

# MEP Analysis

## Carroll County & Municipal Co-Permittees

### MS4 Phase I Permit

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#### Introduction

Carroll County appreciates the working relationship with the Maryland Department of Environment (MDE) on the administration of the NPDES permit. We have had many productive meetings from both a policy and a technical perspective through the duration of the permits. Carroll County is unique in many ways, including our cooperative agreement with our municipalities; one of the strongest agricultural land preservation programs in the nation; and our dedication to complying with NPDES permit requirements without resorting to nutrient trading. We look forward to discussing the fifth generation permit with MDE and establishing terms that are specific to Carroll County and an equitable assignment of responsibility.

#### Physical Capacity Questionnaire

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**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.**

The Carroll County capital and operating plans lay out each of these budgets five years into the future. Projects are generally scheduled according to the budgeting process and projected availability of funds for each given fiscal year. Therefore, not all projects will begin the planning stage in the current year and could be planned to begin five years out, leading to a planning duration of one to five years. However, secondary benefits, such as addressing drainage issues, resolving maintenance problems, and establishing cooperative opportunities with private entities, may allow a stormwater retrofit project to move up in the queue (earlier budgeted start year) or reduce planning duration.

**Large Upland Projects**

| Large Upland Project |   |   |   |   |   |
|----------------------|---|---|---|---|---|
| Years                |   |   |   |   |   |
|                      | 1 | 2 | 3 | 4 | 5 |
| Planning             |   |   |   |   |   |
| Design/Permitting    |   |   |   |   |   |
| Construction         |   |   |   |   |   |

*Planning*

The planning phase of an individual project generally ranges from one to five years. Factors that influence the duration of the planning phase for any given project include, among others, the priority of the project compared to other stormwater projects and to other budgeted projects, the potential for secondary benefits, and grant-funding opportunities.

All planning activities are performed by County staff, with the occasional watershed study performed by consultants. Watershed studies typically evaluate a small watershed to determine the best opportunities for stormwater improvements and help guide County staff in prioritization of future projects.

*Design/Permitting*

The County maintains term contracts with contractors who can perform design work up to an upset limit of \$150,000. When the determination is made that a project is to move forward with design, these contracts are in place to allow the County to move forward quickly. If a project is anticipated to cost more than \$150,000 to design, an open procurement process is required, which may increase the length of the design/permitting phase. The time required to design and permit a project also depends on the size or complexity of the project and if grant funding is being used that requires additional reviews. Grant requirements can greatly extend the design duration. The last County project completed with Federal Highway Transportation Alternatives Program Funding took two additional years to get through the supplemental reviews by Maryland State Highway Administration. Typically, a project takes between six months to three years to design, with an average of 18 months.

Permitting is typically performed by County staff and runs parallel to the design work being performed by the consultants. While permitting does add some time to the design/permitting phase of a project, we are usually able to address permitting without affecting the desired notice to proceed for construction.

*Construction*

The County maintains term contracts with contractors who can perform construction work up to an upset limit of \$200,000. When the determination is made that a project is to move forward with construction, these contracts are in place to allow the County to move forward quickly. If a project is anticipated to cost more than \$200,000 to construct, an open procurement process is required, which may increase the construction time. Following receipt of all approvals, the process to advertise, award,

construct, and as-built approve a facility typically takes between three to 18 months. The duration is dictated by the complexity of the project and the construction season. Projects that finish in the heat of summer or the middle of winter tend to be extended due to final stabilization requirements. Average construction time is approximately six months.

**Instream Restoration Projects**

|                   | Instream Projects |   |   |   |   |   |
|-------------------|-------------------|---|---|---|---|---|
|                   | Years             |   |   |   |   |   |
|                   | 1                 | 2 | 3 | 4 | 5 | 6 |
| Planning          |                   |   |   |   |   |   |
| Design/Permitting |                   |   |   |   |   |   |
| Construction      |                   |   |   |   |   |   |

*Planning*

Carroll County has not focused heavily on instream projects due to our philosophy of addressing the hydrologic cause(s) of stream instability. At the time of this report, one instream project was completed in the spring of 2021. Two projects are currently under construction, one of which has been on hold for three months due to the stream closure season. Finally, one project is currently in the design phase.

For instream restoration projects, the planning duration (and factors influencing it) is similar to that of Large Upland Projects – typically one to five years.

*Design/Permitting*

Design duration and influencing factors for instream projects are similar to those of Large Upland Projects. Durations are sometimes slightly longer due to additional permitting requirements. Term contract limit for design services is \$150,000.

*Construction*

Construction durations are typically slightly longer than Large Upland Projects, due to larger project sizes and stream closure restrictions. Construction duration is still estimated to be less than one year. Term contract limit for construction services is \$200,000.

**Alternative Projects**

|                   | Years |   |
|-------------------|-------|---|
|                   | 1     | 2 |
| Planning          |       |   |
| Design/Permitting |       |   |
| Construction      |       |   |

*Planning*

The County has an active program to reach out to private property owners for tree plantings and to identify public areas that could benefit from tree plantings. Planning duration is typically less than one year, as potential planting sites are continuously documented throughout the year in anticipation of either spring or fall plantings.

*Design/Permitting*

Planting plans and other design requirements are performed in-house and typically take less than three months to develop. Work includes negotiation with property owners, property surveys, species selection, planting plan documentation, and bid preparation. Design and permitting is performed by County staff.

*Construction*

Construction is dependent on the weather and the selected contractor’s workload. Typically, projects are advertised in August for bids due in September. Once awarded, some plantings happen immediately, while others run into December. Construction time frames, therefore, average two months to complete. The County does not have term contractors specializing in tree plantings and therefore construction procurement is through an open procurement process with the County purchasing office.

**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?**

The NPDES budget (“Watershed Assessment and Improvement” and “Stormwater Facility Renovation”) is based on estimates of design and construction costs over the upcoming five years, as project planning occurs in-house by staff. Each year, the budget process for the following fiscal year(s) begins in late fall and concludes with budget approval and adoption by the County Commissioners in May. The program functions within those annual budget constraints, which may include changing specific projects as other secondary factors require adjustment. Individual project procurements of design or construction

services that exceed term contract limits must be approved by County Commissioners. Term contract limit for design services is \$150,000. Term contract limit for construction services is \$200,000.

**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 time frames and what those reduced time frames are.**

Consultant services for planning studies or design services are typically procured through term contracts. The County has five term consultants who have been pre-qualified to provide Environmental Support Services. When services are required, the Bureau of Resource Management develops a Request for Bid and supplies it to between three and five of the term consultants. Turnaround time is typically one month between solicitation of Request for Bid (RFB) and notice to proceed.

If consulting services are required that exceed the term consultant limit of \$150,000 for design, a Request for Proposal (RFP) is developed and advertised through the County's procurement process. Due to the size of the project, evaluation of qualifications, and final approval by the County Commissioners, this process can take two to three months.

Hiring of construction services is very similar to design. The County has five term contractors who are pre-approved to perform construction tasks up to \$200,000. An RFP is issued for construction tasks that exceed that limit. The County's procurement process typically lasts two to three months.

The County maintains an excellent selection of efficient and cost-effective consultants and contractors. This practice tends to streamline the total process and associated time frames, improving efficiency and cost-effectiveness of individual projects and benefitting the program overall.

The County attempted to pilot a design-build project to explore the potential of that contracting mechanism. However, staff determined that local contractors are risk-adverse, and the project pricing exceeded the budget. The proposed design-build bid exceeded \$6M. The bid was rejected, and a traditional design-bid-build process was performed. The actual total project cost, including all design and construction, finished at \$3.4M.

**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?**

The vast majority of all design services are procured from our five term consultants. The County decides, based on the scope of services and expertise of our consultants, which of the five are invited to bid. Requests for bids (RFB) are sent to between three and five of the consultants.

Recently the County had one design bid that exceeded the capacity of the term contracts. That project was advertised through the County procurement process and seven firms bid on the work.

The table on Page 7, “Representation of Design Solicitations,” represents the design solicitations for our current term consultants. The bid offered by each contractor is shown, and the contractor awarded the work for each project is highlighted.

While the County does maintain term contract for construction work, the majority of retrofit projects exceed the \$200,000 contract limit. The table on Page 8, “Representation of Construction Solicitations,” is a representative list of construction projects, number of bids, and the three lowest bids received for each project.

The number of bidders fluctuates based on time of year that construction is expected and the current economic situation. The Woodsyde project and Trevanion Terrace projects were bid mid-pandemic, and 14 and 12 firms, respectively, bid on these projects. These are high compared to the six or seven bids that are normally received.

