



**MS4 General Permit Baseline
Establishment Report**

Town of North East

April 4, 2019



MS4 General Permit Baseline Establishment for **The Town of North East**

April 4, 2019

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I. EXECUTIVE SUMMARY

This report has been compiled on the behalf of the Town of North East pursuant to RFP 2018-06-01 for the purpose of identifying the Town's MS 4 permit obligation which is administered under the authority of the Maryland Department of the Environment. Further, this report was intended to provide the necessary guidance to allow the Town to make decisions regarding the amount of the stormwater fee and in what format it could be implemented. In order to accomplish these tasks it was necessary for the team to undertake a field review of the existing stormwater management facilities and to determine the total impervious drainage area within the town boundary. This established a baseline from which a potential plan of action could be formulated to address the Town's requirements.

II. BACKGROUND INFORMATION

The Town of North East, incorporated in 1850, has a population of 3,625 people, and has a land area of 1,278.11 acres. The Town is located in Cecil County, MD near the head of the North East River. The land use is consistent with that of a Maryland incorporated jurisdiction with a rough breakdown as follows: 7% Institutional uses (schools, churches, cemeteries, and Town-owned buildings and recreation spaces), 32% Residential developments mainly consisting of townhomes or single family homes with lots $\frac{1}{4}$ acre or smaller, 18% Commercial or light industrial, 11% Public Right-of-Way, 2% Railroad Right-of-Way owned by CSX or Amtrak, and 30% Undeveloped land or otherwise preserved environmental areas. Stormwater from the Town of North East drains to the North East River via a number of smaller named streams including North East Creek, Little North East Creek, and Stony Run. The North East River is tidal within the Town's municipal limits and discharges to the Chesapeake Bay approximately 4 miles south of the Town.

The Town of North East contains a total of 275.12 acres of impervious surfaces, 249.13 acres of which will be covered under the proposed MS4 permit. The remaining 25.01 acres are or will soon be covered under other agencies' MS4 permits. There are 35 stormwater management devices as well as 1 alternative stormwater practice located within the Town. These devices are mainly located in residential and commercial developments constructed since the year 2000.

As part of the EPA's National Pollutant Discharge Elimination System (NPDES), municipalities within Maryland are required to implement stormwater management programs to improve water quality and control the discharge of pollutants within their jurisdiction. Although Cecil County has a program in place, it does not include The Town of Northeast, which means The Town is required to create a separate permit to cover the impervious area within their municipal boundaries. An NOI application was filed with MDE on October 19, 2018 and was approved on November 29, 2018, allowing the Town to begin their MS4 permitting process. The NOI application and approval letter can be found in Appendix C.

As part of the permitting process, the Town is required to assess the treatment their existing stormwater management devices provide. The permit also requires 20% of the existing, untreated impervious area to be treated using SWM devices within the 5-year term of the permit. The permit also requires yearly reporting on the status of the SWM retrofits as well as on six other tasks: Public Education & Outreach, Public Involvement and Participation, Illicit Discharge Detection & Elimination, Construction Stormwater Management, Post-Construction Stormwater Management, and Pollution Prevention. More information on can be found in Appendix C. No properties within the Town were found to be subject to existing industrial stormwater discharge permits.

III. METHODOLOGY

In order to establish the total area of impervious surfaces within the Town's municipal limits, GIS information was downloaded from the Cecil County website and analyzed using the MicroStation CAD software. The following GIS data, downloaded from the Cecil County GIS website on September 5, 2018, was used, with its publishing date in parentheses, if available: Buildings, Outbuildings, Railroads (3-30-2012), Storm Drain System, Town Boundaries, Treeline (7-7-2014), Lidar Data and Topography (2014), Impervious surfaces, and Parcels (2018). By measuring the area of the impervious surface level within the Town's boundary, we were able to determine the Town's total impervious surface area for the permit to be 249.13 acres, as stated above.

The next step in determining the Town's requirements is to separate out the impervious area that falls under permits filed by other agencies. By consulting available SDAT data and coordinating with Town officials, we were able to locate impervious areas that are or will be included in the permits of: Cecil County (10.045 acres), The United States of America (0.555 acres), and various railroad agencies such as CSX and Amtrak (0.536 acres). We also broke down the Town's remaining impervious area by land use to assist in the evaluation of funding options. See the next section for a complete breakdown of the impervious surfaces within the Town boundaries.

The next item to analyze is the quality and quantity of the existing stormwater devices and practices located within Town boundaries. Using the county's GIS information, as-built plans, aerial imagery, and field verification, we were able to locate 36 Best Management Practices (BMP's) within the Town. Using a combination of historic aerial imagery and the county identified SWM number, we were able to roughly ascertain the year each device was permitted. This allowed us to determine the P_e , which is the rainfall depth treated by each device, based on historic MDE requirements at the time of permitting. Historic aerial imagery was used to determine what impervious area the device was built for, e.g., a pond built in 1993 adjacent to a warehouse built in 1994 was considered to have been built for that warehouse and associated parking lots and sidewalks, but not for the warehouse constructed 10 years earlier. Additionally, drainage areas were delineated to each SWM device to confirm the feasibility of our initial estimate. These drainage areas were also used to determine the credit in individual ponds in the

case that multiple ponds were built throughout a neighborhood simultaneously. Next, certain SWM devices were considered to provide no water quality treatment, including devices where we could not determine a contributing drainage area through field visits and available GIS, devices not accepted by Cecil County during final as-builts, devices that did not meet current SWM requirements and could not feasibly be brought up to code, and dry ponds. Dry ponds were considered to provide no treatment since the long term availability of treatment credits for dry ponds is not guaranteed by MDE. All other SWM devices were assumed to treat their full design Pe, pending proper maintenance or maintenance enforcement by Cecil County.

Once the total treatment by existing devices was calculated, we were able to find the total impervious area in town that remains untreated. This value was used to calculate the area required to be retrofitted by the Town within the 5-year term of the permit, which is 20% of the total untreated impervious area.

Once the data was analyzed per the methods stated above, the data was shared with Maryland Environmental Service (MES), an independent state agency, to verify our methodology and the accuracy of our results. Per Jen Wijetunga, senior engineer with MES, "Maryland Environmental Service (MES) has worked collaboratively with Soltesz to confirm the existing stormwater management within the Town of North East, according to guidelines set forth in MDE's *Stormwater Design Manual* & MDE's *Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated*. Soltesz provided MES with information on the Town's existing facilities, including BMP locations and the drainage area to each BMP. Soltesz also determined a treatment amount for each facility based on the stormwater era in which the facility was constructed. MES coordinated with Soltesz and has verified that the treatment amount is correct for each BMP for the Town of North East."

Once the data regarding the Town of North East's untreated existing impervious acreage was collected, and analyzed, the next step was to develop a plan of action for the Town to follow to meet their remaining MS4 permit requirements. After receiving GIS information from Soltesz, LLC and Cecil County, Raftelis Financial Consultants, Inc. was charged with creating a feasible method and amount per unit for the Town to raise the necessary funds to implement the SWM improvements required by the permit.

IV. RESULTS

After determining the most likely design Pe for each SWM device and determining non-conforming devices and dry ponds, we came to a total of 11 devices treating 1" of runoff, 6 devices treating 0.5", 18 devices providing no treatment, and one Shoreline Stabilization project which restored 1,020 linear feet of shoreline along the North East River. All together, the 18 contributing devices provided an equivalent of 1" of runoff over 118.626 impervious acres. A table summarizing the data collected for each device can be found on the next page. The "label" column corresponds to the label shown on location map provided in Appendix A. The "Structure Type" and "Structure No." were taken from the source code contained in the county's GIS

information. The treatment value was taken as the Design Impervious Area Value multiplied by the Design Pe Value for devices 1-35. The shoreline stabilization was given credit at 1 acre/25 feet of stabilization per MDE's *Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated*.

By subtracting the total, treated impervious area from the total impervious area, we calculated that there is 130.50 impervious acres still untreated in the Town. Using the 20% requirement, the Town of North East is required to add treatment for an additional 26.10 impervious acres by the end of their 5-year permit.

Total Impervious Area Covered Under MS4 Permit (Acres)	Total Impervious Area Previously Treated (Acres)	Total Untreated Impervious Area (Acres)	Impervious Area Required to Treat During 5-year Permit Term (Acres)
249.126	118.626	130.500	26.100

Based on costs computed by Soltesz and the Town of North East, the Town can expect to spend slightly upwards of \$450,000 each year to meet the terms of their MS4 permit. The bulk of the cost is associated with the capital projects the Town expects to undertake to treat their 26.10 impervious acres. They expect to fund five capital projects each year, with an individual cost for each project of \$80,000. The Town believes it currently spends \$30,000 yearly on existing SWM operation and maintenance costs based on past Town budgets. We believe the Town will have to increase this budget \$3,500 per year to meet the terms of the permit, and budget an additional \$20,000 per year to fund the program administration costs. A further breakdown can be found in the Raftelis report in Appendix B.

