



CHARLES COUNTY GOVERNMENT  
**Department of Planning & Growth Management**

**Deborah A. Carpenter**, AICP  
Director

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VIA ELECTRONIC MAIL

July 1, 2021

Ms. Jennifer Smith, Program Manager  
Sediment, Stormwater, and Dam Safety Program  
Water and Science Administration  
Maryland Department of the Environment  
1800 Washington Blvd., 4<sup>th</sup> Floor, Suite 440  
Baltimore, Maryland 21230-1708

*Re: Charles County NPDES MS4 Permit  
11-DP-3322 (MD 0068365)*

Dear Ms. Smith:

Enclosed is Charles County's Maximum Extent Practicable (MEP) Analysis narrative and attachments as requested by your letter dated May 13, 2021. The MEP appears to be an average of two percent impervious surface restoration per year. The proposed Restoration Portfolio (FY 2022 through FY 2026) is estimated to cost an average of \$5.9 million annually.

If you have any questions or concerns, please contact me at [CampbelJ@CharlesCountyMD.gov](mailto:CampbelJ@CharlesCountyMD.gov) or 301-645-0598 or Karen Wigger at [WiggerK@CharlesCountyMD.gov](mailto:WiggerK@CharlesCountyMD.gov) or 301-645-0683.

Sincerely,

James Campbell, AICP  
*Planning Director*

Attached: Report (PDF), Financial Capacity Spreadsheet (Excel), Restoration Portfolio (Excel)

Cc: Michelle Crawford, Maryland Department of Environment  
Alicia Afroilan, Charles County Dept. of Planning and Growth Management  
Karen Wigger, Charles County Dept. of Planning and Growth Management  
Charles County NPDES MS4 File and Read File

**Charles County, Maryland**  
**NPDES Municipal Separate Storm Sewer System (MS4) Permit**  
**11-DP-3322 (MD0068365)**

**Maximum Extent Practicable Analysis**  
**Narrative and Attachments**

**July 1, 2021**

**A. Introduction**

In preparation for issuance of its next MS4 permit, Charles County is pleased to present the Maryland Department of Environment (MDE) with a Maximum Extent Practicable (MEP) narrative including attachments. Three areas of review are included in the MEP: (1) financial capacity, (2) physical capacity, and (3) the proposed restoration portfolio for the next MS4 permit. Each part of the MEP provides information demonstrating the County's abilities for achieving progress towards reducing nutrients and suspended sediment delivered to local water bodies and the Chesapeake Bay.

The financial capacity evaluation demonstrates the cost burden on households in the County for comparison with County goals and with neighboring jurisdictions.

Physical capacity review includes questions and responses, which identify factors that impact the timing and ability to implement restoration projects. It also helps to identify areas where statewide assistance may be provided, for example permit processing time or contracting assistance.

Information provided in the restoration portfolio itemizes completed, planned and potential activities from January 2020 through June 2028. The portfolio is anticipated to specifically guide the first year of project implementation under the next MS4 permit and provide an outline for the remaining years. Information provided for years beyond the first year is subject to adaptive management as factors change. These factors could include revisions to MDE's *Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated Guidance for NPDES Permits* (Accounting guidance), occurrence of local emergencies and adjusted priorities, necessary adjustments to the County's budget, collection of field data and monitoring data, and discovery of other new information.

Based on the proposed restoration portfolio, it appears Charles County is on track for completing 1,015 acres or 2% per year additional impervious surface restoration from

January 2020 to June 2026. This is in addition to previously completing 1,739 acres or 22% from 2008 to 2019 and exceeding the previous permit’s 20% restoration requirement by 163 acres. The following table summarizes the anticipated pace and associated costs.

<b>Summary of Impervious Surface Restoration</b>	
<b>Baseline</b>	
788	10% Restoration of 7,887 untreated impervious acres
121	Avg per year needed to restore 10% by FY 2026 (6.5 years)
<b>Total Proposed Capital Projects</b>	
1,015	Total Proposed Impervious Surface Restoration CY 2020 - FY 2026 (6.5 years)
156	Avg Proposed Acres Impervious Surface Restoration/Year
\$26,772,667	Total Cost for Imp Surface Restoration Proposed C Y2020 - FY 2026
\$4,118,872	Avg Cost/Year (6.5 years)
\$26,353	Avg Cost/Acre
14%	Percent Impervious Surface Restoration Proposed by FY 2026
2%	Percent Impervious Surface Restoration Proposed/Year

**B. Financial Capacity**

The attached financial capacity spreadsheet uses data from the United States Census Bureau website for 2019, the FY 2019 and FY 2021 Charles County Financial Assurance Plans and the County’s proposed Restoration Portfolio for 2020 through 2028. Instructions for completing the spreadsheet is also attached for further details.

On Line 2c, the spreadsheet shows the average annual cost of public stormwater related management programs over the last five years is \$3.6 million. Of the total cost for stormwater related management programs, \$1.6 million was spent on impervious surface restoration annually as shown on Line 3b.

The total cost of impervious surface restoration under the next MS4 permit, is anticipated to be \$38,647,937 as shown on Line 3e. This total cost covers continued obligations from the prior permit such as inlet cleaning and septic pump-outs as well as new capital projects, outreach and education, maintenance of existing stormwater infrastructure, and inspections of new capital stream restoration and shoreline stabilization projects. Line 3f shows this cost averages \$5.9 million annually from January 2020 through June 2026. There are various funding sources for this budget, however the majority of projects included in the restoration portfolio are funded by the County’s Watershed Restoration and Restoration Fund.

Charles County has an “Aaa” bond rating from Moody, which demonstrates the highest quality obligations and the lowest credit risk. In 2019, the percent of individuals below the poverty level in the County is 6.3% compared to the national number of 13.4%.

**C. Physical Capacity**

1. *What is the typical implementation time frame (from planning through construction) for a restoration project? Provide a typical Gantt chart for the following three main classes of BMPs and break down into planning, design, and construction phases: 1. Large upland stormwater projects (e.g., new and retrofits for ponds, bioretention, infiltration basins, etc.); 2. Instream restoration projects; and 3. Alternative projects (not annual) (e.g., tree planting). Provide a written justification to explain the time frames for each BMP class and phase.*

Response:

***The attached Gantt chart shows typical design and construction procurement time for large upland stormwater projects taking the longest time from beginning of design to completing construction at 2.33 years and the alternative practice of shoreline stabilization projects taking the shortest time at 1.15 years.***

***Planning typically starts years in advance. Once a project has final design complete, easement acquisition begins and can typically add 4-7 months to the project and even longer for projects affecting multiple owners, particularly if a single owner does not wish to participate.***

Project Type	Duration of Easement Acquisition	Duration of Design and Permitting to Construction Completion
Large upland stormwater	121 days (0.34 years)	851 days (2.33 years)
Instream restoration	211 days (0.58 years)	666 days (1.82 years)
Alternative – Shoreline	211 days (0.58 years)	421 days (1.15 years)

2. Provide the average time to authorize capital improvement project (CIP) budgets for the initial project planning phase and for the design phase of a typical restoration project (assumes CIP approval for each phase is required). Do you have the ability to combine these two phases or do you have to get CIP approval for each phase consecutively?

Response:

***The County has established a program for NPDES retrofit projects that receives annual budget infusions, approximately two weeks are needed to obtain the appropriate approvals to set up a budget for preliminary engineering/planning or design of a new NPDES project under the program. The program affords the opportunity to combine the planning and design phases if warranted or desired.***

3. Provide the average time to procure professional planning, design, and construction services. Is procurement done in phases (e.g., procurement for planning, then procurement for design, and then procurement for construction)? How would a pay for performance type of contract or a design-build-operation-maintenance contract affect these time frames? Please provide information on any innovative contracting mechanism you use to reduce procurement timeframes and what those reduced time frames are.

Response:

***Charles County procures professional planning, design, and construction in separate phases. The average time for procurement of each phase is approximately six months however variables can affect this. For example, when using services already under contract, the procurement time is reduced to about 1-2 months, and when publishing request for proposals to the County's Bid Board, the procurement time can range from 4-6 months or more depending on variables, such as whether a bidder contests award.***

***The County is exploring a pay for performance type of contract, also known as full delivery, which the County anticipates would assist with managing the workloads of County staff, however time frames for projects are not anticipated to be reduced.***

4. Provide the number of requests for proposals (RFPs) for BMP construction and for BMP design advertised during the past 5-year permit term. Of these, how many bids were submitted for each RFP and how many required re-advertising? Was there a trend over the permit term in the number of bid submittals received? How many unique companies provided bids for all RFPs?

Response:

***For the previous permit term, Charles County issued a single request for proposal titled, RFP 14-01 NPDES Task Oriented Engineering Services, to obtain design services for the permit term. Three engineering firms were selected and contracted out of 21 bids.***

***Additionally, during the previous permit term 21 invitations to bid (ITB) for construction services were advertised with an average of 6-7 bidders each. Of these none required re-advertising.***

***Over the permit term the number of bid submittals gradually increased. A total of 36 unique companies provided bids for the 21 ITBs.***

5. Provide information on contracting limitations that result in longer project implementation times. Examples: Limited qualified construction contractors;

Woman owned business enterprise (WBE) or minority owned business enterprise (MBE) requirements limit available qualified construction contractors and/or engineering contractors. Describe the issue and provide the time extension that results due to the issue.

Response:

***Charles County Government has established an MBE program which applies to all formal solicitations. There is an aspirational minimum goal of 25% MBE participation for each project and strongly encourages use of MBEs.***

***Charles County Government also has established a Small Local Business Enterprise (SLBE) Program, and SLBE firms responding to solicitations may receive preference in accordance with the Program that may apply to formal solicitations resulting in an award of less than \$500,000.***

***Because the County's MBE Program is aspirational and the SLBE Program does not always apply to all solicitations, these programs do not typically result in longer project implementation times.***

6. Provide a typical time frame required to obtain permits from local, State, and federal agencies for the three main BMP project classes (i.e., upland stormwater ponds, instream restoration, and alternative projects) prior to construction. Describe how these time frames affect the overall project implementation time frames described in Question #1. How can these time frames be reduced to help get these projects out the door faster?

Response:

***Typical length of time to acquire permits may vary as permits from MDE and the U.S. Army Corp of Engineers (ACOE), are submitted and reviewed concurrently through coordination efforts among the two agencies. This typically results in permit issuance taking 5-6 months. Both MDE and ACOE could provide quicker reviews. Sediment Erosion Control (SCD) generally 2 months. The County has taken measures to reduce review times by holding onsite meetings early in the process to get preliminary concerns of the projects from MDE and ACOE.***

7. What type of a project do you consider as "low-hanging fruit"? What is your remaining capacity of available "low-hanging fruit" projects (estimate the number and impervious acre treatment total)?

Response:

***Charles County considers "low-hanging fruit" as projects with minimal private property acquisitions necessary and those on property owned by Charles County***

**Government, such as the Parks and Grounds Division, or sister agencies, such as Charles County Public Schools.**

***The County’s Restoration Portfolio contains primarily “low-hanging fruit.” The projects requiring a high number of private acquisitions and/or easements are typically stream restorations in long-established communities. These include: Hunt Club – Bridle Path Stream Restoration, Marbella Stream Restoration, Acton Village Westdale Dr. Stream Restoration, Clifton Shoreline Stabilization Phase 1.***

8. Complete the spreadsheet provided for restoration projects to be planned, designed, and/or constructed from the end of the 4th generation permit through 2028. Include for each restoration project the estimated impervious acres treated, estimated total nitrogen (TN) reduction, estimated total phosphorus (TP) reduction, and estimated total suspended sediments (TSS) reduction; any local total maximum daily load (TMDL) parameter (or other water quality objective) addressed; estimated cost; implementation status; and projected completion year. Include projects that will be in the planning or design phase but will not be completed until after 2026. This information should be more specific for the first reporting year but may be more generalized for the remaining reporting years.

Response:

***The Restoration Project Portfolio spreadsheet is attached and described further in Section D below.***

9. Provide a copy of your 5-year CIP for restoration projects (End of 4th Generation Permit-2028).

Response:

***The adopted FY 2020 and FY 2022 5-year CIPs for restoration projects are attached.***

***Appropriation by Fiscal Year (shown in millions):***

<b><i>2020</i></b>	<b><i>2021</i></b>	<b><i>2022</i></b>	<b><i>2023</i></b>	<b><i>2024</i></b>	<b><i>2025</i></b>	<b><i>2026</i></b>
<b><i>\$11.017</i></b>	<b><i>\$7.958</i></b>	<b><i>\$7.205</i></b>	<b><i>\$7.205</i></b>	<b><i>\$7.205</i></b>	<b><i>\$7.206</i></b>	<b><i>\$7.206</i></b>

10. Provide a copy of your operating budget for annual restoration projects (FY 2020).

Response:

***The FY 2020 adopted operating budgets for the annual restoration projects of street sweeping and storm drain cleaning from the Watershed Protection and Restoration Fund and the septic pump-out program from the Environmental Service Fund are attached.***

**Street Sweeping FY 2020 expenditures were \$103,113; Storm Drain Inlet Cleaning expenditures were \$121,785; Storm Drain Inlet Inspection and Repair expenditures were \$272,443; and Septic Pump-Out expenditures were \$123,289.**

11. Provide a copy of your operating and maintenance budget for all BMPs implemented under the MS4 permit? (FY 2020)

Response:

**The Operating & Maintenance budget for the County Roads Division, which maintains the County owned BMPs is attached for FY 2020. The total adopted operating budget is \$954,900 and allocated to street sweeping, stormwater maintenance, storm drain and inlet cleaning, inlet inspection and scheduling and deicing pollution prevention.**

**Of the total operating budget, \$344,184 was dedicated to Stormwater Facility Inspection and Maintenance.**

#### **D. Restoration Portfolio**

The attached restoration portfolio is divided into three parts: Remaining Unmet Restoration Obligations, Obligations from Previous Permit that must be Continued, and Proposed Restoration Projects. The portfolio begins January 2020 and goes through June 2028. January 2020 is the start date for the portfolio because restoration projects completed after this date count towards the next MS4 permit.

From FY 2020 through FY 2022, the itemized projects have approved budgets which will specifically guide implementation. Projects shown beyond FY 2022 through FY 2028 are subject to adaptive management as factors change. These factors could include revisions to MDE guidance, occurrence of local emergencies and adjusted priorities, necessary adjustments to the County's budget, collection of field data and monitoring data, and discovery of other new information.

Following are the three sections of the restoration portfolio with description for each. The titles of each section are highlighted in **bold italic text**.

- (1) The section of the portfolio titled, **Remaining Unmet Restoration Obligations from Previous Permit**, remains blank because it is not needed since obligations from the previous permit were met.
- (2) Under **Obligations from Previous Permit that Must be Continued**, the three annual Operational Programs applied under the previous permit are included: Street Sweeping, Storm Drain Vacuuming and Septic System Pumping.



Street Sweeping is proposed to continue as a good housekeeping practice, but no longer be credited towards the permit impervious surface credit and is being replaced by two permanent projects. This is because the new 2020 Accounting guidance requires a minimum frequency of four sweeps per year over the same streets to obtain credit, however this frequency is not currently deemed necessary in Charles County.

The permanent projects to replace street sweeping are shown under the section titled, ***Capital Projects (Proposed to Replace Annual Obligation)***.

The Storm Drain Vacuuming program will continue under the next permit and to comply with the new 2020 Accounting guidance, the County will draft and employ a Standard Operating Procedure for this practice.

The Septic Pump-out program will also continue under the new MS4 permit, although instead of 0.03 acres credit per pump-out, it will use the lower credit rate from the new 2020 Accounting guidance of 0.02 acres per pump-out. Although the credit for this practice is reduced, the volume of pump-outs is increasing, so the overall credit is anticipated to hold.

To meet growing demand for the septic pump-out reimbursement program, the County's program was streamlined in FY 2022 from a graduated fee to a flat fee for all reimbursements. This improvement will provide more applicants the ability to participate.

- (3) The ***Proposed Restoration for the Next Permit*** section of the portfolio has three parts: Operational Programs, Capital Projects and Other items.

Operational programs continue and maintain at the current level of effort, and no expansion of Operational Programs is proposed in this section.

Capital Projects include stormwater pond enhancements, bioretention installations, stream restorations, shoreline stabilizations and forest planting. Two completed facilities incorporate Green Infrastructure credit, and two proposed facilities incorporate Watershed Management credit for capturing increased stormwater volume.

Other items include non-creditable but supporting efforts, such as the required five-year monitoring for stream restoration projects and required three-year monitoring for shoreline stabilization projects. Costs shown for project monitoring are those not included in the Capital Project budget.

Additional supporting, but non-creditable projects included under Other items are an oyster restoration initiative, drainage rehabilitation initiative, trash elimination programs, education and outreach programs and grants, and private shoreline stabilization. Other supporting items shown which are creditable practices include septic denitrification installation and septic connections to public sanitary sewers. The septic practices are primarily funded by Bay Restoration Fund grants through the County Health Department and enhance the County's water quality and reduce pollution to the Chesapeake Bay.

## **E. Summary and Conclusion**

Charles County is well positioned to complete a robust restoration portfolio over the next five years. Most of the anticipated projects are underway and already in the design and construction phases, due to initiation under the previous permit. Projects to be completed beyond the next permit term are also planned to be initiated. Proposed Capital Projects primarily include upland stormwater management improvements, shoreline stabilizations, and stream restorations.

The restoration portfolio also shows significant focus and funding on maintaining and improving existing drainage infrastructure. Although maintenance of the storm drainage system is critical to maintaining clean water, this is not a creditable practice towards impervious surface restoration. Much of this funding is proposed to come from sources outside the Watershed Protection and Restoration Fund, so will not impact the local fee.

Restoration is also being pursued through support of the Waterman's Association of Charles County. This funding is for planting additional oysters to increase the pollutant filtering capacity of existing oyster bars found in local waterways. Since only harvesting practices provide credit at this time per the Chesapeake Bay Partnership's *Oyster BMP Expert Panel First Incremental Report (December 19, 2016)* the County will not obtain pollutant reduction credit for this effort.

In FY 2022 the Capital Services Division, which manages the design and construction of the restoration portfolio, will be moved to the County's newly established Resilience Authority. This reorganization will add additional capacity and prioritization on addressing impacts from climate change and is anticipated to have a positive impact on the restoration portfolio by building in climate resiliency.

**Attachments:**

- A. Financial Capacity Spreadsheet**
- B. Supporting Documents for the Physical Capacity Questions**
  - a. Gantt Chart of Implementation Timelines for Restoration Projects**
  - b. Adopted FY 2020 5-Year Budget for CIP Restoration Projects**
  - c. Adopted FY 2022 5-Year Budget for CIP Restoration Projects**
  - d. Adopted FY 2020 Operating Budget for Street Sweeping and Inlet Cleaning**
  - e. Adopted FY 2020 Operating Budget for the Septic Pump-Out Program**
  - f. Adopted FY 2020 Operating and Maintenance Budget for County Owned Stormwater BMPs**
- C. Restoration Portfolio**
- D. MDE's Instructions for Completing the Restoration Portfolio, Physical Capacity Questionnaire and Financial Capacity Spreadsheet**

### Financial Capacity Spreadsheet

1	County/City Name	Charles County, Maryland	
2	Cost As A Percent Of Household Income		
2a	Median Household Income (MHI)	\$	103,932
2b	Total Number Of Households In Jurisdiction		57,732
2c	Average Annual Cost For Public Stormwater Related Management Programs	\$	3,699,399.00
2d	Annual Cost For Public Stormwater Related Management Programs Per Household	\$	64.08
2e	% Of MHI Spent On Public Stormwater Related Management Programs		0.06%
2f	Total Annual Stormwater Remediation Fee Per Household	\$	78.00
2g	% Of MHI Spent Annually On Stormwater Remediation Fee		0.08%
3	Cost Of Impervious Surface Restoration As A Percent Of Household Income		
3a	Total In Previous Permit Term Spent On The Impervious Surface Restoration Plan (ISRP)	\$	21,154,695.00
3b	Average Annual Cost Of The ISRP During The Previous Permit Term	\$	1,692,375.60
3c	Annual Cost Of The ISRP Per Household During The Previous Permit Term	\$	29.31
3d	% Of MHI Spent On The ISRP During The Previous Permit Term		0.03%
3e	Total Projected Cost For Restoration Portfolio	\$	38,647,937.00
3f	Projected Annual Cost For Restoration Portfolio	\$	5,945,836.46
3g	Projected Annual Cost For Restoration Portfolio Per Household	\$	102.99
3h	% Of MHI Spent On Projected Cost Of Restoration Portfolio		0.10%
4	Cost For Low-Income Residential Customers As A Percent Of Household Income		
4a	Percentage Of Households With Annual Income <\$25,000		6.70%
4b	% Of Income For Low Income Households Spent On Public Stormwater Related Management Programs		0.26%
4c	% Of Income For Low Income Households Spent On Stormwater Remediation Fees		0.31%
4d	% Of Income For Low Income Household Spent On The ISRP		0.12%
4e	% Of MHI For Low Income House Spent On Projected Cost Of Restoration Portfolio		0.41%
5	Key Socioeconomic Indicators		
5a	Percentage Unemployed		2.30%
5b	Median Household Income	\$	103,932
5c	Percent Of Individuals (All People) Below Poverty Level		6.30%
6	Financial Capacity Indicators		
6a		Bond Rating – GO <sup>1</sup> Bonds	Aaa
6b	Debt Indicators	Bond Rating – Revenue Bonds	N/A
6c		Net Debt As A % Of FMPV <sup>2</sup>	2.02%
6d	Financial Management Indicators	Property Tax Revenues As % Of FMPV	1.22%
6e		Property Tax Revenue Collection Rate	98.9%

Notes:

1. GO = General Obligation
2. FMPV = Full Market Property Value

# NPDES Project Time Line

Task Name	Start	Finish	Duration	Predecessors	2020				2021				2022				2023				2024			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1 <b>Stream Restoration Project Time Line</b>	05/05/20	08/08/23	851d																					
2 Design & Permit	05/05/20	12/20/21	425d	1SS																				
3 Procurement	12/21/21	03/14/22	60d	2																				
4 Construction	03/15/22	08/07/23	365d	3																				
5 Final Inspection	08/08/23	08/08/23	1d	4																				
6 1- Year Warranty Inspection	08/09/23	12/31/24	365d	5																				
7																								
8																								
9 <b>Pond Retrofit Project Time Line</b>	05/05/20	11/22/22	666d																					
10 Design & Permit	05/05/20	09/27/21	365d	9SS																				
11 Procurement	09/28/21	12/20/21	60d	10																				
12 Construction	12/21/21	11/21/22	240d	11																				
13 Final Inspection	11/22/22	11/22/22	1d	12																				
14 1-Year Warranty Inspection	11/23/22	04/16/24	365d	13																				
15																								
16																								
17 <b>Shoreline Stabilization Project Time Line</b>	05/05/20	12/14/21	421d																					
18 Design & Permit	05/05/20	01/11/21	180d	17SS																				
19 Procurement	01/12/21	04/05/21	60d	18																				
20 Construction	04/06/21	12/13/21	180d	19																				
21 Final Inspection	12/14/21	12/14/21	1d	20																				
22 1-Year Warranty Inspection	12/15/21	05/09/23	365d	21																				

## APPROVED CAPITAL IMPROVEMENT PROGRAM

### FISCAL YEAR 2020

(\$ in thousands)

#### WATERSHED PROTECTION & RESTORATION FUND SUMMARY

Charles County continues to design and construct stormwater facilities to manage the quantity and quality of stormwater runoff from untreated impervious surface. Cost associated with this program are part of the Watershed Protection and Restoration Enterprise Fund and paid for with the stormwater remediation fee.