Representation of Design Solicitations

| Project                     | BAI           | Century       | CLSI         | RK&K          | WMA           | Ecotone       | Status             | Final Design Fee |
|-----------------------------|---------------|---------------|--------------|---------------|---------------|---------------|--------------------|------------------|
| Shiloh                      | \$ 28,800.00  | \$ 59,136.00  | \$ 27,270.00 | \$ 22,493.00  | \$ 52,251.00  |               | Complete           | \$ 118,121.00    |
| Mayberry                    | \$ 285,470.00 | \$ 339,172.00 | \$ -         | \$ 484,775.00 | \$ -          | \$ 170,000.00 | Under Construction | \$ 178,556.00    |
| Woodville Study             | \$ 49,660.00  | \$ 38,902.00  | \$ 94,990.00 | \$ 69,369.00  | \$ 70,751.00  |               | Complete           | \$ 38,902.00     |
| Elmer Wolfe                 | \$ 29,970.00  | \$ 53,268.00  | \$ 48,645.00 | \$ 71,550.00  | \$ 51,082.00  |               | Complete           | \$ 29,970.00     |
| Locust                      | \$ 64,350.00  | \$ 54,796.00  | \$ -         | \$ 77,725.00  | \$ 64,822.00  |               | Design             |                  |
| Central MD 2                | \$ 49,960.00  | \$ 69,796.00  | \$ 47,950.00 | \$ 66,791.00  | \$ -          |               | Complete           | \$ 47,950.00     |
| Greens of Westminster       | \$ 57,220.00  | \$ 68,280.00  | \$ 48,350.00 | \$ 73,905.00  | \$ 46,874.50  |               | Complete           | \$ 46,874.00     |
| Woodsyde                    | \$ -          | \$ 59,988.00  | \$ -         | \$ 72,999.00  | \$ -          |               | Under Construction | \$ 203,531.00    |
| Trevasion                   | \$ 56,900.00  | \$ 115,766.00 | \$ 83,510.00 | \$ 155,257.00 | \$ 83,019.50  |               | Design             |                  |
| Aspen Run                   | \$ 40,280.00  | \$ 54,843.00  | \$ 47,850.00 | \$ 66,868.00  | \$ 59,239.00  |               | Complete           | \$ 40,280.00     |
| East West                   | \$ 79,660.00  | \$ 96,863.00  | \$ 73,745.00 | \$ 130,798.00 | \$ -          |               | Under Construction | \$ 90,225.00     |
| MeIstone                    | \$ 79,735.00  | \$ 161,468.00 | \$ 71,920.00 | \$ -          | \$ 104,528.00 |               | Design             |                  |
| St. Georges Gate            | \$ 40,200.00  |               | \$ 52,320.00 |               | \$ 47,209.00  |               | Design             |                  |
| Stone Manor                 | \$ 65,040.00  |               | \$ 44,870.00 |               | \$ 51,008.00  |               | Design             |                  |
| Hampstead Valley Study      |               | \$ 134,480.00 |              | \$ 65,944.00  | \$ -          |               | Complete           | \$ 65,944.00     |
| Bevard Square               |               |               | \$ 18,390.00 | \$ -          | \$ 16,789.00  |               | Design             |                  |
| Brynwood Storm Drain        | \$ 88,490.00  | \$ 88,482.00  | \$ 95,710.00 |               |               |               | Design             |                  |
| Brynwood Stream Restoration |               | \$ 99,740.00  |              | \$ 149,201.80 |               |               | Design             |                  |
| Benjamins Claim             |               |               | \$ 9,580.00  |               |               |               | Complete           | \$ 17,470.00     |
| Hampstead Valley 4          |               | \$ 149,696.00 | \$ 99,880.00 | \$ 128,271.00 |               |               | Design             |                  |
| NC Library                  | \$ 35,350.00  |               | \$ 27,010.00 |               | \$ 23,643.00  |               | Design             |                  |
| Hampstead Valley 1          |               |               | \$ 77,590.00 |               | \$ 77,868.00  |               | Design             |                  |

Representation of Construction Solicitations

| Project   | Number of Bidders | Lowest Three Bidders |                 |               |                 |               |                 |
|---|-------------------|----------------------|-----------------|---------------|-----------------|---------------|-----------------|
|   |                   | Bidder Name          | Bid Amount      | Bidder Name   |                 |               |                 |
| Bear Branch Stream Restoration                                | 7                 | Magstone             | \$ 1,781,000.00 | SMI           | \$ 1,844,400.00 | Environmental | \$ 1,920,357.50 |
| Blue Ridge Manor SWM Pond Reconstruction                      | 9                 | TBH                  | \$ 429,900.00   | White Pine    | \$ 474,900.00   | Conewago      | \$ 497,121.00   |
| Central Maryland Facility 2 SWM Facility Retrofit             | 12                | Stambaugh's          | \$ 493,710.00   | White Pine    | \$ 537,130.00   | L W Wolfe     | \$ 784,000.00   |
| Central MD Service & Distribution Center                      | 7                 | White Pine           | \$ 530,762.00   | Stambaugh's   | \$ 582,436.00   | Kibler        | \$ 590,000.00   |
| East West Pond  | 6                 | Kibler               | \$ 1,070,193.18 | CJ Miller     | \$ 1,244,480.00 | W.F. Delauter | \$ 1,498,117.00 |
| Elderwood SWM Basin #2/Oklahoma Phase 4 SWM Facility Retrofit | 5                 | Kibler               | \$ 2,303,223.70 | White Pine    | \$ 2,944,793.70 | Triangle      | \$ 3,643,691.26 |
| Gillis Falls Tree Planting Fall 2020                          | 9                 | Red Hill             | \$ 159,167.50   | Wright        | \$ 170,500.00   | JC Kirby      | \$ 187,744.00   |
| Greens of Westminster SWM Restoration                         | 7                 | Kibler               | \$ 655,359.41   | Guyer         | \$ 761,000.00   | CJ Miller     | \$ 762,500.00   |
| Langdon SWM Facility  | 7                 | HTI                  | \$ 1,696,300.85 | White Pine    | \$ 1,781,071.20 | Conewago      | \$ 2,125,538.00 |
| Langdon SWM - New Windsor Fill Site                           | 3                 | Stambaugh's          | \$ 340,841.00   | Highland      | \$ 434,545.00   | Triangle      | \$ 511,020.00   |
| Merridale Gardens SWM Requirement & Contract                  | 7                 | Conewago             | \$ 1,071,212.00 | W.F. Delauter | \$ 1,161,138.68 | White Pine    | \$ 1,298,690.00 |
| Piney Run Tree Planting Fall 2020                             | 4                 | Quality              | \$ 12,120.00    | Chesapeake    | \$ 15,464.00    | Ecological    | \$ 21,034.22    |
| Private Landowner Tree Plantings Fall 2020                    | 7                 | JC Kirby             | \$ 243,743.00   | Conservation  | \$ 247,894.51   | Shenandoah    | \$ 266,008.40   |
| Roberts Mill SWM Retrofit & Bridge Superstructure             | 3                 | W.F. Delauter        | \$ 3,186,350.00 | Kibler        | \$ 3,430,000.00 | CJ Miller     | \$ 3,950,700.00 |
| Shannon Hawk SWM Facility Retrofit                            | 5                 | W.F. Delauter        | \$ 938,511.41   | CJ Miller     | \$ 940,000.00   | Conewago      | \$ 1,050,995.00 |
| Shiloh Middle School SWM Facility Retrofit                    | 5                 | W.F. Delauter        | \$ 958,322.43   | Kibler        | \$ 1,019,090.01 | CJ Miller     | \$ 1,375,654.00 |
| Small Crossings SWM Facility Design Retrofit                  | 7                 | TBH                  | \$ 329,510.00   | White Pine    | \$ 338,994.00   | Stambaugh's   | \$ 425,875.00   |
| Taneytown Memorial Park Fill Site                             | 4                 | W.F. Delauter        | \$ 105,417.00   | Highland      | \$ 415,256.55   | Outdoor       | \$ 486,000.00   |
| Tree Planting Fall 2017 - Contract 1                          | 7                 | Aspen                | \$ 14,324.00    | JC Kirby      | \$ 15,370.10    | Wright        | \$ 18,011.59    |
| Tree Planting Fall 2017 - Contract 2                          | 7                 | Aspen                | \$ 42,246.00    | Quality       | \$ 46,080.00    | JC Kirby      | \$ 47,643.20    |
| Tree Planting Fall 2017 - Contract 3                          | 6                 | Quality              | \$ 36,237.00    | JC Kirby      | \$ 38,413.20    | Wright        | \$ 46,260.20    |
| Tree Planting Fall 2018                                       | 10                | Red Hill             | \$ 61,242.85    | Quality       | \$ 73,819.50    | Aspen         | \$ 84,120.30    |
| Trevention Terrace SWM Facility Retrofit                      | 12                | CJ Miller            | \$ 1,108,000.00 | Pleasants     | \$ 1,124,559.73 | Kibler        | \$ 1,149,639.38 |
| Twin Ridge SWM Facility Retrofit                              | 6                 | Hamilton             | \$ 802,690.00   | W.F. Delauter | \$ 885,360.00   | L W Wolfe     | \$ 1,064,212.00 |
| Whispering Valley SWM Facility Retrofit                       | 9                 | White Pine           | \$ 798,643.00   | W.F. Delauter | \$ 969,679.00   | Guyer         | \$ 1,092,500.00 |
| Willow Pond SWM Retrofit                                      | 7                 | Kibler               | \$ 2,950,000.00 | White Pine    | \$ 3,399,810.00 | Old Line      | \$ 3,639,509.53 |
| Woodsyde SWM Retrofit & Stream Restoration                    | 14                | Magstone             | \$ 1,383,670.71 | CJ Miller     | \$ 1,744,800.00 | Stormwater    | \$ 1,960,000.00 |



**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.**

Carroll County encourages WBE and MBE contractors to bid on work but does not impose participation requirements. While projects receiving partial grant funding sometimes include participation goals, these requirements have not adversely affected project schedules.

