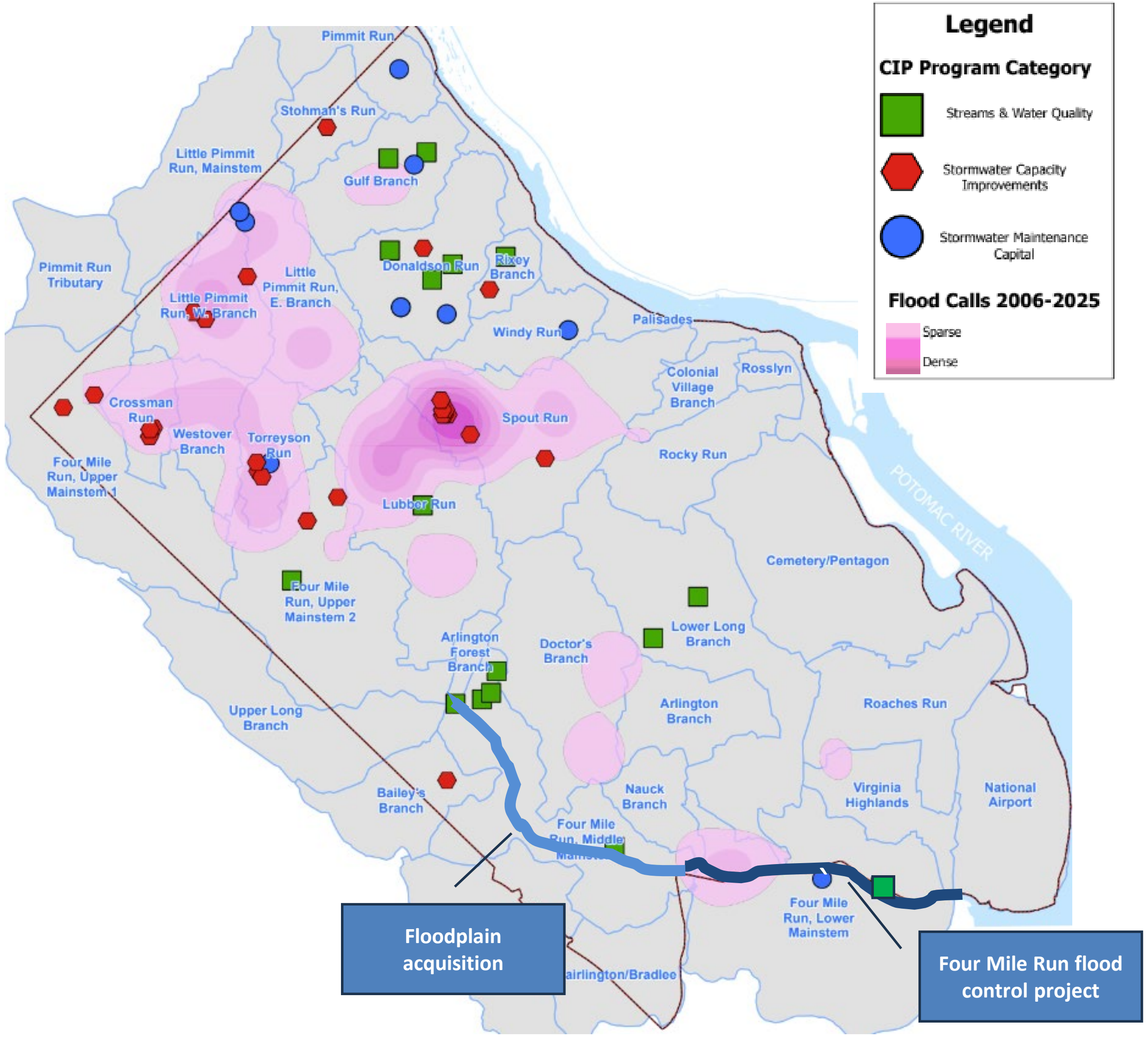
Mapping Program Investments – Past and Present

Sampling of recent projects completed and underway across the County

- Driven by risk, condition, and opportunity

Previous investments along Four Mile Run preserved floodplains and protected area populations and infrastructure

- Risk reduction benefits continue to present day
- Along with co-benefits for recreation and nature



Highlights of Completed Projects Since Last CIP

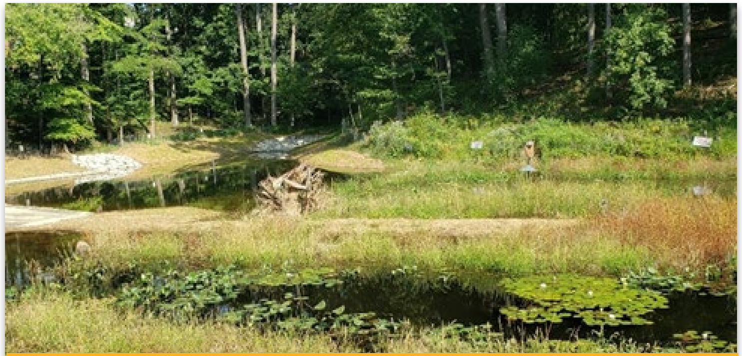
Maintenance Capital

Storm Drainage Improvement
N. Monroe St.

Capacity Improvements

Voluntary Land Acquisitions

- 13 properties to date
- 7 properties demolished by end of FY26



Water Quality

Sparrow Pond Wetland
Restoration

Projects in Construction in FY26

Culvert Replacement

- Dumbarton Culvert Downstream

Green Streets

- Military Road Green Streets
- Grandma's Creek Green Streets

Stream Restoration

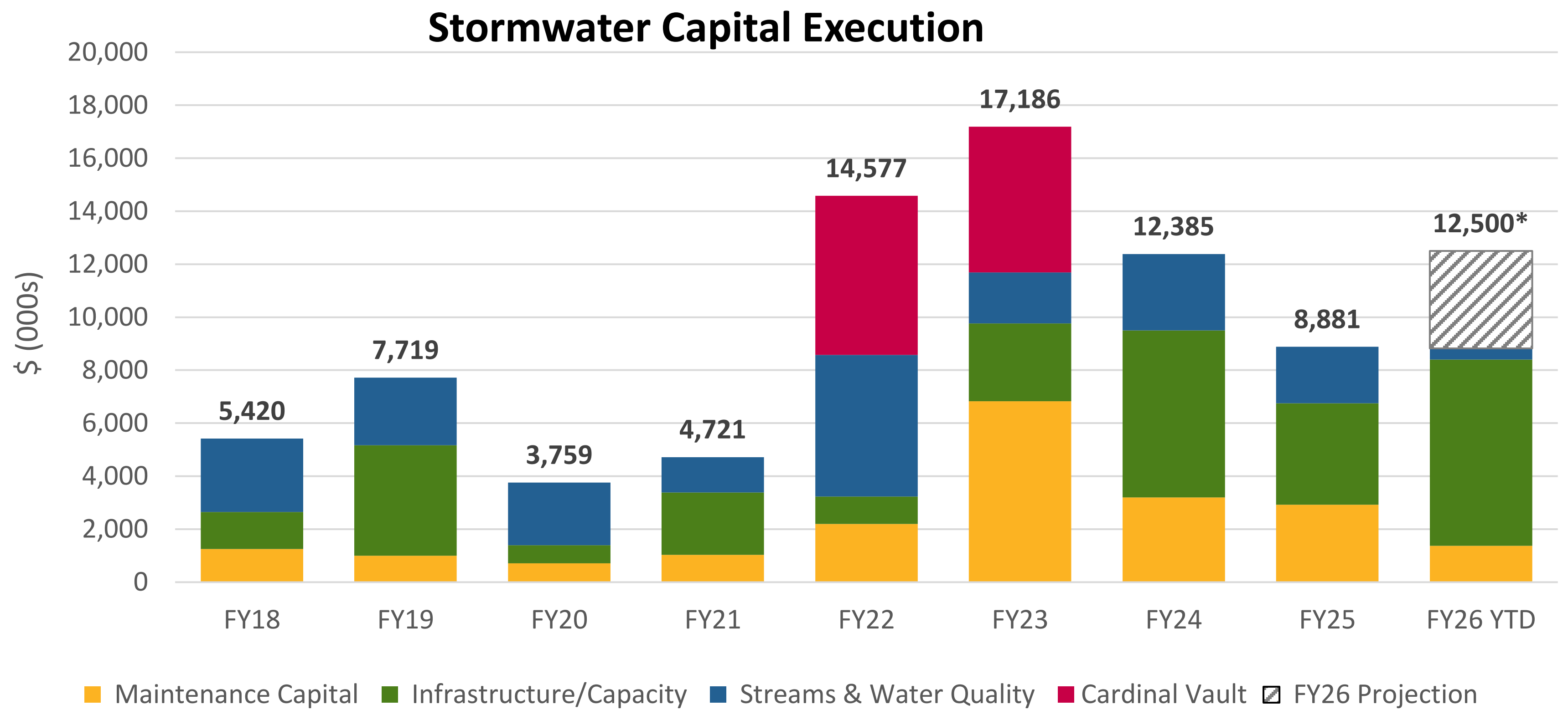
- Gulf Branch Stream Restoration

Outfall Rehabilitation

- Grandma’s Creek Outfall Rehab
- Quebec Street Outfall Rehab
- Upper Long Branch Outfall Rehab

Balancing Total CIP with Execution Capacity

This CIP proposes increasing the on-the-ground rate of execution and investment with new FTEs, while adjusting the total CIP to better align with capacity. This adjustment does not reflect a reduced commitment to the goals of the program, but a renewed commitment grounded by lessons learned from recent projects.