EXPENSE BUDGET	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	5-Year Total '20-'24	Approp. thru FY19	Beyond FY 2024	Project Total
Architectural & Engineering	\$820	\$885	\$866	\$905	\$948	\$4,424	\$2,860	\$996	\$8,280
Land & ROW	750	809	844	882	923	4,208	4,566	970	9,744
Construction	7,700	8,308	8,661	9,051	9,481	43,201	23,721	9,955	76,877
Equipment	5	5	0	0	0	10	10	0	20
Administration	534	578	593	617	641	2,963	1,253	673	4,889
Administration - FAS	6	6	3	4	4	23	10	4	37
Inspection	230	248	259	270	283	1,290	317	294	1,901
Miscellaneous	201	217	225	234	243	1,120	601	200	1,921
Contingency	771	832	866	905	948	4,322	1,414	996	6,732
<b>Total Outlay</b>	<b>\$11,017</b>	<b>\$11,888</b>	<b>\$12,317</b>	<b>\$12,868</b>	<b>\$13,471</b>	<b>\$61,561</b>	<b>\$34,754</b>	<b>\$14,088</b>	<b>\$110,403</b>

FINANCING SOURCES	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	5-Year Total '20-'24	Approp. thru FY19	Beyond FY 2024	Project Total
Bonds	\$10,950	\$11,816	\$12,317	\$12,868	\$13,471	\$61,422	\$34,508	\$14,088	\$110,018
Fund Balance Appropriation	67	72	0	0	0	139	246	0	385
Operating Transfer	0	0	0	0	0	0	0	0	0
<b>Total County Funding</b>	<b>\$11,017</b>	<b>\$11,888</b>	<b>\$12,317</b>	<b>\$12,868</b>	<b>\$13,471</b>	<b>\$61,561</b>	<b>\$34,754</b>	<b>\$14,088</b>	<b>\$110,403</b>
Federal	0	0	0	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0	0
Other:	0	0	0	0	0	0	0	0	0
<b>Total Funding</b>	<b>\$11,017</b>	<b>\$11,888</b>	<b>\$12,317</b>	<b>\$12,868</b>	<b>\$13,471</b>	<b>\$61,561</b>	<b>\$34,754</b>	<b>\$14,088</b>	<b>\$110,403</b>

Operating Budget Impact	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Approp. thru FY19	Beyond FY 2024
No. of Personnel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Personnel Costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Operating</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>
Debt Service: Bonds	3,011.1	3,724.0	4,497.7	5,308.8	6,156.2	3,011.1	6,604.3
Vehicle & Equipment Lease	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Impact</b>	<b>\$3,011.1</b>	<b>\$3,724.0</b>	<b>\$4,497.7</b>	<b>\$5,308.8</b>	<b>\$6,156.2</b>	<b>\$3,011.1</b>	<b>\$6,604.3</b>
Increase to Annual WPRF fee:	\$58.07	\$71.04	\$84.87	\$99.11	\$113.72	\$59.14	\$120.71

## APPROVED CAPITAL IMPROVEMENT PROGRAM

### FISCAL YEAR 2022

(\$ in thousands)

<b>PROJECT NAME:</b> <b>NPDES Retrofit Projects</b>	Requested By: <b>DPW</b> Project #: <b>8019</b>
	Resilience Authority: <b>Y</b>
<p>This project is to implement the County's Municipal Stormwater Restoration Plans for achieving stormwater waste load allocations assigned to impaired waterways. The pace of project implementation is determined by the County's NPDES municipal stormwater permit requirement to restore a percentage of the County's impervious surface that has not already been restored to the maximum extent practicable.</p> <p>Projects are primarily identified by watershed assessments, then evaluated and ranked for implementation. Project types include new or upgraded stormwater management facilities, green stormwater infrastructure, regenerative stream conveyance, stream restoration, shoreline management, septic practices, tree planting and other restoration practices per Maryland's Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated Guidance for NPDES Stormwater Permits..</p> <p>Planning Commission Comments: Project is consistent with Comprehensive Plan. (Rating #1)</p>	
<b>PRIORITY</b>	
<b>VARIANCE TO APPROVED PER FY21-FY25 CAPITAL IMPROVEMENT PROGRAM:</b>	
	TOTAL
Approved FY21-FY25 CIP	\$28,812
<b>Increase/(Decrease)</b>	<b>\$9</b>
% change	0.0%

EXPENSE BUDGET	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	5-Year Total '22-'26	Approp. thru FY21	Beyond FY 2026	Project Total
Architectural & Engineering	\$500	\$500	\$500	\$500	\$500	\$2,500	\$3,541	\$500	\$6,541
Land & ROW	500	500	500	500	500	2,500	5,770	500	8,770
Construction	5,000	5,000	5,000	5,000	5,000	25,000	31,344	5,000	61,344
Equipment	0	0	0	0	0	0	0	0	0
Administration	400	400	400	400	400	2,000	1,764	400	4,164
Administration - FAS	5	5	5	6	6	27	0	6	33
Inspection	200	200	200	200	200	1,000	451	200	1,651
Miscellaneous	100	100	100	100	100	500	779	100	1,379
Contingency	500	500	500	500	500	2,500	2,192	500	5,192
<b>Total Outlay</b>	<b>\$7,205</b>	<b>\$7,205</b>	<b>\$7,205</b>	<b>\$7,206</b>	<b>\$7,206</b>	<b>\$36,027</b>	<b>\$45,840</b>	<b>\$7,206</b>	<b>\$89,073</b>

FINANCING SOURCES	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	5-Year Total '22-'26	Approp. thru FY21	Beyond FY 2026	Project Total
Bonds (30 Year)	\$7,128	\$7,128	\$7,128	\$7,129	\$7,129	\$35,642	\$45,751	\$7,129	\$88,522
Fund Balance Appropriation	0	0	0	0	0	0	0	0	0
Operating Transfer	77	77	77	77	77	385	89	77	551
Total County Funding	\$7,205	\$7,205	\$7,205	\$7,206	\$7,206	\$36,027	\$45,840	\$7,206	\$89,073
Federal	0	0	0	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0	0
Other:	0	0	0	0	0	0	0	0	0
<b>Total Funding</b>	<b>\$7,205</b>	<b>\$7,205</b>	<b>\$7,205</b>	<b>\$7,206</b>	<b>\$7,206</b>	<b>\$36,027</b>	<b>\$45,840</b>	<b>\$7,206</b>	<b>\$89,073</b>

Operating Budget Impact	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Approp. thru FY21	Beyond FY 2026
No. of Personnel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Personnel Costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Operating</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>
Debt Service: Bonds	3,992.2	4,422.1	4,852.0	5,281.9	5,711.8	3,992.2	6,141.8
Vehicle & Equipment Lease	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Impact</b>	<b>\$3,992.2</b>	<b>\$4,422.1</b>	<b>\$4,852.0</b>	<b>\$5,281.9</b>	<b>\$5,711.8</b>	<b>\$3,992.2</b>	<b>\$6,141.8</b>
Increase to Annual WPRF fee:	\$76.79	\$84.14	\$91.33	\$98.37	\$105.14	\$76.79	\$111.73

<b>LOCATION:</b> Charles County Development District- see description	<b>COMMISSIONER DISTRICT:</b> Various
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## Watershed Protection and Restoration Fund

**Department:** Public Works 50.05.06  
**Division \ Program:** Facilities - Administration Fund: Enterprise  
**Program Administrator:** Bill Shreve, Director of Public Works

Expenditure Category	FY2018 Actual	FY2019 Adopted	FY2020 Request	FY2020 Adopted	\$ Change from FY2019	% Chg.
Personal Services	\$56,385	\$58,100	\$58,900	\$61,000	\$2,900	5.0%
Fringe Benefits	14,720	16,700	16,700	17,100	400	2.4%
Operating Costs	54,767	127,000	127,000	127,000	0	0.0%
Operating Contingency	0	0	2,900	500	500	NEW
<b>Total Expenditures</b>	<b>\$125,872</b>	<b>\$201,800</b>	<b>\$205,500</b>	<b>\$205,600</b>	<b>\$3,800</b>	<b>1.9%</b>

### Changes and Useful Information:

- **Operating Contingency** is to cover unanticipated revenue shortfalls and expenditure overruns.

### Description:

Federal & State agencies mandate that County owned facilities comply with the NPDES stormwater permit. The Department of Public Works is responsible for preparing stormwater pollution prevention plans for its facilities, and conducts regular site inspections and trains staff on implementing procedures for reducing stormwater pollutant discharge to the waterways.

### Positions:

	<u>FY16</u> FTE	<u>FY17</u> FTE	<u>FY18</u> FTE	<u>FY19</u> FTE	<u>FY20</u> FTE
Title					
Environmental Compliance Officer	1.0	1.0	1.0	1.0	1.0
<b>Total Full Time Equivalent</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>

**Department:** Public Works 50.05.53  
**Division \ Program:** Road Maintenance Fund: Enterprise  
**Program Administrator:** Steve Staples, Chief of Roads

Expenditure Category	FY2018 Actual	FY2019 Adopted	FY2020 Request	FY2020 Adopted	\$ Change from FY2019	% Chg.
Personal Services	\$10,722	\$17,100	\$35,400	\$35,100	\$18,000	105.3%
Fringe Benefits	3,477	5,900	7,400	7,800	1,900	32.2%
Operating Costs	694,122	729,900	954,900	954,900	225,000	30.8%
Operating Contingency	0	0	200	0	0	N/A
<b>Total Expenditures</b>	<b>\$708,321</b>	<b>\$752,900</b>	<b>\$997,900</b>	<b>\$997,800</b>	<b>\$244,900</b>	<b>32.5%</b>

### Changes and Useful Information:

- **Personal Services** and **Fringe Benefits** represents funding a position who manages the storm water related contracts for the Road Maintenance Division. The FY2020 budget increase includes approved salary increases. It also includes the addition of overtime funds to allow staff to make emergency stormwater maintenance drainage repairs to roads.
- **Operating Costs** represent contract services for street sweeping, stormwater maintenance, storm drain, inlet cleaning, inlet inspection and scheduling, and deicing pollution prevention. The FY2020 increase includes additional funding for storm drain improvements and repairs, stormwater maintenance, inlet cleaning and inlet inspections.

### Description:

Contract services needed to initiate a program that will monitor and control storm water quality as part of the NPDES.

### Positions:

	<u>FY16</u> FTE	<u>FY17</u> FTE	<u>FY18</u> FTE	<u>FY19</u> FTE	<u>FY20</u> FTE
Title					
Bridge Mgmt/Project Manager	0.0	0.0	0.1	0.2	0.2
<b>Total Full Time Equivalent</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>



## Environmental Services

**Department:** Public Works - Facilities 35.05  
**Division \ Program:** Recycling & Litter Control Fund: Enterprise  
**Program Administrator:** Frances Sherman, Acting Chief of Environmental Resources  
[www.charlescountymd.gov/pw/recycling/recycli](http://www.charlescountymd.gov/pw/recycling/recycli) [www.charlescountymd.gov/pw/litter/litter-control](http://www.charlescountymd.gov/pw/litter/litter-control)

<b>Positions:</b>	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>	<b>FY19</b>	<b>FY20</b>
Title	FTE	FTE	FTE	FTE	FTE
Director of Public Works	0.1	0.1	0.1	0.1	0.1
Asst. Dir. of Public Works - Facilities	0.2	0.2	0.2	0.2	0.2
Chief of Environmental	0.0	0.0	0.2	0.2	0.2
Inventory & Fleet Mgmt Op. Manager	0.1	0.1	0.1	0.1	0.1
Financial Support Manager	0.2	0.2	0.2	0.2	0.2
Recycling/Litter Control Superintendent	1.0	1.0	1.0	1.0	1.0
Landfill & Recycling Site Superintendent	0.0	0.0	1.0	1.0	1.0
Recycling Manager	1.0	1.0	0.0	0.0	0.0
Recycling Contract Manager	1.0	2.0	2.0	2.0	2.0
Inventory Control Specialist	0.1	0.1	0.1	0.1	0.1
Management Support	0.2	0.2	0.2	0.2	0.2
Equipment Operator IV	2.0	2.0	2.0	2.0	2.0
Litter Control Supervisor	3.0	3.0	3.0	3.0	3.0
Administrative Associate	0.1	0.1	0.1	0.1	0.1
Inventory Control Associate	0.1	0.1	0.1	0.1	0.1
Landfill Solid Waster Worker Team Leader	0.0	0.0	1.0	1.0	1.0
Solid Waste Worker	4.5	4.5	3.0	3.0	3.0
Part Time Positions	12.5	13.1	14.9	14.9	14.9
<b>Total Full Time</b>	<b>25.8</b>	<b>27.4</b>	<b>28.9</b>	<b>28.9</b>	<b>28.9</b>

**Department:** Planning and Growth Management 35.07  
**Division \ Program:** Various Environmental Programs Fund: Enterprise  
**Program Administrator:** Christina Pompa, Acting Director of Planning & Growth Management  
<http://www.charlescountymd.gov/pgm/planning/watershed/septic-system-pump-out-reimbursement-program>

<b>Expenditure Category</b>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>FY2020</b>	<b>\$ Change</b>	<b>%</b>
	<b>Actual</b>	<b>Adopted</b>	<b>Requested</b>	<b>Adopted</b>	<b>from FY2019</b>	<b>Chg.</b>
Operating Costs	\$121,200	\$100,000	\$100,000	\$100,000	\$0	0.0%
<b>Total Expenditures</b>	<b>\$121,200</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$0</b>	<b>0.0%</b>

### **Changes and Useful Information:**

- **Operating Cost** represents a septic pump out reimbursement program that was approved for the purpose of encouraging Charles County residents to pump out their septic systems every three to five years to assist the County in obtaining credit for its Watershed Implementation Plan strategy.

## Watershed Protection and Restoration Fund

**Department:** Public Works 50.05.06  
**Division \ Program:** Facilities - Administration Fund: Enterprise  
**Program Administrator:** Bill Shreve, Director of Public Works

Expenditure Category	FY2018 Actual	FY2019 Adopted	FY2020 Request	FY2020 Adopted	\$ Change from FY2019	% Chg.
Personal Services	\$56,385	\$58,100	\$58,900	\$61,000	\$2,900	5.0%
Fringe Benefits	14,720	16,700	16,700	17,100	400	2.4%
Operating Costs	54,767	127,000	127,000	127,000	0	0.0%
Operating Contingency	0	0	2,900	500	500	NEW
<b>Total Expenditures</b>	<b>\$125,872</b>	<b>\$201,800</b>	<b>\$205,500</b>	<b>\$205,600</b>	<b>\$3,800</b>	<b>1.9%</b>

### Changes and Useful Information:

- **Operating Contingency** is to cover unanticipated revenue shortfalls and expenditure overruns.

### Description:

Federal & State agencies mandate that County owned facilities comply with the NPDES stormwater permit. The Department of Public Works is responsible for preparing stormwater pollution prevention plans for its facilities, and conducts regular site inspections and trains staff on implementing procedures for reducing stormwater pollutant discharge to the waterways.

### Positions:

	<u>FY16</u> FTE	<u>FY17</u> FTE	<u>FY18</u> FTE	<u>FY19</u> FTE	<u>FY20</u> FTE
Title					
Environmental Compliance Officer	1.0	1.0	1.0	1.0	1.0
<b>Total Full Time Equivalent</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>

**Department:** Public Works 50.05.53  
**Division \ Program:** Road Maintenance Fund: Enterprise  
**Program Administrator:** Steve Staples, Chief of Roads

Expenditure Category	FY2018 Actual	FY2019 Adopted	FY2020 Request	FY2020 Adopted	\$ Change from FY2019	% Chg.
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Operating Contingency	0	0	200	0	0	N/A
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### Description:

Contract services needed to initiate a program that will monitor and control storm water quality as part of the NPDES.