**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?**

The project design time frame for Large Upland Projects and Instream Projects described earlier (six months to three years) incorporates the permitting process. While obtaining permits is typically the final requirement prior to proceeding with construction, we have largely been successful in obtaining all permits in a timely manner that does not delay desired construction notice to proceed. However, the following are three situations that have caused some delay in projects:

1. Transportation Alternatives Program Grant Funding – The County has successfully utilized this grant program for several projects. The Federal Highway Administration funds this program, which is administered through the Maryland State Highway Administration (MSHA). The review and approval process through MSHA has progressively gotten longer with each project performed. The latest project, which had all approvals and was shovel-ready when submitted to MSHA, took two years to receive approval.
2. Permits issued by the Army Corps of Engineers typically are reviewed and approved by the Baltimore office. During the last permit term, review and approval of one of the permit/project applications was completed by the Pennsylvania office due to workload issues in the Baltimore office. An unfamiliarity of the plans and process in the Baltimore region delayed the issuance of the permit.
3. Projects that require approval from MDE's Dam Safety Division have taken longer to get approved. It appears that changes in organizational structure, changes in personnel, and increased scope of review for that group caused these delays in recent years.

These permitting delays appear to be primarily a resource issue at the permitting agencies and not a systemic process problem that needs to be addressed.

**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)?**

Carroll County is fortunate that the County maintains ownership of residential structural practices. Therefore, the focus of the County’s program has been on the retrofit of large structural facilities with large amounts of impervious area draining to them. The absence of significant time and costs for property acquisition has resulted in a relatively low cost per impervious acre to meet permit requirements. While there is not a particular “low-hanging fruit” threshold to identify and quantify, the amount of impervious area that can be addressed with a single project and/or is on land already owned or controlled by the County will continually decline as the program progresses. Consequently, the cost per impervious acre will continue to rise, particularly as land acquisition becomes a more frequent project cost.

As the availability of residential structures declines, the County will shift its focus to commercial/industrial facilities that are privately owned. While the County may benefit from the low cost per impervious acre for these facilities, they will require public/private partnerships, and County funding will require cash, as projects on private property cannot be bonded.

**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.**

The spreadsheet on the following pages provides the requested information. Note that no data is populated for the previous permit term, as Carroll County and its municipal co-permittees met the fourth-generation permit requirements.

Restoration Projects to Be Planned, Designed, and/or Constructed from End of 4th Generation Permit through 2028 (Page 1 of 4)

| Restoration Projects To Be Planned, Designed, and/or Constructed From The End Of 4th Generation Permit Through CY 2028 |                            |                        |                         |          |                        |             |  |                         |                          |                                      |                |  |                                  |   |                     |                                    |                               |  |                               |
|--|----------------------------|------------------------|-------------------------|----------|------------------------|-------------|--|-------------------------|--------------------------|--------------------------------------|----------------|--|----------------------------------|---|---------------------|------------------------------------|-------------------------------|--|-------------------------------|
| Remaining Unmet Restoration Obligation from Previous Permit (Impervious Acres):  |                            |                        |                         |          |                        |             |  |                         |                          |                                      |                |  |                                  |   |                     |                                    |                               |  |                               |
| 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>2</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>2</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                   |                                    |                               |  |                               |
| Catch Basin  |                            | A                      | ANNUAL                  |          |                        |             |  |                         |                          |                                      |                |  |                                  |   | 0                   |                                    |                               |  |                               |
|  |                            | A                      | ANNUAL                  |          |                        |             |  |                         |                          |                                      |                |  |                                  |   | 0                   |                                    |                               |  |                               |
|  |                            | A                      | ANNUAL                  |          |                        |             |  |                         |                          |                                      |                |  |                                  |   | 0                   |                                    |                               |  |                               |
|  |                            | A                      | ANNUAL                  |          |                        |             |  |                         |                          |                                      |                |  |                                  |   | 0                   |                                    |                               |  |                               |
|  |                            | A                      | ANNUAL                  |          |                        |             |  |                         |                          |                                      |                |  |                                  |   | 0                   |                                    |                               |  |                               |
| Septic Sytem Pumping   |                            | A                      |                         |          |                        |             |  |                         |                          |                                      |                |  |                                  |   | 0                   |                                    |                               |  |                               |
|  |                            | A                      |                         |          |                        |             |  |                         |                          |                                      |                |  |                                  |   | 0                   |                                    |                               |  |                               |
|  |                            | A                      |                         |          |                        |             |  |                         |                          |                                      |                |  |                                  |   | 0                   |                                    |                               |  |                               |
|  |                            | A                      |                         |          |                        |             |  |                         |                          |                                      |                |  |                                  |   | 0                   |                                    |                               |  |                               |
|  |                            | A                      |                         |          |                        |             |  |                         |                          |                                      |                |  |                                  |   | 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>          |                                    |                               |  |                               |

Restoration Projects to Be Planned, Designed, and/or Constructed from End of 4th Generation Permit through 2028 (Page 2 of 4)

| 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>2</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>3</sup> |
|--|----------------------------|------------------------|-------------------------|----------|------------------------|-------------|--|-------------------------|--------------------------|--------------------------------------|----------------|--|----------------------------------|---|---------------------|------------------------------------|-------------------------------|--|-------------------------------|
| <b>Obligations from Previous Permit That Must Be Continued</b>   |                            |                        |                         |          |                        |             |  |                         |                          |                                      |                |  |                                  |   |                     |                                    |                               |  |                               |
| <b>Annual</b>  |                            |                        |                         |          |                        |             |  |                         |                          |                                      |                |  |                                  |   |                     |                                    |                               |  |                               |
| Street Sweeping  | MSS                        | A                      | ANNUAL                  | 1        |                        |             |  | 0.35                    | 464                      | 6.04                                 | 1              |  |                                  | 1                                       |                     |                                    | 2019                          |  |                               |
| Catch Basin Cleaning   | CBC                        | A                      | ANNUAL                  | 7        |                        |             |  | 56.15                   | 16845                    | 140.38                               | 16             |  |                                  | 16                                      |                     |                                    | 2019                          |  |                               |
| Subtotal Operations <sup>3</sup>                                 |                            |                        |                         | 2        |                        |             |  | 11                      | 3,462                    | 29                                   | 3              |  |                                  | 3.4                                     | \$0                 |                                    |                               |  |                               |
| <b>Capital Projects (Proposed to Replace Annual Obligations)</b> |                            |                        |                         |          |                        |             |  |                         |                          |                                      |                |  |                                  |   |                     |                                    |                               |  |                               |
|  |                            |                        |                         |          |                        |             |  |                         |                          |                                      |                |  |                                  | 0                                       |                     |                                    |                               |  |                               |
|  |                            |                        |                         |          |                        |             |  |                         |                          |                                      |                |  |                                  | 0                                       |                     |                                    |                               |  |                               |
|  |                            |                        |                         |          |                        |             |  |                         |                          |                                      |                |  |                                  | 0                                       |                     |                                    |                               |  |                               |
|  |                            |                        |                         |          |                        |             |  |                         |                          |                                      |                |  |                                  | 0                                       |                     |                                    |                               |  |                               |
| Subtotal Capital   |                            |                        |                         | 0        |                        |             |  | 0                       | 0                        | 0                                    | 0              | 0  | 0                                | 0                                       | \$0                 |                                    |                               |  |                               |
| <b>Other (Proposed to Replace Annual Obligations)</b>            |                            |                        |                         |          |                        |             |  |                         |                          |                                      |                |  |                                  |   |                     |                                    |                               |  |                               |
|  |                            |                        |                         |          |                        |             |  |                         |                          |                                      |                |  |                                  | 0                                       |                     |                                    |                               |  |                               |
|  |                            |                        |                         |          |                        |             |  |                         |                          |                                      |                |  |                                  | 0                                       |                     |                                    |                               |  |                               |
| Subtotal Other   |                            |                        |                         | 0        |                        |             |  | 0                       | 0                        | 0                                    | 0              | 0  | 0                                | 0                                       | \$0                 |                                    |                               |  |                               |
| <b>Obligations from Previous Permit</b>                          |                            |                        |                         | <b>2</b> |                        |             |  | <b>11.3</b>             | <b>3,461.8</b>           | <b>0</b>                             | <b>0</b>       | <b>0.0</b>   | <b>0.0</b>                       | <b>3.4</b>                              | <b>\$0</b>          |                                    |                               |  |                               |