Raftelis' research led them to conclude that the best way to fund the work required to meet the terms of the permit was to create a new stormwater fee for property owners within the municipal limits. Their research indicated this could be accomplished relatively easily through the Town's existing water/sewer billing system, since the system includes all improved structures and buildable parcels within the Town. Similar to other stormwater fees around the country, the fee would likely be based on the total impervious acreage on each parcel, with a chance to reduce the fee through individual, on-site and approved stormwater practices. Raftelis' full report on the matter can be found in Appendix B.

V. STORMWATER MANAGEMENT RECOMMENDATIONS

Based on the land-use, topography, and current infrastructure of the Town of North East, Soltesz recommends providing the 26.10 acres of treatment mainly through a combination of three stormwater management practices: Shoreline Management, Stream Restoration, and Ponds Retrofits. Of these, Soltesz recommends using Shoreline Management to meet a majority of the 26.10 acres required due to its relatively low cost and the Town's abundance of shoreline along the tidal portion of the North East River. After Shoreline Management, Soltesz recommends ponds retrofits as the existing ponds have already been identified and delineated as a part of this report. Finally, Soltesz recommends Stream Restoration due to its potential for

aesthetic appeal and the relative abundance of streams in the Town. The table below illustrates the anticipated costs and scale of using different practices to meet the 26.10 acre goal based on past projects and best available information.

Device Type	Cost per Acre	No. Required Devices to Meet Target Acreage
Shoreline Management	\$7,500 ₁	652.5 linear feet
Stream Restoration	\$60,000 ₂	2,610 linear feet
Pond Retrofit	\$40,000-\$75,000 ₃	2-3 well-selected ponds
Micro-Bioretenention	\$100,000-\$250,000 ₄	60-100
Green Street	\$150,000-\$400,000 ₄	75-150

1. Assumes creation of a living shoreline with stone armoring. Less expensive options may be available depending upon anticipated flow characteristics and wave action.

2. Assumes credit is applied at 0.01 acres per linear foot of restoration. In certain conditions, impervious area draining to the stream and existing erosion of the stream banks can be factored into the credit computation. This allows for more credit per linear foot and reduces the cost per acre.

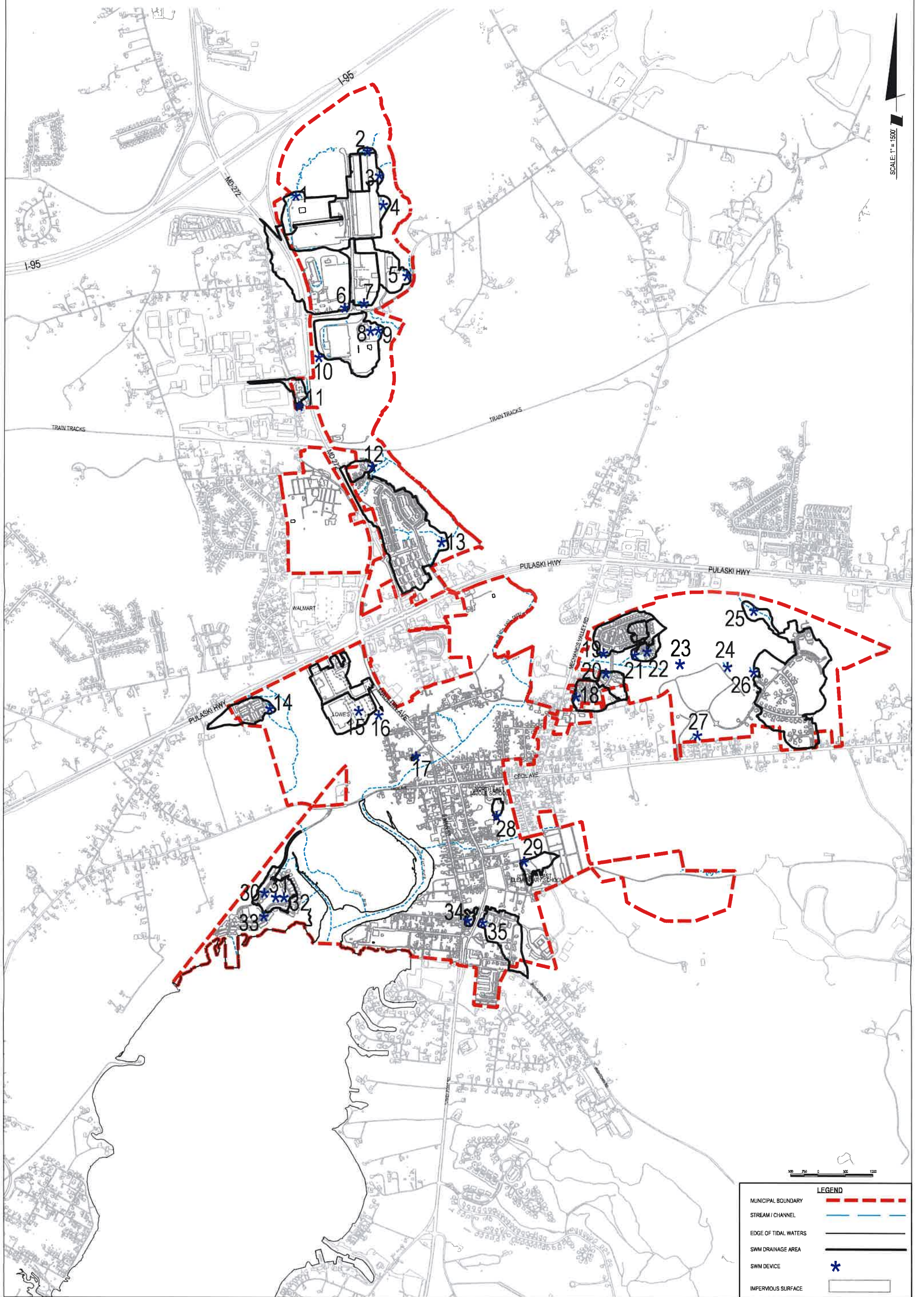
3. Pond retrofit is dependent upon the condition of the pond, impervious area draining to the pond, the amount of structure and/or dam modifications required to accommodate the increased treatment volume, wetland and/or stream impacts, and dam breach evaluation. Larger ponds tend to have a lower cost per acre.

4. Micro-Bioretenention and Green Streets are designed to treat small drainage areas and are generally used in congested areas requiring adjustments to storm drain, existing utilities, road sections, and sidewalk. Depending upon the project, the total cost can reach \$1,000,000 per acre, but there are other potential benefits associated with the devices such as economic development and replacement of aging infrastructure. It is generally best to consider these options in conjunction with infrastructure maintenance or replacement programs.

APPENDIX A:

SUPPORTING CHARTS & FIGURES

SWM LOCATION PLAN



SCALE: 1" = 1500'

0 250 500 750 1000 1250

LEGEND

- MUNICIPAL BOUNDARY
- STREAM / CHANNEL
- EDGE OF TIDAL WATERS
- SWM DRAINAGE AREA
- SWM DEVICE
- IMPERVIOUS SURFACE

Owner	Category	Impervious Acreage
SHA	SHA	14.862 (not included)
North East	Town Roads/Sidewalk	48.255
	Town Institutions (Offices, Parks)	5.696
	Town Misc.	0.622
Cecil County	County Roads	3.456 (not included)
	County Institutions	6.589 (not included)
USA	Federal Lands	0.555 (not included)
Misc.	Residential	67.660
Misc.	Commercial/Industrial	116.108
Amtrak or CSX	Railroad	0.536 (not included)
Misc.	Institutional (Church, Private Schools)	10.785
TOTAL UNDER NORTH EAST MS4 PERMIT		249.126