### Positions:

	<u>FY16</u> FTE	<u>FY17</u> FTE	<u>FY18</u> FTE	<u>FY19</u> FTE	<u>FY20</u> FTE
Title					
Bridge Mgmt/Project Manager	0.0	0.0	0.1	0.2	0.2
<b>Total Full Time Equivalent</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>

Restoration Projects To Be Planned, Designed, and/or Constructed From The End Of 3rd Generation Permit Through FY 2028  
[CHARLES COUNTY, MD]

Remaining Unmet Restoration Obligation from Previous Permit (Impervious Acres):	0
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REST BMP ID	REST BMP TYPE <sup>1</sup>	BMP CLASS <sup>1</sup>	PERMANENT OR ANNUAL BMP	NUM BMP	DRAIN-AGE AREA (acres)	PE (inches)	LENGTH RESTORED (feet)/LANE MILES (miles)/MASS LOADING (lbs)	TP REDUCTION (lbs/year)	TSS REDUCTION (lbs/year)	TN <sup>6</sup> REDUCTION (lbs/year)	IMP ACRES (IA)	GREEN STORMWATER INFRASTRUCTURE (GSI) CREDIT (IA X 0.35)	WATERSHED MANAGEMENT (WM) CREDIT	TOTAL IMP ACRES (W/ GSI AND WM CREDITS)	IMPLEMENTATION COST	IMPLEMENTATION STATUS <sup>2</sup>	PROJECTED IMPLEMENTATION YEAR	TMDL PARAMETER OR WQ OBJECTIVE ADDRESSED	GENERAL COMMENTS <sup>7</sup>
Remaining Unmet Restoration Obligations from Previous Permit																			
<b>Annual Operational Programs (Unmet Obligations from Previous Permit)<sup>3, 4</sup></b>																			
Street Sweeping*		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
Cleaning*		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
Septic Sytem Pumping		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
Subtotal Operations <sup>3</sup>				0				0	0	0	0	0	0	0	\$0				
<b>Capital Projects (Unmet Obligations from Previous Permit Term)</b>																			
														0					
														0					
														0					
														0					
Subtotal Capital				0				0	0	0	0	0	0	0	\$0				
<b>Other (Unmet Obligations from Previous Permit Term)</b>																			
														0					
														0					
Subtotal Other				0				0	0	0	0	0	0	0	\$0				
<b>Total of Remaining Obligations from The Previous Permit</b>				<b>0</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$0</b>				

Obligations from Previous Permit That Must Be Continued

Annual Operational Programs Required to be Maintained from Previous Permit<sup>3,4</sup>

Street Sweeping	MSS	A	ANNUAL	1						75.69			0	\$109,563	Complete	FY2020	Flooding, Litter Control	75.69 acres Replaced by Capital Projects
Street Sweeping	MSS	A	ANNUAL	1						75.69			0	\$107,900	Construction	FY2021	Flooding, Litter Control	75.69 acres Replaced by Capital Projects
Street Sweeping	MSS	A	ANNUAL	1						75.69			0	\$108,000	Planning	FY2022	Flooding, Litter Control	75.69 acres Replaced by Capital Projects
Street Sweeping	MSS	A	ANNUAL	1						75.69			0	\$108,200	Planning	FY2023	Flooding, Litter Control	75.69 acres Replaced by Capital Projects
Street Sweeping	MSS	A	ANNUAL	1						75.69			0	\$108,400	Planning	FY2024	Flooding, Litter Control	75.69 acres Replaced by Capital Projects
Street Sweeping	MSS	A	ANNUAL	1						75.69			0	\$108,500	Planning	FY2025	Flooding, Litter Control	75.69 acres Replaced by Capital Projects
Street Sweeping	MSS	A	ANNUAL	1						75.69			0	\$108,800	Planning	FY2026	Flooding, Litter Control	75.69 acres Replaced by Capital Projects
Street Sweeping	MSS	A	ANNUAL	1						75.69			0	\$109,100	Planning	FY2027	Flooding, Litter Control	75.69 acres Replaced by Capital Projects
Street Sweeping	MSS	A	ANNUAL	1						75.69			0	\$109,400	Planning	FY2028	Flooding, Litter Control	75.69 acres Replaced by Capital Projects
Storm Drain Vacuuming	SDV	A	ANNUAL	150						40.23			40.23	\$411,077	Complete	FY2020	TN, TP, and TSS TMDLs, Flooding, Litter Control	SOP Required to maintain credit
Storm Drain Vacuuming	SDV	A	ANNUAL	150						40.23			40.23	\$409,300	Under Construction	FY2021	TN, TP, and TSS TMDLs, Flooding, Litter Control	SOP Required to maintain credit
Storm Drain Vacuuming	SDV	A	ANNUAL	150						40.23			40.23	\$417,500	Planning	FY2022	TN, TP, and TSS TMDLs, Flooding, Litter Control	SOP Required to maintain credit
Storm Drain Vacuuming	SDV	A	ANNUAL	150						40.23			40.23	\$425,900	Planning	FY2023	TN, TP, and TSS TMDLs, Flooding, Litter Control	SOP Required to maintain credit
Storm Drain Vacuuming	SDV	A	ANNUAL	150						40.23			40.23	\$434,700	Planning	FY2024	TN, TP, and TSS TMDLs, Flooding, Litter Control	SOP Required to maintain credit
Storm Drain Vacuuming	SDV	A	ANNUAL	150						40.23			40.23	\$443,500	Planning	FY2025	TN, TP, and TSS TMDLs, Flooding, Litter Control	SOP Required to maintain credit
Storm Drain Vacuuming	SDV	A	ANNUAL	150						40.23			40.23	\$452,800	Planning	FY2026	TN, TP, and TSS TMDLs, Flooding, Litter Control	SOP Required to maintain credit
Storm Drain Vacuuming	SDV	A	ANNUAL	150						40.23			40.23	\$462,300	Planning	FY2027	TN, TP, and TSS TMDLs, Flooding, Litter Control	SOP Required to maintain credit
Storm Drain Vacuuming	SDV	A	ANNUAL	150						40.23			40.23	\$472,000	Planning	FY2028	TN, TP, and TSS TMDLs, Flooding, Litter Control	SOP Required to maintain credit
Septic Sytem Pumping	SEPP	A	ANNUAL	946						22.4			22.4	\$123,289	Complete	FY2020	TN and Bacteria TMDLs	Septic pump-out implementation cost includes riser costs.
Septic Sytem Pumping	SEPP	A	ANNUAL	1241						22.4			22.4	\$110,000	Under Construction	FY2021	TN and Bacteria TMDLs	Septic pump-out implementation cost includes riser costs.
Septic Sytem Pumping	SEPP	A	ANNUAL	1241						22.4			22.4	\$125,000	Planning	FY2022	TN and Bacteria TMDLs	Septic pump-out implementation cost includes riser costs.
Septic Sytem Pumping	SEPP	A	ANNUAL	1241						22.4			22.4	\$127,500	Planning	FY2023	TN and Bacteria TMDLs	Septic pump-out implementation cost includes riser costs.
Septic Sytem Pumping	SEPP	A	ANNUAL	1241						22.4			22.4	\$130,050	Planning	FY2024	TN and Bacteria TMDLs	Septic pump-out implementation cost includes riser costs.
Septic Sytem Pumping	SEPP	A	ANNUAL	1241						22.4			22.4	\$132,651	Planning	FY2025	TN and Bacteria TMDLs	Septic pump-out implementation cost includes riser costs.
Septic Sytem Pumping	SEPP	A	ANNUAL	1241						22.4			22.4	\$135,300	Planning	FY2026	TN and Bacteria TMDLs	Septic pump-out implementation cost includes riser costs.
Septic Sytem Pumping	SEPP	A	ANNUAL	1241						22.4			22.4	\$138,000	Planning	FY2027	TN and Bacteria TMDLs	Septic pump-out implementation cost includes riser costs.
Septic Sytem Pumping	SEPP	A	ANNUAL	1241						22.4			22.4	\$140,800	Planning	FY2028	TN and Bacteria TMDLs	Septic pump-out implementation cost includes riser costs.
Subtotal Operations <sup>3</sup>				1,392				0	0	0	138		62.63	\$3,366,801				

Capital Projects (Proposed to Replace Annual Obligations)

CH17ALN000005	STRE	A	PERMANENT	1	N/A	N/A	552 LF	9.7	67960.0	152.3	7.1		7.1	\$689,233	Complete	FY2020	TN, TP, and TSS TMDLs, ecosystem habitat	St. Charles Parkway Stream Restoration
CH20ALN000028	SHST	A	PERMANENT	1	N/A	N/A	1,755 LF	220.0	583001.0	400.7	70.20		70.20	\$2,488,289	Complete	FY2020	TN, TP, and TSS TMDLs, ecosystem habitat, climate change resiliency, protection of property from erosion	Potomac Heights Shoreline Stabilization
Subtotal Capital				2				229.7	650961	553	77.3	0	0	77.3	\$3,177,522			

Other (Proposed to Replace Annual Obligations)

														0				
														0				
Subtotal Other				0				0	0	0	0	0	0	0	\$0			

<b>Total of Obligations from Previous Permit That Must Be Continued</b>				<b>1,394</b>				<b>229.7</b>	<b>650,961.0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>139.9</b>	<b>\$6,544,323</b>			
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Proposed Restoration for the Next Permit

Operational Programs*																			
Street Sweeping	MSS	A	ANNUAL	0															
Street Sweeping	MSS	A	ANNUAL	0															
Street Sweeping	MSS	A	ANNUAL	0															
Street Sweeping	MSS	A	ANNUAL	0															
Street Sweeping	MSS	A	ANNUAL	0															
Street Sweeping	MSS	A	ANNUAL	0															
Storm Drain Vacuuming	SDV	A	ANNUAL	0															
Storm Drain Vacuuming	SDV	A	ANNUAL	0															
Storm Drain Vacuuming	SDV	A	ANNUAL	0															
Storm Drain Vacuuming	SDV	A	ANNUAL	0															
Storm Drain Vacuuming	SDV	A	ANNUAL	0															
Storm Drain Vacuuming	SDV	A	ANNUAL	0															
Storm Drain Vacuuming	SDV	A	ANNUAL	0															
Septic Sytem Pumping	SEPP	A	ANNUAL	0															
Septic Sytem Pumping	SEPP	A	ANNUAL	0															
Septic Sytem Pumping	SEPP	A	ANNUAL	0															
Septic Sytem Pumping	SEPP	A	ANNUAL	0															
Septic Sytem Pumping	SEPP	A	ANNUAL	0															
Septic Sytem Pumping	SEPP	A	ANNUAL	0															
Septic Sytem Pumping	SEPP	A	ANNUAL	0															
Septic Sytem Pumping	SEPP	A	ANNUAL	0															
Subtotal Operations (thru FY 2026) <sup>5</sup>				0				0	0	0	0			0	\$0				
Capital Projects																			
CH17ALN000011	STRE	A	PERMANENT	1	44	N/A	748	53	100167	315	18.02			18.02	\$816,760	Complete	FY2020	TN, TP, and TSS TMDLs, ecosystem habitat	Apple Creek Stream Restoration
CH16RST000097	PWED	S	PERMANENT	1	82.23	1.72	N/A	56.0	47788.0	288.0	32.7			32.7	\$793,680	Complete	FY2020	TN, TP, and TSS TMDLs	La Plata High School
CH17ALN000014	STRE	A	PERMANENT	1	N/A	N/A	1,480 LF	123.9	645600.0	258.6	50.0			50.0	\$965,268	Complete	FY2020	TN, TP, and TSS TMDLs, ecosystem habitat	Higdon Elem Stream Restoration
CH18ALN000004	SHST	A	PERMANENT	1	N/A	N/A	2,054 LF	258.1	683087.0	479.0	82.16			82.16	\$1,432,670	Complete	FY2021	TN, TP, and TSS TMDLs, ecosystem habitat, climate change resiliency, protection of property from erosion	Cliffton Shoreline Stabilization Phase 1
CH20ALN000027	SHST	A	PERMANENT	1	N/A	N/A	2,318 LF	290.4	769793.0	526.2	92.72			92.72	\$1,616,710	Complete	FY2021	TN, TP, and TSS TMDLs, ecosystem habitat, climate change resiliency, protection of property from erosion	Cliffton Shoreline Stabilization Phase 2
CH19RST000006	PPKT	S	PERMANENT	1	12	1	75289	17	33155	43	3.61			3.61	\$95,000	Complete	FY2021	TN, TP, and TSS TMDLs	Cedar Tree Pond Retrofit
CH19RST000005	PWET	S	PERMANENT	1	17	1	220351	35	97036	88	12.66			12.66	\$286,000	Complete	FY2021	TN, TP, and TSS TMDLs	Best Buy Wetpond Expansion
CH16RST000014	BIO	E	PERMANENT	1	3.13	1.08	N/A	18.62	10076.51	2.73	1.53	0.54		2.07	\$252,450	Complete	FY2021	TN, TP, and TSS TMDLs	General Smallwood Middle School Bioretention
CH17RST000067	BIO	E	PERMANENT	1	2.58	1.05	N/A	23.12	12513.32	3.39	1.9	0.67		2.57	\$252,450	Complete	FY2021	TN, TP, and TSS TMDLs	General Smallwood Middle School Bioretention
CH17RST000062	ODSW	S	PERMANENT	1	5	1	24268	6	10687	15	1.15			1.15	\$78,461	Complete	FY2021	TN, TP, and TSS TMDLs	Bensville Park Dry Swale with 2 Check Dams
CH17RST000002	ODSW	S	PERMANENT	1	7	1	37629	9	16570	23	1.69			1.69	\$145,713	Complete	FY2021	TN, TP, and TSS TMDLs	Bensville Park Dry Swale
CH17RST000063	FSND	S	PERMANENT	1	94	1	65445	13	28820	34	3.33			3.33	\$116,083	Complete	FY2021	TN, TP, and TSS TMDLs	Bensville Park Sand Filter
CH17APY000456	FPU	A	PERMANENT	1	N/A	N/A	N/A	2	1121	7	0.61			0.61	\$88,795	Complete	FY2021	TN, TP, and TSS TMDLs, ecosystem habitat	Bensville Reforestation
CH17ALN000013	STRE	A	PERMANENT	1	737	N/A	1509	103	4512	801	106.07			106.07	\$1,050,000	Under Constructio	FY2022	TN, TP, and TSS TMDLs, ecosystem habitat	Ruth B. Swann Stream Restoration (Lower)
CH17ALN000012	STRE	A	PERMANENT	1	129	N/A	1583	279	478489	636	37.79			37.79	\$875,210	Under Constructio	FY2022	TN, TP, and TSS TMDLs, ecosystem habitat	Hunt Club - Bridle Path Stream Restoration
CH16RST000034	PWET	S	PERMANENT	1	94	2.45	513455	75	242351	280	15.55	0	5.46	21.01	\$620,000	Design	FY2022	TN, TP, and TSS TMDLs, climate change resiliency	White Oak Pond Retrofit
CH17ALN000006	STRE	A	PERMANENT	1	147.57	N/A	2396	194.23	419200	839.42	61.88			61.88	\$1,806,672	Design	FY2023	TN, TP, and TSS TMDLs, ecosystem habitat, climate change resiliency, protection of property from erosion	Marbella Stream Restoration
	OUT	A	PERMANENT	2		N/A	117	5.5	11940	16.32	1.62			1.62	\$46,325	Design	FY2023	TN, TP, and TSS TMDLs, ecosystem habitat, climate change resiliency, protection of property from erosion	Marbella Outfall Stabilization
CH21ALN000001	STRE	A	PERMANENT	1	34	N/A	728	20	65583	285	10.91			10.91	\$1,100,000	Design	FY2023	TN, TP, and TSS TMDLs, ecosystem habitat, climate change resiliency, protection of property from erosion	Acton Village - Westdale Drive Stream Restoration
CH16RST000056	PPKT	S	PERMANENT	1	35	1.36	224524	33	40522	203	9.39	0	0.85	10.24	\$284,300	Design	FY2024	TN, TP, and TSS TMDLs, climate change resiliency	Wilton Court Pond Retrofit
CH21ALN000003	STRE	A	PERMANENT	1	62	N/A	1644	54	53909	492	21.09			21.09	\$1,430,000	Design	FY2024	TN, TP, and TSS TMDLs, ecosystem habitat	Ruth B. Swann Stream Restoration (Trib)
CH17ALN000008	STRE	A	PERMANENT	3	N/A	N/A	1,330 LF	163.9	574400.0	231.9	53.5			53.5	\$1,056,890	Design	FY2024	TN, TP, and TSS TMDLs, ecosystem habitat	CSM Tributaries Stream Restoration (3 parts)
CH21ALN000002	STRE	A	PERMANENT	1	639	N/A	2081 LF	84	3890	881	28.94			28.94	\$1,697,700	Design	FY2024	TN, TP, and TSS TMDLs, ecosystem habitat	Ruth B. Swann Stream Restoration (Upper)
CH17ALN000009	STRE	A	PERMANENT	1	N/A	N/A	1,743 LF	322.6	557600.0	720.8	84.6			84.6	\$1,972,800	Design	FY2024	TN, TP, and TSS TMDLs, ecosystem habitat	Port Tobacco Stream Restoration
CH21ALN000006	STRE	A	PERMANENT	1	67.17	N/A	1,125 LF	82.4	325800.0	171.6	29.5			29.5	\$743,620	Design	FY2024	TN, TP, and TSS TMDLs, ecosystem habitat	Milton Somers Stream Restoration

CH21ALN000005	OUT	A	PERMANENT	1	1.82	1.82	N/A	2.4	5000.0	14.6	1.3			1.3	\$37,000	Design	FY2024	TN, TP, and TSS TMDLs, protection of property from erosion	Walter Mitchell Outfall
CH21RST000001	MMBR	E	PERMANENT	1	1.82	0.7	N/A	1.2	800.0	6.6	1.3			1.3	\$75,000	Design	FY2024	TN, TP, and TSS TMDLs	Walter Mitchell Bioretention
CH21ALN000004	STRE	A	PERMANENT	1	17.05	N/A	860 LF	90.9	367000.0	116.1	30.9			30.9	\$887,655	Design	FY2024	TN, TP, and TSS TMDLs, ecosystem habitat	Walter Mitchell Stream Restoration
CH19RST000004	PWED	S	PERMANENT	1	31.23	2.66	N/A	42.3	79400.0	169.5	11.4			11.4	\$598,958	Design	FY2025	TN, TP, and TSS TMDLs	South Hampton-Greenville Pond
CH19RST000002	PWED	S	PERMANENT	1	13.97	1.56	N/A	19.1	37000.0	76.3	4.3			4.3	\$226,320	Design	FY2025	TN, TP, and TSS TMDLs	South Hampton-Walden Pond
CH19RST000001	PWED	S	PERMANENT	1	10.46	1.02	N/A	14.9	31400.0	58.4	3.5			3.5	\$184,214	Design	FY2025	TN, TP, and TSS TMDLs	South Hampton-Sir Douglas Pond
CH19RST000003	SPSC	A	PERMANENT	1	19.78	0.43	N/A	26.3	59200.0	124.6	2.3			2.3	\$121,055	Design	FY2025	TN, TP, and TSS TMDLs	South Hampton-Amherst Step Pool
CH17ALN000010	STRE	A	PERMANENT	1	86.83	N/A	3240 LF	1049.96	498620.0	2672.42	110.86			110.86	\$1,500,000	Planning	FY2025	TN, TP, and TSS TMDLs, ecosystem habitat, climate change resiliency, protection of property from erosion	Oak Ridge Park West Stream Restoration
CH21ALN000008	STRE	A	PERMANENT	1	25.7	N/A	900 LF	61.2	223200.0	67.5	18			18	\$1,500,000	Planning	FY2025	TN, TP, and TSS TMDLs, ecosystem habitat, climate change resiliency, protection of property from erosion	Oak Ridge Park East Stream Restoration
CH21ALN000007	STRE	A	PERMANENT	1	305.7	N/A	1,000 LF	144.17	274600.0	651.58	44.97			44.97	\$1,000,000	Planning	FY2026	TN, TP, and TSS TMDLs, ecosystem habitat, climate change resiliency, protection of property from erosion	Locust Farm Stream Restoration
CH19RST000007	PWET	S	PERMANENT	1	142	1	1195600	50	121421	236	16.66			16.66	\$1,018,909	Design	FY2026	TN, TP, and TSS TMDLs	White Plains Golf Course Pond Retrofit
TBD	STRE	A	PERMANENT	1	TBD	N/A	500	34	124000.0	37.5	10			10	\$1,000,000	Planning	FY2027	TN, TP, and TSS TMDLs, ecosystem habitat, climate change resiliency, protection of property from erosion	Stream Restoration - Port Tobacco Watershed TBD
TBD	TBD	S	PERMANENT	3	TBD	TBD	N/A	TBD	TBD	TBD	10			10	\$750,000	Planning	FY2027	TN, TP, and TSS TMDLs, climate change resiliency	Stormwater Management Retrofits - TBD
TBD	STRE	A	PERMANENT	1	TBD	N/A	1055	71.74	261640.0	79.125	21.1			21.1	\$1,000,000	Planning	FY2027	TN, TP, and TSS TMDLs, ecosystem habitat, climate change resiliency, protection of property from erosion	Stream Restoration - Strawberry Hills
TBD	TBD	S	PERMANENT	2	TBD	TBD	N/A	TBD	TBD	TBD	10			10	\$500,000	Planning	FY2027	TN, TP, and TSS TMDLs, climate change resiliency	Full Delivery Contract Projects
TBD	STRE	A	PERMANENT	1	TBD	N/A	250	17	62000.0	18.75	5			5	\$1,000,000	Planning	FY2028	TN, TP, and TSS TMDLs, ecosystem habitat, climate change resiliency, protection of property from erosion	Stream Restoration - Port Tobacco Watershed TBD
TBD	TBD	S	PERMANENT	3	TBD	TBD	N/A	TBD	TBD	TBD	10			10	\$750,000	Planning	FY2028	TN, TP, and TSS TMDLs, climate change resiliency	Stormwater Management Retrofits - TBD
TBD	TBD	S	PERMANENT	2	TBD	TBD	N/A	TBD	TBD	TBD	10			10	\$500,000	Planning	FY2028	TN, TP, and TSS TMDLs, climate change resiliency	Full Delivery Contract Projects
Subtotal Capital (thru FY 2026)				39				3824.2	6932250.83	11834.56	1008.39	1.21	6.31	1015.93	\$26,772,667				
<b>Other</b>																			
N/A	OTHER	A	ANNUAL	N/A										0	\$40,000	Complete	FY2020	TN, TP, and TSS TMDLs, ecosystem habitat	Oyster Restoration-Waterman's Assoc. of Charles Co.
N/A	OTHER	A	ANNUAL	N/A										0	\$53,200	Complete	FY2021	TN, TP, and TSS TMDLs, ecosystem habitat	Oyster Restoration-Waterman's Assoc. of Charles Co.
N/A	OTHER	A	ANNUAL	N/A										0	\$53,200	Planning	FY2022	TN, TP, and TSS TMDLs, ecosystem habitat	Oyster Restoration-Waterman's Assoc. of Charles Co.
N/A	OTHER	A	ANNUAL	N/A										0	\$53,200	Planning	FY2023	TN, TP, and TSS TMDLs, ecosystem habitat	Oyster Restoration-Waterman's Assoc. of Charles Co.
N/A	OTHER	A	ANNUAL	N/A										0	\$53,200	Planning	FY2024	TN, TP, and TSS TMDLs, ecosystem habitat	Oyster Restoration-Waterman's Assoc. of Charles Co.
N/A	OTHER	A	ANNUAL	N/A										0	\$53,200	Planning	FY2025	TN, TP, and TSS TMDLs, ecosystem habitat	Oyster Restoration-Waterman's Assoc. of Charles Co.
N/A	OTHER	A	ANNUAL	N/A										0	\$75,000	Planning	FY2021	Restoration project permit requirement and CBP verification requirement	Stream Monitoring for 4 Years (3 stream restorations finalized/\$25,000 ea/yr)
N/A	OTHER	A	ANNUAL	N/A										0	\$75,000	Planning	FY2022	Restoration project permit requirement and CBP verification requirement	Stream Monitoring for 4 Years (3 stream restorations finalized/\$25,000 ea/yr)
N/A	OTHER	A	ANNUAL	N/A										0	\$75,000	Planning	FY2023	Restoration project permit requirement and CBP verification requirement	Stream Monitoring for 4 Years (3 stream restorations finalized/\$25,000 ea/yr)
N/A	OTHER	A	ANNUAL	N/A										0	\$125,000	Planning	FY2024	Restoration project permit requirement and CBP verification requirement	Stream Monitoring for 4 Years (5 stream restorations finalized/\$25,000 ea/yr)
N/A	OTHER	A	ANNUAL	N/A										0	\$275,000	Planning	FY2025	Restoration project permit requirement and CBP verification requirement	Stream Monitoring for 4 Years (11 stream restorations finalized/\$25,000 ea/yr)
N/A	OTHER	A	ANNUAL	N/A										0	\$325,000	Planning	FY2026	Restoration project permit requirement and CBP verification requirement	Stream Monitoring for 4 Years (13 stream restorations finalized/\$25,000 ea/yr)
N/A	OTHER	A	ANNUAL	N/A										0	\$375,000	Planning	FY2027	Restoration project permit requirement and CBP verification requirement	Stream Monitoring for 4 Years (15 stream restorations finalized/\$25,000 ea/yr)
N/A	OTHER	A	ANNUAL	N/A										0	\$375,000	Planning	FY2028	Restoration project permit requirement and CBP verification requirement	Stream Monitoring for 4 Years (15 stream restorations finalized/\$25,000 ea/yr)
N/A	OTHER	A	ANNUAL	N/A										0	\$60,000	Planning	FY2022	Restoration project permit requirement and CBP verification requirement	Shoreline Monitoring for 1 Year (2 shoreline stabilizations/\$30,000ea)
N/A	OTHER	A	ANNUAL	N/A										0	\$90,000	Planning	FY2023	Restoration project permit requirement and CBP verification requirement	Shoreline Monitoring for 1 Year (3 shoreline stabilizations/\$30,000ea)
N/A	OTHER	A	ANNUAL	N/A										0	\$216,280	Complete	FY2020	Education and outreach	Trash Elimination Education & Outreach (Adopt a Road, Adopt a Stream, Trash Pick-ups)
N/A	OTHER	A	ANNUAL	N/A										0	\$225,000	Design	FY2021	Education and outreach	Trash Elimination Education & Outreach (Adopt a Road, Adopt a Stream, Trash Pick-ups)
N/A	OTHER	A	ANNUAL	N/A										0	\$235,000	Planning	FY2022	Education and outreach	Trash Elimination Education & Outreach (Adopt a Road, Adopt a Stream, Trash Pick-ups)
N/A	OTHER	A	ANNUAL	N/A										0	\$244,400	Planning	FY2023	Education and outreach	Trash Elimination Education & Outreach (Adopt a Road, Adopt a Stream, Trash Pick-ups)
N/A	OTHER	A	ANNUAL	N/A										0	\$254,200	Planning	FY2024	Education and outreach	Trash Elimination Education & Outreach (Adopt a Road, Adopt a Stream, Trash Pick-ups)
N/A	OTHER	A	ANNUAL	N/A										0	\$264,400	Planning	FY2025	Education and outreach	Trash Elimination Education & Outreach (Adopt a Road, Adopt a Stream, Trash Pick-ups)
N/A	OTHER	A	ANNUAL	N/A										0	\$275,000	Planning	FY2026	Education and outreach	Trash Elimination Education & Outreach (Adopt a Road, Adopt a Stream, Trash Pick-ups)
N/A	OTHER	A	ANNUAL	N/A										0	\$286,000	Planning	FY2027	Education and outreach	Trash Elimination Education & Outreach (Adopt a Road, Adopt a Stream, Trash Pick-ups)
N/A	OTHER	A	ANNUAL	N/A										0	\$297,400	Planning	FY2028	Education and outreach	Trash Elimination Education & Outreach (Adopt a Road, Adopt a Stream, Trash Pick-ups)