Restoration Projects to Be Planned, Designed, and/or Constructed from End of 4th Generation Permit through 2028 (Page 3 of 4)

| 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>5</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>         |  |
|---|----------------------------|------------------------|-------------------------|---------|------------------------|-------------|--|-------------------------|--------------------------|--------------------------------------|----------------|--|----------------------------------|---|---------------------|------------------------------------|-------------------------------|--|---------------------------------------|--|
| <b>Proposed Restoration for the Next Permit</b> |                            |                        |                         |         |                        |             |  |                         |                          |                                      |                |  |                                  |   |                     |                                    |                               |  |                                       |  |
| <b>Operational</b>                              |                            |                        |                         |         |                        |             |  |                         |                          |                                      |                |  |                                  |   |                     |                                    |                               |  |                                       |  |
| Street Sweeping                                 | MSS                        | A                      | ANNUAL                  |         |                        |             |  | 0.35                    | 464                      | 6.04                                 | 1              |  |                                  |   |                     |                                    | 2020                          |  |                                       |  |
| Catch Basin Cleaning                            | CBC                        | A                      | ANNUAL                  |         |                        |             |  | 69.65                   | 20896                    | 174                                  | 20             |  |                                  |   |                     |                                    | 2020                          |  |                                       |  |
| Subtotal Operations (up to 2026) <sup>5</sup>   |                            |                        |                         | 0       |                        |             |  | 14                      | 4,272                    | 36                                   | 4              |  |                                  | 0                                       | \$0                 |                                    |                               |  |                                       |  |
| <b>Capital Projects</b>                         |                            |                        |                         |         |                        |             |  |                         |                          |                                      |                |  |                                  |   |                     |                                    |                               |  |                                       |  |
| CR21RST000001                                   | MSGW                       | S                      | Permanent               | 1       | 7.86                   | 0.97        |  | 4.20                    | 1977                     | 55.90                                | 2.05           |  |                                  | 2.05                                    | \$111,000           | Complete                           | 2020                          | Impervious Treatment                     | Benjamins Claim - Jacobs              |  |
| CR20APY000006                                   | FCB                        | A                      | Permanent               | 1       |                        |             |  | 0.28                    | 619                      | 2.66                                 | 0.12           |  |                                  | 0.12                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Forest Conservation Buffer            |  |
| CR20APY000014                                   | FCB                        | A                      | Permanent               | 1       |                        |             |  | 0.00                    | 0                        | 0.00                                 | 0.00           |  |                                  | 0.00                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Forest Conservation Buffer            |  |
| CR20APY000008                                   | FCB                        | A                      | Permanent               | 1       |                        |             |  | 1.50                    | 3366                     | 14.43                                | 0.63           |  |                                  | 0.63                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Forest Conservation Buffer            |  |
| CR20APY000012                                   | FCB                        | A                      | Permanent               | 1       |                        |             |  | 1.53                    | 3422                     | 14.67                                | 0.64           |  |                                  | 0.64                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Forest Conservation Buffer            |  |
| CR20APY000009                                   | FCB                        | A                      | Permanent               | 1       |                        |             |  | 0.72                    | 1611                     | 6.91                                 | 0.30           |  |                                  | 0.30                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Forest Conservation Buffer            |  |
| CR20APY000019                                   | FCB                        | A                      | Permanent               | 1       |                        |             |  | 0.68                    | 1532                     | 6.57                                 | 0.29           |  |                                  | 0.29                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Forest Conservation Buffer            |  |
| CR20APY000017                                   | FCB                        | A                      | Permanent               | 1       |                        |             |  | 0.07                    | 146                      | 0.63                                 | 0.03           |  |                                  | 0.03                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Forest Conservation Buffer            |  |
| CR20APY000021                                   | IMPP                       | A                      | Permanent               | 1       |                        |             |  | 0.14                    | 1625                     | 2.16                                 | 0.22           |  |                                  | 0.22                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Manchester Impervious Removal         |  |
| CR20APY000007                                   | NCL                        | A                      | Permanent               | 1       |                        |             |  | 0.02                    | 0                        | 0.20                                 | 0.01           |  |                                  | 0.01                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Non-Riparian Conservation Landscaping |  |
| CR20APY000011                                   | NCL                        | A                      | Permanent               | 1       |                        |             |  | 0.00                    | 0                        | 0.03                                 | 0.00           |  |                                  | 0.00                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Non-Riparian Conservation Landscaping |  |
| CR20APY000016                                   | NCL                        | A                      | Permanent               | 1       |                        |             |  | 0.00                    | 0                        | 0.01                                 | 0.00           |  |                                  | 0.00                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Non-Riparian Conservation Landscaping |  |
| CR20APY000015                                   | RCL                        | A                      | Permanent               | 1       |                        |             |  | 0.00                    | 0                        | 0.00                                 | 0.00           |  |                                  | 0.00                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Riparian Conservation Landscaping     |  |
| CR20APY000013                                   | RCL                        | A                      | Permanent               | 1       |                        |             |  | 0.15                    | 0                        | 1.37                                 | 0.10           |  |                                  | 0.10                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Riparian Conservation Landscaping     |  |
| CR20APY000010                                   | RCL                        | A                      | Permanent               | 1       |                        |             |  | 0.73                    | 0                        | 6.64                                 | 0.49           |  |                                  | 0.49                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Riparian Conservation Landscaping     |  |
| CR20APY000020                                   | RCL                        | A                      | Permanent               | 1       |                        |             |  | 0.02                    | 0                        | 0.21                                 | 0.02           |  |                                  | 0.02                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Riparian Conservation Landscaping     |  |
| CR20APY000018                                   | RCL                        | A                      | Permanent               | 1       |                        |             |  | 0.00                    | 0                        | 0.00                                 | 0.00           |  |                                  | 0.00                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Riparian Conservation Landscaping     |  |
| CR16RST000016                                   | PWED                       | S                      | Permanent               | 1       | 303.6                  | 1.15        |  | 137.65                  | 78160                    | 1330.81                              | 91.80          |  |                                  | 91.80                                   | \$3,500,000         | Complete                           | 2020                          | Impervious Treatment                     | Roberts Mill                          |  |
| CR20APT000001                                   | SEPD                       | A                      | Permanent               | 1       |                        |             |  | 0.00                    | 0                        | 0.00                                 | 0.16           |  |                                  | 0.16                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Septic Upgrades                       |  |
| CR20APT000002                                   | SEPD                       | A                      | Permanent               | 1       |                        |             |  | 0.00                    | 0                        | 0.00                                 | 0.16           |  |                                  | 0.16                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Septic Upgrades                       |  |
| CR20APT000003                                   | SEPD                       | A                      | Permanent               | 1       |                        |             |  | 0.00                    | 0                        | 0.00                                 | 0.16           |  |                                  | 0.16                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Septic Upgrades                       |  |
| CR20APT000004                                   | SEPD                       | A                      | Permanent               | 1       |                        |             |  | 0.00                    | 0                        | 0.00                                 | 0.16           |  |                                  | 0.16                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Septic Upgrades                       |  |
| CR20APT000005                                   | SEPD                       | A                      | Permanent               | 1       |                        |             |  | 0.00                    | 0                        | 0.00                                 | 0.16           |  |                                  | 0.16                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Septic Upgrades                       |  |
| CR20APT000006                                   | SEPD                       | A                      | Permanent               | 1       |                        |             |  | 0.00                    | 0                        | 0.00                                 | 0.16           |  |                                  | 0.16                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Septic Upgrades                       |  |
| CR20APT000007                                   | SEPD                       | A                      | Permanent               | 1       |                        |             |  | 0.00                    | 0                        | 0.00                                 | 0.16           |  |                                  | 0.16                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Septic Upgrades                       |  |
| CR20APT000008                                   | SEPD                       | A                      | Permanent               | 1       |                        |             |  | 0.00                    | 0                        | 0.00                                 | 0.16           |  |                                  | 0.16                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Septic Upgrades                       |  |
| CR20APT000009                                   | SEPD                       | A                      | Permanent               | 1       |                        |             |  | 0.00                    | 0                        | 0.00                                 | 0.16           |  |                                  | 0.16                                    |                     | Complete                           | 2020                          | Impervious Treatment                     | Septic Upgrades                       |  |
| CR18RST000005                                   | FSND                       | S                      | Permanent               | 2       | 83.83                  | 1.81        |  | 53.10                   | 25600                    | 678.40                               | 19.61          |  |                                  | 19.61                                   | \$1,100,000         | Complete                           | 2020                          | Impervious Treatment                     | Shiloh Middle                         |  |
