

Mission: To implement a comprehensive stormwater management program that balances the following goals: 1) to reduce the potential for stormwater threats to public health, safety, and property; 2) to reduce the impacts of new and existing urban development on Arlington streams, the Potomac River, and the Chesapeake Bay; and, 3) to comply with State and federal stormwater, water quality, and floodplain management regulations.

STORMWATER MANAGEMENT PROGRAM OBJECTIVES

- Integrate traditional stormwater infrastructure capacity needs with watershed management, environmental protection objectives, and regulatory compliance requirements, including those of the County's Municipal Separate Storm Sewer System (MS4) permit.
- Implement critical capacity infrastructure, stream restoration and repair, and water quality mitigation projects consistent with the goals and strategies in the Stormwater Master Plan that was adopted as an element of the County's Comprehensive Plan in September 2014 and other capacity projects identified as part of the program review subsequent to the historic flooding in July 2018 and 2019.
- Provide routine preventative maintenance of the County's stormwater infrastructure assets as well as emergency repair or replacement actions when needed.
- Ensure the County's floodplains are managed in accordance with local, State, and Federal laws and regulations.

OVERALL PROGRAM SCOPE

Since the adoption of a dedicated funding source for stormwater management in April 2008, the Department has established a comprehensive Stormwater Management Program that:

- Conducts rigorous floodplain management activities to ensure compliance with state and federal floodplain regulations, accuracy of mapped floodplains, and favorable flood insurance rates for residents.
- Develops long-term infrastructure planning for capacity, sufficiency, and risk management for future demand and conditions.
- Implements an infrastructure capital program to ensure needed capacity enhancements are made and the system is maintained in a state of good repair (SGR).
- Administers capital maintenance, emergency response, and complaint operations.
- Ensures regulatory compliance for both County and private sector operations and activities.
- Installs green infrastructure and stream, pond, and wetland restoration projects to support local environmental recovery and restoration, protect public safety and infrastructure, and meet the aggressive requirements for the cleanup of the Chesapeake Bay.
- Maintains both the traditional and green infrastructure assets of the Program.
- Conducts education and training activities for employees, businesses, developers, and residents.
- Monitors streams; and,
- Conducts tracking, monitoring, and reporting for local, regional, and state/national bodies and agencies.

SIGNIFICANT BUDGET CHANGES

The FY 2024 adopted expenditure budget for the Stormwater Management Fund is \$16,545,407, a four percent increase from the FY 2023 adopted budget. The FY 2024 adopted budget reflects:

- ↑ Personnel increases due to the addition of a plan review engineer (\$135,454; 1.0 FTE), the transfer in of sewer maintenance staff (\$186,865; 2.0 FTE) from Utilities Fund, employee salary increases, an increase in the County's cost for employee health insurance, slightly higher retirement contributions based on current actuarial projections, adjustments to salaries resulting from the administrative job family studies (\$2,909), and one-time \$2,000 (gross) employee bonuses (\$124,884).
- ↑ Non-personnel increases due to overhead and interdepartmental charges (\$322,010), one-time funding for grant writing and administration (\$115,000), flow monitoring and rain gauges (\$106,000 one-time; \$40,000 ongoing), tree planting (\$100,000), and costs associated with the new plan review engineer (\$2,500 one-time; \$2,426 ongoing), slightly offset by reallocations and cuts (\$42,839) and adjustments to the annual expense for maintenance and replacement of County vehicles (\$8,589).
- ↑ Debt service expense increases for GO bonds planned for issuance in FY 2023 to fund Stormwater CIP projects (\$582,510) and debt service for the existing FY 2021 GO Bonds (\$500).
- ↓ Pay-As-You-Go capital program funding decreases due to the planned mix of funding strategies for the Stormwater capital program (\$1,498,471).
- ↑ Revenue increases primarily due to the increase in the real estate assessment tax base (\$545,461) and the increase in development services fees (\$71,318).
 - In response to intense rain events and flooding in 2018 and 2019, the County has undertaken a comprehensive review of ways to mitigate flood risks. Design work is already underway for significant investments in watershed-scale solutions in critical areas that have experienced flooding and are identified in the Stormwater Master Plan. The FY 2023 – FY 2032 Adopted Capital Improvement Plan (CIP) and future CIPs seek to strike the right investment balance between water quality, improved maintenance of assets, education, and capacity improvements. To fund the near-term projected need, the County received approval from voters for a \$50.84 million Bond Referenda in November 2020 and \$39.76 million Bond Referenda in November 2022 which provided the authority to issue bonds to fund key projects that will be constructed over a number of years. Tax rate or utility fee rate increases may be required in future years in order to fund the debt service on these bonds. More detail can be found in the [FY 2023 – FY 2032 Adopted CIP](#).
 - Currently, the stormwater program is funded through the Sanitary District Tax of \$0.017 per \$100 of assessed real property value. The County Board has given direction to implement a Stormwater Utility, which would replace the tax funding with utility fee funding based on a property's impervious area (hard surfaces like roofs and driveways that don't let rain runoff soak into the ground). Impervious area is the industry standard for estimating usage of the stormwater system and is also considered a fairer way to pay for the stormwater management program than real estate assessments. It also allows localities to offer credits to customers who reduce their properties' runoff to the stormwater system. Many Virginia communities have transitioned to a stormwater utility to fund their stormwater programs. It is anticipated the utility will be implemented for the FY 2025 budget (CY 2024). More information can be found on the [Stormwater Utility Project website](#).