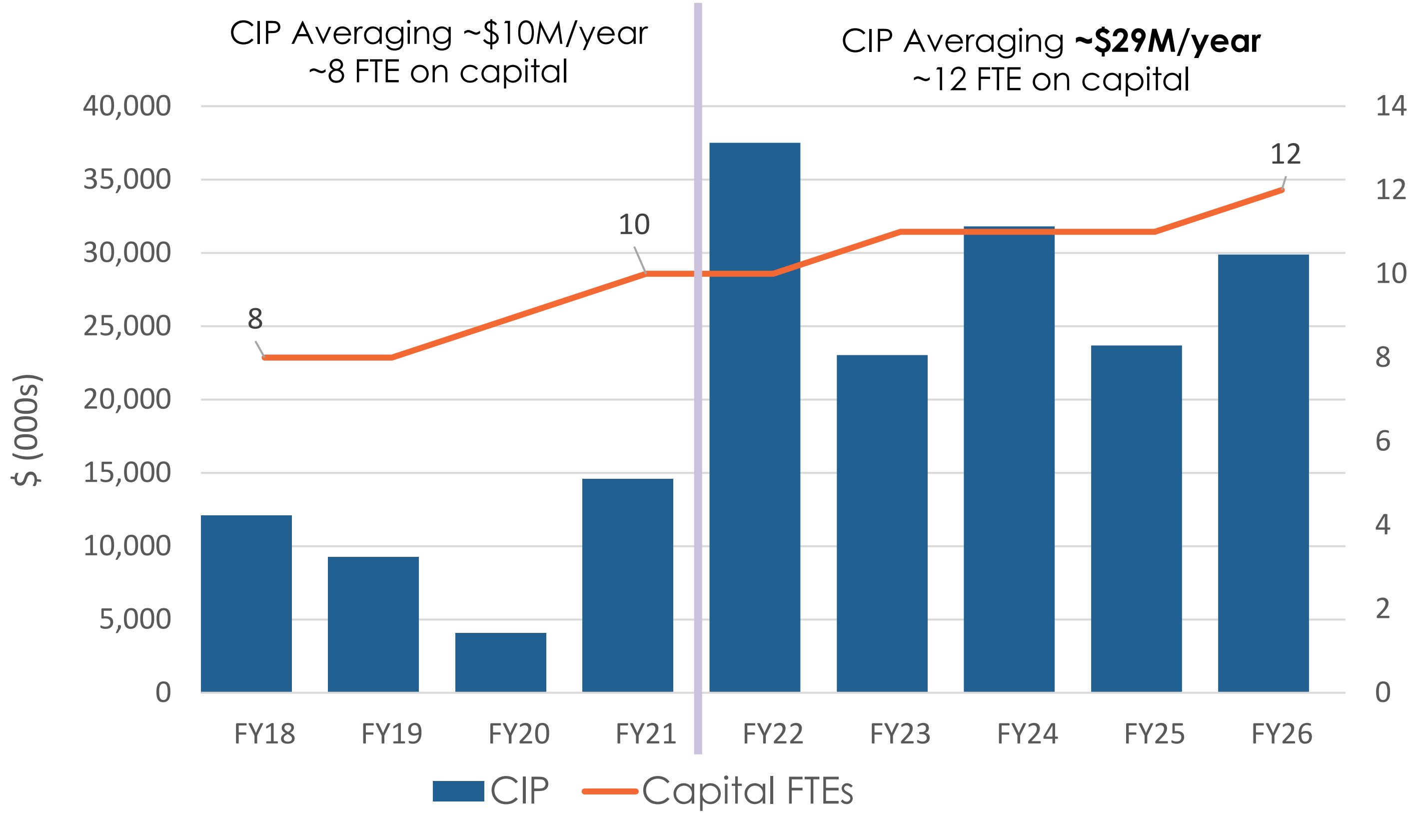
Execution Challenges

- Easements
- Timing of voluntary property acquisitions
- Final design & procurement estimated timelines
- Project Management & Engineering resources
- Public Engagement
- Grant timelines

* Projected FY26 as of Feb 2026

Recommended FTEs

Stormwater CIP ramped up significantly starting in FY22, but capacity levels have not increased proportionately.



This CIP recommends adding 5 FTEs in FY28-FY29 to support additional project delivery.

FY28:

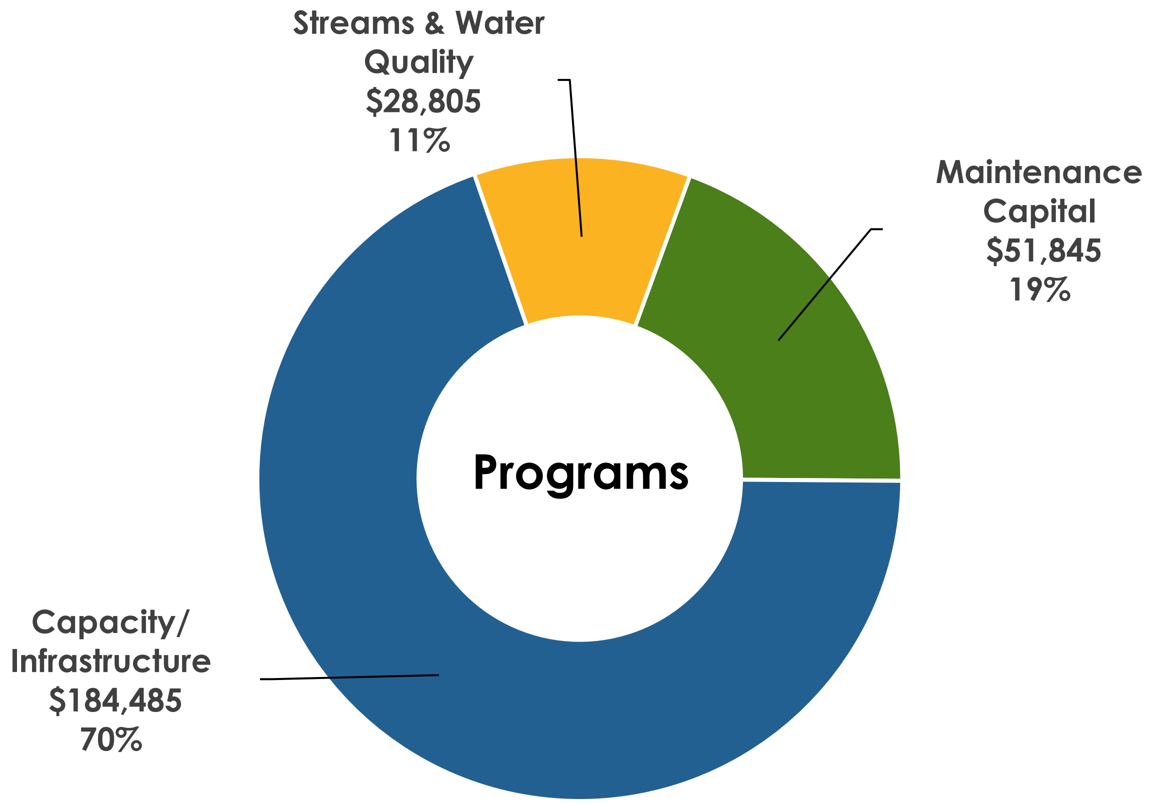
- 2 FTEs for OSEM (Engineer I, EMS Associate)
- 2 FTEs for Engineering Bureau – Design (Engineer I)
- Assuming 60% of their time to capital, ~$3.45 on the rate total

