REGIONAL COOPERATION IN STORMWATER MANAGEMENT

FISCAL YEAR 2018-2019

A STATUS REPORT

This report was included in the HRPDC Work Program for FY 2018-2019, approved by the Commission at its Executive Committee Meeting on May 17, 2018

Prepared by the staff of the
Hampton Roads Planning District Commission
in cooperation with the
Regional Stormwater Workgroup

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ABSTRACT

This document describes cooperative activities related to stormwater management undertaken by Hampton Roads local governments during Fiscal Year 2018-2019. The activities described include the regional information exchange process, public information and education, legislative and regulatory issues, cooperative regional studies and related programs. This document is used by the region's eleven localities with stormwater permits to assist them in meeting their permit requirements.

ACKNOWLEDGMENTS

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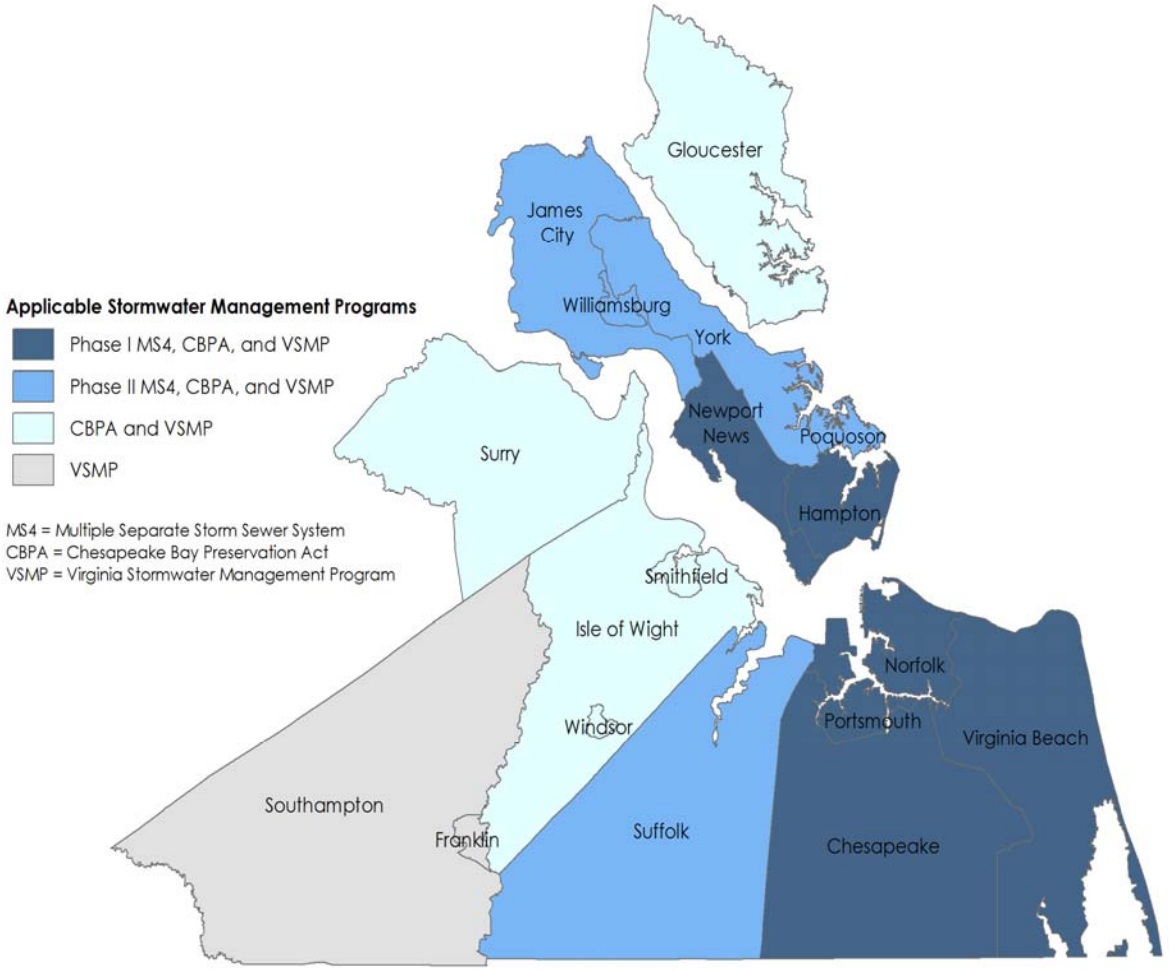
The seventeen member local governments through the HRPDC Regional Stormwater Management Program provided funding.