PROGRAM FINANCIAL SUMMARY

	FY 2022 Actual	FY 2023 Adopted	FY 2024 Adopted	% Change '23 to '24
Personnel	\$5,355,570	\$6,240,687	\$7,136,419	14%
Non-Personnel	3,617,304	4,917,418	5,553,926	13%
Debt Service	935,333	935,500	1,518,510	62%
Pay-As-You-Go Capital Projects	9,984,399	3,835,023	2,336,552	-39%
Total Expenditures	19,892,606	15,928,628	16,545,407	4%
Total Revenues	16,008,809	\$15,928,628	\$16,545,407	4%
Change in Fund Balance	(\$3,883,797)	-	-	-
Permanent FTEs	47.00	50.50	53.50	
Temporary FTEs	-	-	-	
Total Authorized FTEs	47.00	50.50	53.50	

CAPITAL PROGRAM SUMMARY

The adopted CY 2023 Sanitary District Tax of \$0.017 per \$100 of assessed real property value remains unchanged from CY 2022. For FY 2024, it is estimated to generate a total of \$15,102,589 in revenue, of which \$2,336,552 will go towards executing the Pay-As-You-Go capital program and \$1,518,510 will go towards debt service. Recognizing the significance of the stormwater investment that is needed, the voters approved the November 2020 and November 2022 bond referenda for stormwater and watershed infrastructure. Tax rate or utility fee rate increases may be required in future years in order to fund the debt service on these bonds. This will be a substantial, long-term investment in the County’s stormwater management system, with multiple generations of taxpayers benefitting.

The capital program is organized into the following areas: ‘Storm Drainage Improvements,’ ‘Maintenance Capital,’ and ‘Streams and Water Quality.’ The [FY 2023 – FY 2032 Adopted Stormwater CIP](#) provides more detail.

Storm Drainage Improvements

The Storm Drainage Improvements program addresses infrastructure improvements to the stormwater sewer system. Improvements are designed and executed on watershed, localized, and parcel-based scales to: 1) mitigate flood risks; 2) maintain system infrastructure in a state of good repair; 3) install tertiary system elements; 4) construct drainage projects where under capacity; 5) develop overland relief; 6) advance resiliency goals; and 7) otherwise implement the adopted Stormwater Master Plan and underlying studies.¹

¹ Arlington County’s stormwater sewer system is increasingly vulnerable due to under-capacity, age, and condition of certain pipe sections and/or network elements. More than half of the network is at least 60-80 years old and includes assets constructed from corrugated metal and terracotta. In addition, the system lacks sufficient tertiary infrastructure. Also, the community continues to experience robust redevelopment and recently (2018 and 2019) experienced intense storm events that caused significant flooding and damage of both public infrastructure and private property.