| CR16RST000025                                   | FSND                       | S                      | Permanent               | 1       | 38.31                  | 2.23        |  | 19.88                   | 11479                    | 183.97                               | 16.42          |  |                                  | 16.42                                   | \$700,000           | Complete                           | 2021                          | Impervious Treatment                     | Greens of Westminster Sec 2 #6        |  |
| CR16RST000013                                   | PWED                       | S                      | Permanent               | 1       | 194                    | 1.00        |  | 109.55                  | 66624                    | 877.12                               | 92.10          |  |                                  | 92.10                                   | \$3,300,000         | Complete                           | 2021                          | Impervious Treatment                     | Langdon (Jantz)                       |  |
|   | FPU                        | A                      | Permanent               | 1       |                        |             |  |                         |                          |                                      | 64.90          |  |                                  | 64.90                                   | \$402,911           | Under Construction                 | 2021                          | Impervious Treatment                     | Tree Plantings                        |  |
| CR18RST000006                                   | PWED                       | S                      | Permanent               | 1       | 601                    | 2.50        |  | 217.05                  | 108741                   | 2680.57                              | 100.00         |  |                                  | 100.00                                  | \$2,700,000         | Under Construction                 | 2021                          | Impervious Treatment                     | Willow Pond                           |  |
| CR19ALN000003                                   | STRE                       | A                      | Permanent               | 1       |                        |             | 1304   | 73.00                   | 83000                    | 751.10                               | 28.20          |  |                                  | 28.20                                   | \$600,000           | Under Construction                 | 2021                          | Impervious Treatment                     | Willow Pond - Stream restoration      |  |
| CR21ALN000001                                   | STRE                       | A                      | Permanent               | 1       |                        |             | 1682   | 114.40                  | 417136                   | 126.20                               | 34.00          |  |                                  | 34.00                                   | \$750,000           | Design                             | 2022                          | Impervious Treatment                     | Brynwood                              |  |
| CR21RST000002                                   | FSND                       | S                      | Permanent               | 1       | 47.61                  | 2.13        |  | 31.06                   | 15089                    | 390.33                               | 19.52          |  |                                  | 19.52                                   | \$1,250,000         | Planning                           | 2022                          | Impervious Treatment                     | Hampstead Valley 1                    |  |
| CR16RST000026                                   | FSND                       | S                      | Permanent               | 1       | 83.01                  | 2.50        |  | 42.95                   | 19240                    | 652.39                               | 20.52          |  |                                  | 20.52                                   | \$600,000           | Design                             | 2022                          | Impervious Treatment                     | IDA Property (Mt. Airy)               |  |
| CR16RST000015                                   | WPKT                       | S                      | Permanent               | 1       | 35.9                   | 1.00        |  | 16.09                   | 9203                     | 152.81                               | 11.00          |  |                                  | 11.00                                   | \$200,000           | Design                             | 2022                          | Impervious Treatment                     | Locust wetland                        |  |
| CR19ALN000005                                   | STRE                       | A                      | Permanent               | 1       |                        |             | 6000   | 605.97                  | 1556780                  | 6738.54                              | 279.31         |  |                                  | 279.31                                  | \$2,200,000         | Under Construction                 | 2022                          | Impervious Treatment                     | Mayberry                              |  |
| CR18RST000011                                   | FSND                       | S                      | Permanent               | 1       | 170                    | 1.00        |  | 55.72                   | 28275                    | 677.07                               | 22.50          |  |                                  | 22.50                                   | \$800,000           | Design                             | 2022                          | Impervious Treatment                     | Melstone Valley                       |  |
|   | FPU                        | A                      | Permanent               | 1       |                        |             |  |                         |                          |                                      | 12.50          |  |                                  | 12.50                                   | \$125,000           | Planning                           | 2022                          | Impervious Treatment                     | Tree Plantings                        |  |
| CR16RST000022                                   | PWED                       | S                      | Permanent               | 1       | 181                    | 1.00        |  | 100.20                  | 47808                    | 1307.81                              | 52.00          |  |                                  | 52.00                                   | \$1,800,000         | Design                             | 2022                          | Impervious Treatment                     | Treanion Terrace                      |  |
| CR18RST000007                                   | FSND                       | S                      | Permanent               | 1       | 63.36                  | 2.50        |  | 35.39                   | 16339                    | 505.98                               | 19.28          |  |                                  | 19.28                                   | \$800,000           | Under Construction                 | 2022                          | Impervious Treatment                     | Woodsyde Estates Large Facility       |  |
| CR18RST000008                                   | FSND                       | S                      | Permanent               | 1       | 9.02                   | 0.50        |  | 3.42                    | 1581                     | 47.92                                | 1.05           |  |                                  | 1.05                                    | \$100,000           | Under Construction                 | 2022                          | Impervious Treatment                     | Woodsyde Estates Small Facility       |  |
| CR19ALN000004                                   | STRE                       | A                      | Permanent               | 1       |                        |             | 2100   | 207.00                  | 366692                   | 729.00                               | 59.57          |  |                                  | 59.57                                   | \$700,000           | Under Construction                 | 2022                          | Impervious Treatment                     | Woodsyde Stream Restoration           |  |
| CR19RST000006                                   | FSND                       | S                      | Permanent               | 1       | 14.77                  | 2.50        |  | 11.68                   | 5977                     | 128.47                               | 9.24           |  |                                  | 9.24                                    | \$300,000           | Planning                           | 2023                          | Impervious Treatment                     | Carroll Co Health Department          |  |
| CR21RST000003                                   | FSND                       | S                      | Permanent               | 1       | 45.18                  | 1.50        |  | 29.96                   | 14723                    | 363.68                               | 17.84          |  |                                  | 17.84                                   | \$1,000,000         | Planning                           | 2023                          | Impervious Treatment                     | Hampstead Valley 4                    |  |
| CR19RST000005                                   | FSND                       | S                      | Permanent               | 1       | 103.98                 | 2.50        |  | 71.58                   | 35353                    | 871.76                               | 50.32          |  |                                  | 50.32                                   | \$800,000           | Planning                           | 2023                          | Impervious Treatment                     | Manchester East                       |  |
| CR18RST000013                                   | FSND                       | S                      | Permanent               | 1       | 5.16                   | 2.50        |  | 5.31                    | 2869                     | 48.66                                | 4.94           |  |                                  | 4.94                                    | \$120,000           | Planning                           | 2023                          | Impervious Treatment                     | Manchester Elementary                 |  |
| CR21RST000004                                   | FSND                       | S                      | Permanent               | 1       | 32.6                   | 1.75        |  | 15.74                   | 6867                     | 248.22                               | 5.94           |  |                                  | 5.94                                    | \$350,000           | Design                             | 2023                          | Impervious Treatment                     | Saint Georges Gate                    |  |
| CR21RST000005                                   | MSGW                       | S                      | Permanent               | 1       | 19.37                  | 1.08        |  | 10.99                   | 5255                     | 142.92                               | 5.74           |  |                                  | 5.74                                    | \$350,000           | Design                             | 2023                          | Impervious Treatment                     | Stone Manor                           |  |
|   | FPU                        | A                      | Permanent               | 1       |                        |             |  |                         |                          |                                      | 12.50          |  |                                  | 12.50                                   | \$125,000           | Planning                           | 2023                          | Impervious Treatment                     | Tree Plantings                        |  |
| CR18RST000014                                   | FSND                       | S                      | Permanent               | 1       | 27.09                  | 2.50        |  | 13.88                   | 6191                     | 212.48                               | 6.50           |  |                                  | 6.50                                    | \$145,000           | Planning                           | 2023                          | Impervious Treatment                     | Valley Vista                          |  |
| CR16RST000024                                   | FSND                       | S                      | Permanent               | 1       | 35                     | 2.50        |  | 24.77                   | 12327                    | 295.51                               | 17.88          |  |                                  | 17.88                                   | \$150,000           | Planning                           | 2024                          | Impervious Treatment                     | Candice Estates                       |  |
| CR21ALN000002                                   | STRE                       | A                      | Permanent               | 1       |                        |             | 675  | 45.90                   | 167400                   | 50.63                                | 13.50          |  |                                  | 13.50                                   | \$850,000           | Planning                           | 2024                          | Impervious Treatment                     | Hampstead Valley 2&3                  |  |
| CR19RST000004                                   | WPKT                       | S                      | Permanent               | 1       | 34.5                   | 1.00        |  | 18.76                   | 11311                    | 154.35                               | 15.34          |  |                                  | 15.34                                   | \$1,100,000         | Planning                           | 2024                          | Impervious Treatment                     | New Windsor Railroad                  |  |
| CR16RST000023                                   | FSND                       | S                      | Permanent               | 1       | 25.7                   | 2.50        |  | 16.65                   | 8081                     | 212.28                               | 11.00          |  |                                  | 11.00                                   | \$825,000           | Planning                           | 2024                          | Impervious Treatment                     | Piney Ridge Village As-built 57       |  |
|   | FPU                        | A                      | Permanent               | 1       |                        |             |  |                         |                          |                                      | 12.50          |  |                                  | 12.50                                   | \$125,000           | Planning                           | 2024                          | Impervious Treatment                     | Tree Plantings                        |  |
| CR18RST000012                                   | PWED                       | S                      | Permanent               | 1       | 79.4                   | 1.00        |  | 43.67                   | 26397                    | 356.34                               | 36.01          |  |                                  | 36.01                                   | \$1,100,000         | Planning                           | 2024                          | Impervious Treatment                     | Winters Street                        |  |