INTRODUCTION

Working through the Hampton Roads Planning District Commission (HRPDC), the region's seventeen member cities, counties, and town (Figure 1) cooperated on a variety of stormwater management activities during Fiscal Year 2018-2019. This cooperative effort has been underway as a formal adjunct to the Virginia Pollutant Discharge Elimination System Permits (VPDES) for Municipal Separate Storm Sewer Systems (MS4) held by the Cities of Chesapeake, Hampton, Newport News, Norfolk, Portsmouth and Virginia Beach since Fiscal Year 1995-1996. The Cities of Suffolk, Poquoson, Williamsburg, and the Counties of James City County, Isle of Wight, and York joined in 2002 to coordinate Phase II MS4 permit applications. Cooperative activities documented in this report represent a continuation of an ongoing effort, which has involved concerted activity since 1992.

As of April 19, 2016, the Phase II MS4 permit for Isle of Wight County was terminated by the Department of Environmental Quality (DEQ). It was determined that the County does not own or operate a MS4 within the Census Urbanized Area.



REGIONAL STORMWATER MANAGEMENT PROGRAM GOALS

The HRPDC and local stormwater staffs undertook a comprehensive effort in FY 1998-1999, called the Regional Loading Study. The project included developing a set of regional stormwater management goals to guide the regional program. The goals were presented to and adopted by the HRPDC at its Executive Committee Meeting in September 1999. They were reaffirmed in the January 2003 approval of the "Memorandum of Agreement (MOA) Establishing the Hampton Roads Regional Stormwater Management Program" and the renewal of the MOA in 2008, 2013, and 2018. The adopted Regional Stormwater Management Program Goals, which guide the regional program, are:

- Manage stormwater quantity and quality to the maximum extent practicable (MEP).
  - Implement best management practices (BMPs) and retrofit flood control projects to provide water quality benefits.
  - Support site planning and plan review activities.
  - Manage pesticide, herbicide and fertilizer applications.
- Implement public information activities to increase citizen awareness and support for the program.
- Meet the following needs of citizens:
  - Address flooding and drainage problems.
  - Maintain the stormwater infrastructure.
  - Protect waterways.
  - Provide the appropriate funding for the program.
- Implement cost-effective and flexible program components.
- Satisfy VPDES stormwater permit requirements.
  - Enhance erosion and sedimentation control.
  - Manage illicit discharges, spill response, and remediation.

THE REGIONAL PROGRAM

The Regional Stormwater Management Program initially focused on activities that supported the permit compliance efforts of the six communities with Phase I VPDES MS4 Permits, technical assistance to the region's non-permitted communities and regional education and training to support all of the communities. The program has expanded to include the needs of the five communities with Phase II VPDES MS4 permits and the development of locally administered Stormwater Programs which were required starting July 1, 2014.

Phase I Localities

The current Phase I MS4 permits became effective on July 1, 2016. FY 2018-2019 represents the third year of the five-year permit cycle. In addition to implementing their Chesapeake Bay TMDL Action Plans, this year, the Phase I permittees were focused on the following: 1) developing and implementing Stormwater Pollution Prevention Plans (SWPPPs) for their high priority municipal facilities and 2) developing written protocols to minimize pollutant discharges from permittee-maintained roads, streets, and parking lots. The SWPPPs and the written protocols were required to be completed by July 1, 2019.

Phase II Localities

The Phase II General Permit was reissued on November 1, 2018. FY 2018-2019 represents the first year in the permit cycle. The permittees continue to implement their Chesapeake Bay Action Plans, which were submitted in FY 2014-2015. By November 1, 2019, the Phase II permittees will submit updated Chesapeake Bay TMDL Action Plans that will reflect 40% of the required pollutant reductions. The permittees were required to update their Program Plans in accordance with the requirements of the new General Permit and to post the revised plan on their dedicated MS4 webpage.