FY 2023 Program highlights:

- Completion of the Risk Assessment and Management Project (RAMP) is projected in FY 2024, which will:
 - Inform Flood Resilient Arlington. Arlington is working toward flooding resilience through defining balance between private and public responsibility, scaling levels of flood protection and mitigation, and needs based investment.
 - Create mid and long-term climate mitigation and adaptation plans and actions.
 - Inform current and future CIP planning.
 - Provide certain project cost-benefit analyses.
 - Perform pre-disaster mitigation planning (with the Department of Public Safety Communications and Emergency Management).
 - Explore potential grant and alternative funding efforts.
 - Use data to support relevant future code and ordinance updates.
- The Spout Run Watershed Infrastructure Project design phase is expected to continue into FY 2024. This project has been identified as one of several critical priority areas that experience flooding as a result of system under-capacity, insufficiency, or age-related conditions on a watershed scale. The current design phase funding includes surveys, engineering design, design phase outreach, analytics, and land acquisition.
- After the July 8, 2019, flood, watershed scale projects for four additional watersheds were accelerated and design phases were initiated, including: Torreyson Run, Lubber Run, Crossman Run, and Westover. Multiple other large-scale projects were also accelerated. These were targeted in the watersheds with the most severe flooding. These watersheds include but are not limited to: Spout Run (exclusive of Waverly Hills), Donaldson Run, and Four Mile Run.
 - The County is currently collaborating with Arlington Public Schools (APS) on an underground stormwater management facility at the new Cardinal Elementary School located in Torreyson Run. This project is constructing an underground detention facility beneath the athletic fields in order to mitigate downstream impacts in the watershed for future storm events. Construction of the stormwater facilities began in November of 2021 with completion estimated for the Spring/ Summer of 2023, followed by restoration of the athletic fields.

Maintenance Capital

Much of Arlington County's stormwater infrastructure was built during the 1940's and 1950's. It is approaching the end of its useful life and a regular repair and replacement program is necessary to ensure the continued functioning of the storm drainage network during storm events in order to prevent flooding and property damage.

This program provides for the regular replacement of storm sewer mains, catch basins, and endwalls (with their associated outfalls). Particular attention will be paid to the approximate 11 miles of corrugated metal pipes and plate arch culverts that have deteriorated more quickly than other materials. Associated master plans include the Watershed Management Plan and the Stormwater Master Plan.

FY 2023 Program Highlights:

- Four Mile Run Flood Control Project – Letter of Intent executed with the US Army Corps of Engineers (USACE), in coordination with the City of Alexandria, for the development of dredging and maintenance plans to remediate USACE identified deficiencies in Four Mile Run-Arlington East and Arlington West Levees. This project reached substantial completion during Spring 2023.
- Engineering design for the replacement of the Dumbarton Street culverts began in FY 2020. Construction is expected to begin in FY 2024.

- Phase I of the Donaldson Run outfall and channel repair and stabilization at 24th Road North: construction was initiated and completed in early FY 2019. After acquisition of a large easement a second phase was constructed in mid-FY 2020. An additional phase is currently under design with construction planned to begin in late FY 2023 and continue through FY 2024.

Streams and Water Quality

This program addresses regulatory requirements and policy objectives to reduce stormwater pollution, rehabilitate and restore natural infrastructure, protect public safety, and promote environmental recovery and restoration in the County's stream valleys which have been impacted by stormwater runoff from the County's increases in impervious surfaces.

Arlington County exceeded the five percent Bay cleanup pollution reduction requirement for the permit cycle that ended in June 2018. The current permit cycle (ending in CY 2026) requires a cumulative 40 percent pollution reduction, with the subsequent permit requiring the full 100 percent reduction. Progress to date has been made through public investments in green infrastructure and stream restoration, water quality credit from redevelopment activity regulated under the Stormwater Management Ordinance, and programmatic efforts such as street sweeping.