N/A	OTHER	A	ANNUAL	N/A								0	\$220,782	Complete	FY2020	Education and outreach, TN and Bacteria TMDLs	Education & Outreach Program and Grants	
N/A	OTHER	A	ANNUAL	N/A								0	\$398,500	Design	FY2021	Education and outreach, TN and Bacteria TMDLs	Education & Outreach Program and Grants	
N/A	OTHER	A	ANNUAL	N/A								0	\$318,600	Planning	FY2022	Education and outreach, TN and Bacteria TMDLs	Education & Outreach Program and Grants	
N/A	OTHER	A	ANNUAL	N/A								0	\$328,200	Planning	FY2023	Education and outreach, TN and Bacteria TMDLs	Education & Outreach Program and Grants	
N/A	OTHER	A	ANNUAL	N/A								0	\$338,000	Planning	FY2024	Education and outreach, TN and Bacteria TMDLs	Education & Outreach Program and Grants	
N/A	OTHER	A	ANNUAL	N/A								0	\$348,100	Planning	FY2025	Education and outreach, TN and Bacteria TMDLs	Education & Outreach Program and Grants	
N/A	OTHER	A	ANNUAL	N/A								0	\$358,500	Planning	FY2026	Education and outreach, TN and Bacteria TMDLs	Education & Outreach Program and Grants	
N/A	OTHER	A	ANNUAL	N/A								0	\$369,300	Planning	FY2027	Education and outreach, TN and Bacteria TMDLs	Education & Outreach Program and Grants	
N/A	OTHER	A	ANNUAL	N/A								0	\$380,400	Planning	FY2028	Education and outreach, TN and Bacteria TMDLs	Education & Outreach Program and Grants	
N/A	OTHER	A	PERMANENT	N/A								0	\$120,926	Complete	FY2020	TSS TMDLs, protection of property from erosion	Drainage Maintenance Program	
N/A	OTHER	A	PERMANENT	N/A								0	\$183,300	Design	FY2021	TSS TMDLs, protection of property from erosion	Drainage Maintenance Program	
N/A	OTHER	A	PERMANENT	N/A								0	\$184,300	Planning	FY2022	TSS TMDLs, protection of property from erosion	Drainage Maintenance Program	
N/A	OTHER	A	PERMANENT	N/A								0	\$188,000	Planning	FY2023	TSS TMDLs, protection of property from erosion	Drainage Maintenance Program	
N/A	OTHER	A	PERMANENT	N/A								0	\$191,800	Planning	FY2024	TSS TMDLs, protection of property from erosion	Drainage Maintenance Program	
N/A	OTHER	A	PERMANENT	N/A								0	\$195,600	Planning	FY2025	TSS TMDLs, protection of property from erosion	Drainage Maintenance Program	
N/A	OTHER	A	PERMANENT	N/A								0	\$199,500	Planning	FY2026	TSS TMDLs, protection of property from erosion	Drainage Maintenance Program	
N/A	OTHER	A	PERMANENT	N/A								0	\$203,500	Planning	FY2027	TSS TMDLs, protection of property from erosion	Drainage Maintenance Program	
N/A	OTHER	A	PERMANENT	N/A								0	\$207,600	Planning	FY2028	TSS TMDLs, protection of property from erosion	Drainage Maintenance Program	
N/A	SHST	A	PERMANENT	TBD								0	\$0	Complete	FY2020	TSS TMDLs, protection of property from erosion	Private Shoreline Stabilization	
N/A	SHST	A	PERMANENT	TBD								0	\$0	Design	FY2021	TSS TMDLs, protection of property from erosion	Private Shoreline Stabilization	
N/A	SHST	A	PERMANENT	TBD								0	\$0	Planning	FY2022	TSS TMDLs, protection of property from erosion	Private Shoreline Stabilization	
N/A	SHST	A	PERMANENT	TBD								0	\$0	Planning	FY2023	TSS TMDLs, protection of property from erosion	Private Shoreline Stabilization	
N/A	SHST	A	PERMANENT	TBD								0	\$0	Planning	FY2024	TSS TMDLs, protection of property from erosion	Private Shoreline Stabilization	
N/A	SHST	A	PERMANENT	TBD								0	\$0	Planning	FY2025	TSS TMDLs, protection of property from erosion	Private Shoreline Stabilization	
N/A	SHST	A	PERMANENT	TBD								0	\$0	Planning	FY2026	TSS TMDLs, protection of property from erosion	Private Shoreline Stabilization	
N/A	SHST	A	PERMANENT	TBD								0	\$0	Planning	FY2027	TSS TMDLs, protection of property from erosion	Private Shoreline Stabilization	
N/A	SHST	A	PERMANENT	TBD								0	\$0	Planning	FY2028	TSS TMDLs, protection of property from erosion	Private Shoreline Stabilization	
TBD	SEPD	A	PERMANENT	10								1.5	\$150,000	Complete	FY2020	TN and Bacteria TMDLs	Septic Denitrification-Bay Rest Fund Grant (0.16 ac/ea)	
TBD	SEPD	A	PERMANENT	10								1.5	\$150,000	Design	FY2021	TN and Bacteria TMDLs	Septic Denitrification-Bay Rest Fund Grant (0.16 ac/ea)	
TBD	SEPD	A	PERMANENT	10								1.5	\$150,000	Planning	FY2022	TN and Bacteria TMDLs	Septic Denitrification-Bay Rest Fund Grant (0.16 ac/ea)	
TBD	SEPD	A	PERMANENT	10								1.5	\$150,000	Planning	FY2023	TN and Bacteria TMDLs	Septic Denitrification-Bay Rest Fund Grant (0.16 ac/ea)	
TBD	SEPD	A	PERMANENT	10								1.5	\$150,000	Planning	FY2024	TN and Bacteria TMDLs	Septic Denitrification-Bay Rest Fund Grant (0.16 ac/ea)	
TBD	SEPD	A	PERMANENT	10								1.5	\$150,000	Planning	FY2025	TN and Bacteria TMDLs	Septic Denitrification-Bay Rest Fund Grant (0.16 ac/ea)	
TBD	SEPD	A	PERMANENT	10								1.5	\$150,000	Planning	FY2026	TN and Bacteria TMDLs	Septic Denitrification-Bay Rest Fund Grant (0.16 ac/ea)	
TBD	SEPD	A	PERMANENT	10								1.5	\$150,000	Planning	FY2027	TN and Bacteria TMDLs	Septic Denitrification-Bay Rest Fund Grant (0.16 ac/ea)	
TBD	SEPD	A	PERMANENT	10								1.5	\$150,000	Planning	FY2028	TN and Bacteria TMDLs	Septic Denitrification-Bay Rest Fund Grant (0.16 ac/ea)	
TBD	SEPC	A	PERMANENT	2								0.5	\$40,000	Complete	FY2020	TN and Bacteria TMDLs	Septic Connection-Bay Rest Fund Grant (0.23 ac/ea)	
TBD	SEPC	A	PERMANENT	2								0.5	\$40,000	Design	FY2021	TN and Bacteria TMDLs	Septic Connection-Bay Rest Fund Grant (0.23 ac/ea)	
TBD	SEPC	A	PERMANENT	2								0.5	\$40,000	Planning	FY2022	TN and Bacteria TMDLs	Septic Connection-Bay Rest Fund Grant (0.23 ac/ea)	
TBD	SEPC	A	PERMANENT	2								0.5	\$40,000	Planning	FY2023	TN and Bacteria TMDLs	Septic Connection-Bay Rest Fund Grant (0.23 ac/ea)	
TBD	SEPC	A	PERMANENT	2								0.5	\$40,000	Planning	FY2024	TN and Bacteria TMDLs	Septic Connection-Bay Rest Fund Grant (0.23 ac/ea)	
TBD	SEPC	A	PERMANENT	2								0.5	\$40,000	Planning	FY2025	TN and Bacteria TMDLs	Septic Connection-Bay Rest Fund Grant (0.23 ac/ea)	
TBD	SEPC	A	PERMANENT	2								0.5	\$40,000	Planning	FY2026	TN and Bacteria TMDLs	Septic Connection-Bay Rest Fund Grant (0.23 ac/ea)	
TBD	SEPC	A	PERMANENT	2								0.5	\$40,000	Planning	FY2027	TN and Bacteria TMDLs	Septic Connection-Bay Rest Fund Grant (0.23 ac/ea)	
TBD	SEPC	A	PERMANENT	2								0.5	\$40,000	Planning	FY2028	TN and Bacteria TMDLs	Septic Connection-Bay Rest Fund Grant (0.23 ac/ea)	
Subtotal Other (thru FY 2026)				84				0	0	0	0	0	14	\$8,024,388				
<b>Total for Next Permit (thru FY 2026)</b>				<b>123</b>				<b>3,824.2</b>	<b>6,932,250.8</b>	<b>11,834.6</b>	<b>1,008.4</b>	<b>1.2</b>	<b>6.3</b>	<b>1,029.9</b>	<b>\$34,797,055</b>			
<b>Total for Next Permit and Projected Years</b>				<b>160</b>				<b>3,946.9</b>	<b>7,379,890.8</b>	<b>11,969.9</b>	<b>1,084.5</b>	<b>1.2</b>	<b>6.3</b>	<b>1,110.0</b>	<b>\$43,171,255</b>			
<b>Total for Remaining Obligations from The Previous Permit, Continued Obligations, and Proposed Activities for The Next Permit (thru FY 2026)</b>				<b>1,517</b>				<b>4,053.9</b>	<b>7,583,211.8</b>	<b>12,387.6</b>	<b>1,224.0</b>	<b>1.2</b>	<b>6.3</b>	<b>1,169.9</b>	<b>\$38,647,937</b>			
<b>Total for Remaining Obligations from The Previous Permit, Continued Obligations, and Proposed Activities for The Next Permit (thru FY 2028)</b>				<b>1,552</b>				<b>4,176.6</b>	<b>8,030,851.8</b>	<b>12,522.9</b>	<b>1,233.2</b>	<b>1.2</b>	<b>6.3</b>	<b>1,250.0</b>	<b>\$47,034,263</b>			

## Instructions for Completing Restoration Project Portfolios

As part of the new MS4 Phase I permit development process, the Maryland Department of the Environment (Department) requests each MS4 permittee to submit an updated Restoration Project Portfolio, detailing restoration projects to be planned, designed, and/or constructed during the next permit term. Updates to this portfolio will allow the MS4 permittee to report equivalent impervious acres and total nitrogen (TN), total phosphorus (TP), and total suspended sediment (TSS) load reductions for all proposed restoration projects. This Updated Restoration Project Portfolio shall be completed using the updated Excel workbook, “Restoration Project Portfolio\_3-15-21.xlsx”. Changes to this workbook include the addition of six columns to report TP load reductions, rainfall depth (P<sub>E</sub>) treated, green infrastructure credit achieved, watershed management credit achieved, updated total impervious acre credits achieved, length of stream restored and street lane miles swept. Most of the requirements for completing the previous version of the spreadsheet remain and are repeated here. However there are a few revisions and additions to note. Requirements for completing this workbook are summarized below.

### DESCRIPTION OF REQUIREMENTS

Complete the provided spreadsheet for restoration projects to be planned, designed, and/or under construction from the end of the 4<sup>th</sup> generation permit through 2026. These projects can be annual BMPs (including water quality trading credits) and capital projects. Additional years 2027 and 2028 are optional to show those projects that require more than five years to complete due to their size or complexity.

The updated restoration portfolio acts as an extension of the recent FAP submittal; thus, proposed activities for the next five years can include those practices reported in the 2020 Financial Assurance Plan. However, the Department requests that the portfolio identify nutrient and sediment reductions as well as the local concerns that would be addressed. This information should be more specific for the first reporting year but may be more generalized for the remaining reporting years.

### HOW TO SUBMIT INFORMATION

Below, each section of the spreadsheet is outlined along with guidance on providing data. General instructions for calculating impervious surface restoration and pollutant load reductions may be found in the DRAFT 2020 *Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated*. Please submit all files electronically via compact disc, email, or ftp and as a hard copy. Also, please ensure that the following actions are taken:

- **Remaining Unmet Restoration Obligation from Previous Permit (Impervious Acres)**
  - Please enter the number of acres remaining that must be treated to meet your previous permit restoration requirement. This value would be zero if you completed restoration of the full impervious acres required under your previous permit.



- **Remaining Unmet Restoration Obligations from Previous Permit**
  - In this section you should report any unmet impervious surface restoration obligation remaining from the previous permit. The BMPs listed in this section are those proposed to be implemented in the next five-year permit term to address this unmet restoration obligation.
  - All stormwater management BMPs, programmatic initiatives, and perennial alternative control practices and water quality trades used to address unmet restoration obligations shall be reported in terms of impervious acres treated or equivalent impervious acres as well as TN, TP, and TSS reductions. Projects should be credited using the Draft 2020 Accounting Guidance and any additional guidance updates found on the Department’s webpage, e.g., stream restoration, outfall stabilization, CMAC (continuous monitoring and adaptive control).
  - The projected implementation year should be from the end of the 4th generation permit through 2026.
  - For additional guidance, refer to the section below titled “Reporting Specific Projects”.

- **Obligations from Previous Permit That Must Be Continued**

In this section you should report any obligations from the previous permit that must be continued through the next five-year permit term and/or replaced with a stormwater management BMP, programmatic initiative, or alternative control practices in accordance with the Draft 2020 Accounting Guidance.

*Water Quality Trades*

- Water quality trades must continue annually and be replaced prior to the end of the permit term.
- These practices and the associated data should be reported in the section titled “Other (Proposed to Replace Annual Obligations)”.
- Equivalent impervious acres treated by water quality trades must be continued yearly or replaced at a one to one impervious acre ratio. In addition, please report the TN, TP and TSS reductions expected from these water quality trades.

*Annual Alternative Practices*

- For annual alternative control practices implemented during the previous permit, impervious acre equivalencies were computed using the 2014 Accounting Guidance. The portfolio shall include annual alternative control practices that are continued each year or replaced in accordance with the Draft 2020 Accounting Guidance. Impervious acres treated by each annual alternative control practices must be continued yearly or replaced at a one to one impervious acre ratio. In addition, please report the TN, TP and TSS reductions expected from these annual alternative BMPs.
- These practices and the associated data should be reported under the section titled “Annual Operational Programs Required to be Maintained from Previous Permit”.
- If annual septic pumping was utilized in the previous permit and is required to be maintained, it should be reported in this section.

### *Replacement BMPs*

- When these water quality trades or annual practices are converted to new stormwater management BMPs, programmatic initiatives, or permanent alternative control practices, the impervious acres managed and the TN, TP and TSS load reductions shall be reported using the Draft 2020 Accounting Guidance.
  - When replacing water quality trades, the projected implementation year should be from the end of the 4th generation permit through 2026. When replacing annual practices, the projected implementation year should be from the end of the current permit through 2028. It is acceptable if a project will not be completed by 2028.
  - For additional guidance, refer to the section below titled “Reporting Specific Projects”.
- **Proposed Restoration for the Next Permit**
    - In this section you should report proposed BMPs to implement as part of the next permit restoration requirement.
    - All stormwater management BMPs, programmatic initiatives, and perennial alternative control practices and water quality trades proposed as new restoration for the next permit shall be reported in terms of impervious acres treated or equivalent impervious acres as well as TN, TP, and TSS reductions. Projects should be credited using the Draft 2020 Accounting Guidance and any additional guidance updates found on the Department’s webpage, e.g., stream restoration, outfall stabilization, CMAC (continuous monitoring and adaptive control).
    - The projected implementation year should be from the end of the current permit through 2026. Additional projects may be planned up through 2028.
    - Provide line items for annual operations and maintenance costs. If possible, also include annual capital improvement project information (e.g., costs) for:
      - Stormwater/flood control BMPs that are being repaired for safety but do not achieve any additional water quality credit (e.g., a dam repair or enhanced emergency spillway project). In the comment field note “watershed management”.
      - Stream monitoring.
      - Other TMDLs (e.g., monitoring for PCBs) the County is addressing that impact the resources and funds available for BMPs implemented for impervious acre restoration.
    - For additional guidance, refer to the section below titled “Reporting Specific Projects”.

## **REPORTING SPECIFIC PROJECTS**

### *General*

- Use BMP types and classes from the MDE Geodatabase. Additional BMP types (e.g., IDDE) from the Draft 2020 Accounting Guidance may also be used.
- If a project has multiple types of a single BMP, identify the amount in the Number of BMPs column. If using septic pumping or denitrification, report the number of affected septic systems in this column.
- For upland BMPs, provide the total drainage area for the project. If there is no drainage area for specific programmatic initiatives or alternative control practices, leave this field blank.
- Impervious Acres and Reductions for TN, TP, and TSS for proposed projects shall be reported using the Draft 2020 Accounting Guidance.

- Provide the estimated cost for the entire project. If needed, identify additional planning or design costs as a separate line item in the spreadsheet.
- Implementation status should be: Planning, Design, or Under Construction.
- Identify any total maximum daily load (TMDL) parameters, local water quality objectives (e.g., sediment, phosphorus, trash), and local concerns (e.g., watershed management) that will be addressed. Please use the comments column to describe in detail the co-benefits of a BMP.
- If green stormwater infrastructure (GSI) or watershed management (WM) credits are claimed for stormwater ponds or wetlands, include an example calculation.
- Please ensure that all formulas for subtotals and totals are updated to reflect the applicable time periods.