Restoration Projects to Be Planned, Designed, and/or Constructed from End of 4th Generation Permit through 2028 (Page 4 of 4)

| 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>2</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>2</sup> |
|--|----------------------------|------------------------|-------------------------|-----------|------------------------|-------------|--|-------------------------|--------------------------|--------------------------------------|----------------|--|----------------------------------|---|---------------------|------------------------------------|-------------------------------|--|-------------------------------|
| CR21RST000006  | FSND                       | S                      | Permanent               | 1         | 30.35                  | 1.00        |  | 31.17                   | 17058                    | 263.15                               | 25.03          |  |                                  | 25.03                                   | \$1,100,000         | Planning                           | 2025                          | Impervious Treatment                     | Eldersburg Crossing (Walmart) |
| CR16RST000019  | PWED                       | S                      | Permanent               | 1         | 350                    | 2.50        |  | 159.70                  | 88190                    | 1636.49                              | 116.88         |  |                                  | 116.88                                  | \$1,525,000         | Planning                           | 2025                          | Impervious Treatment                     | Hampstead Regional Facility   |
| CR16RST000021  | PWED                       | S                      | Permanent               | 1         | 36.8                   | 2.50        |  | 17.62                   | 9892                     | 173.95                               | 13.75          |  |                                  | 13.75                                   | \$1,500,000         | Planning                           | 2025                          | Impervious Treatment                     | Squires                       |
|  | FPU                        | A                      | Permanent               | 1         |                        |             |  |                         |                          |                                      | 12.50          |  |                                  | 12.50                                   | \$125,000           | Planning                           | 2025                          | Impervious Treatment                     | Tree Plantings                |
| CR20RST000004  | FSND                       | S                      | Permanent               | 1         | 79.46                  | 1.00        |  | 83.97                   | 317496                   | 367.49                               | 36.10          |  |                                  | 36.10                                   | \$825,000           | Planning                           | 2026                          | Impervious Treatment                     | Bevard Square                 |
| CR21RST000007  | FSND                       | S                      | Permanent               | 1         | 22.1                   | 1.00        |  | 11.69                   | 5494                     | 158.02                               | 5.73           |  |                                  | 5.73                                    | \$835,000           | Planning                           | 2026                          | Impervious Treatment                     | Meadow Ridge (2)              |
|  | FPU                        | A                      | Permanent               | 1         |                        |             |  |                         |                          |                                      | 12.50          |  |                                  | 12.50                                   | \$125,000           | Planning                           | 2026                          | Impervious Treatment                     | Tree Plantings                |
| CR21RST000008  | WSHW                       | S                      | Permanent               | 1         | 52.07                  | 1.00        |  | 66.71                   | 277286                   | 321.31                               | 24.00          |  |                                  | 24.00                                   | \$1,585,000         | Planning                           | 2026                          | Impervious Treatment                     | Westminster Market            |
| CR19RST000003  | PWED                       | S                      | Permanent               | 1         | 135                    | 1.00        |  | 42.95                   | 21487                    | 534.74                               | 14.00          |  |                                  | 14.00                                   | \$1,425,000         | Planning                           | 2026                          | Impervious Treatment                     | Wind Song Est.                |
| Subtotal Capital (up to 2026)  |                            |                        |                         | 68        |                        |             |  | 2555.18                 | 3905697                  | 24482.83                             | 1430.36        | 0  | 0                                | 1430.36                                 | \$38,123,911        |                                    |                               |  |                               |
| <b>Other</b>   |                            |                        |                         |           |                        |             |  |                         |                          |                                      |                |  |                                  |   |                     |                                    |                               |  |                               |
|  |                            |                        |                         |           |                        |             |  |                         |                          |                                      |                |  |                                  |   | \$881,330           |                                    | 2019                          |  | Half operating cost 2019      |
|  |                            |                        |                         |           |                        |             |  |                         |                          |                                      |                |  |                                  | 0                                       | \$1,827,460         |                                    | 2020                          |  | Operating Costs               |
|  |                            |                        |                         |           |                        |             |  |                         |                          |                                      |                |  |                                  |   | \$1,698,416         |                                    | 2021                          |  | Operating Costs               |
|  |                            |                        |                         |           |                        |             |  |                         |                          |                                      |                |  |                                  |   | \$2,070,210         |                                    | 2022                          |  | Operating Costs               |
|  |                            |                        |                         |           |                        |             |  |                         |                          |                                      |                |  |                                  |   | \$2,303,958         |                                    | 2023                          |  | Operating Costs               |
|  |                            |                        |                         |           |                        |             |  |                         |                          |                                      |                |  |                                  |   | \$2,530,518         |                                    | 2024                          |  | Operating Costs               |
|  |                            |                        |                         |           |                        |             |  |                         |                          |                                      |                |  |                                  |   | \$2,750,283         |                                    | 2025                          |  | Operating Costs               |
|  |                            |                        |                         |           |                        |             |  |                         |                          |                                      |                |  |                                  |   | \$2,963,769         |                                    | 2026                          |  | Operating Costs               |
|  |                            |                        |                         |           |                        |             |  |                         |                          |                                      |                |  |                                  |   | \$300,000           |                                    | 2020                          |  | Renovation Maintenance        |
|  |                            |                        |                         |           |                        |             |  |                         |                          |                                      |                |  |                                  |   | \$300,000           |                                    | 2021                          |  | Renovation Maintenance        |
|  |                            |                        |                         |           |                        |             |  |                         |                          |                                      |                |  |                                  |   | \$300,000           |                                    | 2022                          |  | Renovation Maintenance        |
|  |                            |                        |                         |           |                        |             |  |                         |                          |                                      |                |  |                                  |   | \$300,000           |                                    | 2023                          |  | Renovation Maintenance        |
|  |                            |                        |                         |           |                        |             |  |                         |                          |                                      |                |  |                                  |   | \$300,000           |                                    | 2024                          |  | Renovation Maintenance        |
|  |                            |                        |                         |           |                        |             |  |                         |                          |                                      |                |  |                                  |   | \$300,000           |                                    | 2025                          |  | Renovation Maintenance        |
|  |                            |                        |                         |           |                        |             |  |                         |                          |                                      |                |  |                                  |   | \$300,000           |                                    | 2026                          |  | Renovation Maintenance        |
| Subtotal Other (up to 2026)  |                            |                        |                         | 0         |                        |             |  | 0                       | 0                        | 0                                    | 0              | 0  | 0                                | 0                                       | \$18,244,614        |                                    |                               |  |                               |
| <b>Permit (up to 2025)</b>   |                            |                        |                         | <b>68</b> |                        |             |  | <b>2,569.2</b>          | <b>3,909,969.5</b>       | <b>24,518.8</b>                      | <b>1,434.6</b> | <b>0.0</b>   | <b>0.0</b>                       | <b>1,430.4</b>                          | <b>\$56,368,525</b> |                                    |                               |  |                               |
| <b>Total for Next Permit and Projected Years</b>   |                            |                        |                         | <b>68</b> |                        |             |  | <b>2,565.2</b>          | <b>3,908,748.9</b>       | <b>24,508.6</b>                      | <b>1,433.4</b> | <b>0.0</b>   | <b>0.0</b>                       | <b>1,430.4</b>                          | <b>\$56,368,525</b> |                                    |                               |  |                               |
| <b>Total for Remaining Obligations from The Previous Permit, Continued Obligations, and Proposed Activities for The Next Permit (up to 2026)</b> |                            |                        |                         | <b>70</b> |                        |             |  | <b>2,580.5</b>          | <b>3,913,431.3</b>       | <b>24,548.1</b>                      | <b>1,438.0</b> | <b>0.0</b>   | <b>0.0</b>                       | <b>1,433.8</b>                          | <b>\$56,368,525</b> |                                    |                               |  |                               |
| <b>Total for Remaining Obligations from The Previous Permit, Continued Obligations, and Proposed Activities for The Next Permit (up to 2028)</b> |                            |                        |                         | <b>69</b> |                        |             |  | <b>2,573.2</b>          | <b>3,911,221.6</b>       | <b>24,529.5</b>                      | <b>1,435.8</b> | <b>0.0</b>   | <b>0.0</b>                       | <b>1,432.8</b>                          | <b>\$57,249,855</b> |                                    |                               |  |                               |

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

The following table shows the projects included in the County's five-year capital improvement plan ("Community Investment Plan" or CIP). It is important to note that this plan is constantly in flux as project factors change, such as actual costs, prioritization from citizen/political request, permitting, property acquisition, and funding sources. For example, the timing of the construction projects planned for FY22 are uncertain at this time:

- The Brynwood project was anticipated to receive grant funding, which did not occur. Located on private property, the County will need to determine if cash is available to move forward with the project in FY22.
- Challenging design constraints may delay the FY22 construction planned for Hampstead Valley 1.
- The IDA Mount Airy project is shovel-ready, but the County-owned property is now being sold. The determination if the new developers will want to work cooperatively with the County on the construction of this proposed facility will most likely take years to settle.
- Melstone Valley hit a serious design issue, and a complete redesign is now being performed that may cause a delay in construction.