Increased program drivers to repair eroded streams and failed stormwater outfalls emerged from the July 8, 2019, extreme flooding event. Also, continued increases in impervious surfaces from land development activity (both regulated and unregulated) add to the mitigation pressures on the program. In FY 2022, DES enhanced Land Disturbance Activity (LDA) requirements with the LDA 2.0 initiative to require further mitigation of runoff impacts related to development.

FY 2023 Program highlights:

- Six green infrastructure projects are in design in FY 2023.
- Donaldson Run Tributary B stream restoration project was completed in early FY 2023.
- Ballston Pond watershed retrofit project will complete construction in FY 2023.
- Planning, design, and community engagement for the Sparrow Pond retrofit and Gulf Branch stream resiliency projects are underway with construction expected to start in late FY 2023 and FY 2024, respectively.

STORMWATER MANAGEMENT FUND
FUND STATEMENT

	FY 2022 ACTUAL	FY 2023 ADOPTED	FY 2023 RE-ESTIMATE	FY 2024 ADOPTED
ADJUSTED BALANCE, JULY 1				
Operating Reserve	\$2,290,679	\$2,212,489	\$2,212,489	\$2,612,615
Capital Fund Balance	11,789,265	7,983,659	7,983,658	2,325,833
ADJUSTED BALANCE, JULY 1	14,079,944	10,196,148	10,196,147	4,938,448
REVENUE				
Sanitary District Tax	14,050,448	14,557,128	14,699,431	15,102,589
Fines & Fees	1,880,237	1,371,500	1,371,500	1,442,818
Miscellaneous Revenues	78,124	-	-	-
TOTAL REVENUE	16,008,809	15,928,628	16,070,931	16,545,407
TOTAL REVENUE & BALANCE	30,088,753	26,124,776	26,267,078	21,483,855
EXPENSES				
Operating and Maintenance	8,972,874	11,158,105	10,595,605	12,690,345
Debt Service	935,333	935,500	935,500	1,518,510
Pay-As-You-Go Capital Projects - Current Year	6,100,603	3,835,023	4,397,525	2,336,552
Pay-As-You-Go Capital Projects - Carry-Over	3,883,796	7,210,000	5,400,000	-
TOTAL EXPENSES	19,892,606	23,138,628	21,328,630	16,545,407
BALANCE, JUNE 30	10,196,147	2,986,148	4,938,448	4,938,448
Operating Reserve	2,212,489	2,751,314	2,612,615	3,129,126
Capital Fund Balance	7,983,658	234,834	2,325,833	1,809,322
TOTAL BALANCE	\$10,196,147	\$2,986,148	\$4,938,448	\$4,938,448

Notes:

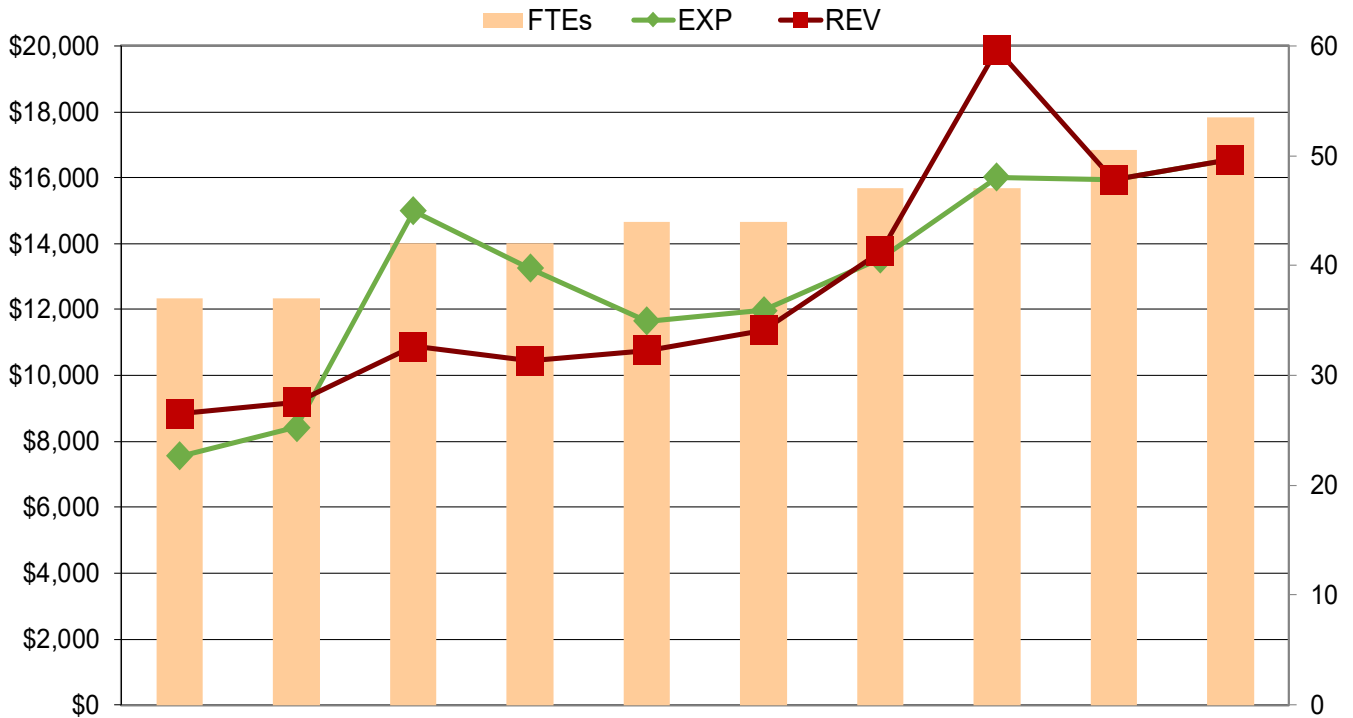
(1) The FY 2022 beginning balance is restated due to compliance with GASB Statement No. 84

(2) The FY 2023 re-estimate is the current projection of expenses and revenues.

(3) Most capital projects span multiple years, from design to construction completion. The FY 2022 Actual and FY 2023 Re-Estimate columns reflect that funding for capital projects are carried forward each fiscal year, and ending balances fluctuate, reflecting the carryover of these funds. The FY 2024 Adopted budget column is presented in a similar fashion to show planned execution of projects in the fiscal year. These are staff's best estimates based on preliminary plans and design and construction schedules.

(4) Based on County financial policies, the operating reserve is a 90-day reserve based on the Operating and Maintenance budget.

EXPENDITURE, REVENUE, AND FULL-TIME EQUIVALENT TRENDS



	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
\$ in 000s	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Adopted Budget	Adopted Budget
EXP	\$7,557	\$8,430	\$14,999	\$13,259	\$11,651	\$11,975	\$13,541	\$16,009	\$15,929	\$16,545
REV	\$8,833	\$9,185	\$10,878	\$10,438	\$10,760	\$11,376	\$13,761	\$19,893	\$15,929	\$16,545
FTEs	37.00	37.00	42.00	42.00	44.00	44.00	47.00	47.00	50.50	53.50

- The Stormwater Management Fund was established by the County Board in CY 2008 by adopting a Sanitary District Tax of \$0.01 per \$100 of assessed real property value. In CY 2010, the Sanitary District tax rate was increased to \$0.013 per \$100 of assessed real property value. In CY 2021, the Sanitary District tax rate was increased to \$0.017 per \$100 of assessed real property value.