Figure 1: Impervious acreage within North East municipal limits

Structure Type	Structure No.	Address	Design Pe	Design Imp Area	Treatment
Dry Pond	2002-0028, 1995-0010, 1993-0013, 2004-0012	4 Center Drive	0	7.541	0.000
Dry Pond	2002-0028, 1995-0010, 1993-0013, 2004-0012	4 Center Drive	0	2.928	0.000
Dry Pond	2002-0028, 1995-0010, 1993-0013, 2004-0012	4 Center Drive	0	3.840	0.000
Dry Pond	2002-0028, 1995-0010, 1993-0013, 2004-0012	4 Center Drive	0	23.665	0.000
Wet Pond	N/A	165 Lums Road	1	2.043	2.043
Wet Pond	N/A	1 Center Drive	0.5	14.325	7.751
Wet Pond	2007-0154	165 Lums Road	0.5	7.424	3.712
Sand Filter	1988-0002	100 Lums Road	0.5	15.502	7.751
Wet Pond	1988-0002	100 Lums Road			0.000
Dry Pond	1988-0002	100 Lums Road	0	0.000	0.000
Wet Pond	2001-0223	Holiday Inn	1	1.435	1.435
Dry Pond	2007-0148, 1993-0002, 1999-0011	23 North Court	0	0.509	0.000
Wet Pond Wetland	2007-0148, 1993-0002, 1999-0011	129 Sycamore Drive	0.5	18.253	9.127
Wet Pond	2006-0404	Stony Run Circle	1	3.487	3.487
Underground	2007-0083	425 Mauldin Avenue	1	10.757	10.757
Dry Pond	1996-0015	425 Mauldin Avenue	0	9.196	0.000
Infiltration Trench	N/A	2 Russell Street	0.5	0.072	0.036
Wet Pond	2000-0014	2 Mallory Way	1	1.687	1.687
Wet Pond	2006-0260	1 Merion Circle	1	4.792	4.792
Wet Pond	2000-0014	15 Mallory Way	1	0.956	0.956
Sand Filter	2006-0262	10 Green Brier Court	0	1.846	0.000
Bioretention	2006-0262	10 Green Brier Court	1	0.727	0.727
Sediment Basin	2006-0415	23 Bayberry Drive	0	0.000	0.000
Sediment Basin	2006-0415	Viburnum Avenue and Magnolia Drive	1	10.744	10.744
Sediment Basin	2006-0415	52 Honey Locust Circle	0	0.000	0.000
Sediment Basin	2006-0415	3 Hibiscus Court			0.000
Sediment Basin	2006-0415	24 Oak Drive			0.000
Wetland	N/A	North East Middle School	0	0.000	0.000
Dry Pond	N/A	North East Elementary School	0	0.134	0.000
Wet Pond	1990-0013, 2006-0306	200 NE Isles Drive	1	11.039	11.039
Wet Pond	1990-0013, 2006-0306	200 NE Isles Drive			
Permeable Pavement	1990-0013, 2006-0306	200 NE Isles Drive			
Permeable Pavement	1990-0013, 2006-0306	200 NE Isles Drive			
Underground	2003-0044	520 S Main Street	1	1.041	1.041
Wet Pond	N/A	102 Elk River Manor Drive	0.5	2.660	1.330
Shoreline Stabilization		Shoreline near 45 NE Isles Drive	1020 LF		40.800
					118.626

Figure 2: Treatment totals in Existing SWM Devices

APPENDIX B:
PROGRAM PLAN

MEMO

To: Ken Dunn and Ben Mosier, Soltesz, LLC
From: Jennifer (Fitts) Tavantzis, Manager
Date: January 3, 2019
Re: North East, MD Stormwater Management Study

Raftelis Financial Consultants, Inc. (Raftelis) is pleased to provide this update on Tasks 1 through 5 leading up to the stormwater fee decision outlined in the scope of service provided in partnership with Soltesz, LLC (Soltesz) for the Town of North East, Maryland (Town). This project was originally requested by the Town through RFP 2018-06-01. Summarized below are the completed tasks included in the project scope that Raftelis was contracted to perform, and results of Raftelis' analysis and recommendations.

Task 1. Kickoff Meeting, Data Request, and Data Collection

Raftelis participated in an initial kickoff meeting on August 24, 2018 with participants from Soltesz and the Town of North East to discuss existing stormwater activities and infrastructure, compliance requirements, and background information on the Town. At the meeting, the project team discussed data needed to conduct the program funding analysis, including parcel data with tax information, recent orthoimagery, and geographic information on the impervious surface found within the town. Parcel data, 2016 orthoimagery, and an impervious surface layer were all obtained through Soltesz or directly from Cecil County, which has made County GIS data available online to download.

Task 2. Familiarization with Town's Programs and Systems, Including Utility Billing System

Raftelis evaluated the current billing system to determine whether the system can handle the addition of a stormwater fee, or if a different billing arrangement would be more appropriate.

The Town provided Raftelis with a billing data export of 1,385 accounts, which Raftelis reviewed. Raftelis also worked with Finance Director Kendrick Natale to understand the existing utility billing system and data structure. The Town's uses MCSJ, supported by Edmunds & Associates, as its utility billing system. The system is equipped to bill for a variety of utility services, and is currently used to bill for water using a consumption-based rate structure that employs a minimum charge (equivalent to 5,000 gallons of water use). Bills are generated on a quarterly basis and sent out via mail.

Currently, every structure or buildable lot is billed by Town's water utility (as an availability of service charge), and the collection rate is approximately 95%. Since in large part the same group of properties would be charged a stormwater fee, this makes the existing utility bill optimized for the task of stormwater billing. The Town attempts to bill the owner of record, based on State Department of Assessment and Taxation (SDAT) data. Unpaid water charges become a lien on the property, and stormwater could likely be treated the same way, pending a determination by the Town Counsel.

Billing a stormwater fee would require adding a new line item to the existing water bill, which appears to be feasible using the system's available sewer or electric billing line, by providing the system with the fee or number of stormwater billing units for each account. In addition, Town staff are confident in the ability of the Finance Department and its customer service representatives to handle the new billing processes and customer help requests should stormwater fee billing be implemented. Raftelis believes that adding stormwater billing to the current water billing system would likely be feasible and appropriate, and recommends that the Town pursue this approach.

Considerations

There are several items to consider in preparation for linking stormwater fees with water billing accounts.

1) Accurately matching parcels to accounts:

The billing data export includes service address and account type for each account within the Town, in addition to water consumption information. To accurately link parcels (for which stormwater fees are calculated) to accounts, Raftelis believes that the billing data's "Property Location" field (service address) can be matched to the "Address" field from GIS parcels (and ultimately the impervious area output) for the vast majority of parcels. For those situations where there is an account address with no matching parcel address (or several matching parcel addresses), or vice versa, see Consideration #2, Establishing Billing Policies for Non-1:1 Parcel to Account Relationships.

2) Establishing Billing Policies for Non-1:1 Parcel to Account Relationships

There are some circumstances where the Town will have to establish policies for billing a stormwater fee on a water account where there is not a one to one (1:1) relationship between existing accounts and parcels with a stormwater fee and thus requiring a stormwater bill. A very small number of properties have multiple water accounts tied to the same address, and in other cases the same parcel may include more than one service address (such as in multi-family residential developments or shopping centers). For these, manual linking of the parcels and accounts will be needed, and a parcel's fee may need to be split among several accounts. Similarly, several parcels may be developed into a single building for which a single water account is set up. In those cases, multiple stormwater fees could be aggregated and applied to the same bill. In either case, the goal should be to mirror the water account configuration as closely as possible.

3) Creating New Accounts

Even with the thoughtful creation of billing policies and connections between parcel and water billing accounts, there are likely to be parcels that necessitate stormwater billing but cannot be tied to any existing water account. New "stormwater only" accounts would need to be created in the billing system and billed for stormwater only, *without being subject to the minimum water bill*. For scale, there are approximately 150 to 220 more parcels likely to receive a stormwater fee than there are existing water accounts. Many of these parcels could be aggregated to existing water accounts as described in consideration #2 above, but a handful of new accounts may need to be created.

Tasks 3 and 4. Develop MS4 and Other Stormwater Requirements, Document "Program Plan" and Develop Five-Year Program Costs for "Program Plan"

As a part of this project, Soltesz conducted a program review to determine the Town's new revenue requirements under the updated MS4 permit. Those costs associated with minimum control measure compliance and required investment related to effective impervious area reduction were summarized in the Town's MS4 Permit Notice of Intent, which is included as Appendix A of this memorandum.

Raftelis also worked with the Town to understand existing stormwater program activities and their costs. The major Town stormwater efforts are twice-monthly street sweeping and regular leaf collection. These activities remove debris and associated pollutants from runoff reaching receiving waterbodies. The Town

coordinates volunteers in shoreline cleanup activities at a Town Park, and stream cleanups with the Elk and North East River Watershed Associations. The Town also participates in some educational activities and stormwater planning activities in coordination with the County.

Table 1, below, summarizes existing program costs (categorized under “Existing O&M Costs”) alongside new costs estimated to comply with the Town’s MS4 permit, which include Personnel and Capital Project Costs. To date, the “Capital Projects” cost has been estimated at a high level, so individual projects are shown as placeholders. The “Existing O&M Costs” reflect the total of \$30,000 estimated to be currently spent by the Town on the stormwater activities described above, though the breakdown among activities was estimated by Raftelis. The Town has an agreement with Cecil County to fulfill some MS4 obligations at no additional cost to the Town.