Restoration Projects to Be Planned, Designed, and/or Constructed  
from End of 4th Generation Permit through 2028 (Page 4)

| Project Name                  | Status   | IA Credit | Watershed      | FY22            | FY23            | FY24            | FY25            | FY26            | IA Credit    |
|-------------------------------|----------|-----------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------|
|                               |          |           |                | 132.9           | 95.4            | 106.0           | 168.3           | 94.2            |              |
| Brynwood                      | Design   | 54.2      | Liberty        | \$ 600,000.00   |                 |                 |                 |                 |              |
| Hampstead Valley 1            | Planning | 23.2      | Loch Raven     | \$ 1,200,000.00 |                 |                 |                 |                 |              |
| IDA Mt. Airy                  | Design   | 20.5      | Lower Monocacy | \$ 500,000.00   |                 |                 |                 |                 |              |
| Melstone Valley               | Design   | 22.5      | South Branch   | \$ 750,000.00   |                 |                 |                 |                 |              |
| Tree Planting                 | Planning | 12.5      |                | \$ 100,000.00   |                 |                 |                 |                 |              |
| Carroll County Health Dept    | Planning | 6.7       | Double Pipe    | \$ 50,000.00    | \$ 250,000.00   |                 |                 |                 |              |
| Hampstead Valley 4            | Planning | 20.7      | Loch Raven     |                 | \$ 1,000,000.00 |                 |                 |                 |              |
| Manchester East               | Planning | 36.6      | Prettyboy      | \$ 50,000.00    | \$ 750,000.00   |                 |                 |                 |              |
| Manchester Elementary         | Planning | 3.6       | Prettyboy      | \$ 20,000.00    | \$ 100,000.00   |                 |                 |                 |              |
| Saint Georges Gate            | Design   | 5.0       | Liberty        |                 | \$ 300,000.00   |                 |                 |                 |              |
| Stone Manor                   | Design   | 5.6       | Liberty        |                 | \$ 300,000.00   |                 |                 |                 |              |
| Tree Planting                 | Planning | 12.5      |                |                 | \$ 100,000.00   |                 |                 |                 |              |
| Valley Vista                  | Planning | 4.7       | Prettyboy      | \$ 20,000.00    | \$ 125,000.00   |                 |                 |                 |              |
| Candice Estates               | Planning | 13.0      | Lower Monocacy |                 |                 | \$ 150,000.00   |                 |                 |              |
| Hampstead Valley 2&3          | Planning | 13.5      | Loch Raven     |                 | \$ 125,000.00   | \$ 1,000,000.00 |                 |                 |              |
| New Windsor Railroad          | Planning | 15.3      | Double Pipe    | \$ 100,000.00   | \$ 1,000,000.00 |                 |                 |                 |              |
| Piney Ridge Village           | Planning | 11.0      | South Branch   | \$ 75,000.00    | \$ 750,000.00   |                 |                 |                 |              |
| Tree Planting                 | Planning | 12.5      |                |                 |                 | \$ 100,000.00   |                 |                 |              |
| Winters Street                | Planning | 36.0      | Liberty        | \$ 100,000.00   | \$ 1,000,000.00 |                 |                 |                 |              |
| Eldersburg Crossing (Walmart) | Planning | 25.0      | Liberty        | \$ 100,000.00   |                 |                 | \$ 1,000,000.00 |                 |              |
| Hampstead Regional            | Planning | 117.0     | Liberty        | \$ 125,000.00   |                 |                 | \$ 1,400,000.00 |                 |              |
| Squires                       | Planning | 13.8      | Liberty        | \$ 100,000.00   |                 |                 | \$ 1,400,000.00 |                 |              |
| Tree Planting                 | Planning | 12.5      |                |                 |                 |                 | \$ 100,000.00   |                 |              |
| Bevard Square                 | Design   | 36.0      | Liberty        |                 | \$ 75,000.00    |                 |                 | \$ 750,000.00   |              |
| Meadow Ridge (2)              | Planning | 5.7       | Double Pipe    | \$ 85,000.00    |                 |                 |                 | \$ 750,000.00   |              |
| Tree Planting                 | Planning | 12.5      |                |                 |                 |                 |                 | \$ 100,000.00   |              |
| Westminster Market            | Planning | 24.0      | Liberty        | \$ 85,000.00    |                 |                 |                 | \$ 1,500,000.00 |              |
| Windsong Estates              | Planning | 16.0      | Lower Monocacy |                 |                 | \$ 125,000.00   |                 | \$ 1,200,000.00 |              |
| BTR (Black and Decker)        | Planning | 50.0      | Liberty        |                 |                 |                 | \$ 125,000.00   |                 |              |
| Linton Springs                | Planning | 19.4      | Liberty        |                 |                 |                 | \$ 85,000.00    |                 |              |
| Long Valley Road              | Planning | 16.6      | Double Pipe    |                 |                 |                 | \$ 85,000.00    |                 |              |
| North Carroll Farms 4         | Planning | 7.5       | Prettyboy      |                 |                 |                 | \$ 100,000.00   |                 |              |
| Tree Planting                 | Planning | 12.5      |                |                 |                 |                 |                 |                 |              |
| Winters Mill HS               | Planning | 18.2      | Liberty        |                 |                 |                 | \$ 100,000.00   |                 |              |
| Avondale Run Phase 2          | Planning | 9.3       | Double Pipe    |                 |                 |                 |                 | \$ 75,000.00    |              |
| County Park Wetland           | Planning | 32.0      | Liberty        |                 |                 |                 |                 | \$ 150,000.00   |              |
| Evapco                        | Planning | 18.8      | Upper Monocacy |                 |                 |                 |                 | \$ 100,000.00   |              |
| Roberts Field Wet             | Planning | 66.2      | Loch Raven     |                 |                 |                 |                 |                 |              |
| Tree Planting                 | Planning | 12.5      |                |                 |                 |                 |                 |                 |              |
| Roberts Field Municipal       | Planning | 33.4      | Loch Raven     |                 |                 |                 |                 |                 |              |
| Waters Edge Sec 4             | Planning | 21.2      | South Branch   |                 |                 |                 |                 |                 |              |
| Lexington Run Section 1       | Planning | 2.6       | South Branch   |                 |                 |                 |                 |                 |              |
| Solo Cup                      | Planning | 34.2      | Liberty        |                 |                 |                 |                 |                 |              |
| Town Mall Westminster         | Planning | 43.5      | Liberty        |                 |                 |                 |                 |                 |              |
| Summers Hollow Pond 1         | Planning | 4.1       |                |                 |                 |                 |                 |                 |              |
|                               |          |           |                | \$ 140,000.00   | \$ 970,000.00   | \$ 125,000.00   | \$ 495,000.00   | \$ 325,000.00   | Engineering  |
|                               |          |           |                | \$ 3,150,000.00 | \$ 2,925,000.00 | \$ 4,000,000.00 | \$ 3,900,000.00 | \$ 4,300,000.00 | Construction |
|                               |          |           |                | \$ 3,290,000.00 | \$ 3,895,000.00 | \$ 4,125,000.00 | \$ 4,395,000.00 | \$ 4,625,000.00 | Total        |



**Provide a copy of your operating budget for annual restoration projects (FY2020).**

**Provide a copy of your operating and maintenance budget for all BMPs implemented under the MS4 permit? (FY2020)**

The County has a dedicated operating budget for administration of the NPDES permit. The budgeted and actual expenses for FY20 are shown in the table below. The line item specific to routine maintenance is 544314 “MowSeedMul.” The County also maintains a capital budget for significant maintenance activities and renovation of stormwater facilities. The intent of these capital projects is to extend the life of facilities for another 40 years. As that \$300,000 per year budget is capital, it is not represented here.

It also should be noted that the eight municipalities in Carroll County are party to our permit. Each municipality maintains their own stormwater facilities and these costs are not represented in the table below. It is estimated that, combined, the eight municipalities spend an additional \$175,000 in maintenance costs per year.