#### *BMPs for Upland Applications*

- Provide the  $P_E$  for the project. When the  $P_E$  is unknown for a planned project or initiative, use a default of 1 inch to be conservative.
- For stormwater BMPs eligible for the GSI credit, report in the GSI Credit column the value of the impervious acres treated multiplied by 0.35. In the WM Credit column, report the value of the additional acres. Provide the total impervious acres treated in the column labeled Total Impervious Acres (w/ GSI and WM Credits). If a practice is not eligible for GSI credit, the Total Impervious Acres column equals the Impervious Acres column. Note: the GSI and WM credits are applied only to the impervious acres; TN, TP, and TSS calculations are not affected.

#### *Alternative BMPS*

- For alternative practices, provide the equivalent impervious acres treated for each project in the Impervious Acres column. Refer to the Draft 2020 Accounting Guidance for further guidance on how to determine equivalent impervious acres for alternative practices.
- For stream restoration, shoreline stabilization, or outfall stabilization (or “prevented sediment practices”), provide the estimated linear feet in the Length Restored column.
- Street lane miles and/or mass loading reductions may be noted in the comments column.
- For land-use conversion BMPs or programmatic initiatives, identify if the BMP is an annual or permanent practice.
- For street sweeping and inlet cleaning, report lane miles/frequency or mass loading reductions in the comments column.

## Part II. Physical Capacity Questionnaire

1. What is the typical implementation time frame (from planning through construction) for a restoration project? Provide a typical Gantt chart for the following three main classes of BMPs and break down into planning, design, and construction phases: 1. Large upland stormwater projects (e.g., new and retrofits for ponds, bioretention, infiltration basins, etc.); 2. Instream restoration projects; and, 3. Alternative projects (not annual) (e.g., tree planting). Provide a written justification to explain the time frames for each BMP class and phase.
2. Provide the average time to authorize capital improvement project (CIP) budgets for the initial project planning phase and for the design phase of a typical restoration project (assumes CIP approval for each phase is required). Do you have the ability to combine these two phases or do you have to get CIP approval for each phase consecutively?
3. Provide the average time to procure professional planning, design, and construction services. Is procurement done in phases (e.g., procurement for planning, then procurement for design, and then procurement for construction)? How would a pay for performance type of contract or a design-build-operation-maintenance contract affect these time frames? Please provide information on any innovative contracting mechanism you use to reduce procurement timeframes and what those reduced time frames are.
4. Provide the number of requests for proposals (RFPs) for BMP construction and for BMP design advertised during the past 5-year permit term. Of these, how many bids were submitted for each RFP and how many required re-advertising? Was there a trend over the permit term in the number of bid submittals received? How many unique companies provided bids for all RFPs?
5. Provide information on contracting limitations that result in longer project implementation times. Examples: Limited qualified construction contractors; Woman owned business enterprise (WBE) or minority owned business enterprise (MBE) requirements limit available qualified construction contractors and/or engineering contractors. Describe the issue and provide the time extension that results due to the issue.
6. Provide a typical time frame required to obtain permits from local, State, and federal agencies for the three main BMP project classes (i.e., upland stormwater ponds, instream restoration, and alternative projects) prior to construction. Describe how these time frames affect the overall project implementation time frames described in Question #1. How can these time frames be reduced to help get these projects out the door faster?
7. What type of a project do you consider as “low-hanging fruit”? What is your remaining capacity of available “low-hanging fruit” projects (estimate the number and impervious acre treatment total)?

8. Complete the spreadsheet provided for restoration projects to be planned, designed, and/or constructed from the end of the 4th generation permit through 2028. Include for each restoration project the estimated impervious acres treated, estimated total nitrogen (TN) reduction, estimated total phosphorus (TP) reduction, and estimated total suspended sediments (TSS) reduction; any local total maximum daily load (TMDL) parameter (or other water quality objective) addressed; estimated cost; implementation status; and projected completion year. Include projects that will be in the planning or design phase but will not be completed until after 2026. This information should be more specific for the first reporting year but may be more generalized for the remaining reporting years.
9. Provide a copy of your 5-year CIP for restoration projects (End of 4th Generation Permit-2028).
10. Provide a copy of your operating budget for annual restoration projects (FY2020).
11. Provide a copy of your operating and maintenance budget for all BMPs implemented under the MS4 permit? (FY2020)

## **Part III. Instructions for Completing the Financial Capacity Spreadsheet**

For the development of the new Phase I Medium Municipal Separate Storm Sewer System (MS4) permit, the Maryland Department of the Environment (Department) will consider each permittee's determination of what is the maximum extent practicable (MEP) for the implementation of stormwater permit requirements. In order to do this, the Department recommends a Financial Capacity Analysis (FCA) process that includes a spreadsheet for relevant data input and a questionnaire for providing the context behind the data. The FCA builds on the information developed during the previous permit cycle and provides further information on how the cost of stormwater management can be viewed in context with median household income (MHI), socioeconomic considerations, and the financial wherewithal of each local government. To assist jurisdictions in completing this analysis, the Department developed the Excel workbook, "Financial Capacity Spreadsheet.xlsx". This spreadsheet compiles information related to the municipal cost of stormwater services on households, key socioeconomic indicators, and financial capacity indicators regarding Phase I Medium MS4 Programs.

The Financial Capacity Spreadsheet and associated data and calculations were developed in coordination with the University of Maryland's Environmental Finance Center, which provided important research, analysis, and recommendations. The data requested by the Department can be gathered easily from accessible U.S. Census Bureau information, financial reporting websites, and county/city budgets.

### **HOW TO COMPILE AND SUBMIT INFORMATION**

The spreadsheet can be completed using the instructions below. All data for items 2 through 4 should be a five-year average (e.g., permit term). Data found in the 2019 American Community Survey (ACS) at <https://data.census.gov/cedsci/> already combines census data for the five-year period 2015-2019, and is acceptable for completing this spreadsheet.

#### **1. County/City Name**

Enter Name of County or City Permittee.

#### **2. Cost as a Percent of Household Income**

The total annual municipal expenses for public stormwater-related infrastructure can be compared to the median household income (MHI). This comparison can be used to describe the financial impact to the residential community of these services if they were paid for by each household. Go to the 2019 ACS website (i.e., <https://data.census.gov/cedsci/>). In the search box, type the name of your county plus ", Maryland" (e.g., Howard County, Maryland), and then select "Search". Select "Explore Data", located on the right side of the webpage. Use the "Income and Poverty" and "Housing" options found in menu of the left side of the webpage.

Enter the following data in the spreadsheet:

**2a. Determine the median household income (MHI)**

This information can be obtained from the 2019 ACS 5-Year Estimates under the “Income and Poverty” option found on the left side of the webpage.

**2b. Determine the total number of households ( $H_{total}$ )**

The “Total Households” (or “Housing Units”) can be found in the ACS’s 2019 American Community Survey 5-Year Estimates under the “Housing” option found in the menu on the left side of the webpage. According to the ACS and Puerto Rico Community Survey 2017 Subject Definitions, “A household includes all the people who occupy a housing unit. (People not living in households are classified as living in group quarters.) A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live separately from any other people in the building and which have direct access from the outside of the building or through a common hall. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated people who share living arrangements.”

**2c. Determine the average annual cost (total cost averaged over past 5 years) for public stormwater related infrastructure (flood control, water quality, conveyance, quantity management). Services should include maintenance, construction, design, restoration, management, inspection, etc. ( $TAC_{storm}$ )**

**2d. Determine the total annual cost for public stormwater management programs per household ( $HC_{storm}$ )**

$$HC_{storm} = TAC_{storm} \div H_{total}$$

**2e. Determine the percent of MHI spent on public stormwater related management programs ( $\%MHI_{storm}$ )**

$$\%MHI_{storm} = HC_{storm} \div MHI$$

**2f. Determine the total annual stormwater remediation fee per household ( $HC_{fee}$ )**

Maryland’s stormwater management law allows for a County or municipality to establish stormwater remediation fees (also known as stormwater fees, stormwater utility fees, water quality protection and restoration fees, or water quality protection charges). These fees serve as a source of revenue for expenses of stormwater services such as capital improvements for stormwater management, operations and maintenance, and planning. Because county and city fee structures can vary (equivalent residential units, impervious acres), it is important to determine the average fee paid for the various household sizes. For MS4s with fees, information on funding structures and the cost for households can be obtained through the county/city public works or environmental departments. Medium MS4s can also use data from Watershed Protection and Restoration Program annual reports to determine the average fee per household. This

information represents the total revenue that could be collected from each residential household from the stormwater remediation fee. This amount can be compared to the total annual household costs of providing stormwater-related management services.

**2g. Determine the average percent of MHI spent annually on the stormwater remediation fee (%MHI<sub>storm</sub>)**

$$\%MHI_{fee} = HC_{fee} \div MHI$$

This information can be used to help characterize the relative cost of stormwater remediation per household. For jurisdictions where the stormwater remediation fee covers only a portion of the total cost of stormwater-related services, additional costs may be incurred by each household.

**3. Cost of Impervious Surface Restoration as a Percent of Household Income**

**3a. Determine the total spent in the previous permit term on the impervious surface restoration plan (ISRP)**

The ISRP describes the list of stormwater projects the jurisdiction implemented to restore 20% of a jurisdiction's unmanaged impervious area. While it is one of many requirements of the NPDES MS4 permit, it is the most expensive and difficult to implement and therefore is a good representation of the level of effort. This information can come from an MS4's most recent Financial Assurance Plan (FAP) submission or from its annual reports.

**3b. Determine the average annual cost of the ISRP during the previous permit term (TAC<sub>ISRP</sub>)**

Determine the annual cost of the ISRP by dividing the total cost by the number of years of ISRP implementation under the previous permit term.

**3c. Determine the annual cost per household for the ISRP during the previous permit term (HC<sub>ISRP</sub>)**

$$HC_{ISRP} = TAC_{ISRP} \div H_{total}$$

**3d. Determine the percent of MHI spent on the ISRP during the previous permit term (%MHI<sub>ISRP</sub>)**

$$\%MHI_{ISRP} = HC_{ISRP} \div MHI$$

This information can be used to determine the relative cost of restoration activities per household.



**3e. Determine the total projected cost for the proposed restoration portfolio**

The restoration portfolio represents a jurisdiction’s proposed MS4 restoration activity for the next permit term.

**3f. Determine the projected annual cost for the proposed restoration portfolio (TAC<sub>Rest</sub>)**

Determine the annual cost of the proposed restoration portfolio by dividing the total cost by the number of years in the proposal.

**3g. Determine the projected annual cost per household for the proposed restoration portfolio (HC<sub>Rest</sub>)**

$$HC_{Rest} = TAC_{Rest} \div H_{total}$$

**3h. Determine the percent of MHI spent on projected cost for the proposed restoration portfolio (%MHI<sub>Rest</sub>)**

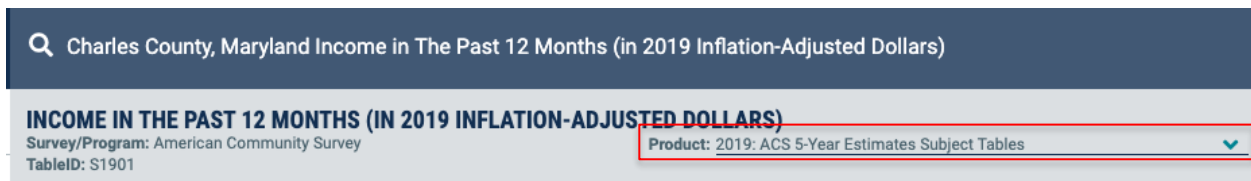
$$\%MHI_{Rest} = HC_{Rest} \div MHI$$

This information can be used to determine the relative cost of proposed restoration projects per household. This percent of MHI for proposed restoration can be compared to the percent of MHI for the previous permit term’s ISRP.

**4. Cost for Low Income Residential Customers as a Percent of Household Income**

Compare the cost of all stormwater services, including the ISRP proposed restoration portfolio, operation and maintenance of the stormwater system, and other permit costs to income in the lower income brackets. An income of \$25,000 is used to represent the upper bound of the lower low income bracket.

From the ACS website for the “2019 American Community Survey”, enter the name of your county (e.g., Harford County) plus “, Maryland Income in The Past 12 Months (in 2019 Inflation-Adjusted Dollars)” (e.g., Charles County, Maryland Income in The Past 12 Months (in 2019 Inflation-Adjusted Dollars)). Select the search result for “Income in The Past 12 Months (in 2019 Inflation-Adjusted Dollars)” and then under “Product” near the top middle of the webpage, use the drop-down arrow to select “2019: ACS 5-Year Estimate Subject Tables”.



Collect the following data:

**4a. Determine the percentage of households with income <\$25,000/yr**

Aggregate percentages for all household income brackets <\$25,000/yr. An income of \$25,000 is used to represent the upper boundary of the lower median household income of the low income bracket. The percentage of households earning less than \$25,000 can be used to show the distribution of income levels in the community.

**4b. Determine the percentage of income for low income households spent on public stormwater related management programs (%LHI<sub>storm</sub>)**

$$\%LHI_{storm} = HC_{storm} \div \$25,000$$

This information can be used to determine whether the costs of services if paid for by each household disproportionately impacts lower income households.

**4c. Determine the percentage of income for low income households spent on stormwater remediation fees (%LHI<sub>fee</sub>)**

$$\%LHI_{fee} = HC_{fee} \div \$25,000$$

This information can be used to determine whether the stormwater remediation fees paid by each household disproportionately impacts lower income households.

**4d. Determine the percentage of income for low income households spent on the ISRP during the previous permit term (%LHI<sub>ISRP</sub>)**

$$\%LHI_{ISRP} = HC_{ISRP} \div \$25,000$$

This information can be used to determine whether the costs of restoration if paid for by each household disproportionately impacts lower income households.

**4e. Determine the percentage of income for low income households spent on the projected cost of the restoration portfolio (%LHI<sub>Rest</sub>)**

$$\%LHI_{Rest} = HC_{Rest} \div \$25,000$$

This information can be used to determine whether the projected costs of the proposed restoration portfolio if paid for by each household will disproportionately impact lower income households.

**5. Key Socioeconomic Indicators**

The percent unemployed and percent of individuals below the poverty level are additional economic indicators of an MS4 community.

From the ACS website for the “2019 American Community Survey”, collect the following data:

**5a. Determine the percent unemployed for the population 16 years and over in the labor force**

In the search box, type the name of your county plus “, Maryland Selected Economic Characteristics” (e.g., Carroll County, Maryland Selected Economic Characteristics), and then select “Search”. Select the search result titled “Selected Economic Characteristics”. Then, near the top middle of the webpage, use the drop-down arrow to select “2019: ACS 5-Year Estimates Data Profiles”. The percentage may be found under “Employment Status” “Population 16 years and over” “In labor force” “Civilian labor force” “Unemployed”. This percentage can be compared to the 2019 national average reported in the ACS “Selected Economic Characteristics” (2019: ACS 5-Year Estimates Data Profiles) for the United States under “Population 16 years and over” “In labor force” “Civilian labor force” “Unemployed” (i.e., 3.4%). Per the U.S. Environmental Protection Agency’s 1997 “Combined Sewer Overflows – Guidance for Financial Capability Assessment and Schedule Development”<sup>1</sup> (hereafter referred to as EPA’s CSO Guidance), the jurisdiction’s unemployment values can be compared to the national average to characterize the strength of the local economy.

**5b. Determine the median household income (same as 2a above)**

This rate should be compared to the 2019 national average reported in the ACS for the United States (i.e., \$62,843). The jurisdiction’s median household income can be compared to the national average to characterize the jurisdiction’s overall earning capacity.

**5c. Determine the percent of individuals (all people) below the poverty level**

In the search box, type the name of your county plus “, Maryland Poverty Status in The Past 12 Months” (e.g., Frederick County, Maryland Poverty Status in The Past 12 Months), and then select “Search”. Select the search result titled “Poverty Status in The Past 12 Months”. Then, near the top middle of the webpage, use the drop-down arrow to select “2019: ACS 5-Year Estimates Data Profiles”. The rate may be found in the row labeled “Population for whom poverty status is determined” and the column labeled “Percent below poverty level”. This rate should be compared to the 2019 national average reported in the ACS “Poverty Status in The Past 12 Months” (2019: ACS 5-Year Estimates Subject Tables) for the United States (i.e., 13.4%).

**6. Financial Capacity Indicators**

The general obligation (GO) bond rating, revenue bond rating, and net debt as a percentage of full market property value (FMPV) all indicate how the municipality fares in reference to debt. Financial management indicators help determine how great the tax burden is on existing properties within the community. It is an indication of whether the community has a relatively

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<sup>1</sup> U.S. EPA. 1997. "Combined Sewer Overflows – Guidance for Financial Capability Assessment and Schedule Development." Accessed at <https://www3.epa.gov/npdes/pubs/csofc.pdf>.

high or low tax rate which would indicate a potential for concern if additional fees are added. Bond ratings can be obtained from Moody's Investors Services (<https://www.moody.com/>) or Standard & Poor's (S&P) ([https://www.standardandpoors.com/en\\_US/web/guest/home](https://www.standardandpoors.com/en_US/web/guest/home)). Debt information is typically available through a jurisdiction's annual financial statements. The FMPV data should be available through the local assessor's office or the Maryland Department of Taxation and Assessment. Collect the following data:

**6a. Provide permittee's government GO bond rating**

Strong: S&P (AAA, AA, A) or Moody's (Aaa, Aa, A)

Mid-range: S&P (BBB) or Moody's (Baa)

Weak: S&P (BB, B, CCC, CC, C, D, R, SD) or Moody's (Ba, B, Caa, Ca, C)

**6b. Provide permittee's government revenue bond rating**

Strong: S&P (AAA, AA, A) or Moody's (Aaa, Aa, A)

Mid-range: S&P (BBB) or Moody's (Baa)

Weak: S&P (BB, B, CCC, CC, C, D, R, SD) or Moody's (Ba, B, Caa, Ca, C)

**6c. Calculate the net debt as a percentage of % FMPV**

Determine the jurisdiction's FMPV and net debt. Then, divide the government's net debt by the FMPV. Values less than 2% indicate a strong rating.

**6d. Calculate the property tax revenues as a % of FMPV**

Determine the jurisdiction's total annual property tax revenues. Divide total annual property tax revenues by FMPV. Values less than 2% indicate a strong rating. Combined, these values help characterize the jurisdiction's ability to issue additional debt.

**6e. Provide permittee's tax collection rate**

Provide the rate of collection for annual property tax revenues. Values above 98% indicate a strong system. This information helps characterize the jurisdictions ability to manage financial obligations.

## REFERENCES

- U.S. Census Bureau. 2017. "American Community Survey and Puerto Rico Community Survey 2017 Subject Definitions". Accessed at [https://www2.census.gov/programs-surveys/acs/tech\\_docs/subject\\_definitions/2017\\_ACSSubjectDefinitions.pdf?#](https://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2017_ACSSubjectDefinitions.pdf?#)
- U.S. Conference of Mayors, American Water Works Association and Water Environment Federation. 2013. "Affordability Assessment Tool for Federal Water Mandates". Accessed at <http://www.mayors.org/urbanwater/media/2013/0529-report-WaterAffordability.pdf>."
- U.S. Environmental Protection Agency. 1997. "Combined Sewer Overflows – Guidance for Financial Capability Assessment and Schedule Development". Accessed at <https://www3.epa.gov/npdes/pubs/csofc.pdf>.

## **Part IV. Recommendations on Evaluating Financial Capacity as Part of an MEP Analysis**

Evaluating the financial capacity of a local jurisdiction to perform all stormwater services, is an important factor in determining the maximum extent practicable (MEP) level of implementation for Phase I Medium municipal separate storm sewer system (MS4) permittees. A jurisdiction's financial capacity can be informed by characterizing the economic conditions of the community, estimating the per household municipal costs and expenditures, and characterizing the financial wherewithal of its government to pay for stormwater-related services. The Department recognizes that each Phase I Medium MS4 jurisdiction is unique in its socioeconomic makeup and how stormwater programs are funded. Generally, sources of revenue used to pay for stormwater-related services include a combination of a dedicated fee or utility; general property and income tax revenues; grants and loans; and bond sales. The ability of a jurisdiction to adequately manage these funding sources is critical to the level of stormwater services provided. The data gathered in the Financial Capacity Analysis (FCA) spreadsheet and the narrative responses to the questions below will help each jurisdiction describe its MEP for performing stormwater-related services; economic status and its ability to afford these services; and its capacity to generate funds for these services.

It is recommended that each jurisdiction first complete the FCA spreadsheet. Then, the Department suggests that each jurisdiction answer the following questions that provide important local context regarding its FCA data and MEP analysis.

### **1. What was the prior per household municipal cost of stormwater services and restoration activities for a jurisdiction's residents?**

This first set of calculations in the FCA spreadsheet can be used to describe the municipal cost per household for stormwater-related services provided to the residential community in the past five years. Including the past and planned restoration costs and the costs of infrastructure maintenance and repair, inspection and education programs allows the jurisdiction to account for various costs - both capital and operational. These calculations can help characterize the relationship between these costs and residential household income.