Table 1. Stormwater Program Revenue Requirements

Town of North East
Stormwater Revenue Requirements

		FY 2019-2020	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024
Personnel Costs (Salaries & Benefits)						
Program Administration & Reporting						
Total Personnel Costs						
	Escalation Fac Service Provider					
	Personnel Town	\$ 20,000	\$ 20,200	\$ 20,402	\$ 20,606	\$ 20,812
		\$ 20,000	\$ 20,200	\$ 20,402	\$ 20,606	\$ 20,812
MS4 Costs						
Public Education & Outreach	Personnel Town	\$ 3,000	\$ 3,030	\$ 3,060	\$ 3,091	\$ 3,122
Public Involvement and Participation	Operations Town	\$ 500	\$ 507	\$ 513	\$ 520	\$ 527
Illicit Discharge Detection & Elimination	Operations County	\$ -	\$ -	\$ -	\$ -	\$ -
Construction Stormwater Management	Operations County	\$ -	\$ -	\$ -	\$ -	\$ -
Post Construction Stormwater Management	Operations County	\$ -	\$ -	\$ -	\$ -	\$ -
Pollution Prevention	Operations Town	\$ -	\$ -	\$ -	\$ -	\$ -
Total MS4 Costs		\$ 3,500	\$ 3,537	\$ 3,573	\$ 3,611	\$ 3,648
Existing O&M Costs						
Maintenance of Existing SWM Devices	Operations Town	\$ -	\$ -	\$ -	\$ -	\$ -
Maintenance of Other Existing Infrastructure	Operations Town	\$ -	\$ -	\$ -	\$ -	\$ -
Street Sweeping	Operations Town	\$ 15,000	\$ 15,195	\$ 15,393	\$ 15,593	\$ 15,795
Leaf Collection	Operations Town	\$ 5,000	\$ 5,065	\$ 5,131	\$ 5,198	\$ 5,265
Shoreline Clean-Up at Town Park	Personnel Town	\$ 3,000	\$ 3,030	\$ 3,060	\$ 3,091	\$ 3,122
Water Quality Testing	Operations Town	\$ 4,000	\$ 4,052	\$ 4,105	\$ 4,158	\$ 4,212
Stream Cleanups	Personnel Town	\$ 3,000	\$ 3,030	\$ 3,060	\$ 3,091	\$ 3,122
Total Existing O&M Costs		\$ 30,000	\$ 30,372	\$ 30,749	\$ 31,130	\$ 31,516
Capital Projects						
Project 1	Capital Town	\$ 80,000	\$ 81,040	\$ 82,094	\$ 83,161	\$ 84,242
Project 2	Capital Town	\$ 80,000	\$ 81,040	\$ 82,094	\$ 83,161	\$ 84,242
Project 3	Capital Town	\$ 80,000	\$ 81,040	\$ 82,094	\$ 83,161	\$ 84,242
Project 4	Capital Town	\$ 80,000	\$ 81,040	\$ 82,094	\$ 83,161	\$ 84,242
Project 5	Capital Town	\$ 80,000	\$ 81,040	\$ 82,094	\$ 83,161	\$ 84,242
Total Capital Projects		\$ 400,000	\$ 405,200	\$ 410,468	\$ 415,804	\$ 421,209
Revenue Requirement Offsets						
Federal Grants		\$ -	\$ -	\$ -	\$ -	\$ -
State Grants		\$ -	\$ -	\$ -	\$ -	\$ -
Miscellaneous Revenue		\$ -	\$ -	\$ -	\$ -	\$ -
Interest Revenue		\$ -	\$ -	\$ -	\$ -	\$ -
Total Revenue Req Offsets		\$ -	\$ -	\$ -	\$ -	\$ -
Total Revenue Requirements		\$ 453,500	\$ 459,309	\$ 465,192	\$ 471,150	\$ 477,186

The Town’s stormwater revenue requirements are anticipated to escalate throughout the planning period, exceeding \$450,000 by next fiscal year. Escalation factors were used to project the Town’s increasing costs over time in the following categories: personnel (1.00%), operations (1.30%), and capital (1.30%). These revenue requirements served as the input for the stormwater funding model developed in Task 5.

Task 5. Estimate Stormwater Fee Rate Base, Gather Data on Tax Base, Build Model, Estimate Tax and Fee Implications of Funding

Stormwater Funding Approach

For many public water and wastewater utilities, including the Town's Water Utility, costs associated with their operation and maintenance are paid for out of an enterprise fund, which is in turn funded by revenue from fees for that service. Similarly, stormwater management programs can use this structure and maintain a separate public enterprise fund. Under this construct, the Town would charge a user fee to each property (a user of the Town's stormwater service) based on the characteristic(s) of the property that drive(s) demand for stormwater management services. The most commonly used metric to determine stormwater fees in the industry is impervious area.¹ Across the Country, stormwater utilities overwhelmingly use impervious area as the basis for stormwater fees. The amount of impervious area closely ties to runoff volume, runoff rates, and pollutant transport into waterbodies, so there is a close connection between fees and cost drivers for most utilities employing this rate structure. Each of the stormwater fee rate structure alternatives below rely on impervious area as a key rate structure component.

As discussed above, the Town could likely bill the stormwater fee on the existing water bill, creating new customers as needed. The typical approach would be to perform a comprehensive rate study and set rates at a level that fully funds the program, which is the approach presented in fee alternatives 1 through 3 below. However, the rates could be set to partially-fund the program if desired, and the Town could continue to partially fund the stormwater program through real property taxes. As discussed below, stormwater fee revenues can only be used to fund stormwater program activities, but it is fully permissible to continue to use general fund monies to supplement stormwater fees.

As part of the fee structure, the Town could implement a stormwater fee credit program. A stormwater fee credit program allows customers the opportunity to reduce their stormwater fees by undertaking best management practices (BMPs) on their properties. Credit programs are common among stormwater fee programs across the nation. The credit program can be designed to incentivize private investment in stormwater best management practices or reward good practices that evolving regulations may require. Under a future task, Task 6, Raftelis will work with the Town to consider details of a possible credit program. The rate estimates below do not reflect the inclusion of a credit program. With a credit program, revenues would be reduced unless rates were increased. Additionally, depending on the ultimate structure of the program, revenue requirements may also increase if the Town takes on significant effort in program administration.

A stormwater utility fee is dedicated to stormwater needs, which provides the ratepayer a level of assurance that revenues generated by the said fee will be used for the program itself. Tax funded programs that are constantly faced with competing priorities for limited General Fund dollars. A stormwater utility fee can also ensure a dedicated amount of program revenue each year, to cover all or part of the needed funding. This mechanism is considered the most fair, since it is the most closely related to cost drivers. Similarly, because the fee is driven by property characteristics, a fee allows for customers to reduce their individual charges.

Alternatively, an increased real property tax can easily be used to bring in the additional approximately \$435,000 annually needed for the enhanced stormwater program, and the funding is flexible enough to be used for any stormwater-related purpose within the Town, though not dedicated for that purpose. Real property taxes rely on an existing and well-understood mechanism; the processes are in place to levy and collect taxes, and distribute funds. For that reason, tax funding is simplest to explain and administer.

¹ Black & Veatch Management Consulting, 2018 Stormwater Utility Study.

<https://www.bv.com/sites/default/files/18%20Stormwater%20Utility%20Survey%20Report%20WEB.pdf>

The following sections outline Raftelis' analysis of stormwater funding through three fee alternatives and a real property tax rate increase.

Parcel Classification

To estimate the stormwater fee rate base, Raftelis calculated the amount of impervious surface area on each parcel using parcel data and impervious area data provided by Cecil County in summer 2019. These data appeared to be of suitable quality for preliminary analysis. Additional quality control should be executed prior to use of the data for generating stormwater fees.

Each parcel was also classified as single family residential (SFR) or non-single family residential (NSFR) based on the land use description in the parcel data and a visual analysis of properties within each type of land use designation.

Many utilities implement a simplified charge or set of charges for all SFR customers. Single family residential land parcels are usually fairly homogenous in their development patterns, lending themselves to a simplified rate structure. They are also numerous and so it is also efficient, from an administrative viewpoint, to treat them the same. Since it is both equitable and efficient, many utilities adopt a single flat rate or a series of tiered rates for this property class. Under a flat residential rate, customers are charged the same amount regardless of size and amount of impervious area on an individual property. Typically, under this structure each SFR property is charged for 1 equivalent residential unit (ERU), the amount of impervious area on a typical SFR parcel.