**Budgeted and Actual Operating Expenses FY 20**

| Code   | Category     | FY 20                 | FY 20                 |
|--------|--------------|-----------------------|-----------------------|
|        |              | Budget                | Actual                |
| 522101 | Full Time    | \$742,630.00          | \$736,415.98          |
| 522105 | Ovtm-Reg     | \$1,200.00            | \$2,549.63            |
| 522112 | FlexActBal   | \$1,200.00            | \$1,003.70            |
| 522190 | PersOHAllc   | -                     | -                     |
| 522201 | FICA Tax     | \$46,190.00           | \$44,183.73           |
| 522202 | HlthInsur    | \$213,240.00          | \$197,728.64          |
| 522205 | 401K         | \$6,700.00            | \$4,531.71            |
| 522206 | WorkerComp   | \$19,680.00           | \$19,640.38           |
| 522207 | Group Life   | \$1,250.00            | \$1,217.32            |
| 522208 | ShTrmDisab   | -                     | \$1,334.09            |
| 522211 | DeathBenef   | -                     | -                     |
| 522213 | Dentallns    | \$5,190.00            | \$5,015.96            |
| 522220 | LgTrmDisab   | \$2,090.00            | \$2,034.01            |
| 522221 | Medicare     | \$10,800.00           | \$10,333.51           |
| 522224 | EmpPension   | \$51,920.00           | \$42,909.82           |
| 522240 | OPEBARC      | \$55,720.00           | \$50,790.90           |
| 533101 | RegistrFee   | -                     | -                     |
| 533106 | HotelMotel   | -                     | -                     |
| 544314 | MowSeedMul   | \$127,000.00          | \$124,645.72          |
| 544323 | LabTestFee   | \$20,000.00           | \$16,322.50           |
| 566439 | LabSupplys   | \$700.00              | \$189.38              |
| 566486 | CmplMgmtSp   | \$4,200.00            | \$406.66              |
| 566499 | OthOperSup   | \$2,900.00            | \$2,040.62            |
| 566501 | Gasoline     | \$3,000.00            | \$2,126.28            |
| 566603 | RepPrtSupp   | \$5,000.00            | \$1,606.03            |
| 588306 | SmlMachEqu   | \$1,300.00            | \$743.12              |
| 588823 | PrYrEncumb   | -                     | \$3,560.00            |
| 589102 | BondInters   | \$505,550.00          | \$464,618.40          |
| 589202 | BondPrinci   | \$676,290.00          | \$676,289.92          |
|        | <b>Total</b> | <b>\$2,503,750.00</b> | <b>\$2,412,238.01</b> |

## Financial Capacity Spreadsheet

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The “Financial Capacity Spreadsheet” for Carroll County can be found on Page 19. There are several key factors to note in evaluating the County’s financial capacity.

- Carroll County is a bedroom community to the Baltimore and Washington metropolitan areas. The County’s excellent schools and rural nature make Carroll County a desirable location for people to live while commuting to the surrounding urban areas. This means that, relatively speaking, Carroll County has a higher household median income than several other jurisdictions in the area, such as Baltimore County, Harford County, and Prince George’s County.

Our rural nature lends itself to having excellent contractor resources who appreciate working locally and the County’s fast turnaround on invoice payment.

It has been County policy to require County ownership of residential structural BMPs rather than allowing ownership and maintenance by homeowner associations. This provides a significant savings regarding land acquisition costs for restoration projects.

Carroll County, therefore, has the funding and resources available to efficiently meet our permit requirements without resorting to nutrient trading. The County will continue to work with MDE to meet fair and equitable permit requirements.

Carroll County has all of the typical competing sectors for funding that all other municipalities have: aging public works infrastructure, underfunded schools, undercompensated employees, increased demand for emergency services, increased demand for citizen services, and critical health issues such as the opioid epidemic. Additionally, while Carroll County may have a relatively high median income, it also has a smaller population contributing to the tax base, resulting in lower revenues than similar-sized counties.

The County is, therefore, not in favor of an analysis to determine financial capacity to meet permit requirements. The County will continue to work with MDE to meet fair and equitable permit requirements based upon our impacts to water quality. This analysis has the potential to penalize the fiscally responsible work that the County has performed through our previous permits. Success or failure should be measured by accomplishments, not by how much money is spent.

- Carroll County does not have a stormwater fee, as approved by the State Attorney General, as the County Commissioners have dedicated a portion of tax revenues to operating and capital expenses associated with the MS4 permit. The Board has consistently been supportive of program requirements and has adequately funded the program since its inception. Therefore, there is no value to input into cell 2f.
- Cell 3a represents expenses spent on the previous permit term. Carroll County met the third-generation permit requirements and continued the restoration program during the period that the permit was administratively extended. The restoration requirements of the fourth-generation program were met with projects performed from 2009 to mid-2019. The County did

not begin separating out operational expenses related to the permit until 2015. Therefore, this value does not include operating costs from 2009 to 2014 and realistically should be close to \$5M higher.

- The average annual cost represented in cell 3c represents the total capital investment divided by the 9.5 years that work was performed on the fourth-generation permit from 2009 to mid-2019. However, the investment in the fourth-generation permit greatly accelerated in the most recent five years of the permit. The value in cell 3b is, therefore, artificially low. The annual average for the past five years is closer to \$4.8M.

### Financial Capacity Spreadsheet

|          |  |                                      |                 |
|----------|--|--------------------------------------|-----------------|
| 1        | County/City Name:  | <b>Carroll County</b>                |                 |
| <b>2</b> | <b>Cost as a Percent of Household Income</b>   |                                      |                 |
| 2a       | Median Household Income (MHI)  |                                      | \$96,769        |
| 2b       | Total Number of Households in Jurisdiction   |                                      | 63,564.00       |
| 2c       | Average Annual Cost for Public Stormwater Related Management Programs                        |                                      | \$8,626,139.00  |
| 2d       | Annual Cost for Public Stormwater Related Management Programs Per Household                  |                                      | 135.71          |
| 2e       | % of MHI Spent on Public Stormwater Related Management Programs                              |                                      | 0.14%           |
| 2f       | Total Annual Stormwater Remediation Fee Per Household  |                                      |                 |
| 2g       | % of MHI Spent Annually on Stormwater Remediation Fee  |                                      | 0.00%           |
| <b>3</b> | <b>Cost of Impervious Surface Restoration as a Percent of Household Income</b>               |                                      |                 |
| 3a       | Total in Previous Permit Term Spent on the Impervious Surface Restoration Plan (ISRP)        |                                      | \$34,177,050.00 |
| 3b       | Average Annual Cost of the ISRP During the Previous Permit Term                              |                                      | \$3,597,584.21  |
| 3c       | Annual Cost of the ISRP Per Household During the Previous Permit Term                        |                                      | \$56.60         |
| 3d       | % of MHI Spent on the ISRP During the Previous Permit Term                                   |                                      | 0.06%           |
| 3e       | Total Projected Cost for Restoration Portfolio   |                                      | \$56,368,525.00 |
| 3f       | Projected Annual Cost for Restoration Portfolio  |                                      | \$7,515,803.33  |
| 3g       | Projected Annual Cost for Restoration Portfolio Per Household                                |                                      | \$118.24        |
| 3h       | % of MHI Spent on Projected Cost of Restoration Portfolio                                    |                                      | 0.12%           |
| <b>4</b> | <b>Cost for Low-Income Residential Customers as a Percent of Household Income</b>            |                                      |                 |
| 4a       | Percentage of Households with Annual Income <\$25,000  |                                      | 10.00%          |
| 4b       | % of Income for Low Income Households Spent on Public Stormwater Related Management Programs |                                      | 0.54%           |
| 4c       | % of Income for Low Income Households Spent on Stormwater Remediation Fees                   |                                      | 0.00%           |
| 4d       | % of Income for Low Income Household Spent on the ISRP                                       |                                      | 0.23%           |
| 4e       | % of MHI For Low Income House Spent on Projected Cost of Restoration Portfolio               |                                      | 0.47%           |
| <b>5</b> | <b>Key Socioeconomic Indicators</b>  |                                      |                 |
| 5a       | Percentage Unemployed  |                                      | 2.20%           |
| 5b       | Median Household Income  |                                      | \$96,769        |
| 5c       | Percent of Individuals (All People) Below Poverty Level                                      |                                      | 5.20%           |
| <b>6</b> | <b>Financial Capacity Indicators</b>   |                                      |                 |
| 6a       | Debt Indicators  | Bond Rating – GO <sup>1</sup> Bonds  | AAA             |
| 6b       |  | Bond Rating – Revenue Bonds          | N/A             |
| 6c       |  | Net Debt as A % Of FMPV <sup>2</sup> | 1.51%           |
| 6d       | Financial Management Indicators  | Property Tax Revenues As % Of FMPV   | 1.06%           |
| 6e       |  | Property Tax Revenue Collection Rate | 99.00%          |