Both the Phase I and Phase II Localities continue to implement their local Stormwater Programs, train staff on stormwater issues, and meet education and outreach requirements. HRPDC staff provided information and coordinated trainings to assist with these efforts. More detailed descriptions are available in the *Training* section of this report. The regional environmental education organization, askHRgreen.org, conducted regional stormwater outreach campaigns for pet waste pickup, proper lawn maintenance, and reduction of fats, oils, and grease.

INFORMATION EXCHANGE

The cornerstone of the Regional Stormwater Program continues to be the exchange of information. This is accomplished through regular monthly meetings to address topics of regional importance, as well as crosscutting issues that affect local stormwater, planning, public works and public utilities staff. In addition, various agencies and organizations utilize this regional forum to engage and inform local governments, as well as to gather feedback.

Monthly Meetings

The seventeen communities participate in the HRPDC Regional Stormwater Program and their staffs meet twice a month. The Stormwater Workgroup meetings provide an opportunity for local stormwater managers to exchange information about successful program activities, utility structures and policies, and technical challenges. The HRPDC Regional Environmental Committee meetings include local stormwater and planning staff plus cooperating agencies such as the Department of Conservation and Recreation (DCR), the DEQ, the Virginia Department of Transportation (VDOT), the Hampton Roads Sanitation District (HRSD), the Port of Virginia, and local nonprofit organizations.

State and Federal Agency Program Briefings

Representatives of state and federal agencies frequently brief the Committee on developing issues, regulatory guidance and technical programs. During the year, the Committee was briefed by representatives of the DCR on the Virginia Outdoors Plan, the Port of Virginia on their sustainability initiatives, and Old Dominion University on micro plastics, pollution from tidal waters, and offshore wind development. The Army Corps of Engineers presented an overview of their 3 x 3 x 3 feasibility studies.

Regional Chesapeake Bay Preservation Act (CBPA) Workgroup

Fifteen of the seventeen member localities continue to implement CBPA programs, many of them since 1990. DEQ has completed compliance reviews of the region's local programs every five years since they were initiated. Each local program is set up differently. For example, some localities use Planning staff to administer the program, while others dedicate Engineering staff.

HRPDC staff contacted local staff and determined that reconvening a regional workgroup of local CBPA staff would be useful. Meetings were held in January and April 2019. The Workgroup has discussed legislative issues, ideas for CBPA public outreach, and lessons learned. Moving forward, the Workgroup would like to improve communications with DEQ and particularly with the Local Government Assistance Program Manager, once the position is filled. The next meeting of the Workgroup is scheduled for July 29, 2019 and will focus on potential changes to the CBPA regulations and sharing best practices among localities.

Regional Water Quality Technical Workgroup

In FY 2015, the HRPDC established the Regional Technical Environmental Workgroup in order to provide a forum for local government staff from various departments and consultants to discuss technical details of the implementation of the Chesapeake Bay TMDL as well as local TMDLs. In FY 2016, the name of the Workgroup was changed to the Regional Water Quality Technical Workgroup to more accurately reflect the topics of discussion.

The objectives of the Workgroup are to discuss technical aspects of restoration projects, discuss research and development of alternative BMPs, help set regional priorities for approval of BMPs for the Bay TMDL, and develop research priorities for filling data gaps. Meetings are open to the public. The Workgroup serves an advisory role to the Regional Environmental Committee.

In FY 2019, meetings were held in September, December, and March. Both the September and December meetings were used as regional stakeholder meetings for the Chesapeake Bay Phase III Watershed Implementation Plan. More information about these meetings is provided in the *Phase III Watershed Implementation Plan* section of this report. The March 7, 2019 meeting featured Dr. Tish Robertson, with the DEQ, who presented on the development of the new chlorophyll-a criteria and assessment for the James River.

PUBLIC EDUCATION

askHRgreen.org

The HR STORM committee, consisting of local stormwater education/public information staff, was established in 1997 to support development and operation of the stormwater education program. Beginning in FY 2011, the HRPDC environmental education programs were combined into a single public awareness program and central resource for environmental education in Hampton Roads known as askHRgreen.org. In January 2018, the new askHRgreen.org website launched. The website contains information on earth-friendly landscaping ideas and pointers for keeping local waterways clean, recycling tips, and simple steps to make local living easy on the environment. It also includes a blog written by a team of local experts who work in the region's municipal utility and environmental divisions.