Parcels classified as SFR are meant to reflect substantially similar properties for which it would be appropriate to apply a simplified rate. In Raftelis' initial assessment, these included residential properties with up to 10,000 square feet of impervious area, town houses, and residential condominiums. Residential properties with over 10,000 square feet of impervious area appeared to be apartment complexes with large amounts of impervious area, and are not considered to be SFR. Parcels that were categorized as town houses and residential condominiums appeared to be single-family dwellings that have similar amount of impervious area as other SFR land use parcels based on the impervious area data and the orthographic imagery from Cecil County.

Parcels classified as NSFR include residential properties with over 10,000 square feet of impervious area and industrial, exempt, commercial, exempt commercial, residential commercial, and apartment properties. Parcels with these land uses contain stores, factories, or other large structures associated with non-residential impervious area. The residential properties with over 10,000 square feet of impervious area are apartment complexes that have been categorized as residential instead of apartment land use, and are considered to be NSFR. Any NSFR parcels with less than 300 square feet of impervious area were not considered to be billable based on impervious area alone (under rate structure alternatives 1 and 3) for the purposes of this preliminary analysis.

Stormwater Fee Analysis

Using the revenue requirements projected under Tasks 3 and 4, Raftelis developed a rate model to estimate a fee under three stormwater rate structure alternatives that would be provide revenue sufficiency over the five-year planning period. Those fees are then compared with a real property tax increase sufficient to cover the program costs over the planning period.

Stormwater Fee Alternative 1: Flat Fee for SFR properties and Per ERU Fee for NSFR Properties

In order to develop a flat fee for SFR properties, Raftelis determined the "typical" amount of impervious area on properties within that class. Figure 1, below, shows the distribution of impervious area across all SFR properties. The median value, which is deemed the equivalent residential unit (or ERU) is 1,180 square feet. This reflects the typical SFR property.

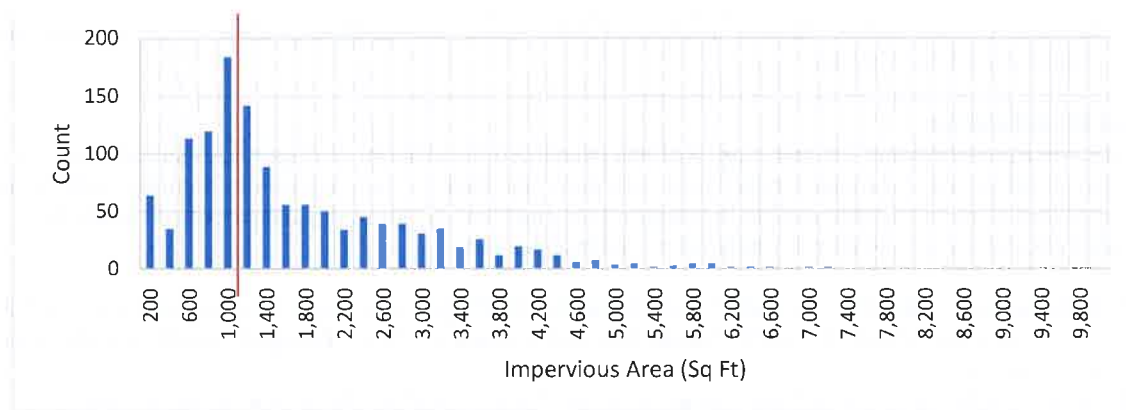


Figure 1. Distribution of Impervious Area on SFR Properties (median value is highlighted with red line)

Under this rate structure alternative, all SFR properties were assigned 1 ERU, while NSFR properties (as described above), were charged according to the number of ERUs on the property. The number of ERUs for each property was calculated by starting with the total amount of impervious area, dividing it by 1,180 square feet (the ERU), and rounding up to the next integer unit to calculate the property's ERUs. Table 2 summarizes the parcels and the estimated number of billing units (ERUs) under this alternative.

Table 2. Stormwater Fee Alternative 1 Rate Base Summary

	Parcels	Proportion of Parcels	ERUs	Proportion of ERUs
SFR	1,296	88%	1,296	18%
NSFR	182	12%	5,857	82%
Total	1,478		7,153	

Assuming a 95% collection rate and low growth in impervious surface area throughout the town (0.50% per year), Raftelis modeled a stormwater fee of approximately \$64 to \$72 per year per ERU, or \$16 to \$18 per quarter per ERU.

This rate structure alternative is common among stormwater utilities, and it is the simplest to administer and explain to new ratepayers.

Stormwater Fee Alternative 2: Per Parcel Plus Flat Fee for SFR Properties and Per ERU Fee for NSFR Properties

Some costs associated with the administration of the utility or regulatory requirements have less to do with specific characteristics of the land than they do a public service to which each property owner (or account holder) has equal access. In addition, some stormwater costs are related to the population served, rather than each customer's impervious area. The costs for billing and collections, data maintenance, programming, customer support, and some MS4 requirements such as public education and participation may fall within this category. These costs can be distributed evenly to each parcel by being allocable to a fixed fee per parcel. A fixed fee could be assessed and added to other stormwater fee structure components that are based on impervious area. Rate structure Alternative 2 includes a fixed fee to cover MS4 costs for Public Education & Outreach and Public Involvement & Participation, as well as personnel costs related to program administration and reporting. Other costs are allocated to impervious area on the same ERU basis as described under Alternative 1.

Under this rate structure alternative, all properties, regardless of the amount of impervious area, are charged the fixed fee. Impervious area fees were calculated as described in Alternative 1: SFR properties were assigned 1 ERU, while NSFR properties were calculated as described above. Table 3 summarizes the parcels subject to a fixed fee and the estimated number of billing units (ERUs) under this alternative.

Table 3. Stormwater Fee Alternative 2 Rate Base Summary

	Parcels	Proportion of Parcels	Billing Units	Proportion of Billing Units
SFR	1,296	76%	1,296	18%
NSFR	408	24%	5,857	82%
Total	1,704		7,153	

Assuming a 95% collection rate, very low growth in the number of parcels (0.10% per year; expected to be achieved through subdivision, not Town growth), and low growth in impervious surface area throughout the town (0.50% per year), Raftelis modeled a fixed fee of approximately \$14 to \$16 per year per parcel, or \$3.50 to \$4 per quarter per parcel, plus an impervious area fee of approximately \$61 to \$69 per year per ERU, or \$15.25 to \$17.25 per quarter per ERU.

The Town's costs that may be reasonably allocated on a per parcel basis are low, and public perception and comprehension of the stormwater fee may suffer as the rate structure becomes more complicated. Additionally, employing a fixed fee per parcel would slightly shift the rate burden from larger NSFR parcels to smaller (or even vacant) NSFR and SFR parcels, which would translate to higher rates for the majority of ratepayers. Raftelis does not recommend employing a fixed fee component.

Stormwater Fee Alternative 3: Per 1,000 Square Feet of Impervious Area Fee for All Properties

In addition to using the ERU as the billing unit, the Town was also interested in looking at a rate per 1,000 square feet of impervious area for all properties. Under this alternative, there is no simplified billing for SFR properties. The number of billing units on each property is calculated as the total amount of impervious area divided by 1,000 square feet, rounded up to the next integer unit.

This would effectively increase the number of billing units in both SFR and NSFR categories, and decrease the rate per billing unit. If impervious area were normally distributed on SFR properties, the distribution of billing units between SFR and NSFR under this structure would be similar to that under Alternative 1. Because the actual distribution of impervious area on SFR properties is skewed to the right (see Figure 1 above), this rate structure alternative shifts the rate burden toward single family residential properties. In other words, because a higher frequency of SFR properties have small impervious area amounts than those with larger impervious area amounts, the median (or "typical") value is lower than the average. Table 4 summarizes the parcels and the estimated number of billing units under this alternative.

Table 4. Stormwater Fee Alternative 3 Rate Base Summary

	Parcels	Proportion of Parcels	Billing Units	Proportion of Billing Units
SFR	1,296	88%	2,756	29%
NSFR	182	12%	6,904	71%
Total	1,478		9,660	

Assuming a 95% collection rate and low growth in impervious surface area throughout the town (0.50% per year), Raftelis modeled a stormwater fee of approximately \$47 to \$53 per year per billing unit, or \$11.75 to \$13.75 per quarter per billing unit.

This alternative slightly improves parity between the two property classes, but creates wide variability in SFR fees (covering the bulk of properties) and could increase the customer service and data maintenance requirements of administering the fee.

Real Property Tax Analysis

Real property taxes make up about 53% of the Town's General Fund revenue. In FY2019, the Town anticipated approximately \$1.54 million from this source. There are minimal restrictions to the use of these funds, so if they are available, they can be put toward the stormwater program's revenue requirements. As compared to a stormwater fee designed to fund all stormwater program activities (existing plus new costs), and potentially freeing up general fund monies for other purposes, a real property tax increase would only need to be calculated to cover the increased program cost because the existing costs are already paid for through the general fund.