Fiscal Year	Description	FTEs
FY 2015	<ul style="list-style-type: none"> ▪ Added personnel for stormwater management regulations. The eleven positions were a critical foundational step for stormwater program delivery and compliance. ▪ Increased inter-departmental charges for overhead (\$60,364). ▪ Increased operating expenses related to the new FTEs (\$67,643). ▪ Increased expenses associated with reimbursement of a portion of the street sweeping program costs (\$50,896). ▪ Reduced expenses due to an adjustment to the annual expense for maintenance and replacement of County vehicles (\$64,059). ▪ Funding for capital projects decreased (\$1,022,970) in FY 2015 as a result of adding 11.0 FTEs and other personnel expense increases. ▪ Revenues increased due to a projected increase in real estate assessment values (\$569,200). 	11.00
FY 2016	<ul style="list-style-type: none"> ▪ Increased inter-departmental charges for overhead (\$20,714). ▪ Increased expenses due to an adjustment to the annual expense for maintenance and replacement of County vehicles (\$89,070). ▪ Revenues increased due to a projected increase in real estate assessment values (\$450,750) and fees from site plan review (\$250,000). 	
FY 2017	<ul style="list-style-type: none"> ▪ Added personnel for stormwater management regulations. The five positions (\$628,983) were a critical foundational step for stormwater program delivery and compliance. ▪ Non-personnel increased due to the transfer of the responsibility of new tree planting from DPR to the Stormwater Management Fund (\$205,000). ▪ Revenues increased due to a projected increase in real estate assessment values (\$329,520) and fees from sediment/erosion control plan review (\$200,000). 	5.00
FY 2018	<ul style="list-style-type: none"> ▪ Eliminated one-time cost for purchase of a new vehicle in FY 2017 (\$24,100). ▪ Non-personnel increased due to the transfer of the responsibility of operating maintenance costs for DES and DPR stormwater facilities to the Stormwater Management Fund (\$265,130). ▪ Increased operating supplies (\$60,331) and annual expense for maintenance and replacement of County vehicles (\$8,776). ▪ Revenues increased due to a projected increase in real estate assessment values (\$258,190) and fees from sediment/erosion control plan review (\$100,000). 	

Fiscal Year	Description	FTEs
FY 2019	▪ Added a position that supports critical Stormwater Infrastructure program priorities, including managing the small drainage projects program (\$127,354).	1.00
	▪ Transferred an Administrative Assistant position from the General Fund to the Stormwater Management Fund (\$62,686).	1.00
	▪ Street sweeping expenses were transferred in from the DES General Fund to the Stormwater Management Fund (\$397,290).	
	▪ Increased contractual expenses (\$91,182), partially offset by a reduction in other operating expenses (\$44,473).	
	▪ Capital program funding decreased due to an increase in the operating budget for personnel and non-personnel expenses (\$146,381).	
	▪ Revenue increased due to the increase in the CY 2018 real estate assessment tax base (\$78,500).	
	▪ Revenue increased due to projected Sediment and Erosion Control plan revenue (\$282,500).	
	▪ Increased Chesapeake Bay Preservation fee revenue (\$160,000).	
FY 2020	▪ Non-personnel decreased in operations due to a reduction in residential street sweeping frequency (\$135,150), a reduction in inlet cleaning and inspection maintenance (\$100,000), and inter-departmental charges for overhead (\$70,320); offset by adjustments to the annual expense for maintenance and replacement of County vehicles (\$7,972).	
	▪ Capital program funding increased due to the reallocation of reductions in operations taken in for street sweeping and inlet cleaning (\$235,150) and increased revenue.	
	▪ Revenue increased due to the increase in the CY 2019 real estate assessment tax base (\$405,435), an increase in Sediment and Erosion Control plan revenue (\$75,000), and Chesapeake Bay Preservation fee revenue (\$50,000).	
FY 2021	▪ Added two Stormwater Inspectors to meet the County’s mandated MS4 permit obligations and workload (\$248,514) and a Senior Program Manager to manage and oversee the maintenance capital and storm drainage improvements (\$203,285). Non-personnel funding includes the addition of vehicles for the two new Stormwater Inspectors (\$44,000 one-time; \$15,310 on-going).	3.00
	▪ Added funding for contractual increases related to operating maintenance costs for DES and DPR stormwater facilities (\$329,752), inter-departmental charges for overhead (\$231,383), County facility parking lot sweeping (\$70,000), and tree planting (\$4,809).	
	▪ Added one-time funding for the utility feasibility study (\$250,000), inter-departmental charges for overhead (\$231,383), County facility parking lot sweeping (\$70,000), and tree planting (\$4,809).	