The stormwater education subcommittee of askHRgreen.org continues to meet on a monthly basis to develop strategies to fulfill the outreach requirements of the current Phase II General Permit and many of the outreach objectives of the individual Phase I permits. During FY 2019, the subcommittee took on a variety of activities, including the development of pollution prevention materials for businesses and expanding the reach of the Bay Star Businesses program. The activities conducted through the askHRgreen.org campaign for the year are summarized in the askHRgreen.org Annual Report.

TRAINING

Since 2004, HRPDC staff has worked with the MS4 permittees to develop and conduct training programs for local government staff. The table below provides a summary of the FY 2019 programs.

Training Topic	**Date**
Mid-Atlantic Region Environmental Professionals - Beyond the Low Hanging Fruit: Exploring Non-Traditional Stormwater BMPs to Meet Chesapeake Bay TMDL Requirements (webcast)	March 2019
BMP Inspectors Workshop at Old Dominion University	March 2019
Center for Watershed Protection – Nutrient Trading (webcast)	April 2019
Center for Watershed Protection – Tree Crediting for Stormwater (webcast)	June 2019

Webcasts

During FY 2019, the Stormwater Regional Workgroup purchased a series of webcasts from the Center for Watershed Protection and also a webcast presented by the Mid-Atlantic Region

Environmental Professionals. HRPDC hosted the webcasts so that one registration could be shared.

BMP Inspectors Workshop

The Chesapeake Stormwater Network (CSN) was awarded grant funds to provide training workshops in the Chesapeake Bay watershed, and HRPDC staff requested a regional training for local BMP Inspectors. Mr. Tom Schueler, Mr. David Wood, and HRPDC staff coordinated to develop an agenda and secure a location that would offer classroom space and nearby BMPs for site visits. Having the Workshop at Old Dominion University allowed for site visits to multiple bioretention basins, ponds, and pervious pavement practices. Approximately 30 local government staff from the region attended the training, which was provided at no cost.

LEGISLATIVE & REGULATORY MONITORING

This element of the program involves monitoring state and federal legislative and regulatory activities that may impact local stormwater management programs. HRPDC staff in cooperation with the Committee develops consensus positions for consideration by the Commission and local governments. The level of effort devoted to this element has increased significantly over the years. During FY 2019, the regional emphasis was on the non-point nutrient trading regulations, the Construction General Permit reissuance, developing guidelines for the use of proprietary BMPs for stormwater regulation compliance, and development of Virginia's Phase III Watershed Implementation Plan for the Chesapeake Bay TMDL. For each issue, HRPDC staff provided updates to the Regional Stormwater Workgroup or the Regional Environmental Committee, collected input, and submitted comments on behalf of the Region. If a stakeholder group was assembled for a particular issue, then the Region nominated a representative to serve on behalf of the localities.

Virginia Nutrient Trading Regulations

In 2012, the Virginia General Assembly passed legislation requiring the State Water Control Board to adopt regulations for the certification of nonpoint source nutrient credits. Nonpoint credits include credits generated from agricultural and urban stormwater BMPs, management of animal feeding operations, land use conversion, stream or wetlands restoration, shellfish aquaculture, and other established or innovative methods of nutrient control or removal. Virginia's current trading program involves exchanges between point sources and from point to nonpoint sources. This regulation is another step towards a successful trading program because it will make additional nonpoint source nutrient credits available for point or nonpoint source trades. This expanded trading program is part of the overall goal of meeting the reductions assigned by the Chesapeake Bay TMDL.

The regulation will establish the process for the certification of nonpoint source nitrogen and phosphorus nutrient credits and assure the generation of the credits. The regulation includes application procedures, baseline requirements, credit calculation procedures, release and registration of credits, compliance and reporting requirements for nutrient credit-generating

entities, enforcement requirements, application fees, and financial assurance requirements.

From FY 2013 to FY 2017, HRPDC staff has served on the Regulatory Advisory Panel established to assist the DEQ in developing the certification regulations. The DEQ proposed the regulations for public comment in the Virginia Registrar on December 29, 2014. The HRPDC submitted comments to the DEQ in March 2015 that: 1) supported the definition of management area, 2) requested a public hearing be held for nutrient certification requests, 3) asked for clarification of credits purchased within MS4s by private parties, and 4) suggested revisions to ensure that the regulations are protective of local water quality.