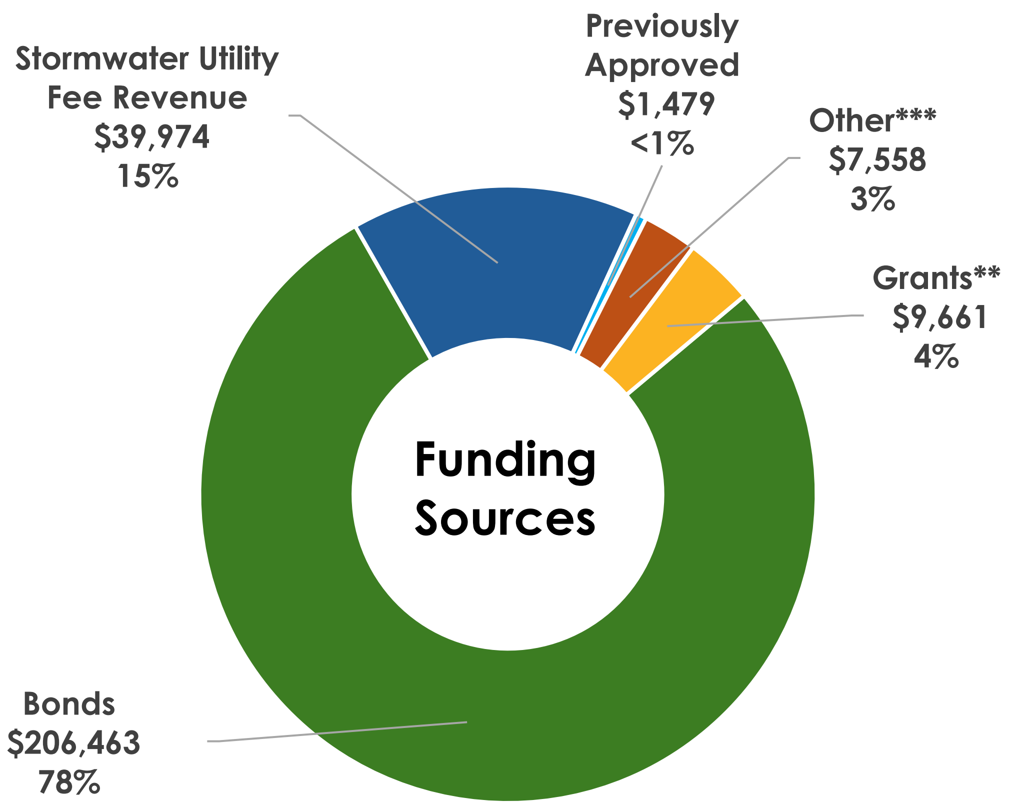
FY29: 1 additional FTE for Engineering Bureau

- additional $0.82 on the rate

Stormwater CIP Programs & Funding Sources ($000s)

$265M over 10 years*





*Before 20% implementation adjustment

** Notional grants of $2.5m included

*** Other Funding includes interest income and Community Flood Preparedness Fund loan

Maintenance Capital

Maintaining State of Good Repair

- Establishment of Stormwater utility funded an increased rate of system inspection and re-investment
- Current inspection rate ~5% per year
- Targeting highest risk locations and materials
- Overall, inspected assets to date suggest system in good condition overall. ~10% of annual inspections identified for maintenance
- Challenges moving forward include increasing system age, remaining pipes in harder to access locations, limited contractors available for large pipe lining

Replacement of an existing storm sewer pipe in Fairlington

FY 2027-2036 CIP – Maintenance Capital

Dumbarton Culvert – Downstream

Total CIP budget: $4.0M
Comp Plan or Strategic initiative:
Stormwater Master Plan

Community benefits:
- Prevents road from being flooded and damaged

Related Projects:
- Water main upgrades in Dumbarton St.

Expected Construction: FY26-FY27

Dumbarton Culvert – Upstream

Total CIP budget: $6.1M
Comp Plan or Strategic initiative:
Stormwater Master Plan

Community benefits:
- Prevents road from being flooded and damaged

Funding:
- Federal Bridge Formula funding through VDOT

Expected Construction: FY27-28

Military Road Culvert

Total CIP budget: $5.2M
Comp Plan or Strategic initiative:
Stormwater Master Plan

Community benefits:
- Prevents road from being flooded and damaged

Related Projects:
- Gulf Branch stream resiliency
- Gulf Branch outfall

Expected Construction: FY27-FY28

FY 2027-2036 CIP Maintenance Capital

STORMWATER

Project Name	Total 10-Year Budget ($000s)	Comp Plan or Strategic Initiative	Project Description
Stormwater Mains Rehabilitation & Replacement	15,465	Stormwater Master Plan	Rehabilitation and replacement of existing storm drainage pipes within the system.
Terra Cotta/ Corrugated Metal Pipe Upgrades	9,205	Stormwater Master Plan	Replacement of existing terra cotta (TC) and corrugated metal pipe (CMP) with modern pipe materials
Four Mile Run Flood Control Project Maintenance	5,810	Stormwater Master Plan	Routine capital maintenance of the Four Mile Run Flood Control Project area, as required by U.S. Army Corps of Engineers
Manhole & Catch Basin Rehabilitation	4,200	Stormwater Master Plan	Rehabilitation and replacement of manholes and catch basins
Stormwater Frames and Covers	1,705	Stormwater Master Plan	Adjustments to stormwater structure frames and covers in conjunction with annual paving operations
Floodplain Channel & Split Stream Maintenance	115	Stormwater Master Plan	Maintenance of floodplain channels and split streams to ensure efficiency of the existing conveyance system.

Maintenance Capital: $52M

Project Name ($000s)	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	10-Year
Stormwater Mains Rehabilitation & Replacement	1,000	1,135	1,270	1,415	1,570	1,725	1,770	1,815	1,860	1,905	**15,465**
Four Mile Run Flood Control	200	155	160	165	110	4,715	90	90	60	65	**5,810**
Dumbarton Culverts	6,495	3,605	-	-	-	-	-	-	-	-	**10,100**
Military Road Culvert	275	4,970	-	-	-	-	-	-	-	-	**5,245**
Terra Cotta/ Corrugated Metal Pipe (TC/CMP) Upgrades	925	825	850	870	895	920	945	970	990	1,015	**9,205**
Flood Plain Channel & Split Stream Maint.	-	20	-	20	-	25	-	25	-	25	**115**
Stormwater Frames & Covers	150	155	160	165	170	175	175	180	185	190	**1,705**
Manhole & Catch Basin Rehabilitation	370	380	390	405	415	425	435	450	460	470	**4,200**
Sub-Total	**9,415**	**11,245**	**2,830**	**3,040**	**3,160**	**7,985**	**3,415**	**3,530**	**3,555**	**3,670**	**51,845**

Capacity Improvements

Core Strategies to Reduce Flood Risk

- Enlarging stormwater pipes or adding secondary pipes
- Adding stormwater detention
- Adding storm drain inlets
- Providing overland relief

PLUS:

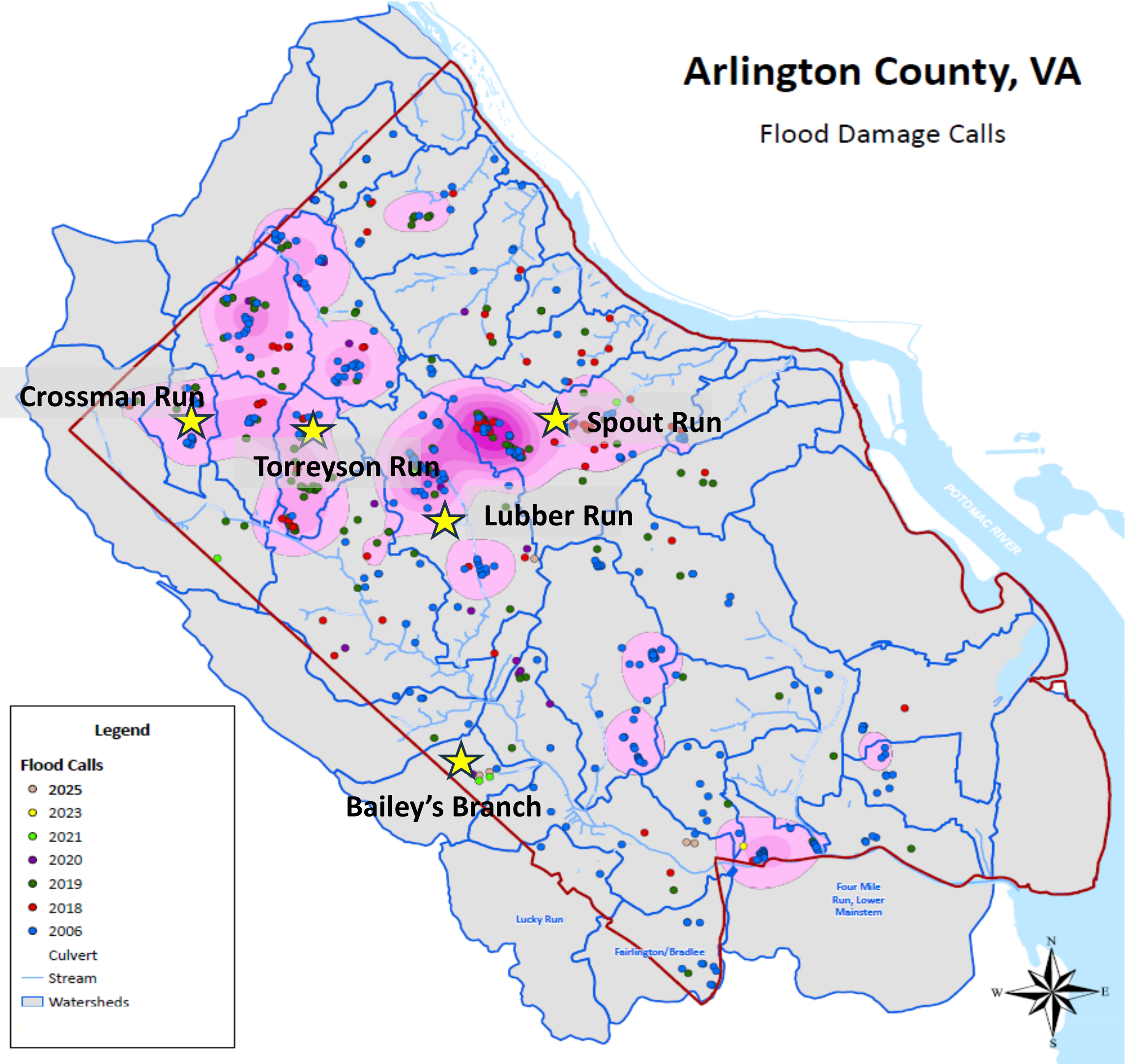
- Risk communication and encouraging private action

Lubber Run Watershed

Watershed-Level Approach

- Funded at an overall 'watershed program' level
- Allows for most flexibility to account for key uncertainties
  - o Timing of voluntary property acquisitions
  - o Easements for pipe upgrades
  - o Potential partners to join forces and cost-share
  - o Feasibility of/public engagement for underground detention

o Allows for pivots to 'Plans B or C'



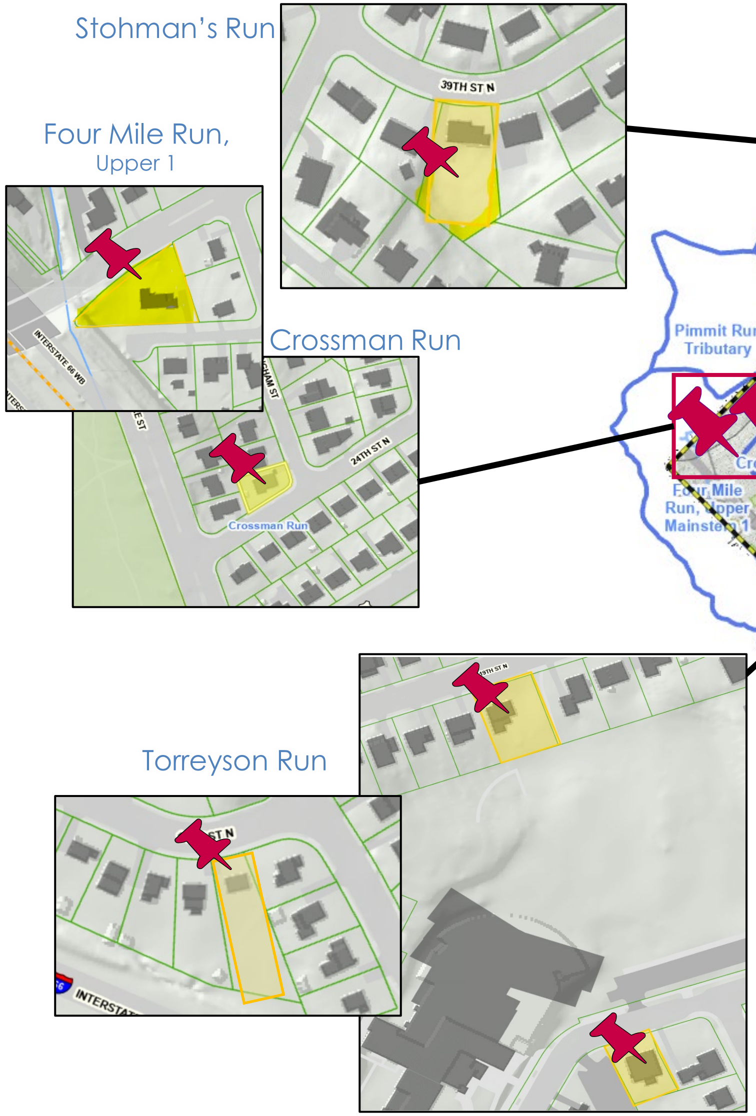
Voluntary Property Acquisition Program

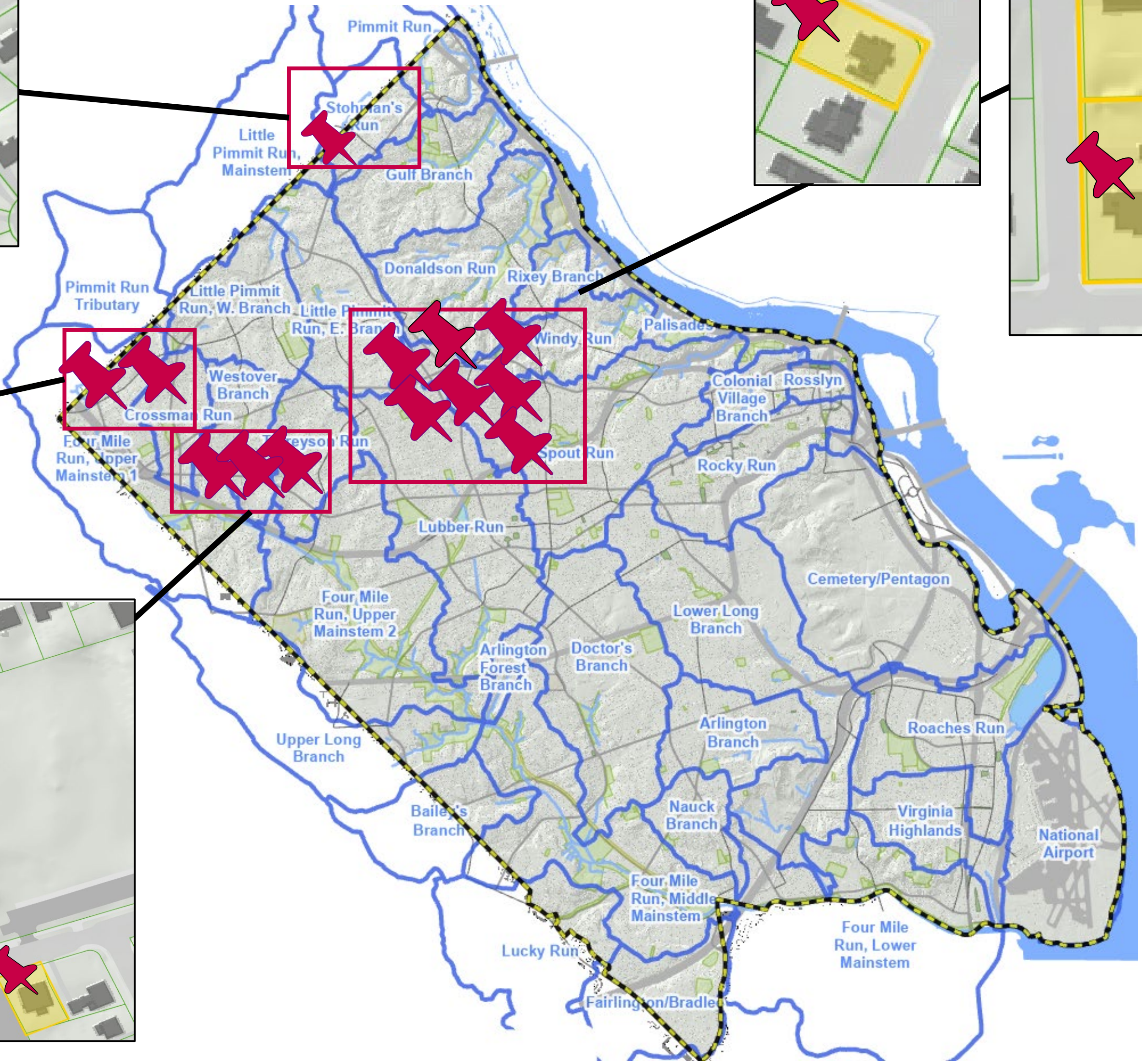
Limited space to improve stormwater system and reduce risk to life and property without property acquisition.