To determine the tax increase required to fund the new costs of the stormwater program (everything but "Existing O&M Costs"), property assessment values from County parcel data and the Town of North East Real Property Tax Rate of \$0.48 per \$100 of assessed property value for FY2019 were used in the model. Assuming a moderate growth in the assessed value tax base (1.00% per year) and a collection rate of 98.4%, Raftelis estimates that a tax increase of approximately \$0.1327 per \$100 in assessed property value would be required to generate the average \$435,000 needed to cover the new MS4 and capital-related revenue requirements, resulting in a total tax rate of \$0.6127 per \$100 based on the FY2019 base rate. Table 5, below, summarizes the assessed value for properties upon which an increased tax could be levied.

Table 5. Real Property Tax Rate Base Summary

	Parcels	Proportion of Parcels	Taxable Assessed Value	Proportion of Taxable Assessed Value
SFR	1,296	76%	\$ 195,648,279	60%
NSFR	408	24%	\$ 130,729,387	40%
Total	1,704		\$ 326,377,666	

Table 6, below, highlights the estimated fee under each fee alternative and the estimated real property tax increase for the typical single family home within the Town. According to the County's data, the average total assessed value of single family residential properties is approximately \$151,000. Note that approximately 10% of impervious area is on tax-exempt properties, and that SFR properties make up a significantly greater portion of assessed value as compared to impervious area, causing the tax to impact SFR properties to a much greater degree than a fee would.

Table 6. Comparison of Stormwater Fee Alternatives and Real Property Tax Increase Impact on SFR Properties

	Funded Activities	Typical SFR Impact
Alternative 1	(Existing + New Costs)	approximately \$64.00 to \$72.00 per year
Alternative 2	(Existing + New Costs)	approximately \$75.00 to \$85.00 per year
Alternative 3	(Existing + New Costs)	approximately \$94.00 to \$106.00 per year
Tax Increase	(New Costs Only)	approximately \$201.00 per year

Stormwater Funding Recommendation

Based on the stormwater program drivers and the anticipated increase in stormwater revenue requirements, fully funding the stormwater program using real property tax revenues would represent a relatively large increase in the real property tax rate. Given that tax value is not closely-aligned with the stormwater system demand or water quality impacts which make up the revenue requirements, this tax increase does not represent an ideal solution. Enacting a stormwater utility fee that would be charged to every property based on a property's impervious area would allow the Town to collect revenue from all customers based on the demand each places on the stormwater system and would be a fairer and more equitable way to fund the stormwater program. In future years, critical stormwater projects would not need to compete for limited General Fund tax dollars and ratepayers would be ensured that revenues collected by the stormwater fee would be used for designated purposes, keeping the Town on track with both its obligations to provide a functional system that ensures public safety and its obligations under the MS4 permit. Raftelis recommends that the Town pursue a fee to fund the entire stormwater program

moving forward, and that the fee be charged as a flat rate to each single family residential property, and per ERU for each non-single family residential property (as described in Alternative 1).

Summary

The effort described herein covers Tasks 1 through 5 of Raftelis' scope of services to analyze stormwater funding options for the Town. Based on the reception of these recommendations by Town staff, Raftelis will proceed with Tasks 6, 7, and 8, which include developing a stormwater credit program, a public outreach program, and assisting with development a draft and final reports to present to the Town Council. We look forward to continuing to collaborate with Soltesz on this project.

APPENDIX C:
NOI APPLICATION



Maryland

Department of the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

November 29, 2018

Ms. Melissa B. Cook-MacKenzie
Town of North East
106 South Main Street
North East, MD 21901

RE: Notice of Intent Approval letter

Dear Ms MacKenzie:

The Maryland Department of the Environment (Department), Water and Science Administration has issued a National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) (General Discharge Permit No. 13-IM-5500, General NPDES No. MDR055500). The legal framework for permit requirements is provided in the federal Clean Water Act (CWA), Title 40 of the Code of Federal Regulations (CFR) § 122 pertaining to NPDES MS4 programs. Regulated MS4 operators identified in the general permit were required to seek authorization to discharge stormwater by submitting a Notice of Intent (NOI) to the Department by October 31, 2018.

This letter confirms that the Department has received a completed NOI from the Town of North East (the Town) in accordance with permit requirements. The Town is required to comply with the conditions of the general permit until it expires, which is in five years unless administratively continued by the Department. This includes submitting annual progress reports by October 31st each year.

Thank you for your cooperation in submitting your NOI. The Department looks forward to working with you to achieve compliance with the permit and contribute to efforts to improve local water quality and restore the Chesapeake Bay. If you have any questions, please contact me at 410-537-3550 or Ms. Deborah Cappuccitti at deborah.cappuccitti@maryland.gov.

Regards,

Stewart R. Comstock, P.E.
Program Review Division Chief
Sediment, Stormwater, & Dam Safety Program, WSA

Municipal Small MS4 Notice of Intent

Maryland Department of the Environment (MDE)

National Pollutant Discharge Elimination System (NPDES) Small Municipal Separate Storm Sewer Systems (MS4) General Permit

This Notice of Intent (NOI) is intended for municipalities applying for coverage under the General Discharge Permit (No. 13-IM-5500) for Small MS4s. Submitting this application constitutes notice that the entity below agrees to comply with all terms and conditions of the general permit. The information required in this NOI must be submitted to:

Maryland Department of the Environment, Water and Science Administration
Sediment, Stormwater, and Dam Safety Program
1800 Washington Boulevard, Baltimore, MD 21230-1708
Phone: 410-537-3543 FAX: 410-537-3553
Web Site: www.mde.maryland.gov

Contact Information

Permittee Name:	The Town of North East
Responsible Personnel:	Melissa B. Cook-MacKenzie
Mailing Address:	106 South Main Street, North East, MD 21901
Phone Number(s):	410-287-5801
Email address:	mmackenzie@northeastmd.org
Additional Contact(s):	
Mailing Address:	
Phone Number(s):	
Email address:	

Signature of Responsible Personnel

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Melissa B. Cook-MacKenzie
Printed Name

Melissa B. Cook-MacKenzie
Signature

10/18/18
Date

Municipal Small MS4 Notice of Intent

Due Date: _____

Date of Submission: _____

Permittee Information

Renewal Permittee: ☐

New Permittee: ☒

Check if sharing responsibilities with another entity: ☒ Yes ☐ No

Required Information

1. A brief description of jurisdiction for which coverage is being sought:
2. The approximate size of jurisdiction (square miles):
3. Population:
4. Provide a list of properties owned or operated by the permittee covered under the Maryland General Permit for Stormwater Discharges Associated with Industrial Activity or an individual industrial water discharge permit: **See attached**
5. Describe any programs that the applicant will share responsibilities for compliance with another entity. Describe the role of all parties and include a copy of a memorandum of agreement when applicable: **See attached**
6. Anticipated expenditures to implement the terms and conditions of the permit: **See attached**

Municipal Small MS4 Notice of Intent

Required Information

1. The jurisdiction, the Town of North East, is 1,278.1095 acres, and is located near the head of the North East River in Cecil County, MD. The land use is consistent with that of a small town with a rough breakdown as follow:
 - a. 7% Institutional uses (schools, churches, cemeteries, and town-owned buildings and recreation spaces)
 - b. 32% Residential developments mainly consisting of townhomes or single family homes with lots ¼ acre or smaller
 - c. 18% Commercial or light industrial
 - d. 11% Public Right-of-Way
 - e. 2% Railroad Right-of-Way owned by CSX or Amtrak
 - f. 30% Undeveloped land or otherwise preserved environmental areas

Within the town boundaries of North East, there are 35 SWM devices per Cecil County's GIS database and field inspections. These mainly drain to the town's numerous small, natural waterways which discharge to North East Creek, Little North East Creek, or Stony Run, which all discharge into the North East River, which is a tidal water. The North East River enters the Chesapeake Bay roughly 4 miles south of the Town of North East.

2. 1.9970 square miles (See Appendix A – Town of North East Annexation History)
3. 3,625 per 2017 Census Bureau Estimate
4. There are no properties owned by the Town associated with an existing industrial stormwater discharge permit.
5. In order to complete the work required by the MS4 permit, the Town will be share responsibilities with MDE, CSCD, and Cecil County Permits & Inspections.

On February 22, 1978, The Board of County Commissioners of Cecil County agreed to "assume responsibility for the issuance of grading permits and enforcement of the County Sediment Control Ordinance within the town limits" (Appendix B). In Chapter 7 of the "Code of Ordinances of the Town of North East", the town delegates the authority to review and issue grading permit to the Cecil County Department of Public Works. They also delegate the right to review and approve sediment control plans to CSCD, and the responsibility to detect violations of approved Sediment and Erosion Control Plans to both MDE and CSCD. The appropriate article and section of the Code of Ordinances is attached as Appendix B on the following pages.