In FY 2016, the DEQ reconvened the Regulatory Advisory Panel to discuss "Innovative Practices, Perpetual Nutrient Credits/Permanence, Stream Restoration/Mitigation Banking, and Term Nutrient Credits" based on the number of comments received during the public comment period.

In FY 2017, the Regulatory Advisory Panel met in April to discuss a list of issues that failed to reach consensus. It was anticipated that a revised regulation would go out for public comment later that year.

The Governor approved the draft regulation, and it was published in the Virginia Register on April 15, 2019. The HRPDC submitted comments that: 1) requested clarification that baseline conditions must be met within the MS4 service area before credits could be generated, 2) requested flexibility for VSMP Authorities to require credits be secured upstream of the discharge to protect local water quality, and 3) supported requiring credit applicants to verify that their projects comply with local ordinances.

It is anticipated that the final regulations will be approved later this year.

Construction General Permit Reissuance

The existing Construction General Permit (GP) expired on June 30, 2019. HRPDC staff serves on the TAC for the permit reissuance. The TAC met monthly from January through June 2018. The TAC was focused on addressing the projects that are still subject to the old stormwater management criteria (Part IIC) and ensuring that the Virginia Construction GP was consistent with the 2017 EPA Construction GP.

The TAC had extensive discussions on the definition of land disturbance, particularly as it relates to whether a grandfathered project or a project subject to the time limits of applicability could continue to be subject to the old stormwater criteria. The portions of those projects that had commenced land disturbance within the specified timeframe could continue; however, if land disturbance had not commenced and the portion was not covered in the stormwater management plan, the owner would have to redesign that portion in accordance with the new stormwater criteria (Part IIB).

DEQ presented the revised draft of the Construction GP at the September 2018 State Water Control Board meeting and then initiated a formal public comment period. HRPDC submitted a comment letter detailing several regional concerns, including: 1) permitting off-site support activities associated with state projects, 2) applicability of the technical design criteria, 3) requirements for sites that discharge to PCB-impaired waters, and 4) the potential impacts of the legislation that extends the approvals of subdivision site plans to 2020 on projects that are subject to the grandfathering provisions, which expire in 2019.

The State Water Control Board approved the final 2019 Construction GP in April of this year, and the permit was effective on July 1, 2019.

Proprietary BMPs for Stormwater Compliance

The post-construction water quality requirements require approval from DEQ for use of proprietary BMPs in Virginia. The Stormwater BMP Clearinghouse Committee was established in order to provide guidance to the DEQ on BMP listing criteria, Clearinghouse website content, and database design. Regional input centered on defining the proposed role of the Clearinghouse in approving proprietary BMP pollutant removal efficiencies.

At the end of FY 2014, the DEQ issued interim guidance that describes a process for approving these proprietary BMPs and assigning pollutant removal credits: "Interim Use of Stormwater Manufactured Treatment Devices (MTDs) to meet the New Virginia Stormwater Management Program (VSMP) Technical Criteria, Part IIB Water Quality Design Requirements." In FY 2015, the Clearinghouse Committee focused on the approval process for MTDs and discussed how and when the guidance should be updated or replaced with regulations. HRPDC staff has been involved with a cooperative effort to request that DEQ add sizing criteria to the guidance.

In FY 2016, DEQ began the process of revising the guidance and updating the BMP Clearinghouse to include sizing for MTDs. During FY 2019, DEQ developed new draft guidance on evaluating MTDs. The Clearinghouse Committee members were asked to review it and provide comments. The regional concerns included: 1) reciprocity and the applicability to Coastal Plain Virginia, 2) MTDs currently listed on the BMP Clearinghouse, 3) the transition period from the existing guidance to a new one, 4) the removal efficiency cap for filtering devices, and 5) the removal efficiencies for hydrodynamic separators. It is anticipated that DEQ will respond to comments at the next meeting of the BMP Clearinghouse Committee, which is scheduled for August 15, 2019.

HRPDC staff has continued to monitor the parallel efforts by the Chesapeake Bay Program (CBP) and the Water Environment Federation to develop testing protocols for MTDs.