Fiscal Year	Description	FTEs
	<ul style="list-style-type: none"> ▪ Capital program funding decreased due to increases in the operating budget for personnel and non-personnel expenses (\$996,598). ▪ Revenue increased due to the increase in the CY 2020 real estate assessment tax base (\$329,759), inflationary increase of 2.5 percent to fees (\$27,938), and a planned increase in Sediment and Erosion Control plan fees to support the addition of the two Stormwater Inspectors (\$328,020). ▪ Reduced Chesapeake Bay Preservation revenue (\$21,525) and other revenues based on resulting economic conditions from the pandemic (\$145,077). 	
FY 2022	<ul style="list-style-type: none"> ▪ The County Board added funding for a one percent merit pay adjustment, a five percent increase in the range, and an increase to the one-time bonus for staff from \$500 to approximately \$900. ▪ Non-personnel expenses primarily increased due to Bozman Government Center rent expense (\$135,000), overhead charges (\$240,000) and DES Utilities Fund expenses (\$78,985). ▪ Eliminated the Stormwater Wise Program (\$120,000). ▪ Debt service expense added to pay for GO bonds issued in FY 2021 to fund Stormwater CIP projects (\$661,564). ▪ Capital program funding increased due to planned FY 2022 capital projects (\$2,396,320). ▪ Revenue increased primarily due to the increase in the CY 2021 sanitary district tax rate and appreciation from real estate assessment growth (\$3,323,598). 	
FY 2023	<ul style="list-style-type: none"> ▪ The County Board approved an additional one percent merit pay adjustment for a total increase of 5.25 percent, increased the pay-for-performance budget by an additional 0.5 percent, and increased the pay range movement to five percent. Additional compensation changes approved by the County Board include an optional one-time cash-out of 40 hours of compensation time for those with balances of 80 or more, a one-time increase in shift differential pay from \$0.75 to \$1.00 per hour for the B shift and from \$1.00 to \$1.30 per hour for the C shift, and a one-time increase in language premium from \$0.69 to \$0.92 per hour. ▪ Personnel increased due to the addition of a civil engineer (\$125,000; 1.0 FTE), partial year costs for the additional administrative personnel for the Stormwater Utility (\$50,000; 2.5 FTEs), employee salary increases, one-time bonus for staff of approximately \$1,000 (\$60,000), slightly higher retirement contributions based on current actuarial projections, and adjustments to salaries resulting from the administrative job family study (\$1,663) and engineering job family study (\$110,394). ▪ Non-personnel increased due to implementation costs for the Stormwater Utility (\$350,000), overhead charges (\$207,105), and Bozman Government Center rent expense (\$12,225). 	3.50

Fiscal Year	Description	FTEs
	<ul style="list-style-type: none"> ▪ Debt service expense increased for GO bonds issued in FY 2021 to fund Stormwater CIP projects (\$273,936). ▪ Pay-As-You-Go capital program funding decreased due to the planned mix of funding strategies for the Stormwater capital program (\$314,444). ▪ Revenue increased primarily due to the increase in the real estate assessment tax base (\$810,176) and the increase in development services fees (\$52,750). 	
FY 2024	<ul style="list-style-type: none"> ▪ Added an Engineer II position that will review Civil Engineering Plans and other plans (\$135,454). ▪ Added funding for one-time \$2,000 (gross) employee bonuses (\$124,884). ▪ Transferred Sewer Maintenance staffs from Utilities Fund (\$186,865). ▪ Increased overhead and interdepartmental charges (\$322,010). ▪ Added one-time funding for stormwater grant identification and support consultant (\$115,000). ▪ Added funding for flow monitoring and rain gauges at multiple locations throughout the County (\$106,000 one-time; \$40,000 ongoing). ▪ Increased funding for tree planting (\$100,000). ▪ Debt service expense increased for GO bonds planned for issuance in FY 2023 to fund Stormwater CIP projects (\$582,510). ▪ Pay-As-You-Go capital program funding decreased due to the planned mix of funding strategies for the Stormwater capital program (\$1,498,471). ▪ Increased revenue due to the increase in the real estate assessment tax base (\$545,461) and due to a 5.2 percent inflationary increase of the developmental services fee (\$71,318). 	<p style="margin-left: 20px;">1.00</p> <p style="margin-left: 20px;">2.00</p>