#### **a. What was the estimated annual municipal cost of providing stormwater-related management services to residential customers?**

The five-year average annual cost of providing the full range of stormwater-related services can be compared to the median household income (MHI) of the community. The MHI provides a middle value of all the income ranges in a community. As the middle value, the MHI represents the income for at least half of the households.<sup>1</sup>

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<sup>1</sup> U.S. Census Bureau. 2017. "American Community Survey and Puerto Rico Community Survey 2017 Subject Definitions" at pp. 86. Accessed at [https://www2.census.gov/programs-surveys/acs/tech\\_docs/subject\\_definitions/2017\\_ACSSubjectDefinitions.pdf?#](https://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2017_ACSSubjectDefinitions.pdf?#)

While percent of MHI may be a good indicator for communities that are homogeneous in income, each MS4 jurisdiction has unique income distributions. Capturing information on lower income brackets can help “tease out” the impacts of stormwater service costs on lower income households. The U.S. Census Bureau developed a Supplemental Poverty Measure (SPM) and determined that "At the national level, for a two-adult, two-child household in 2010, the SPM income threshold was set at \$24,343."<sup>2</sup> Based on this, the FCA spreadsheet uses an income of \$25,000/year, which represents the upper bound of the low-income brackets, as a surrogate to provide information on this income group. While this does not reflect all lower income households, it is a good starting point for this analysis. Information collected in question 2c. below can be used to further characterize stormwater-related services on low income residents.

**b. What is the estimated annual cost of the stormwater remediation fee to residential customers?**

A similar analysis can be performed using just the stormwater remediation fee to isolate the annual cost of this revenue-generating mechanism for providing stormwater services to residential customers. The five-year average annual cost of the stormwater fee can be compared to MHI. This information can be used to help characterize the relative cost of stormwater remediation fee per household. For jurisdictions where the stormwater remediation fee covers only a portion of the total costs of stormwater related services, additional costs may be incurred by each household.

The Department recommends determining whether the stormwater remediation fee paid by each household disproportionately impacts lower income households. The Department recommends using the income of \$25,000/year to represent the upper bound of the lower low income bracket.

**c. What was the annual cost of the impervious surface restoration plan (ISRP) to residential customers?**

Using the total cost of the ISRP during the previous permit term, the average annual cost can be compared to the MHI. Again, the Department recommends determining whether the stormwater remediation fee paid by each household disproportionately impacts lower income households. In addition, the percent of MHI for stormwater remediation fee can be compared to past ISRP spending.

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<sup>2</sup> U.S. Conference of Mayors, American Water Works Association and Water Environment Federation. 2013. “Affordability Assessment Tool for Federal Water Mandates” at pp 19. Accessed at <https://www.awwa.org/Portals/0/AWWA/ETS/Resources/AffordabilityAssessmentTool.pdf>.

**d. What is the projected annual cost of the proposed restoration portfolio to residential customers?**

Using the projected total cost of the proposed restoration portfolio, the average annual cost can be compared to the MHI. Again, the Department recommends determining whether the proposed restoration portfolio cost that may be paid by each household disproportionately impacts lower income households. The percent of MHI for stormwater remediation fee can be compared to the projected cost of the restoration portfolio. Additionally, the percent of MHI for the previous permit term's ISRP can be compared to the percent of MHI for the proposed restoration portfolio.

**2. How do socioeconomic factors characterize the economic health of a jurisdiction? Are there indications that there are vulnerable populations in a jurisdiction that need to be considered?**

Information on income distribution in a jurisdiction can be used to determine if lower income populations are disproportionately impacted by the costs of stormwater services. Household income statistics are broken down in the Census Data to help with this evaluation. While this low income indicator is important, many jurisdictions have programs to reduce the cost of these stormwater services.

**a. How does the percent unemployed compare to the national average?**

The percent unemployed shows the total number of unemployed people in a community.<sup>3</sup> This percentage can be compared to the national average reported in the American Community Survey (ACS) to help characterize the socioeconomic conditions of a jurisdiction. An unemployment percentage of greater than 1% above the national average is a local economic indicator that helps to show how stormwater costs may impact the unemployed. This 1% parameter comes from the U.S. Environmental Protection Agency's 1997 "Combined Sewer Overflows – Guidance for Financial Capability Assessment and Schedule Development"<sup>4</sup> (hereafter referred to as EPA's CSO Guidance).

**b. How does the MHI compare to the national average?**

Although the MHI does not specifically represent impacts of costs on lower income residents, comparing the MHI to the national average shows the overall earning capacity in a jurisdiction and provides additional information on the economic conditions of the residential community. According to the EPA's CSO Guidance, if the MHI of the community is more than 25% below the national average, the community would be considered economically vulnerable.

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<sup>3</sup> U.S. Census Bureau. 2017. "American Community Survey and Puerto Rico Community Survey 2017 Subject Definitions" at pp. 66. Accessed at [https://www2.census.gov/programs-surveys/acs/tech\\_docs/subject\\_definitions/2017\\_ACSSubjectDefinitions.pdf?#](https://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2017_ACSSubjectDefinitions.pdf?#)

<sup>4</sup> U.S. EPA. 1997. "Combined Sewer Overflows – Guidance for Financial Capability Assessment and Schedule Development." Accessed at <https://www3.epa.gov/npdes/pubs/csofc.pdf>.



**c. What is the percentage of individuals below the poverty level and how does it compare to the national average?**

The U.S. Census Bureau uses family size and income thresholds to determine estimates for the percentage of families and people whose income is below the poverty level.<sup>5</sup> This information can be used to describe the percentage of individuals in a jurisdiction that are below the poverty level compared to the national average. Percentages greater than 1% above the national average may indicate that a jurisdiction has a greater number of residents in poverty.

**d. Are there any methods in place to reduce the annual cost of public stormwater-related services? Is a method in place to reduce the annual cost of stormwater-related services for low income residential customers?**

Based on the answers in questions 1a, 1b, 1c, and 1d of this document, the costs on low income residents for providing stormwater-related services may be a large percentage of household income. Using the answers to questions 2a and 2c of this document, as well as the calculated cost for stormwater-related services on low income residents, describe all methods in place to reduce the cost on vulnerable populations. Additionally, have fee reduction requests from low income households impacted water or stormwater service revenues?

**3. What is the financial capacity of a jurisdiction to borrow additional funds for stormwater-related management programs?**

The ability of a jurisdiction to borrow additional funds can provide further information on how stormwater-related cost represents the community's MEP. The General Obligation (GO) and revenue bond ratings as well as the net debt as a percentage of full market property value (FMPV) all indicate how a jurisdiction fares in reference to debt. Known as debt burden, this information can characterize a jurisdiction's ability to issue additional debt to finance stormwater-related services.

**a. Does the GO bond rating indicate a strong borrowing capacity?**

GO bond ratings represent the ability of a jurisdiction to repay its debt. GO bond debt is paid by revenue from taxes (usually local property taxes). Revenue from the sale of GO bonds are the primary long-term debt funding mechanism of a community.<sup>6</sup> Moody's ratings of Aaa, Aa, and A, or Standard & Poor's ratings of AAA, AA, and A indicate a financially stable jurisdiction.

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<sup>5</sup> U.S. Census Bureau. 2016. "How the Census Bureau Measures Poverty". Accessed at <https://www.census.gov/topics/income-poverty/poverty/about.html>

<sup>6</sup> U.S. EPA. 1997. "Combined Sewer Overflows – Guidance for Financial Capability Assessment and Schedule Development." at pp. 21. Accessed at <https://www3.epa.gov/npdes/pubs/csofc.pdf>.

**b. Does the revenue bond rating indicate a strong borrowing capacity?**

Revenue bond ratings reflect the financial conditions and management of a jurisdiction. These bonds are repaid from revenue generated from user or service fees.<sup>7</sup> Moody's ratings of Aaa, Aa, and A, or Standard & Poor's ratings of AAA, AA, and A indicate a financially stable jurisdiction.

**c. Have either one of the bond ratings impacted past borrowing capacity and is there a potential for impacts to future borrowing?**

A strong borrowing capacity will indicate a jurisdiction's ability to sufficiently borrow funds to pay for stormwater-related services. A weaker borrowing capacity will show a jurisdiction may be limited in the ability to increase debt to fund additional projects. Based on the bond ratings, jurisdictions should explain how borrowing during the previous permit term was impacted by bond ratings. The jurisdiction should also explain how borrowing during the next permit term could be impacted by current bond ratings.

**d. Net debt as a percentage of FMPV?**

Net debt is debt repaid by property taxes. The FMPV is the price a willing buyer would pay for real property and in this context it represents the full market value of real property in the jurisdiction. The calculated net debt as a percentage of FMPV provides a measurement of the debt burden on residents. It accounts for all debt issued by the jurisdiction and can be compared to a benchmark found in EPA's CSO Guidance to serve as an indicator of financial stability.

**4. How great is the tax burden on existing properties within the community?**

Financial management indicators help determine how great the tax burden is on existing properties within the community. These indicators can show whether a jurisdiction has a relatively high or low tax rate, which would indicate potential for concern if additional fees are added.

**e. What is the property tax revenue collection rate and does it indicate a large amount of contributions from the tax base?**

The property tax revenue collection rate serves as a measurement of tax collection system performance and residents' acceptance of tax levels.<sup>8</sup> The rate can be compared to an EPA CSO Guidance benchmark to indicate performance. A collection rate above 98% would be indicative of strong performance. A poor collection rate would be indicative of a tax structure that is burdensome on the residential population of the jurisdiction.

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<sup>7</sup> U.S. EPA. 1997. "Combined Sewer Overflows – Guidance for Financial Capability Assessment and Schedule Development." at pp. 21. Accessed at <https://www3.epa.gov/npdes/pubs/csofc.pdf>.

<sup>8</sup> U.S. EPA. 1997. "Combined Sewer Overflows – Guidance for Financial Capability Assessment and Schedule Development." at pp. 34. Accessed at <https://www3.epa.gov/npdes/pubs/csofc.pdf>.

**f. Do the property tax revenues as a percentage of FMPV indicate that additional fees would cause an increased strain on the community?**

The property tax revenues as a percentage of FMPV can be used to characterize the financial ability of a jurisdiction to support debt.<sup>9</sup> This comparison also provides information on how effective the local government is in providing services. A value below 2% indicates a financially strong community.

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<sup>9</sup> U.S. EPA. 1997. "Combined Sewer Overflows – Guidance for Financial Capability Assessment and Schedule Development." at pp. 32. Accessed at <https://www3.epa.gov/npdes/pubs/csofc.pdf>.

## REFERENCES

- U.S. Census Bureau. 2016. “How the Census Bureau Measures Poverty”. Accessed at <https://www.census.gov/topics/income-poverty/poverty/about.html>
- U.S. Census Bureau. 2017. “American Community Survey and Puerto Rico Community Survey 2017 Subject Definitions”. Accessed at [https://www2.census.gov/programs-surveys/acs/tech\\_docs/subject\\_definitions/2017\\_ACSSubjectDefinitions.pdf?#](https://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2017_ACSSubjectDefinitions.pdf?#)
- U.S. Conference of Mayors, American Water Works Association and Water Environment Federation. 2013. “Affordability Assessment Tool for Federal Water Mandates”. Accessed at <https://www.awwa.org/Portals/0/AWWA/ETS/Resources/AffordabilityAssessmentTool.pdf>
- U.S. Environmental Protection Agency. 1997. "Combined Sewer Overflows – Guidance for Financial Capability Assessment and Schedule Development”. Accessed at <https://www3.epa.gov/npdes/pubs/csofc.pdf>.



CHARLES COUNTY GOVERNMENT  
**Department of Planning & Growth Management**

**Deborah A. Carpenter**, AICP  
Director

Phone | 301-645-0692  
Email | [PGMadmin@CharlesCountyMD.gov](mailto:PGMadmin@CharlesCountyMD.gov)

VIA ELECTRONIC MAIL

October 5, 2021

Michelle Crawford  
Sediment, Stormwater, and Dam Safety Program  
Water and Science Administration  
Maryland Department of the Environment  
1800 Washington Blvd., 4<sup>th</sup> Floor, Suite 440  
Baltimore, Maryland 21230-1708

Re: Evaluation of Charles County of Maximum Extent  
Practicable (MEP) Analysis

Dear Ms. Crawford:

Charles County submitted a MEP Analysis to your office at the Maryland Department of Environment on July 1, 2021. Subsequently we received the Department's written evaluation of the MEP on August 17th and appreciate the opportunity to discuss the evaluation with you and your fellow staff on August 19th. At the meeting it was agreed that the County would provide additional information related to the Resilience Authority of Charles County, comments on the draft MS4 permit dated June 11, 2021, and responses to the clarifying items identified in the Department's evaluation of the MEP.

The first two items listed above have been already provided to the Department. The clarifying items noted in the evaluation of the MEP all related to the Restoration Portfolio. These have been addressed as follows and a revised Restoration Portfolio and a folder with supporting information are included with this transmittal.

1. The existing street sweeping program may continue to follow the current methodology, while any additional sweeping credit must follow the new protocols. The County understands this however, still plans on replacing credits from the street sweeping program with permanent restoration practices as it will be the best long-term approach for the County.
2. As requested, the Restoration Portfolio now identifies applicable TMDLs and watersheds that will be addressed by the projects.
3. As requested, the TN, TP and TSS reductions have been added for continued SDV. No reductions are permitted according to the Accounting Guidance for continued SEPP.
4. BMP CH21ALN00005 (BMP Type OUT) length restored is currently shown as "N/A", however should be a number. We have reconsidered whether this BMP will meet the more recent outfall protocols for restoration credit and determined that it will not. Therefore, BMP CH21ALN00005 (Walter Mitchell Outfall), which was originally anticipated to provide 1.3 acres equivalent impervious surface has been removed from the Restoration Portfolio.

5. A TSS planning rate of 248 lbs/TSS reduction/linear foot was used for the ‘Planned’ stream restorations per the 2020 Accounting Guidance, Table 17.

**Table 17. Load Reductions and EIA<sub>f</sub> for Planning Stream Restoration and Outfall Stabilization Projects**

BMP	Load Reduced (lbs/ft/yr)			EIA <sub>f</sub> per Linear Foot
	TN	TP	TSS	
Stream Restoration (Planning Rate)	0.075	0.068	248	0.02
Outfall Stabilization (Planning Rate)	0.075	0.068	248	0.02

6. The WM credit was calculated as follows for the four BMPs where it was applied:

16RST000034 (White Oak Pond PWET)\*

$$WM\ Credit = [(1.36 - 1)/1 \times 0.25] \times 9.39 = 0.85\ \text{acres}$$

Where:

$$P_E = 1.36$$

$$P_{WQT} = 1$$

$$IA = 9.39$$

16RST000056 (Wilton Court PPKT)\*

$$WM\ Credit = [(1.36 - 1)/1 \times 0.25] \times 9.39 = 0.85\ \text{acres}$$

Where:

$$P_E = 1.36$$

$$P_{WQT} = 1$$

$$IA = 9.39$$

16RST000097 (La Plata PWED)

$$WM\ Credit = [(2 - 1)/1 \times 0.25] \times 23.2 = 5.8\ \text{acres}$$

Where:

$$P_E = 2$$

$$P_{WQT} = 1$$

$$IA = 23.2$$

REST BMP ID TBD (Milton Somers PWED)

$$WM\ Credit = [(1.61 - 1)/1 \times 0.25] \times 8.6 = 1.3\ \text{acres}$$

Where:

$$P_E = 1.61$$

$$P_{WQT} = 1$$

$$IA = 8.6$$

\*Attached are the SWM Summary Sheets with the verification provided by the engineer.

7. The reductions in TN, TP, and TSS for the following projects do not match the rates in the 2014 or 2020 Accounting Guidance for the following reasons:
- CH19RST00003 (SPSC) restoring 2.3 acres (South Hampton-Amherst): The water quality calculations are attached for the SPSC. In addition to the WQ<sub>v</sub> storage accounted for in the SPSC an OUT restoration for this BMP has been added to account for the channel restoration/bank stabilization. Chesapeake Bay Program protocols were used for the OUT and the associated calculations are attached.
  - CH17APY00456 (FPU) restoring 0.61 acres (Bensville Park): The pollutant reduction calculations and impervious acre equivalent have been updated to the 2020 Accounting Guidance.
  - CH18ALN00004 (SHST) restoring 82.16 acres (Cliffton Phase 1): Chesapeake Bay Program protocols were used, and the associated calculations are attached.
  - CH20ALN000027 (SHST) restoring 92.72 acres (Cliffton Phase 2): Chesapeake Bay Program protocols were used, and the associated calculations are attached.
  - CH21ALN000005 (OUT), linear feet restored = “N/A”, this BMP has been removed from the Restoration Portfolio as described in item 4 above.
  - 12 STRE projects that do not use the planning rate: 1 completed FY 2020 (Higdon Elementary School), 2 under construction (Ruth B Swann Lower and Hunt Club-Bridle Path), 7 under design (Marbella, Acton Village-Westdale, CSM Tributaries, Ruth B Swann Tributary, Ruth B Swann Upper, Port Tobacco, Milton Somers, and Walter Mitchell) and 2 under planning (Oak Ridge West and Locust Grove Farm): Chesapeake Bay Program protocols were used to calculate the pollutant load reductions, and are attached for each project. The calculations have been updated in the Restoration Portfolio as needed.

In addition to addressing the Department’s clarifying items, the following updates have been made to the Restoration Portfolio:

- A PWED BMP has been added on the Milton Somers Middle School project. The calculations for this project are included with the Milton Somers Stream Restoration project.
- An OUT BMP has been added for the Ruth B. Swann Tributary project. The calculations for this project are included with the Ruth B. Swann Tributary Stream Restoration project.
- The Implementation Status for the following: CH16RST000056 (Wilton PPKT), CH17ALN000006 (Marbella STRE), (Marbella OUT), CH21ALN000003 (Ruth B. Swann Tributary STRE), and (Ruth B. Swann Tributary OUT); have been updated to “Under Construction.”
- CH17ALN000006 (Marbella STRE) cost has been updated.
- WM credit has been calculated for CH16RST000097 (La Plata High School PWED) and (Milton Somers PWED) and shown under item 6 above.

If you have any questions regarding the above, please contact me at 301-645-0683, or [WiggenK@CharlesCountyMD.gov](mailto:WiggenK@CharlesCountyMD.gov).