Virginia's Phase III Watershed Implementation Plan for the Chesapeake Bay TMDL

The EPA established the Chesapeake Bay TMDL on December 29, 2010 that included a Phase I Watershed Implementation Plan (WIP) developed by Virginia that outlined the statewide strategies that would be implemented by each source sector to achieve TMDL compliance. In

March 2012, Virginia submitted its final Phase II WIP to EPA that outlined the management actions that will be implemented by local governments. The HRPDC participated in both efforts on behalf of the local governments and submitted regional input for the Phase II WIP entitled, *Hampton Roads Regional Planning Framework, Scenario, and Strategies.*

In FY 2015, Virginia began the development of the Phase III WIP with the establishment of the Chesapeake Bay Stakeholder Advisory Group. HRPDC staff continues to participate in the Stakeholder Advisory Group and attended the meetings in August and November 2018 and January and March 2019.

As part of the state's efforts to develop the Phase III WIP, DEQ staff led outreach meetings across the state. HRPDC hosted the outreach meeting for Hampton Roads on July 17, 2018. DEQ staff reviewed the progress Virginia has made so far in reaching the goals of the TMDL, discussed the schedule for the development of the Phase III WIP, and explained the role of localities.

In FY 2019, DEQ contracted with the Planning Districts in the Bay watershed to develop strategies for reducing nitrogen and phosphorus loads (known as local area planning goals) in the unregulated developed, natural, and septic sectors. As part of this effort, HRPDC staff coordinated four stakeholder meetings from August through December 2018 to gather data, share best practices, discuss potential management strategies, and propose policy changes for obtaining nutrient reductions. Each meeting was attended by approximately 35 representatives of local governments, consultants, nonprofit organizations, HRSD, DEQ, VDOT, VDH, local health districts, and the Soil Water Conservation Districts. As part of the data gathering effort, regional GIS layers relevant to the success of the Phase III WIP were made available on HRGEO, HRPDC's online regional GIS data portal. The HRPDC submitted a BMP input deck and a table of programmatic actions as part of the contract with DEQ. The regional BMP input deck included the numbers of acres of BMPs such as shoreline management, tree planting, septic pump-out, bioretention basins, dry ponds, etc. that the Hampton Roads localities proposed to implement before 2025. The programmatic actions represent a list of recommendations that would facilitate BMP implementation or help the Commonwealth achieve local area planning goals. Many actions addressed deficiencies in state funding, technical assistance, and reporting gaps. HRPDC staff were invited to present the region's Phase III WIP efforts at the VA Water Environment Association Spring Seminar in April 2019.

The DEQ released the draft Phase III WIP in April 2019 and initiated a formal public comment period. The HRPDC supports several of the initiatives that were included in the WIP, such as Virginia's commitment to three full five-year MS4 permit cycles, the development of a State Lands WIP, and the pursuit of adequate funding for SLAF. The region submitted a formal comment letter with several recommendations, including: 1) formalize a State Lands WIP in the Chesapeake Bay modeling tool, CAST, 2) expand access to the Virginia Conservation Assistance Program to all residents in the Bay watershed, 3) enhance BMP reporting, 4) explain why additional nutrient reduction targets were assigned to the James River, when those reductions

are 1/6 as effective as pounds reduced in other basins, 5) prioritize projects in the James River for Water Quality Improvement Funds (WQIF), 6) reduce the goals for tree canopy expansion to a realistic target, 7) align state funding priorities with Phase III WIP goals, and 8) revise the numeric reductions on climate change impacts and shift to an adaptive management approach.

The EPA reviewed the draft Phase III WIP concurrently and identified both strengths and potential enhancements. Virginia's extensive engagement at the local level was listed as the primary strength, while providing more details on funding needs was the most notable recommended improvement. Virginia will release the final Phase III WIP in August 2019.

REGIONAL STUDIES

Water Quality Monitoring Study

In FY 2014, the HRPDC and the Phase I MS4 localities partnered with the USGS and the HRSD to create the Hampton Roads Regional Water Quality Monitoring Program (RWQMP). The purpose of the study is to characterize the sediment and nutrient loadings from the major urban land-uses in the Hampton Roads region. The data collected during the first three to five years will serve as a baseline for nutrient and sediment loads from the MS4s prior to implementation of BMPs in the studied watersheds to comply with the Chesapeake Bay TMDL. In addition these measured sediment and nutrient loads will be compared to the loading rates in the Chesapeake Bay Watershed Model and used to improve the accuracy of the model in the Coastal Plain. In FY 2015, the locations of the 12 stations (2 per Phase I locality) were selected, and seven stations were installed. In FY 2016, three additional stations were installed. In FY 2017, the remaining two stations were brought online. In FY 2018 and FY 2019, all twelve stations continued to collect storm event samples, which are analyzed for nutrients and sediments. The stations continuously monitor flow, turbidity, temperature, and conductivity. Additional information on the project objectives, site locations, and data collected can be viewed here: http://va.water.usgs.gov/HRstormwater/index.html.