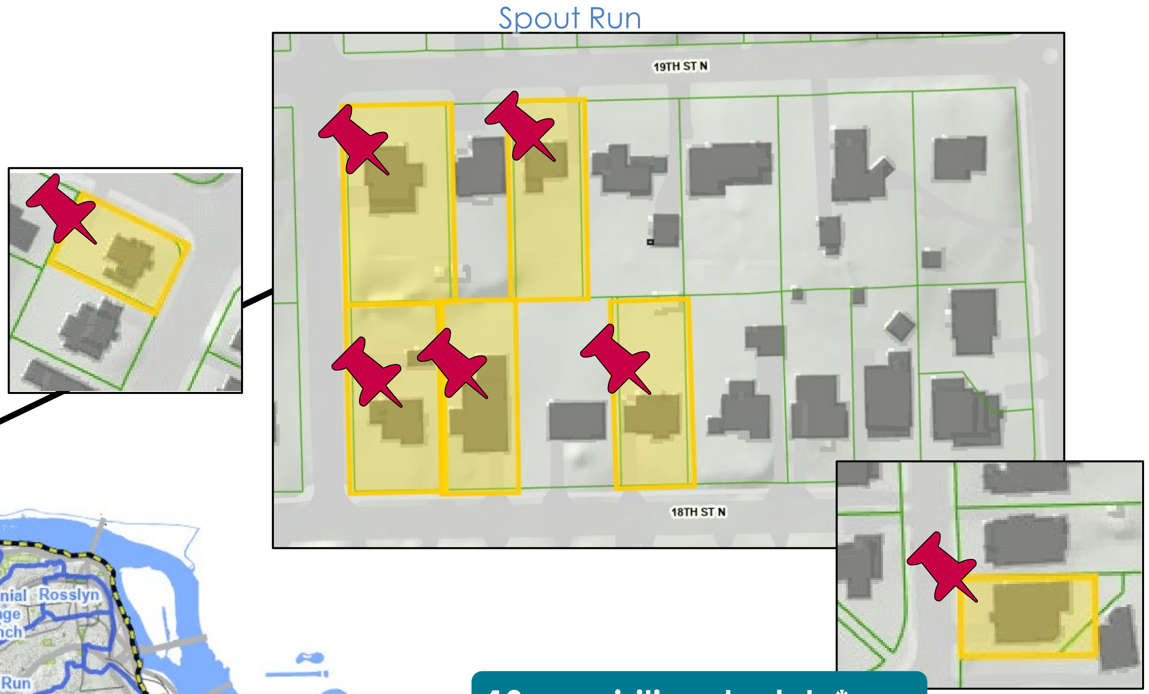
- ✓ Immediately reduces risk to life and safety
- ✓ Creates overland relief pathways
- ✓ Creates space and access for capacity improvements
- ✓ Breaks cycle of turnover of high-risk properties
- ✓ Reduces flood risk permanently

As a voluntary program, timing of property acquisitions outside of our control.

Property Acquisition Update







13 acquisitions to date*:

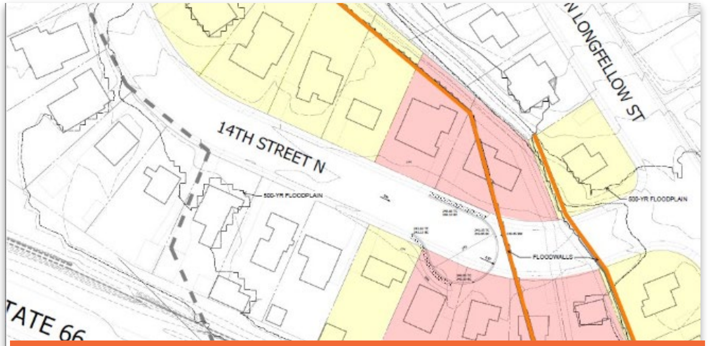
- 4423 18th St. N.
- 4433 18th St. N.
- 4437 18th St. N.
- 5840 18th St. N.
- 4424 19th St. N.
- 4434 19th St. N.
- 5822 19th St. N.
- 1922 N. Upton St.
- 1601 N. Taylor St.
- 6415 24th St. N.
- 4324 39th St. N.
- 6915 29th St. N.
- 5856 14th St N

FY 2027-2036 CIP – Capacity Improvements

Spout Run

Total CIP budget: $40.3M
Comp Plan or Strategic initiative: Stormwater Master Plan

Program Strategies:
- Establishment of overland relief pathway after property acquisitions



Torreyson Run

Total CIP budget: $33.0M
Comp Plan or Strategic initiative: Stormwater Master Plan

Program Strategies:
- Floodwalls, road realignment, voluntary property acquisition, and pipe upgrades

Bailey's Branch

Total CIP budget: $13.8M
Comp Plan or Strategic initiative: Stormwater Master Plan

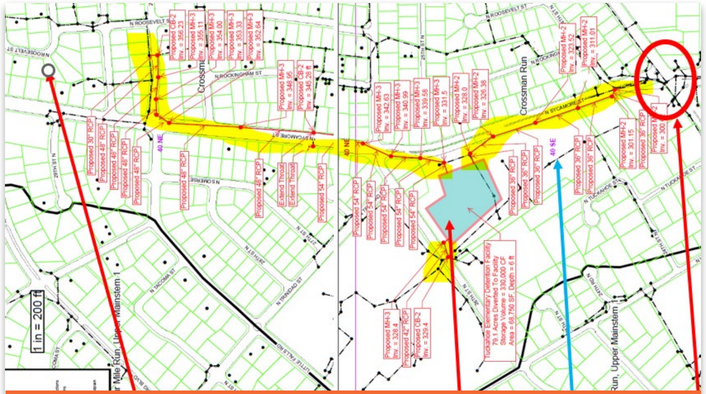
Program Strategies:
- Floodwalls, additional inlets, pipe upgrades, overland relief, and possible detention

FY 2027-2036 CIP – Capacity Improvements

Lubber Run

Total CIP budget: $36.8M
Comp Plan or Strategic initiative: Stormwater Master Plan

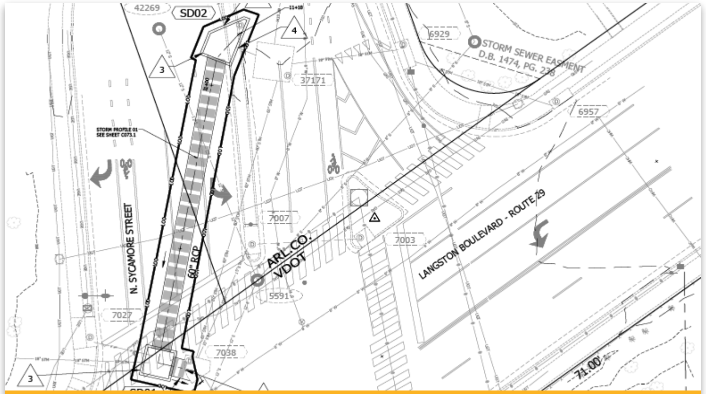
Program Strategies:
- Pipe upgrades, potential detention vaults, and possible property acquisition