On April 7, 2003, the Town of North East signed a contract stating the Department of Public Works of Cecil County is to be responsible for the permitting and enforcement of Stormwater Management regulations in the Town of North East. The signed and recorded contract is attached as Appendix C on the following pages. The agreement was renewed as an amendment to the

Town's Code of Ordinances to reflect the April 4, 2010 amendment made to Cecil County's SWM regulations. This is included in Appendix C.

6. In order to meet the requirements stated under Part IV, the following costs are expected:
 - a. Public Education and Outreach: \$3,00 annually (\$15,000 over the 5 years of the permit) for educational material distribution and employee training
 - b. Public Involvement and Participation: \$500 annually (\$2,500 over the 5 years of the permit) for sponsoring events and increased advertising
 - c. Illicit Discharge Detection and Elimination: No cost will be incurred as this will be undertaken by Cecil County and included in their cost estimate.
 - d. Construction Storm Water Management: No cost will be incurred as this will be undertaken by Cecil County as part of the existing MOU between the County and Town.
 - e. Post Construction Stormwater Management: No cost will be incurred as this will be undertaken by Cecil County and included in their cost estimate.
 - f. Pollution Prevention: No individual cost will be incurred as the Town believes this will coincide with their daily operations or with their work meeting the other requirements.

In addition, The Town of North East expects an overhead cost of \$20,000 annually (\$100,000 over the 5 years of the permit) to cover the cost of staff time for reports, collecting fees, applying for grants, and project management which is not specific to any of the individual MCM's

In order to meet the requirements stated under Part V, The Town anticipates a total cost of \$2,000,000 to meet the requirements of parts A-D over the 5 years of the permit.

Appendix A

TOWN OF NORTH EAST ANNEXATION HISTORY TOTAL NUMBER OF ACRES

DESCRIPTION	EFFECTIVE DATE	ACRES	TOTAL ACRES
Total Acres as of 01/14/80	1/14/1980	357.5545	357.5545
North East Methodist Church	6/2/1981	77.1837	434.7382
North East Faith Tabernacle Church	2/18/1982	21.8978	456.6360
North East Water Plant-RMWTP	9/2/1982	17.4518	474.0878
North East Isles (Lots 1-100)	12/5/1985	64.2136	538.3014
Timberbrook (P.L.D., Inc.)	8/15/1986	66.0000	604.3014
Chuck House Restaurant (Lehto)	8/15/1986	0.8400	605.1414
The Piers (B. Patrick Doordan)	10/20/1988	2.4221	607.5635
North East Station (BTR Realty)	1/4/1990	73.0200	680.5835
Gilpin Falls Plaza (Jos & Lynda Russell)	7/5/1990	6.4581	687.0416
North East Commerce Center	12/20/1990	237.9880	925.0296
Duck Harbor (Ray Weed)	3/23/1991	4.4320	929.4616
Courts of Mallory (Mechanics Valley Road)	4/3/1998	43.3760	972.8376
Holiday Inn Express (North Leslie Road)	5/18/2000	2.6860	975.5236
Stoney Run (South Side of RT 40)	2/16/2001	4.4049	979.9285
Bronson/Maryland Materials (S/S of RT 7)	1/20/2005	19.2800	999.2085
Ridgely Forest (N/S of Md RT 7)	12/26/2006	196.0360	1195.2445
North East Commons (E/S Md RT 272 South of Nazarene Camp Road)	5/9/2009	59.6810	1254.9255
Stoney Run Apartments (South Side of U.S. Rt 40, West of MD 272)	7/24/2010	10.7850	1265.7105
Riverwoods at North East (Riverwoods Rd.)	8/10/2013	11.5850	1277.2955
Stavros K. LLC (Pat's Pizza Rte 40)	7/29/2017	0.8140	1278.1095
TOTAL ACREAGE		1278.1095	

APPENDIX B



COMMISSIONERS
MARY A. MALONEY
PRESIDENT
ELKTON, MD.

JOSEPH B. BIGGS
RISING SUN, MD.

WALTON R. MASON
CALVERT, MD.

OFFICE OF THE
County Commissioners of Cecil County

101 COURT HOUSE
ELKTON, MARYLAND 21921
TELEPHONE: 398-4100

REGULAR MEETING DAY:
TUESDAY

WM. B. CALVERT
ATTORNEY

MILDRED O. McGUIRK
CLERK AND
ADMINISTRATIVE ASSISTANT

February 22, 1978

Mr. Peter J. Wein
Town Administrator
Town of North East
102 West Cecil Avenue
North East, Maryland 21901

Dear Mr. Wein:

This will acknowledge receipt of your letter of February 15, 1978, and advise the Board of County Commissioners will be glad to assume the responsibility for the issuance of grading permits and enforcement of the County Sediment Control Ordinance within the town limits of North East.

Permits will be issued from and enforcement of the ordinance will be accomplished by the Department of Public Works, Barry G. Belford, Director, telephone 398-0495.

Very truly yours,

THE BOARD OF COUNTY COMMISSIONERS
OF CECIL COUNTY

BY:


(Mrs.) Mildred O. McGuirk

MM/cas

cc: Barry G. Belford

Appendix B

7-9

ARTICLE 6. Erosion and Sedimentation Control Ordinance

Section 7-601. Grading Permits

1. When required:

A grading permit, issued by the Cecil County Department of Public Works (hereinafter called DPW) shall be required prior to the start of any development or activity where such proposed development or activity may, in the judgement of DPW:

- a. Introduce sediment into any watercourse of the County or State;
- b. Move more than 100 cubic yards of earth, and disturb less than 5,000 square feet of earth;
- c. Create undue erosion and sediment damage to lands adjacent to or in the vicinity of the subject site or the stream itself.

Where the proposed development or activity requires a building permit, no such permit shall be granted unless a valid grading permit exists for the subject development or activity.

Any clearing or grading in the Critical Area requires a grading permit. Forest cleared in the Critical Area Buffer without first obtaining a grading permit shall be replanted at three times the area extent of the cleared trees.

2. Exceptions:

No grading permit shall be required for the following:

- a. Agricultural land management practices approved by and installed under supervision of the Cecil Soil Conservation District. This exception, however, shall not apply to agriculture land management practices and agriculture activities that do not conform to the applicable provisions of the Cecil County Critical Area Program.
- b. Construction or maintenance of County roads for which an erosion and sediment control plan has been approved by the Cecil Soil Conservation District.
- c. Quarry operations and the mining of stockpiling of sand, stone and gravel at quarries, concrete, asphalt and material processing plants or storage yards, and all other operations of which a surface mining permit has been issued by the State of Maryland, Department of the Environment, provided sediment and erosion control measures are employed to protect off-site damage in accordance with a plan approved by the Cecil Soil Conservation District.

- d. No exceptions shall be granted for the requirement of a grading permit for any grading, stripping, excavations or filling of land in the Buffer portion of the Cecil County Critical Area District. However, upon evaluation of the site, the inspector may grant the exception for those portions of the site located outside the designated Buffer if the inspector determines that the development activity is classified as "insignificant" in impact to water quality and plant, fish and wildlife habitats as set forth in the County's Critical Area Program.

3. Application Procedure:

The applicant for a grading permit shall complete an application form, which forms are available in the Department of Public Works Office. The applicant shall submit with the application, documented evidence that an erosion and sedimentation control plan (and when required, a stormwater management plan) for the proposed development or activity has been prepared by land surveyor, engineer, architect, or landscape architect licensed by the State of Maryland, and has been approved by the Cecil Soil Conservation District. Such plan(s) shall be considered a part of the grading permit, and any violation of the provisions of said plan(s) shall constitute a violation of this Ordinance. For a single residential lot, the signature of the applicant on a Standard Sediment and Erosion Control Plan for Minor Earth Disturbances may serve in lieu of such documentation.

4. Approvals:

The Department of Public Works may impose such conditions on the grading permit as may be reasonable to prevent creation of a nuisance or dangerous conditions, and to deny the grading permit where the proposed work would cause hazards adverse to the public safety and welfare. Issuance of the grading permit does not eliminate the requirement for compliance with any other applicable County, State or Federal law or regulation.

5. Existing Activities and Structures:

Whenever and wherever the Department of Public Works finds that any existing grading, drainage, or ground condition (irrespective of when, or by whom brought about, or of its resulting from work accomplished under proper permit) is defective or deficient under the requirements of this Ordinance, and constitutes or creates a nuisance, or endangers, or adversely affects the safety, use or stability of any public or private property on site or elsewhere, then, and in such event, the owner or lessee or both of the property upon which such condition is located, upon receipt of notice in writing from the Department of Public Works shall, within the period specified herein, secure the required plan approval by the Cecil Soil Conservation District and permit, perform or cause to be performed the required remedial work, repairs or maintenance so as to correct and remedy the defect or condition, and to be in conformance with the requirement of this Ordinance.