The RWQMP was incorporated into the Phase I MS4 permits. HRPDC staff develops an Annual Report that includes the locations of monitoring stations, a summary of available data, and an interpretation of the data to include in the Phase I MS4 Annual Reports. The report is based on the annual update presented to the Regional Stormwater Workgroup by Mr. Aaron Porter (USGS). Once five years of data has been collected and analyzed from all twelve stations, Mr. Porter will begin to compare the pollutant loadings to those in the Chesapeake Bay model.

Stormwater Program Matrix

A comprehensive stormwater program matrix, including Phase I and Phase II MS4 permittees, was developed in FY 2000 to address both utility and programmatic issues. The matrix includes the rate structures, the type of bill, the frequency of billing, the number of utility customers, and program contact information. HRPDC staff coordinates with local government stormwater program staff to update the information in the matrix annually.

Stormwater Retrofit Projects in the Region

A master regional list of stormwater retrofits that have been completed, are under construction, or are in design was developed in FY 2019. The list includes construction costs, total costs, BMP type, acres treated, pollutant removal, etc. HRPDC staff will coordinate with local government staff to update the information regularly.

Local TMDL and Implementation Plan Development

The state has developed a substantial number of TMDL Studies and TMDL Implementation Plans. This work follows the classification of the waters by the state as meeting or failing to meet water quality standards. Water bodies that fail to meet water quality standards are classified as "impaired," triggering the requirement to prepare the TMDL study. HRPDC staff has coordinated regional involvement in the "impaired waters" listing and TMDL development process. This has entailed providing opportunities through the Regional Environmental Committee for education of local government staff on the TMDL process, response to the development of TMDLs themselves, and participation in the development of implementation plans.

To assist the region's localities in addressing this requirement and ensuring that Implementation Plans are feasible, HRPDC staff is working with the DEQ through a cooperative regional partnership to coordinate the TMDL study process with the localities and to develop the required Implementation Plans. In FY 2014, the HRPDC partnered with the DEQ, Hampton Roads localities, and the HRSD to develop a study plan to collect stormwater samples from the Elizabeth River watershed and analyze them for polychlorinated biphenyl (PCB) concentration in order to support the development of the Lower James and Elizabeth River PCB TMDL. Stations in Chesapeake, Norfolk, Portsmouth, and Virginia Beach were selected because they met the criteria for representative land uses and watersheds where PCBs could be monitored. In FY 2015, water samples were collected at these stations by the HRSD and sent to the DEQ selected laboratory for PCB analysis. The MS4 localities in Hampton Roads funded the data collection and the DEQ paid for the analysis. The PCB TMDL for the Lower James and Elizabeth River was expected to be developed in FY 2017; however, the DEQ experienced a number of staffing changes and other delays. It is expected sometime during FY 2020.

HRSD Bacteria Source Tracking

HRSD began a pathogen program to conduct bacteria source tracking in June 2015. The program was designed as a way to partner with local governments to focus source identification efforts. HRSD is providing sampling and analysis services while the local governments are providing staff time for the investigations. Several localities have taken advantage of the program including Chesapeake, Hampton, Newport News, Norfolk, Virginia Beach, and Suffolk.

TECHNICAL ASSISTANCE

The HRPDC continues to serve as a clearinghouse for technical assistance to the localities, as well as a point of contact in arranging short-term assistance from one locality to another. The

HRPDC Committee structure also provides a forum for state and federal regulatory agency staff to meet with the region's localities to discuss evolving stormwater management regulations and other emerging regulatory issues. In addition, HRPDC staff provides technical information and advice to all of the participating localities on a wide variety of issues upon request. In FY 2019, technical assistance to localities was focused on disseminating information related to implementation of and compliance with the Chesapeake Bay TMDL, providing training resources for locality stormwater staff, and evaluating the real world challenges of interpreting and implementing the local stormwater programs.