Sincerely,

*Karen Wiggen*

*Planner*

Cc: James Campbell, Charles County  
Alicia Afroilan, Charles County  
MEP File

Restoration Projects To Be Planned, Designed, and/or Constructed From The End Of 3rd Generation Permit Through FY 2028  
[CHARLES COUNTY, MD]

Remaining Unmet Restoration Obligation from Previous Permit (Impervious Acres):	0
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REST BMP ID	REST BMP TYPE <sup>1</sup>	BMP CLASS <sup>1</sup>	PERMANENT OR ANNUAL BMP	NUM BMP	DRAIN-AGE AREA (acres)	PE (inches)	LENGTH RESTORED (feet)/LANE MILES (miles)/MASS LOADING (lbs)	TP REDUCTION (lbs/year)	TSS REDUCTION (lbs/year)	TN <sup>6</sup> REDUCTION (lbs/year)	IMP ACRES (IA)	GREEN STORMWATER INFRASTRUCTURE (GSI) CREDIT (IA X 0.35)	WATERSHED MANAGEMENT (WM) CREDIT	TOTAL IMP ACRES (W/ GSI AND WM CREDITS)	IMPLEMENTATION COST	IMPLEMENTATION STATUS <sup>2</sup>	PROJECTED IMPLEMENTATION YEAR	TMDL PARAMETER OR WQ OBJECTIVE ADDRESSED	GENERAL COMMENTS <sup>7</sup>
Remaining Unmet Restoration Obligations from Previous Permit																			
<b>Annual Operational Programs (Unmet Obligations from Previous Permit)<sup>3, 4</sup></b>																			
Street Sweeping*		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
Cleaning*		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
Septic Sytem Pumping		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
		A	ANNUAL											0					
Subtotal Operations <sup>3</sup>				0				0	0	0	0			0	\$0				
<b>Capital Projects (Unmet Obligations from Previous Permit Term)</b>																			
														0					
														0					
														0					
														0					
Subtotal Capital				0				0	0	0	0	0	0	0	\$0				
<b>Other (Unmet Obligations from Previous Permit Term)</b>																			
														0					
														0					
Subtotal Other				0				0	0	0	0	0	0	0	\$0				
<b>Total of Remaining Obligations from The Previous Permit</b>				<b>0</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$0</b>				



Obligations from Previous Permit That Must Be Continued																			
Annual Operational Programs Required to be Maintained from Previous Permit <sup>3,4</sup>																			
Street Sweeping	MSS	A	ANNUAL	1				0	0	0	75.69			0	\$109,563	Complete	FY2020	Flooding, Litter Control	75.69 acres Replaced by Capital Projects
Street Sweeping	MSS	A	ANNUAL	1				0	0	0	75.69			0	\$107,900	Construction	FY2021	Flooding, Litter Control	75.69 acres Replaced by Capital Projects
Street Sweeping	MSS	A	ANNUAL	1				0	0	0	75.69			0	\$108,000	Planning	FY2022	Flooding, Litter Control	75.69 acres Replaced by Capital Projects
Street Sweeping	MSS	A	ANNUAL	1				0	0	0	75.69			0	\$108,200	Planning	FY2023	Flooding, Litter Control	75.69 acres Replaced by Capital Projects
Street Sweeping	MSS	A	ANNUAL	1				0	0	0	75.69			0	\$108,400	Planning	FY2024	Flooding, Litter Control	75.69 acres Replaced by Capital Projects
Street Sweeping	MSS	A	ANNUAL	1				0	0	0	75.69			0	\$108,500	Planning	FY2025	Flooding, Litter Control	75.69 acres Replaced by Capital Projects
Street Sweeping	MSS	A	ANNUAL	1				0	0	0	75.69			0	\$108,800	Planning	FY2026	Flooding, Litter Control	75.69 acres Replaced by Capital Projects
Street Sweeping	MSS	A	ANNUAL	1				0	0	0	75.69			0	\$109,100	Planning	FY2027	Flooding, Litter Control	75.69 acres Replaced by Capital Projects
Street Sweeping	MSS	A	ANNUAL	1				0	0	0	75.69			0	\$109,400	Planning	FY2028	Flooding, Litter Control	75.69 acres Replaced by Capital Projects
Storm Drain Vacuuming	SDV	A	ANNUAL	150				140.798	42239.4	351.995	40.23			40.23	\$411,077	Complete	FY2020	Nutrient and Sediment TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed, Flooding, Litter Control	SOP Required for Imp Acres credit above 40.23 acres
Storm Drain Vacuuming	SDV	A	ANNUAL	150				140.798	42239.4	351.995	40.23			40.23	\$409,300	Under Construction	FY2021	Nutrient and Sediment TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed, Flooding, Litter Control	SOP Required for Imp Acres credit above 40.23 acres
Storm Drain Vacuuming	SDV	A	ANNUAL	150				140.798	42239.4	351.995	40.23			40.23	\$417,500	Planning	FY2022	Nutrient and Sediment TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed, Flooding, Litter Control	SOP Required for Imp Acres credit above 40.23 acres
Storm Drain Vacuuming	SDV	A	ANNUAL	150				140.798	42239.4	351.995	40.23			40.23	\$425,900	Planning	FY2023	Nutrient and Sediment TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed, Flooding, Litter Control	SOP Required for Imp Acres credit above 40.23 acres
Storm Drain Vacuuming	SDV	A	ANNUAL	150				140.798	42239.4	351.995	40.23			40.23	\$434,700	Planning	FY2024	Nutrient and Sediment TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed, Flooding, Litter Control	SOP Required for Imp Acres credit above 40.23 acres
Storm Drain Vacuuming	SDV	A	ANNUAL	150				140.798	42239.4	351.995	40.23			40.23	\$443,500	Planning	FY2025	Nutrient and Sediment TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed, Flooding, Litter Control	SOP Required for Imp Acres credit above 40.23 acres
Storm Drain Vacuuming	SDV	A	ANNUAL	150				140.798	42239.4	351.995	40.23			40.23	\$452,800	Planning	FY2026	Nutrient and Sediment TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed, Flooding, Litter Control	SOP Required for Imp Acres credit above 40.23 acres
Storm Drain Vacuuming	SDV	A	ANNUAL	150				140.798	42239.4	351.995	40.23			40.23	\$462,300	Planning	FY2027	Nutrient and Sediment TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed, Flooding, Litter Control	SOP Required for Imp Acres credit above 40.23 acres
Storm Drain Vacuuming	SDV	A	ANNUAL	150				140.798	42239.4	351.995	40.23			40.23	\$472,000	Planning	FY2028	Nutrient and Sediment TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed, Flooding, Litter Control	SOP Required for Imp Acres credit above 40.23 acres
Septic Sytem Pumping	SEPP	A	ANNUAL	946				0	0	0	22.4			22.4	\$123,289	Complete	FY2020	Bacteria TMDL for Indian Creek Watershed	Septic pump-out implementation cost includes riser costs.
Septic Sytem Pumping	SEPP	A	ANNUAL	1241				0	0	0	22.4			22.4	\$110,000	Under Construction	FY2021	Bacteria TMDL for Indian Creek Watershed	Septic pump-out implementation cost includes riser costs.
Septic Sytem Pumping	SEPP	A	ANNUAL	1241				0	0	0	22.4			22.4	\$125,000	Planning	FY2022	Bacteria TMDL for Indian Creek Watershed	Septic pump-out implementation cost includes riser costs.
Septic Sytem Pumping	SEPP	A	ANNUAL	1241				0	0	0	22.4			22.4	\$127,500	Planning	FY2023	Bacteria TMDL for Indian Creek Watershed	Septic pump-out implementation cost includes riser costs.
Septic Sytem Pumping	SEPP	A	ANNUAL	1241				0	0	0	22.4			22.4	\$130,050	Planning	FY2024	Bacteria TMDL for Indian Creek Watershed	Septic pump-out implementation cost includes riser costs.
Septic Sytem Pumping	SEPP	A	ANNUAL	1241				0	0	0	22.4			22.4	\$132,651	Planning	FY2025	Bacteria TMDL for Indian Creek Watershed	Septic pump-out implementation cost includes riser costs.
Septic Sytem Pumping	SEPP	A	ANNUAL	1241				0	0	0	22.4			22.4	\$135,300	Planning	FY2026	Bacteria TMDL for Indian Creek Watershed	Septic pump-out implementation cost includes riser costs.
Septic Sytem Pumping	SEPP	A	ANNUAL	1241				0	0	0	22.4			22.4	\$138,000	Planning	FY2027	Bacteria TMDL for Indian Creek Watershed	Septic pump-out implementation cost includes riser costs.
Septic Sytem Pumping	SEPP	A	ANNUAL	1241				0	0	0	22.4			22.4	\$140,800	Planning	FY2028	Bacteria TMDL for Indian Creek Watershed	Septic pump-out implementation cost includes riser costs.
Subtotal Operations <sup>5</sup>				1,392				141	42,239	352	138			62.63	\$3,366,801				
Capital Projects (Proposed to Replace Annual Obligations)																			
CH17ALN000005	STRE	A	PERMANENT	1	N/A	N/A	552 LF	9.7	67960.0	152.3	7.1			7.1	\$689,233	Complete	FY2020	Nutrient and Sediment TMDL for Chesapeake Bay (Zekiah Swamp Watershed), ecosystem habitat	St. Charles Parkway Stream Restoration
CH20ALN000028	SHST	A	PERMANENT	1	N/A	N/A	1,755 LF	220.0	583001.0	400.7	70.20			70.20	\$2,488,289	Complete	FY2020	Nutrient and Sediment TMDL for Chesapeake Bay (Middle Tidal Potomac River Watershed), ecosystem habitat, climate change resiliency, protection of property from erosion	Potomac Heights Shoreline Stabilization
Subtotal Capital				2				229.7	650961	553	77.3			77.3	\$3,177,522				
Other (Proposed to Replace Annual Obligations)																			
															0				
															0				
Subtotal Other				0				0	0	0	0			0	\$0				
<b>Total of Obligations from Previous Permit That Must Be Continued</b>				<b>1,394</b>				<b>370.5</b>	<b>693,200.4</b>	<b>0</b>	<b>0</b>			<b>0.0</b>	<b>0.0</b>	<b>139.9</b>	<b>\$6,544,323</b>		

Proposed Restoration for the Next Permit

Operational Programs*																			
Street Sweeping	MSS	A	ANNUAL	0															0
Street Sweeping	MSS	A	ANNUAL	0															0
Street Sweeping	MSS	A	ANNUAL	0															0
Street Sweeping	MSS	A	ANNUAL	0															0
Street Sweeping	MSS	A	ANNUAL	0															0
Street Sweeping	MSS	A	ANNUAL	0															0
Storm Drain Vacuuming	SDV	A	ANNUAL	0															0
Storm Drain Vacuuming	SDV	A	ANNUAL	0															0
Storm Drain Vacuuming	SDV	A	ANNUAL	0															0
Storm Drain Vacuuming	SDV	A	ANNUAL	0															0
Storm Drain Vacuuming	SDV	A	ANNUAL	0															0
Storm Drain Vacuuming	SDV	A	ANNUAL	0															0
Storm Drain Vacuuming	SDV	A	ANNUAL	0															0
Septic Sytem Pumping	SEPP	A	ANNUAL	0															0
Septic Sytem Pumping	SEPP	A	ANNUAL	0															0
Septic Sytem Pumping	SEPP	A	ANNUAL	0															0
Septic Sytem Pumping	SEPP	A	ANNUAL	0															0
Septic Sytem Pumping	SEPP	A	ANNUAL	0															0
Septic Sytem Pumping	SEPP	A	ANNUAL	0															0
Septic Sytem Pumping	SEPP	A	ANNUAL	0															0
Septic Sytem Pumping	SEPP	A	ANNUAL	0															0
Subtotal Operations (thru FY 2026) <sup>5</sup>				0				0	0	0	0			0	\$0				
Capital Projects																			
CH17ALN000011	STRE	A	PERMANENT	1	44	N/A	748	53	100,167	315	18.02			18.02	\$816,760	Complete	FY2020	Nutrient TMDL for Mattawoman Creek Watershed, ecosystem habitat	Apple Creek Stream Restoration
CH16RST000097	PWED	S	PERMANENT	1	82.23	2	N/A	56.7	48,400	291.9	23.2	0	5.8	29	\$793,680	Complete	FY2020	Nutrient & Sediment TMDL for Chesapeake Bay (Zekiah Swamp Watershed)	La Plata High School
CH17ALN000014	STRE	A	PERMANENT	1	N/A	N/A	1,480 LF	123.9	645,600	258.6	50.0			50.0	\$965,268	Complete	FY2020	Nutrient & Sediment TMDL for Chesapeake Bay (Lower Tidal Potomac River Watershed), ecosystem habitat	Higdon Elem Stream Restoration
CH18ALN000004	SHST	A	PERMANENT	1	N/A	N/A	2,054 LF	258.1	683,087	479.0	82.16			82.16	\$1,432,670	Complete	FY2021	Nutrient & Sediment TMDL for Chesapeake Bay (Lower Tidal Potomac River Watershed), ecosystem habitat, climate change resiliency, protection of property from erosion	Cliffton Shoreline Stabilization Phase 1
CH20ALN000027	SHST	A	PERMANENT	1	N/A	N/A	2,318 LF	290.4	769,793	526.2	92.72			92.72	\$1,616,710	Complete	FY2021	Nutrient & Sediment TMDL for Chesapeake Bay (Lower Tidal Potomac River Watershed), ecosystem habitat, climate change resiliency, protection of property from erosion	Cliffton Shoreline Stabilization Phase 2
CH19RST000006	PPKT	S	PERMANENT	1	12	1	75,289	17	33,155	43	3.61			3.61	\$95,000	Complete	FY2021	Nutrient TMDL for Mattawoman Creek Watershed	Cedar Tree Pond Retrofit
CH19RST000005	PWET	S	PERMANENT	1	17	1	220,351	35	97,036	88	12.66			12.66	\$286,000	Complete	FY2021	Nutrient TMDL for Mattawoman Creek Watershed	Best Buy Wetpond Expansion
CH16RST000014	BIO	E	PERMANENT	1	3.13	1.08	N/A	18.62	10,076.51	2.73	1.53	0.54	0	2.07	\$252,450	Complete	FY2021	Nutrient TMDL for Mattawoman Creek Watershed	General Smallwood Middle School Bioretention
CH17RST000067	BIO	E	PERMANENT	1	2.58	1.05	N/A	23.12	12,513.32	3.39	1.9	0.67	0	2.57	\$252,450	Complete	FY2021	Nutrient TMDL for Mattawoman Creek Watershed	General Smallwood Middle School Bioretention
CH17RST000062	ODSW	S	PERMANENT	1	5	1	24,268	6	10,687	15	1.15			1.15	\$78,461	Complete	FY2021	Nutrient TMDL for Mattawoman Creek Watershed	Bensville Park Dry Swale with 2 Check Dams
CH17RST000002	ODSW	S	PERMANENT	1	7	1	37,629	9	16,570	23	1.69			1.69	\$145,713	Complete	FY2021	Nutrient TMDL for Mattawoman Creek Watershed	Bensville Park Dry Swale
CH17RST000063	FSND	S	PERMANENT	1	94	1	65,445	13	28,820	34	3.33			3.33	\$116,083	Complete	FY2021	Nutrient TMDL for Mattawoman Creek Watershed	Bensville Park Sand Filter
CH17APY000456	FPU	A	PERMANENT	1	N/A	N/A	N/A	2.84	4,488	17.79	1.76			1.76	\$88,795	Complete	FY2021	Nutrient TMDL for Mattawoman Creek Watershed, ecosystem habitat	Bensville Reforestation
CH17ALN000013	STRE	A	PERMANENT	1	737	N/A	1,509 LF	244	30,080	1,195	106.07			106.07	\$1,050,000	Under Constructi	FY2022	Nutrient TMDL for Mattawoman Creek Watershed, ecosystem habitat	Ruth B. Swann Lower Stream Restoration (Main Channel)
CH17ALN000012	STRE	A	PERMANENT	1	129	N/A	1,583 LF	398.9	759,760	1,273	116.10			116.1	\$875,210	Under Constructi	FY2022	Nutrient TMDL for Mattawoman Creek Watershed, ecosystem habitat	Hunt Club - Bridle Path Stream Restoration
CH16RST000034	PWET	S	PERMANENT	1	94	2.45	513,455	75	242,351	280	15.55	0	5.46	21.01	\$620,000	Design	FY2022	Nutrient & Sediment TMDL for Chesapeake Bay (Zekiah Swamp Watershed), climate change resiliency	White Oak Pond Retrofit
CH17ALN000006	STRE	A	PERMANENT	1	147.57	N/A	2,396 LF	194.23	419,200	839.42	61.88			61.88	\$1,816,398	Under Constructi	FY2023	Nutrient TMDL for Mattawoman Creek Watershed, ecosystem habitat, climate change resiliency, protection of property from erosion	Marbella Stream Restoration
TBD	OUT	A	PERMANENT	2	6.25	N/A	219 LF	5.5	5,143	16.32	1.62			1.62	\$46,325	Under Constructi	FY2023	Nutrient TMDL for Mattawoman Creek Watershed, ecosystem habitat, climate change resiliency, protection of property from erosion	Marbella Outfall Stabilizations

CH21ALN000001	STRE	A	PERMANENT	1	34	N/A	728 LF	20	65,583	285	10.91			10.91	\$1,100,000	Design	FY2023	Nutrient TMDL for Mattawoman Creek Watershed, ecosystem habitat, climate change resiliency, protection of property from erosion	Acton Village - Westdale Drive Stream Restoration
CH16RST000056	PPKT	S	PERMANENT	1	35	1.36	224,524	33	40,522	203	9.39	0	0.85	10.24	\$284,300	Under Constructio	FY2024	Sediment TMDL for Port Tobacco River Watershed, Nutrient TMDL for Chesapeake Bay (Port Tobacco River Watershed), climate change resiliency	Wilton Court Pond Retrofit
CH21ALN000003	STRE	A	PERMANENT	1	62	N/A	1,644 LF	46.62	45,760	446	17.08			17.08	\$1,244,100	Under Constructio	FY2024	Nutrient TMDL for Mattawoman Creek Watershed, ecosystem habitat	Ruth B. Swann Tributary Stream Restoration
TBD	OUT	A	PERMANENT	6	69.62	N/A	687 LF	7.42	8,160	46.26	2.3			2.3	\$185,900	Under Constructio	FY2024	Nutrient TMDL for Mattawoman Creek Watershed, ecosystem habitat	Ruth B. Swann Tributary Outfall Stabilizations
CH17ALN000008	STRE	A	PERMANENT	3	N/A	N/A	1,330 LF	163.9	574,400	231.9	53.5			53.5	\$1,056,890	Design	FY2024	Sediment TMDL for Port Tobacco River Watershed, Nutrient TMDL for Chesapeake Bay (Port Tobacco River Watershed), ecosystem habitat	CSM Tributaries Stream Restoration (3 parts)
CH21ALN000002	STRE	A	PERMANENT	1	639	N/A	2,081 LF	229	423,280	1,369	78.1			78.1	\$1,697,700	Design	FY2024	Nutrient TMDL for Mattawoman Creek Watershed, ecosystem habitat	Ruth B. Swann Upper Stream Restoration (Northern)
CH17ALN000009	STRE	A	PERMANENT	1	N/A	N/A	1,743 LF	322.6	557,600	720.8	84.6			84.6	\$1,972,800	Design	FY2024	Sediment TMDL for Port Tobacco River Watershed, Nutrient TMDL for Chesapeake Bay (Port Tobacco River Watershed), ecosystem habitat	Port Tobacco Stream Restoration
CH21ALN000006	STRE	A	PERMANENT	1	67.17	N/A	1,125 LF	82.5	325,800	217.8	29.5			29.5	\$743,620	Design	FY2024	Nutrient & Sediment TMDL for Chesapeake Bay (Zekiah Swamp Watershed), ecosystem habitat	Milton Somers Stream Restoration
TBD	PWED	S	PERMANENT	1	39.89	1.61	N/A	15.4	140.7	27.9	8.6	0	1.3	9.9	\$1,040,000	Design	FY2024	Nutrient & Sediment TMDL for Chesapeake Bay (Zekiah Swamp Watershed), climate change resiliency	Milton Somers Pond Retrofit
CH21RST000001	MMBR	E	PERMANENT	1	1.82	1.82	N/A	2.4	5,000	14.6	1.3			1.3	\$75,000	Design	FY2024	Nutrient & Sediment TMDL for Chesapeake Bay (Zekiah Swamp Watershed)	Walter Mitchell Bioretention
CH21ALN000004	STRE	A	PERMANENT	1	17.05	N/A	860 LF	90.9	367,000	116.1	30.9			30.9	\$887,655	Design	FY2024	Nutrient & Sediment TMDL for Chesapeake Bay (Zekiah Swamp Watershed), ecosystem habitat	Walter Mitchell Stream Restoration
CH19RST000004	PWED	S	PERMANENT	1	31.23	2.66	N/A	42.3	79,400	169.5	11.4			11.4	\$598,958	Design	FY2025	Nutrient & Sediment TMDL for Chesapeake Bay (Middle Tidal Potomac River Watershed)	South Hampton-Greenville Pond
CH19RST000002	PWED	S	PERMANENT	1	13.97	1.56	N/A	19.1	37,000	76.3	4.3			4.3	\$226,320	Design	FY2025	Nutrient & Sediment TMDL for Chesapeake Bay (Middle Tidal Potomac River Watershed)	South Hampton-Walden Pond
CH19RST000001	PWED	S	PERMANENT	1	10.46	1.02	N/A	14.9	31,400	58.4	3.5			3.5	\$184,214	Design	FY2025	Nutrient & Sediment TMDL for Chesapeake Bay (Middle Tidal Potomac River Watershed)	South Hampton-Sir Douglas Pond
CH19RST000003	OUT	A	PERMANENT	1	N/A	N/A	372 LF	50.1	100,240	97.6	15.9			15.9	N/A	Design	FY2025	Nutrient & Sediment TMDL for Chesapeake Bay (Middle Tidal Potomac River Watershed)	South Hampton-Amherst Step Pool Stream
CH19RST000003	SPSC	A	PERMANENT	1	19.78	0.43	N/A	26.3	59,200	124.6	2.3			2.3	\$121,055	Design	FY2025	Nutrient & Sediment TMDL for Chesapeake Bay (Middle Tidal Potomac River Watershed)	South Hampton-Amherst Step Pool - WQ <sub>v</sub>
CH17ALN000010	STRE	A	PERMANENT	1	86.83	N/A	3,240 LF	514.48	498,620	1,256.00	120.72			120.72	\$1,500,000	Planning	FY2025	Nutrient & Sediment TMDL for Chesapeake Bay (Gilbert Swamp Watershed), ecosystem habitat, climate change resiliency, protection of property from erosion	Oak Ridge Park West Stream Restoration
CH21ALN000008	STRE	A	PERMANENT	1	25.7	N/A	900 LF	61.2	223,200	67.5	18			18	\$1,500,000	Planning	FY2025	Nutrient & Sediment TMDL for Chesapeake Bay (Gilbert Swamp Watershed), ecosystem habitat, climate change resiliency, protection of property from erosion	Oak Ridge Park East Stream Restoration
CH21ALN000007	STRE	A	PERMANENT	1	305.7	N/A	1,184 LF	52.2	57,146	331	16.45			16.45	\$810,500	Planning	FY2026	Sediment TMDL for Port Tobacco River Watershed, ecosystem habitat, climate change resiliency, protection of property from erosion	Locust Grove Farm Stream Restoration
CH19RST000007	PWET	S	PERMANENT	1	142	1	1,195,600	50	121,421	236	16.66			16.66	\$1,018,909	Design	FY2026	Nutrient & Sediment TMDL for Chesapeake Bay (Zekiah Swamp Watershed)	White Plains Golf Course Pond Retrofit
TBD	STRE	A	PERMANENT	1	TBD	N/A	500	34	124,000	37.5	10			10	\$1,000,000	Planning	FY2027	Sediment TMDL for Port Tobacco River Watershed, ecosystem habitat, climate change resiliency, protection of property from erosion	Stream Restoration - Port Tobacco Watershed TBD
TBD	TBD	S	PERMANENT	3	TBD	TBD	N/A	TBD	TBD	TBD	10			10	\$750,000	Planning	FY2027	Nutrient and Sediment TMDLs (watersheds to be determined), climate change resiliency	Stormwater Management Retrofits - TBD
TBD	STRE	A	PERMANENT	1	TBD	N/A	1055	71.74	261,640	79.125	21.1			21.1	\$1,000,000	Planning	FY2027	Nutrient and Sediment TMDLs (watersheds to be determined), climate change resiliency, protection of property from erosion	Stream Restoration - Strawberry Hills
TBD	TBD	S	PERMANENT	2	TBD	TBD	N/A	TBD	TBD	TBD	10			10	\$500,000	Planning	FY2027	Nutrient and Sediment TMDLs (watersheds to be determined), climate change resiliency	Full Delivery Contract Projects
TBD	STRE	A	PERMANENT	1	TBD	N/A	250	17	62,000	18.75	5			5	\$1,000,000	Planning	FY2028	Sediment TMDL for Port Tobacco River Watershed, ecosystem habitat, climate change resiliency, protection of property from erosion	Stream Restoration - Port Tobacco Watershed TBD
TBD	TBD	S	PERMANENT	3	TBD	TBD	N/A	TBD	TBD	TBD	10			10	\$750,000	Planning	FY2028	Nutrient and Sediment TMDLs (watersheds to be determined), climate change resiliency	Stormwater Management Retrofits - TBD
TBD	TBD	S	PERMANENT	2	TBD	TBD	N/A	TBD	TBD	TBD	10			10	\$500,000	Planning	FY2028	Nutrient and Sediment TMDLs (watersheds to be determined), climate change resiliency	Full Delivery Contract Projects
Subtotal Capital (thru FY 2026)				46				3668.63	7537799.53	11796.11	1130.36	1.21	13.41	1144.98	\$27,595,893				
<b>Other</b>																			
N/A	OTHER	A	ANNUAL	N/A										0	\$40,000	Complete	FY2020	Nutrient and Sediment TMDL for Chesapeake Bay (Lower Tidal Potomac and Patuxent River Watersheds), ecosystem habitat	Oyster Restoration-Waterman's Assoc. of Charles Co.
N/A	OTHER	A	ANNUAL	N/A										0	\$53,200	Complete	FY2021	Nutrient and Sediment TMDL for Chesapeake Bay (Lower Tidal Potomac and Patuxent River Watersheds), ecosystem habitat	Oyster Restoration-Waterman's Assoc. of Charles Co.
N/A	OTHER	A	ANNUAL	N/A										0	\$53,200	Planning	FY2022	Nutrient and Sediment TMDL for Chesapeake Bay (Lower Tidal Potomac and Patuxent River Watersheds), ecosystem habitat	Oyster Restoration-Waterman's Assoc. of Charles Co.