Crossman Run

Total CIP budget: $27.8M
Comp Plan or Strategic initiative: Stormwater Master Plan

Program Strategies:
- Additional inlets, pipe upgrades, and potential detention



Langston Blvd. Culvert @ N. Sycamore Street

Total CIP budget: $1.2M
Comp Plan or Strategic initiative: Stormwater Master Plan

Program Strategies:
- Pipe upgrade

Related Projects:
- Transportation improvements along N Sycamore Street

FY 2027-2036 CIP Capacity Improvements

STORMWATER			
Project Name	**Total 10-Year Budget ($000s)**	**Comp Plan or Strategic Initiative**	**Project Description**
Flood Risk Reduction Program and Capacity Improvements	14,765	Stormwater Master Plan	Implements capacity and flood risk reduction project priorities and addresses more localized drainage problems.
33rd Street North to Williamsburg Capacity	6,525	Stormwater Master Plan	Increase capacity by connecting previously constructed storm drain improvements from the cul-de-sac at 33rd St N to Williamsburg Blvd.
Public-Private Partnerships *New!*	6,000	Stormwater Master Plan	Notional, flexible funding to support public-private partnerships as opportunities arise
North Thomas Street at 26th Street North	2,660	Stormwater Master Plan	Increases capacity of the storm drain system along North Thomas Street to mitigate flooding during severe storms.
Capacity Planning Studies	980	Stormwater Master Plan	Planning and feasibility studies provide an integrated approach to proper scoping of potential projects.
Williamsburg at North Underwood Capacity	635	Stormwater Master Plan	Increase capacity of the storm drain system to address area flooding.
Flood Adaptation Design & Construction Guidelines	100	Stormwater Master Plan	Provides residential and commercial design and construction recommendations and tools to reduce flood risk

Capacity Improvement Projects ($000s)

Project Name	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	10-Year Estimate
Flood Adaptation Design Guidelines	100	-	-	-	-	-	-	-	-	-	**100**
Capacity Planning Studies	50	50	55	110	110	115	120	120	125	125	**980**
Flood Risk Reduction Programs and Capacity Improvements	1,315	3,575	1,210	1,495	1,120	1,150	1,180	1,210	1,240	1,270	**14,765**
Spout Run Stormwater Capacity	3,030	1,545	3,655	3,595	2,015	5,520	7,255	7,440	2,230	4,000	**40,285**
Torreyson Run Stormwater Capacity	400	2,475	1,270	2,725	5,600	1,195	9,030	5,265	5,085	-	**33,045**
Lubber Run Stormwater Capacity	700	260	530	2,180	6,440	12,650	5,900	605	3,720	3,810	**36,795**
Crossman Run Stormwater Capacity	-	-	370	1,635	3,505	290	885	7,260	8,130	5,715	**27,790**
Bailey's Branch Stormwater Capacity	555	1,545	5,830	545	-	230	-	665	2,480	1,905	**13,755**
Langston Blvd @ Sycamore	1,150	-	-	-	-	-	-	-	-	-	**1,150**
33rd St N to Williamsburg	-	-	-	325	1,345	1,725	1,415	845	870	-	**6,525**
Williamsburg @ N Underwood	-	-	-	-	-	-	-	-	-	635	**635**
N Thomas Street	150	360	1,060	1,090	-	-	-	-	-	-	**2,660**
Public/Private Partnerships ***New***	-	1,500	1,500	-	-	2,000	-	-	-	1,000	**6,000**
Sub-Total	**7,450**	**11,310**	**15,480**	**13,700**	**20,135**	**24,875**	**25,785**	**23,410**	**23,880**	**18,460**	**184,485**

Streams & Water Quality Program

- Meets regulatory and environmental stewardship commitments to improve water quality and condition of natural stream network
- Improves resilience and environmental performance of streams, ponds, and wetlands
- Adds ‘green streets’ projects to reduce runoff and remove pollution
- Protects/repairs adjacent infrastructure and improves public safety

FY 2027-2036 CIP – Streams & Water Quality

Gulf Branch Stream Resiliency

Total CIP budget: $2.5 M
Comp Plan or Strategic initiative: Stormwater Master Plan

Community benefits:
- Sanitary and nature center infrastructure protection, environmental improvement

Expected Construction: FY26-FY27

Concord Mews Watershed Retrofit (Green Infrastructure Program)

Total CIP budget: $1.1 M
Comp Plan or Strategic initiative: Stormwater Master Plan

Community benefits:
- Asset failure rehabilitation, environmental improvement, reduce street flooding

Expected Construction: FY27-28

Gulf Branch Outfalls (Outfall Rehabilitation program)

Total CIP budget: $1.3 M
Comp Plan or Strategic initiative: Stormwater Master Plan

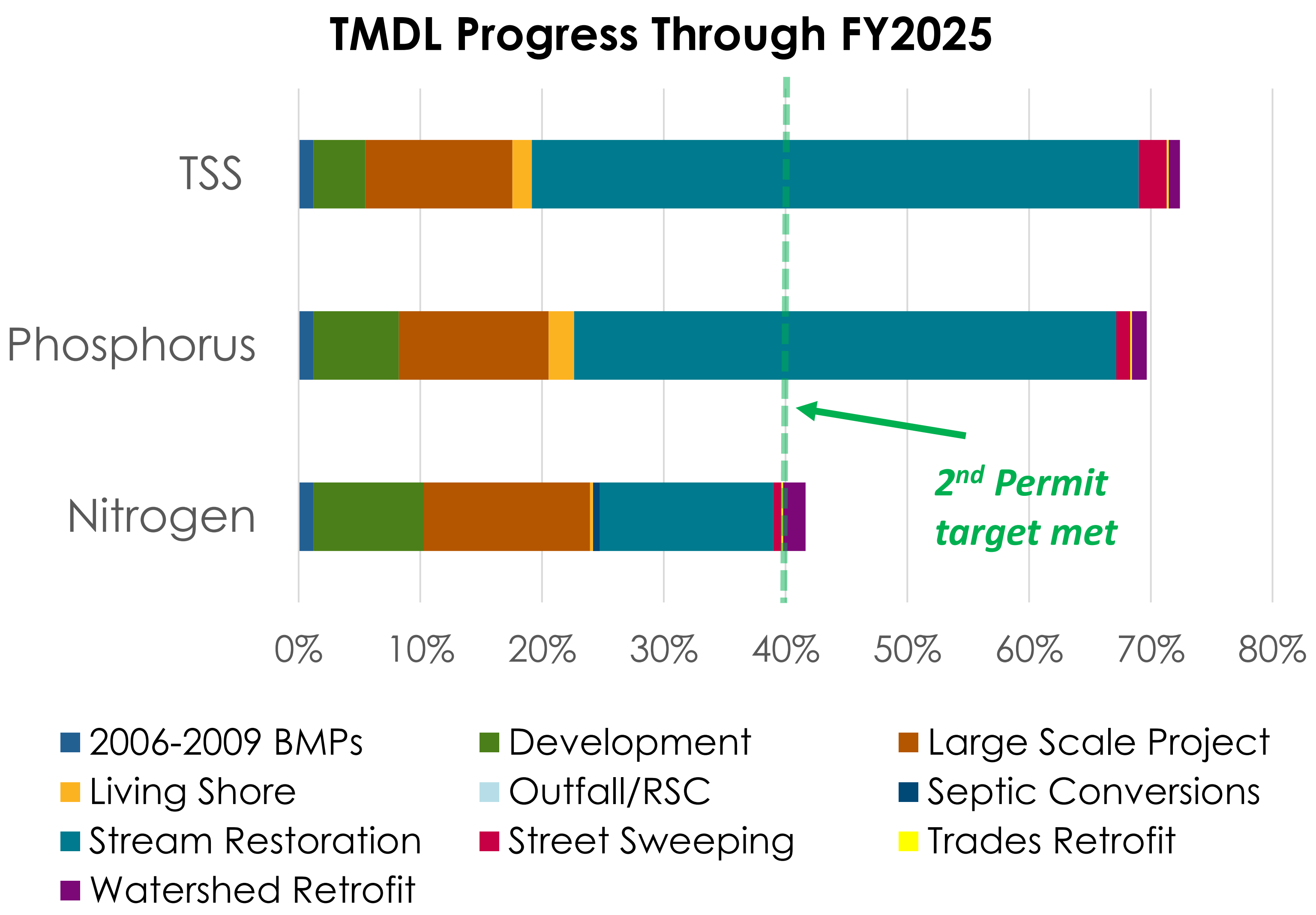
Community benefits:
- Infrastructure rehabilitation, erosion mitigation, environmental improvement