6. Suspension of Grading Permits:

In the event that work performed does not conform to the provisions of the grading permit, or to the approved plans and specifications, or to any written instructions of the Maryland Department of the Environment (MDE) or the Cecil Soil Conservation District, a written notice to comply shall be given to the permittee with copies to the Cecil Soil Conservation District. Such notice shall set forth the nature of the corrections required and the time within which corrections shall be made, not to exceed fourteen (14) days after receipt of notification by certified mail, unless otherwise extended by action of the Maryland Department of the Environment. Failure to comply with such written notice shall be deemed justification for suspension of the permit, shall require that all work stop except that necessary for correction of the violation. Upon correction of the violation, the permittee may re-apply for renewal of the grading permit.

The Maryland Department of the Environment may post a site with an order directing the permittee to cease all land disturbing activity being performed under the Sediment and Erosion Control Plan approved by the Soil Conservation District when such activity does not conform to the specifications, including modifications thereof, of an approved plan or other conditions of the permit issued hereunder, provided that:

- a. Written notice to comply shall have been furnished to the permittee; and
- b. Said notice includes the nature of the corrective measures required and the time within which corrections shall be made.

The Maryland Department of the Environment may also post any site with order directing owner or contractor to cease all land disturbing action which requires an approved Sediment and Erosion Control Plan, but a plan has not been obtained.

7. Permit Cancellation:

After suspension of a grading permit, if corrections required are not completed within the time period specified in Paragraph F above, the permit shall be cancelled. In the event of cancellation, any bonds or cash deposits posted with the County shall be used for work on the site to prevent erosion and to otherwise protect the side as approved by the Cecil Soil Conservation District.

8. Guarantee of Completion:

- a. The permittee shall be required, prior to the issuance of a grading permit, to post with the County a cash deposit performance bond from an approved corporate surety, or other collateral acceptable to the County in an amount equal to one hundred percent (100%) of the

total cost of stormwater management and sediment and erosion control to guarantee that in the event provisions of the permit are not completed satisfactorily, or that the permit is cancelled, the site can be restored to a condition meeting the minimum requirements of the standards for erosion control, such work and conditions to be approved satisfactory by the Cecil Soil Conservation District.

b. The requirements in (1) above may be waived by the Department of Public Works under the following circumstances:

- 1) Where duplication of bonding requirements would exist.
- 2) For all State and County funded projects.
- 3) For projects where the total estimated project cost is less than \$1,000.

9. Time Limitations:

A grading permit shall be valid for a period of one (1) year from the date of issuance. Upon request and adequate justification of a permittee, the Department of Public Works may grant a six (6) month extension of validity.

10. Inspections:

The Maryland Department of the Environment and the Soil Conservation Service shall be responsible for detecting violations of an approved Sediment and Erosion Control Plan, requiring compliance with provisions of approved Grading Permits, and initiating appropriate action against offenders. The Maryland Department of the Environment shall make a final on-site inspection when the work covered by an application is reported completed, and shall forward its report to the Cecil Soil Conservation District. The Maryland Department of the Environment shall make inspections at the following stages of work or as otherwise deemed appropriate.

- a. Prior to initiating any grading operations to inspect the natural site and to approve a written description of the sequence of construction. The permittee shall notify the Maryland Department of the Environment forty-eight (48) hours before commencing any land disturbing activity.
- b. Upon completion of preparation of ground to receive fill, but prior to beginning any placement.
- c. Upon completion of final grading, installation of the permanent stormwater management facilities and erosion control facilities, but prior to any seeding, sodding or planting.

- d. Upon completion of installation of all vegetative measures and all work in accordance with the grading permit.
- e. The Maryland Department of the Environment shall make any additional inspections deemed necessary and may waive any of the inspections listed above except the final on-sit inspection.

11. Enforcement:

Any violation of this Section shall be deemed a misdemeanor, and the person, partnership or corporation who is found guilty of such violation shall be subject to a fine not exceeding five thousand dollars (\$5,000.00) or one (1) year's imprisonment for each and every violation. Any agency whose approval is required under this Section or any person in interest may seek an injunction against any person, partnership or corporation, whether public or private, violating or threatening violation of any provisions of this Section shall be filed with the Maryland Department of the Environment as well as with appropriate County agencies, including the Cecil Soil Conservation District.

12. A nominal fee shall be fixed for the granting of Grading permits and renewal of suspended permits by resolution of the Cecil County Commissioners.

13. Severability:

The provisions of this Act are severable and if any provision, sentence, clause, section or part thereof is held illegal, invalid or unconstitutional or inapplicable to any person or circumstances, such illegality, invalidity or unconstitutionality, or inapplicability shall not affect or impair any of the remaining provisions, sentences, clauses, sections or parts of the Act of their application to other persons or circumstances. It is hereby declared to be the legislative intent that this Act would have been adopted if such illegal, invalid or unconstitutional provision, sentence, clause, section or part had not been included therein, and if the person or circumstances to which the Act or any part thereof is inapplicable had been specifically exempted there from.

Appendix C

BOOK 1380 PAGE 583

CONTRACT FOR ADMINISTRATION OF STORMWATER MANAGEMENT PROGRAM

WHEREAS, Cecil County adopted a Stormwater Management Ordinance designated as the Cecil County Stormwater Management Ordinance, pursuant to Subtitle 8-11A of the Natural Resources Article of the Annotated Code of Maryland on August 28, 1984; and

WHEREAS, Cecil County amended its Stormwater Management Ordinance designated as Chapter 251 of the Code of Public Local Laws of Cecil County, pursuant to the Code of Maryland Regulations 26.17.02.03(E) on February 19, 2002; and

WHEREAS, the Town of North East has adopted the new Cecil County Stormwater Management Ordinance to be effective within the municipal boundaries of the Town and has further agreed to employ Cecil County Government to enforce said regulations.

NOW, THEREFORE, it is hereby agreed between the parties that the Town of North East hereby contracts with the Board of County Commissioners of Cecil County to be the enforcement agency with regard to its Stormwater Management Code and regulations. The enforcement agency shall be the Department of Public Works of Cecil County. The Department of Public Works of Cecil County is hereby authorized to charge fees as provided for in the Cecil County Regulations for administration of said Stormwater Management Code and Regulations and to retain its fees. Neither the Town nor the County shall pay any fees to one another as compensation for administration of the Stormwater Management Code and Regulations.

CECIL COUNTY, MD.
PER WILLIAM L. BRUECKMAN
CLERK

2003 MAY 14 P 2:53

RECEIVED FOR RECORD
& RECORDED

Either party may terminate this agreement upon providing ninety (90) days notice in advance to the other party indicating its intent to so terminate said agreement. Unless said agreement is terminated pursuant to this provision, this agreement shall remain in effect.

ATTEST:

Melissa B. Cook-MacKenzie
Melissa B. Cook-MacKenzie
Town Administrator

Passed: April 7, 2003

Effective: April 7, 2003

MAYOR AND COMMISSIONERS
TOWN OF NORTH EAST, MD

Robert F. McKnight
Robert F. McKnight, Mayor
Susan L. Banker
Susan L. Banker, Commissioner
Gabriel M. Garzia
Gabriel M. Garzia, Commissioner
Alfred B. Milliner
Alfred B. Milliner, Commissioner
Charles R. Palmer II
Charles R. Palmer, II, Commissioner

ATTEST:

Alfred C. Lein

BOARD OF COUNTY COMMISSIONERS
OF CECIL COUNTY

Nelson K. Bolender
Nelson K. Bolender, President
Harry A. Hepbron
Harry A. Hepbron, Commissioner
Phyllis Kilby
Phyllis Kilby, Commissioner
William Manlove
William Manlove, Commissioner
Mark H. Guns
Mark H. Guns, Commissioner

Appendix C

7-14

Article 7. Stormwater Management Ordinance

Section 7-701. Stormwater Management

The Mayor and Commissioners of the Town of North East hereby adopts the Cecil County Stormwater Management Ordinance adopted May 4, 2010, and all subsequent amendments that may be made from time to time. The Cecil County Stormwater Management Ordinance is hereby incorporated herein by reference as fully as if set forth verbatim herein. All standards, requirements, rights and liabilities shall be applicable within the corporate boundaries of the Town of North East and any penalties or other sanctions for violations of said Ordinance shall be applicable within the corporate boundaries of the Town of North East just as they are applicable outside of said boundaries. Cecil County has agreed to administer and enforce the Ordinance within the corporate limits of the Town of North East.

Amended by Ordinance 2010-10-01