N/A	OTHER	A	ANNUAL	N/A										0	\$53,200	Planning	FY2023	Nutrient and Sediment TMDL for Chesapeake Bay (Lower Tidal Potomac and Patuxent River Watersheds), ecosystem habitat	Oyster Restoration-Waterman's Assoc. of Charles Co.
N/A	OTHER	A	ANNUAL	N/A										0	\$53,200	Planning	FY2024	Nutrient and Sediment TMDL for Chesapeake Bay (Lower Tidal Potomac and Patuxent River Watersheds), ecosystem habitat	Oyster Restoration-Waterman's Assoc. of Charles Co.
N/A	OTHER	A	ANNUAL	N/A										0	\$53,200	Planning	FY2025	Nutrient and Sediment TMDL for Chesapeake Bay (Lower Tidal Potomac and Patuxent River Watersheds), ecosystem habitat	Oyster Restoration-Waterman's Assoc. of Charles Co.
N/A	OTHER	A	ANNUAL	N/A										0	\$75,000	Planning	FY2021	Restoration project permit requirement and CBP verification requirement	Stream Monitoring for 4 Years (3 stream restorations finalized/\$25,000 ea/yr)
N/A	OTHER	A	ANNUAL	N/A										0	\$75,000	Planning	FY2022	Restoration project permit requirement and CBP verification requirement	Stream Monitoring for 4 Years (3 stream restorations finalized/\$25,000 ea/yr)
N/A	OTHER	A	ANNUAL	N/A										0	\$75,000	Planning	FY2023	Restoration project permit requirement and CBP verification requirement	Stream Monitoring for 4 Years (3 stream restorations finalized/\$25,000 ea/yr)
N/A	OTHER	A	ANNUAL	N/A										0	\$125,000	Planning	FY2024	Restoration project permit requirement and CBP verification requirement	Stream Monitoring for 4 Years (5 stream restorations finalized/\$25,000 ea/yr)
N/A	OTHER	A	ANNUAL	N/A										0	\$275,000	Planning	FY2025	Restoration project permit requirement and CBP verification requirement	Stream Monitoring for 4 Years (11 stream restorations finalized/\$25,000 ea/yr)
N/A	OTHER	A	ANNUAL	N/A										0	\$325,000	Planning	FY2026	Restoration project permit requirement and CBP verification requirement	Stream Monitoring for 4 Years (13 stream restorations finalized/\$25,000 ea/yr)
N/A	OTHER	A	ANNUAL	N/A										0	\$375,000	Planning	FY2027	Restoration project permit requirement and CBP verification requirement	Stream Monitoring for 4 Years (15 stream restorations finalized/\$25,000 ea/yr)
N/A	OTHER	A	ANNUAL	N/A										0	\$375,000	Planning	FY2028	Restoration project permit requirement and CBP verification requirement	Stream Monitoring for 4 Years (15 stream restorations finalized/\$25,000 ea/yr)
N/A	OTHER	A	ANNUAL	N/A										0	\$60,000	Planning	FY2022	Restoration project permit requirement and CBP verification requirement	Shoreline Monitoring for 1 Year (2 shoreline stabilizations/\$30,000ea)
N/A	OTHER	A	ANNUAL	N/A										0	\$90,000	Planning	FY2023	Restoration project permit requirement and CBP verification requirement	Shoreline Monitoring for 1 Year (3 shoreline stabilizations/\$30,000ea)
N/A	OTHER	A	ANNUAL	N/A										0	\$216,280	Complete	FY2020	Education and outreach, Litter Control	Trash Elimination Education & Outreach (Adopt a Road, Adopt a Stream, Trash Pick-ups)
N/A	OTHER	A	ANNUAL	N/A										0	\$225,000	Design	FY2021	Education and outreach, Litter Control	Trash Elimination Education & Outreach (Adopt a Road, Adopt a Stream, Trash Pick-ups)
N/A	OTHER	A	ANNUAL	N/A										0	\$235,000	Planning	FY2022	Education and outreach, Litter Control	Trash Elimination Education & Outreach (Adopt a Road, Adopt a Stream, Trash Pick-ups)
N/A	OTHER	A	ANNUAL	N/A										0	\$244,400	Planning	FY2023	Education and outreach, Litter Control	Trash Elimination Education & Outreach (Adopt a Road, Adopt a Stream, Trash Pick-ups)
N/A	OTHER	A	ANNUAL	N/A										0	\$254,200	Planning	FY2024	Education and outreach, Litter Control	Trash Elimination Education & Outreach (Adopt a Road, Adopt a Stream, Trash Pick-ups)
N/A	OTHER	A	ANNUAL	N/A										0	\$264,400	Planning	FY2025	Education and outreach, Litter Control	Trash Elimination Education & Outreach (Adopt a Road, Adopt a Stream, Trash Pick-ups)
N/A	OTHER	A	ANNUAL	N/A										0	\$275,000	Planning	FY2026	Education and outreach, Litter Control	Trash Elimination Education & Outreach (Adopt a Road, Adopt a Stream, Trash Pick-ups)
N/A	OTHER	A	ANNUAL	N/A										0	\$286,000	Planning	FY2027	Education and outreach, Litter Control	Trash Elimination Education & Outreach (Adopt a Road, Adopt a Stream, Trash Pick-ups)
N/A	OTHER	A	ANNUAL	N/A										0	\$297,400	Planning	FY2028	Education and outreach, Litter Control	Trash Elimination Education & Outreach (Adopt a Road, Adopt a Stream, Trash Pick-ups)
N/A	OTHER	A	ANNUAL	N/A										0	\$220,782	Complete	FY2020	Education and outreach, Bacteria TMDL for Indian Creek Watershed	Education & Outreach Program and Grants
N/A	OTHER	A	ANNUAL	N/A										0	\$398,500	Design	FY2021	Education and outreach, Bacteria TMDL for Indian Creek Watershed	Education & Outreach Program and Grants
N/A	OTHER	A	ANNUAL	N/A										0	\$318,600	Planning	FY2022	Education and outreach, Bacteria TMDL for Indian Creek Watershed	Education & Outreach Program and Grants
N/A	OTHER	A	ANNUAL	N/A										0	\$328,200	Planning	FY2023	Education and outreach, Bacteria TMDL for Indian Creek Watershed	Education & Outreach Program and Grants
N/A	OTHER	A	ANNUAL	N/A										0	\$338,000	Planning	FY2024	Education and outreach, Bacteria TMDL for Indian Creek Watershed	Education & Outreach Program and Grants
N/A	OTHER	A	ANNUAL	N/A										0	\$348,100	Planning	FY2025	Education and outreach, Bacteria TMDL for Indian Creek Watershed	Education & Outreach Program and Grants
N/A	OTHER	A	ANNUAL	N/A										0	\$358,500	Planning	FY2026	Education and outreach, Bacteria TMDL for Indian Creek Watershed	Education & Outreach Program and Grants
N/A	OTHER	A	ANNUAL	N/A										0	\$369,300	Planning	FY2027	Education and outreach, Bacteria TMDL for Indian Creek Watershed	Education & Outreach Program and Grants
N/A	OTHER	A	ANNUAL	N/A										0	\$380,400	Planning	FY2028	Education and outreach, Bacteria TMDL for Indian Creek Watershed	Education & Outreach Program and Grants
N/A	OTHER	A	PERMANENT	N/A										0	\$120,926	Complete	FY2020	Nutrient and Sediment TMDLs for Port Tobacco River Watershed and Chesapeake Bay (Middle and Lower Tidal Potomac and Patuxent River Watersheds), protection of property from erosion	Drainage Maintenance Program
N/A	OTHER	A	PERMANENT	N/A										0	\$183,300	Design	FY2021	Nutrient and Sediment TMDLs for Port Tobacco River Watershed and Chesapeake Bay (Middle and Lower Tidal Potomac and Patuxent River Watersheds), protection of property from erosion	Drainage Maintenance Program
N/A	OTHER	A	PERMANENT	N/A										0	\$184,300	Planning	FY2022	Nutrient and Sediment TMDLs for Port Tobacco River Watershed and Chesapeake Bay (Middle and Lower Tidal Potomac and Patuxent River Watersheds), protection of property from erosion	Drainage Maintenance Program



N/A	OTHER	A	PERMANENT	N/A														0	\$188,000	Planning	FY2023	Nutrient and Sediment TMDLs for Port Tobacco River Watershed and Chesapeake Bay (Middle and Lower Tidal Potomac and Patuxent River Watersheds), protection of property from erosion	Drainage Maintenance Program
N/A	OTHER	A	PERMANENT	N/A														0	\$191,800	Planning	FY2024	Nutrient and Sediment TMDLs for Port Tobacco River Watershed and Chesapeake Bay (Middle and Lower Tidal Potomac and Patuxent River Watersheds), protection of property from erosion	Drainage Maintenance Program
N/A	OTHER	A	PERMANENT	N/A														0	\$195,600	Planning	FY2025	Nutrient and Sediment TMDLs for Port Tobacco River Watershed and Chesapeake Bay (Middle and Lower Tidal Potomac and Patuxent River Watersheds), protection of property from erosion	Drainage Maintenance Program
N/A	OTHER	A	PERMANENT	N/A														0	\$199,500	Planning	FY2026	Nutrient and Sediment TMDLs for Port Tobacco River Watershed and Chesapeake Bay (Middle and Lower Tidal Potomac and Patuxent River Watersheds), protection of property from erosion	Drainage Maintenance Program
N/A	OTHER	A	PERMANENT	N/A														0	\$203,500	Planning	FY2027	Nutrient and Sediment TMDLs for Port Tobacco River Watershed and Chesapeake Bay (Middle and Lower Tidal Potomac and Patuxent River Watersheds), protection of property from erosion	Drainage Maintenance Program
N/A	OTHER	A	PERMANENT	N/A														0	\$207,600	Planning	FY2028	Nutrient and Sediment TMDLs for Port Tobacco River Watershed and Chesapeake Bay (Middle and Lower Tidal Potomac and Patuxent River Watersheds), protection of property from erosion	Drainage Maintenance Program
N/A	SHST	A	PERMANENT	TBD														0	\$0	Complete	FY2020	Nutrient and Sediment TMDL Chesapeake Bay (Middle and Lower Tidal Potomac and Patuxent River Watersheds), protection of property from erosion	Private Shoreline Stabilization
N/A	SHST	A	PERMANENT	TBD														0	\$0	Design	FY2021	Nutrient and Sediment TMDL Chesapeake Bay (Middle and Lower Tidal Potomac and Patuxent River Watersheds), protection of property from erosion	Private Shoreline Stabilization
N/A	SHST	A	PERMANENT	TBD														0	\$0	Planning	FY2022	Nutrient and Sediment TMDL Chesapeake Bay (Middle and Lower Tidal Potomac and Patuxent River Watersheds), protection of property from erosion	Private Shoreline Stabilization
N/A	SHST	A	PERMANENT	TBD														0	\$0	Planning	FY2023	Nutrient and Sediment TMDL Chesapeake Bay (Middle and Lower Tidal Potomac and Patuxent River Watersheds), protection of property from erosion	Private Shoreline Stabilization
N/A	SHST	A	PERMANENT	TBD														0	\$0	Planning	FY2024	Nutrient and Sediment TMDL Chesapeake Bay (Middle and Lower Tidal Potomac and Patuxent River Watersheds), protection of property from erosion	Private Shoreline Stabilization
N/A	SHST	A	PERMANENT	TBD														0	\$0	Planning	FY2025	Nutrient and Sediment TMDL Chesapeake Bay (Middle and Lower Tidal Potomac and Patuxent River Watersheds), protection of property from erosion	Private Shoreline Stabilization
N/A	SHST	A	PERMANENT	TBD														0	\$0	Planning	FY2026	Nutrient and Sediment TMDL Chesapeake Bay (Middle and Lower Tidal Potomac and Patuxent River Watersheds), protection of property from erosion	Private Shoreline Stabilization
N/A	SHST	A	PERMANENT	TBD														0	\$0	Planning	FY2027	Nutrient and Sediment TMDL Chesapeake Bay (Middle and Lower Tidal Potomac and Patuxent River Watersheds), protection of property from erosion	Private Shoreline Stabilization
N/A	SHST	A	PERMANENT	TBD														0	\$0	Planning	FY2028	Nutrient and Sediment TMDL Chesapeake Bay (Middle and Lower Tidal Potomac and Patuxent River Watersheds), protection of property from erosion	Private Shoreline Stabilization
TBD	SEPD	A	PERMANENT	10														1.5	\$150,000	Complete	FY2020	Nitrogen TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed and Bacteria TMDL for Indian Creek Watershed	Septic Denitrification-Bay Rest Fund Grant (0.16 ac/ea)
TBD	SEPD	A	PERMANENT	10														1.5	\$150,000	Design	FY2021	Nitrogen TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed and Bacteria TMDL for Indian Creek Watershed	Septic Denitrification-Bay Rest Fund Grant (0.16 ac/ea)
TBD	SEPD	A	PERMANENT	10														1.5	\$150,000	Planning	FY2022	Nitrogen TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed and Bacteria TMDL for Indian Creek Watershed	Septic Denitrification-Bay Rest Fund Grant (0.16 ac/ea)
TBD	SEPD	A	PERMANENT	10														1.5	\$150,000	Planning	FY2023	Nitrogen TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed and Bacteria TMDL for Indian Creek Watershed	Septic Denitrification-Bay Rest Fund Grant (0.16 ac/ea)
TBD	SEPD	A	PERMANENT	10														1.5	\$150,000	Planning	FY2024	Nitrogen TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed and Bacteria TMDL for Indian Creek Watershed	Septic Denitrification-Bay Rest Fund Grant (0.16 ac/ea)

TBD	SEPD	A	PERMANENT	10										1.5	\$150,000	Planning	FY2025	Nitrogen TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed and Bacteria TMDL for Indian Creek Watershed	Septic Denitrification-Bay Rest Fund Grant (0.16 ac/ea)
TBD	SEPD	A	PERMANENT	10										1.5	\$150,000	Planning	FY2026	Nitrogen TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed and Bacteria TMDL for Indian Creek Watershed	Septic Denitrification-Bay Rest Fund Grant (0.16 ac/ea)
TBD	SEPD	A	PERMANENT	10										1.5	\$150,000	Planning	FY2027	Nitrogen TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed and Bacteria TMDL for Indian Creek Watershed	Septic Denitrification-Bay Rest Fund Grant (0.16 ac/ea)
TBD	SEPD	A	PERMANENT	10										1.5	\$150,000	Planning	FY2028	Nitrogen TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed and Bacteria TMDL for Indian Creek Watershed	Septic Denitrification-Bay Rest Fund Grant (0.16 ac/ea)
TBD	SEPC	A	PERMANENT	2										0.5	\$40,000	Complete	FY2020	Nitrogen TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed and Bacteria TMDL for Indian Creek Watershed	Septic Connection-Bay Rest Fund Grant (0.23 ac/ea)
TBD	SEPC	A	PERMANENT	2										0.5	\$40,000	Design	FY2021	Nitrogen TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed and Bacteria TMDL for Indian Creek Watershed	Septic Connection-Bay Rest Fund Grant (0.23 ac/ea)
TBD	SEPC	A	PERMANENT	2										0.5	\$40,000	Planning	FY2022	Nitrogen TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed and Bacteria TMDL for Indian Creek Watershed	Septic Connection-Bay Rest Fund Grant (0.23 ac/ea)
TBD	SEPC	A	PERMANENT	2										0.5	\$40,000	Planning	FY2023	Nitrogen TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed and Bacteria TMDL for Indian Creek Watershed	Septic Connection-Bay Rest Fund Grant (0.23 ac/ea)
TBD	SEPC	A	PERMANENT	2										0.5	\$40,000	Planning	FY2024	Nitrogen TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed and Bacteria TMDL for Indian Creek Watershed	Septic Connection-Bay Rest Fund Grant (0.23 ac/ea)
TBD	SEPC	A	PERMANENT	2										0.5	\$40,000	Planning	FY2025	Nitrogen TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed and Bacteria TMDL for Indian Creek Watershed	Septic Connection-Bay Rest Fund Grant (0.23 ac/ea)
TBD	SEPC	A	PERMANENT	2										0.5	\$40,000	Planning	FY2026	Nitrogen TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed and Bacteria TMDL for Indian Creek Watershed	Septic Connection-Bay Rest Fund Grant (0.23 ac/ea)
TBD	SEPC	A	PERMANENT	2										0.5	\$40,000	Planning	FY2027	Nitrogen TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed and Bacteria TMDL for Indian Creek Watershed	Septic Connection-Bay Rest Fund Grant (0.23 ac/ea)
TBD	SEPC	A	PERMANENT	2										0.5	\$40,000	Planning	FY2028	Nitrogen TMDLs for Chesapeake Bay (Lower Tidal Potomac River Watershed) and Mattawoman Creek Watershed and Bacteria TMDL for Indian Creek Watershed	Septic Connection-Bay Rest Fund Grant (0.23 ac/ea)
Subtotal Other (thru FY 2026)				84			0	0	0	0	0	0	0	14	\$8,024,388				
<b>Total for Next Permit (thru FY 2026)</b>				<b>130</b>			<b>3,668.6</b>	<b>7,537,799.5</b>	<b>11,796.1</b>	<b>1,130.4</b>	<b>1.2</b>	<b>13.4</b>	<b>1,159.0</b>	<b>\$35,620,281</b>					
<b>Total for Next Permit and Projected Years</b>				<b>167</b>			<b>3,791.4</b>	<b>7,985,439.5</b>	<b>11,931.5</b>	<b>1,206.5</b>	<b>1.2</b>	<b>13.4</b>	<b>1,239.1</b>	<b>\$43,994,481</b>					
<b>Total for Remaining Obligations from The Previous Permit, Continued Obligations, and Proposed Activities for The Next Permit (thru FY 2026)</b>				<b>1,524</b>			<b>4,039.1</b>	<b>8,230,999.9</b>	<b>12,701.1</b>	<b>1,346.0</b>	<b>1.2</b>	<b>13.4</b>	<b>1,298.9</b>	<b>\$39,471,163</b>					
<b>Total for Remaining Obligations from The Previous Permit, Continued Obligations, and Proposed Activities for The Next Permit (thru FY 2028)</b>				<b>1,559</b>			<b>4,161.9</b>	<b>8,678,639.9</b>	<b>12,836.5</b>	<b>1,364.6</b>	<b>1.2</b>	<b>13.4</b>	<b>1,379.0</b>	<b>\$47,857,489</b>					