Expected Construction: FY27-28

MS4 Permit Compliance – 2nd Permit

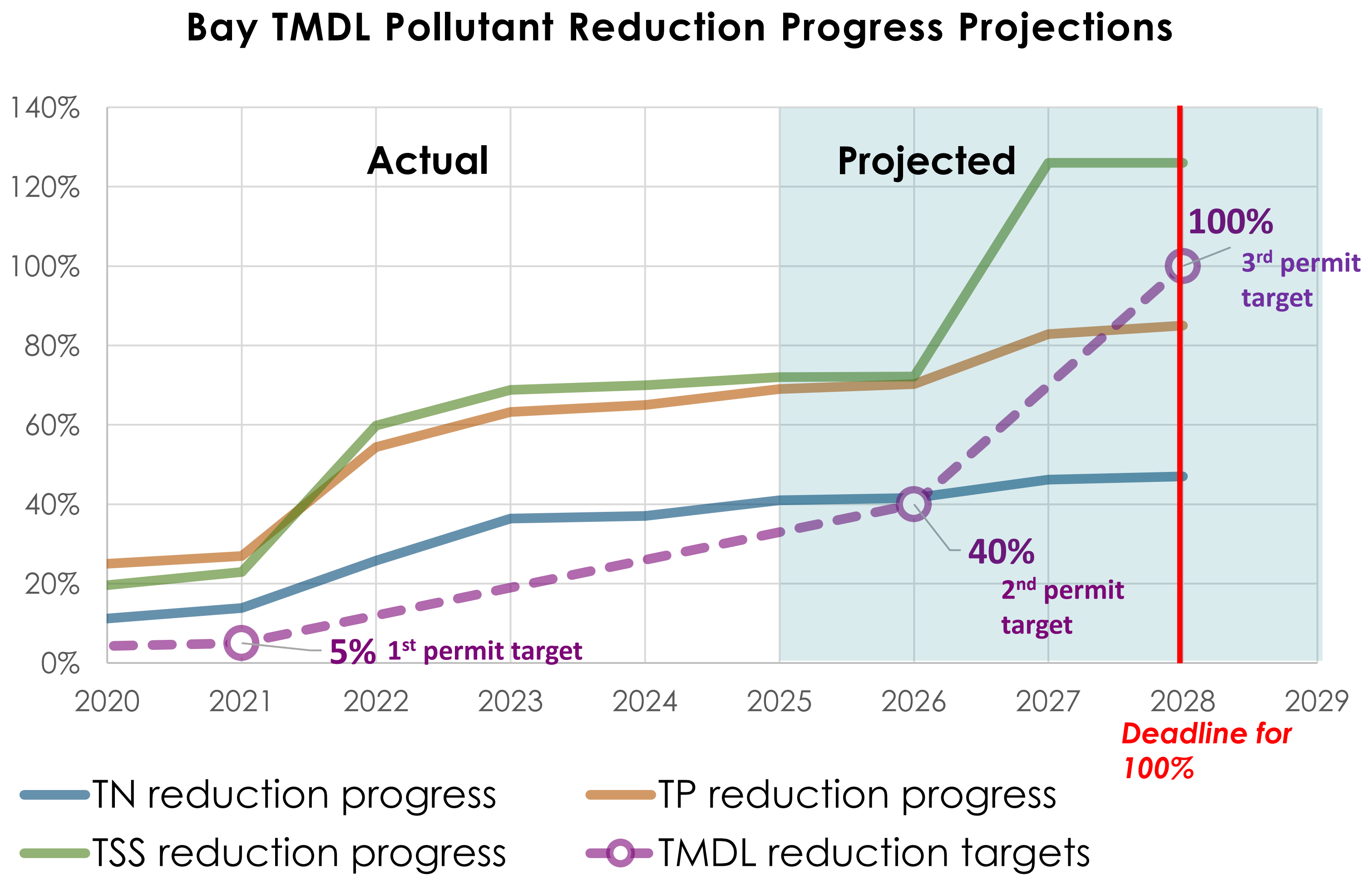
- Achieved 40% reduction required by end of 2nd cycle (FY 2026)
- Additional compliance in 2nd cycle helps mitigate fiscal impact of reaching 100% in 3rd cycle

MS4 Permit TMDL (Total Maximum Daily Load) Reductions Required for:
- TSS (Total Suspended Solids)
- TP (Total Phosphorus)
- TN (Total Nitrogen)



MS4 Permit Compliance – Projected 3rd Permit

- Credits from Plant required for 100% nitrogen and phosphorus reduction goals.
- Gulf Branch stream project (in construction) key to achieving 100% target for TSS and 85% TP
- Additional reductions from outfall repair, pond and Green Street projects and the LDA program.
- Expect new reduction targets from EPA/DEQ post-2028.
- Compliance relies upon stream projects plus multiple smaller projects and steady effort.



FY 2027-2036 CIP Streams & Water Quality

STORMWATER			
Project Name	**Total 10-Year Budget ($000s)**	**Comp Plan or Strategic Initiative**	**Project Description**
Outfall Rehabilitation Program	9,645	Stormwater Master Plan	Repairing and rehabilitating outfalls, mitigating erosion, and creating long-term stability and resiliency
Stream Resiliency Program	7,190	Stormwater Master Plan	Repair eroding and acutely degraded stream channels
Green Infrastructure Program	6,065	Stormwater Master Plan	Re-construction and enhancement of existing stormwater ponds to improve water quality performance and "green streets" streetscape bioretention.
Stream & Wetland Capital Maintenance	2,225	Stormwater Master Plan	Capital stream, wetland, and outfall maintenance
Water Quality Project Feasibility & Concept Design	1,180	Stormwater Master Plan	Planning and feasibility studies provide an integrated approach to proper scoping of potential projects.

Streams & Water Quality Projects ($000s)

Project Name	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	10-Year Estimate
Water Quality Planning/ Feasibility Studies	150	100	105	110	110	115	120	120	125	125	**1,180**
Outfall Rehabilitation Program	1,370	1,885	775	1,300	940	660	670	665	680	700	**9,645**
Gulf Branch Stream Restoration	2,500	-	-	-	-	-	-	-	-	-	**2,500**
Stream Resiliency Program	150	155	160	1,365	1,570	175	175	1,515	1,735	190	**7,190**
Green Infrastructure Program	1,285	1,915	340	345	350	360	355	365	370	380	**6,065**
Stream & Wetland Capital Maintenance ***New***	235	190	220	215	230	280	210	210	215	220	**2,225**
Sub-Total	**5,690**	**4,245**	**1,600**	**3,335**	**3,200**	**1,590**	**1,530**	**2,875**	**3,125**	**1,615**	**28,805**

*Quebec Street Outfall ($450k), Gulf Branch Outfalls ($1,275k), Upper Long Branch Outfall ($790k) are now under Outfall Rehabilitation. Sparrow Pond ($450k) is now under Stream & Wetland Capital Maintenance.
Concord Mews ($1,795), Washington Blvd pond ($950k), Gulf Branch Green streets ($765k) are now under Green Infrastructure Program

Program Summary: $265M

	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33	FY 34	FY 35	FY 36	10 Year Total
Maintenance Capital	9,415	11,245	2,830	3,040	3,160	7,985	3,415	3,530	3,555	3,670	51,845
Capacity Improvements	7,450	11,310	15,480	13,700	20,135	24,875	25,785	23,410	23,880	18,460	184,485
Streams & Water Quality	5,690	4,245	1,600	3,335	3,200	1,590	1,530	2,875	3,125	1,615	28,805
Sub-Total	**22,555**	**26,800**	**19,910**	**20,075**	**26,495**	**34,450**	**30,730**	**29,815**	**30,560**	**23,745**	**265,135**
Implementation Adjustment (20%)	(4,511)	(5,360)	(3,982)	(4,015)	(5,299)	(6,890)	(6,146)	(5,963)	(6,112)	(4,749)	(53,027)
Total Recommendation	**18,044**	**21,440**	**15,928**	**16,060**	**21,196**	**27,560**	**24,584**	**23,852**	**24,448**	**18,996**	**212,108**

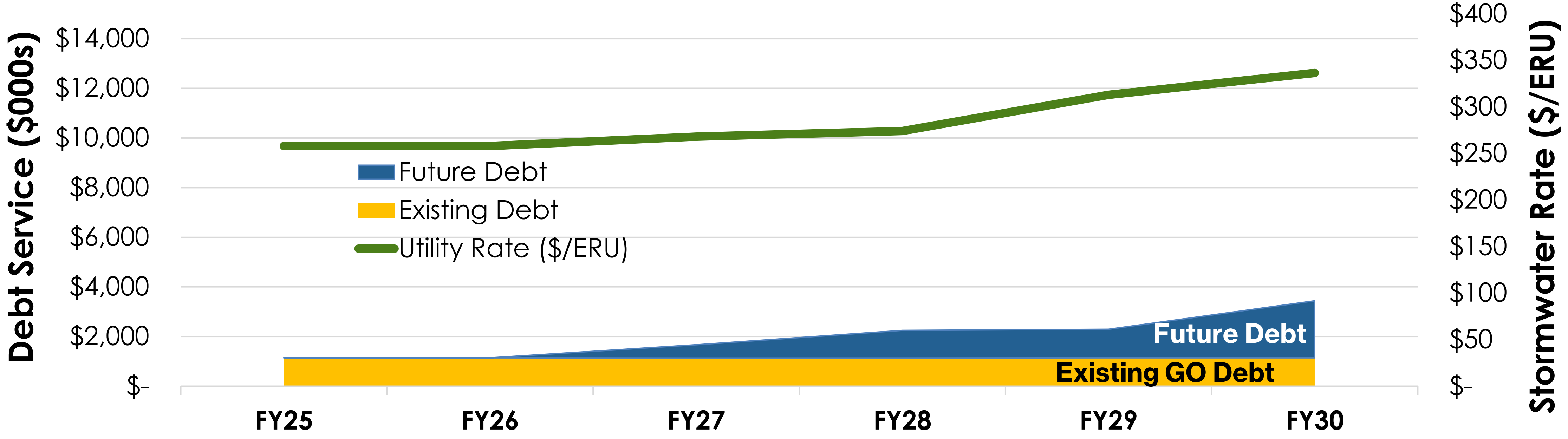
Program Summary ($000s)

	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33	FY 34	FY 35	FY 36	10 Year Total
New Funding											
State Funding	217	800	-	-	1,250	-	-	-	1,250	-	3,517
Stormwater Utility Fee Revenue	3,417	4,172	3,710	3,820	3,930	4,070	4,040	3,980	4,505	4,330	39,974
New Bond Issue	-	-	-	-	18,270	30,130	26,440	25,585	24,555	19,165	144,145
Other Funding	338	5,220	250	250	250	250	250	250	250	250	7,558
Subtotal New Funding	**3,972**	**10,192**	**3,960**	**4,070**	**23,700**	**34,450**	**30,730**	**29,815**	**30,560**	**23,745**	**195,194**
Previously Approved Funding											
Authorized but Unissued Bonds	13,735	13,833	15,950	16,005	2,795	-	-	-	-	-	62,318
Other Previously Approved Funds	4,848	2,775	-	-	-	-	-	-	-	-	7,623
Subtotal Previously Approved Funding	18,583	16,608	15,950	16,005	2,795	-	-	-	-	-	69,941
Subtotal Funding Sources	**22,555**	**26,800**	**19,910**	**20,075**	**26,495**	**34,450**	**30,730**	**29,815**	**30,560**	**23,745**	**265,135**
20% Implementation Adjustment	(4,511)	(5,360)	(3,982)	(4,015)	(5,299)	(6,890)	(6,146)	(5,963)	(6,112)	(4,749)	(53,027)
Total Funding	**18,044**	**21,440**	**15,928**	**16,060**	**21,196**	**27,560**	**24,584**	**23,852**	**24,448**	**18,996**	**212,108**

November 2026 Bond Referendum is not needed due to existing unissued balances on 2020 & 2022 Bond Referenda

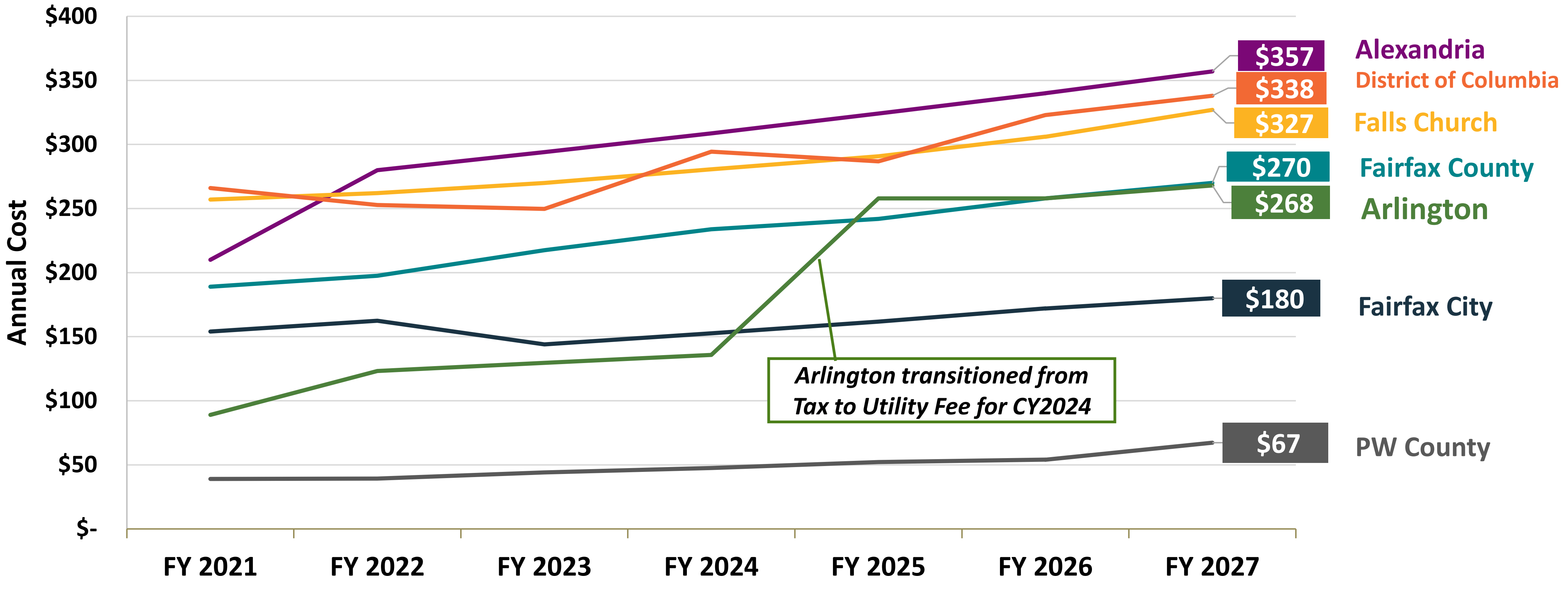
Projected Debt & Rate Impact

**every $1M of debt = $1 on the rate for debt service expense; operating expense increases also affect the rate*



	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Projected Annual Rate per ERU	$258	$258	$268	$274	$313	$336
Projected Annual Debt Issuance ($000s)	--	$8,000	$9,090	$6,942	$11,684	$12,110
Debt Coverage Ratio (req. 1.25)	6.0	3.5	2.8	2.0	2.4	2.1

Stormwater Average Household Impact
Regional Comparison



Dashed lines indicate FY2027 rates have not yet been proposed

Fairfax County is the only jurisdiction still assessing a tax rate to fund stormwater.

Fairfax City transitioned to a utility in FY2024

Average FY2027 increase for other jurisdictions is 9%
5-Year Average increase for other jurisdictions is 5%

In CY 2024, burden shifts from Real Estate Assessment-based stormwater tax to an Impervious Area-based Stormwater Utility Fee. Fee will continue to increase to support the debt service/bonds issued in support of CIP.

Summary & Conclusion

- CIP goals include resiliency and risk reduction, maintaining state of good repair, and meeting regulatory and environmental stewardship commitments
- Proposal seeks to increase the on-the-ground rate of execution
- Program-level stormwater capacity funding provides essential flexibility to manage uncertainties
- Maintaining state of good repair faces challenges and increased funding needs over time
- Complementary efforts underway to promote flood risk awareness and provide tools for private action

Proposed Capital Improvement Plan (CIP)

FY 2027 – FY 2036

Submission of a 10-Year Plan for Stormwater

May 2026

ARLINGTON
VIRGINIA