MEMORANDUM OF AGREEMENT

The Regional Stormwater Management Program was established in 1996 as a formal program of the Hampton Roads Planning District Commission with support and participation from the seventeen member local governments. An MOA was created that outlines the basic regulatory and programmatic premises for the cooperative program, incorporating the Regional Program Goals, described earlier in this report. The MOA establishes a division of program responsibilities among the HRPDC and the participating localities, addresses questions of legal liability for program implementation, and includes other general provisions. The MOA is reauthorized by the signatories every five years and was most recently renewed in 2018.

PERMIT ADMINISTRATION AND REPORTING SYSTEM (PARS)

In an effort to streamline reporting and capture data more effectively for local governments, the permitted localities pooled resources to develop the Permit Administration and Reporting System, or PARS. The region contracted with URS Corporation to develop a web-based data tracking and reporting system. The system allows local governments to catalog development sites and their associated BMPs. The system also enables localities to capture inspection information, catalog stormwater outfalls, document illicit discharge investigations and record public education information. The Regional Stormwater Workgroup agreed to retire PARS on June 30, 2016 for all users except Chesapeake, James City County, Norfolk, Suffolk, and Williamsburg as it no longer met reporting and tracking needs. These five localities agreed to continue to support PARS through December 2016. Norfolk and Chesapeake continue to support the database into FY 2020 while alternative systems are under development in those localities.

RELATED PROGRAMS AND PROJECTS

In various combinations, the eleven MS4 communities, as well as their non-permitted counterpart communities, participate in a wide variety of related programs. These programs are noted here because of their relationship with stormwater management.

Chesapeake Bay Program Participation

The CBP is a regional partnership that has led and directed the restoration of the Chesapeake Bay since 1983. CBP partners include federal and state agencies, local governments, non-profit

organizations and academic institutions. Partners work together through the CBP's goal teams, workgroups and committees to collaborate, share information, and set goals.

Since the development of the Chesapeake Bay TMDL in December 2010, the Hampton Roads Region has devoted considerable attention to the research, developments, and decisions on-going within the CBP. HRPDC and locality staff have participated in the deliberations of many CBP committees and work groups dealing with urban stormwater, land development, watershed planning, land use development, modeling and local government's role in the Bay Program. HRPDC staff are local government representatives of the Urban Stormwater Workgroup and the Climate Resilience Workgroup, and co-chair of the Land Use Workgroup. Staff also follow the activities of the Watershed Technical Workgroup and the Water Quality Goal Implementation Team. Staff attended the CBP's Urban Stormwater Retreat in May 2019, bringing in local speakers and moderating a session to look at climate change impacts on the future of urban stormwater. Through the Urban Stormwater Workgroup, HRPDC staff are informing the Bay Partnership of the resilience work being done in the region, sharing findings of analyses and policies, and advocating for research on the co-benefits of BMPs for water quality and flooding concerns. HRPDC staff also serves on Virginia's WIP III Stakeholder Advisory Group (SAG) and participated in the development of the James River chlorophyll-a study.

Virginia Stormwater Management Program (VSMP) Outreach

The VSMP Authorities have been administering programs for five years. DEQ led a series of outreach meetings across the Commonwealth to discuss local program implementation, successes, challenges, and the reissuance of the Construction GP. The HRPDC hosted the meeting on May 29, 2019. Representatives from 14 localities and DEQ's Central and Tidewater Regional Offices were in attendance. The topics of discussion included identifying training needs for contractors and designers, securing Construction GP coverage for VDOT offsite support activities, and ideas to better manage those projects that are designed through multiple iterations of the site plan review process.

Trading with HRSD

HRSD, HRPDC staff, and the MS4 permittees collaborated to develop a regional template for MOAs to establish the framework for trading stormwater pollutant reduction credits. Individual MOAs with each of the eleven MS4 permittees were signed in 2017.

Currently HRSD treatment plants operate well below design flows, as those were established to ensure capacity to support regional population projections in 2040 and beyond. Annual average flows in 2015 were approximately 60% of design flows. As a result of plant flows well below design flows in combination with significant investment in nutrient removal technologies, HRSD currently discharges nutrients and sediment significantly below permitted limits and is projected to do so for the foreseeable future. The difference between permitted mass load limits and current performance provides ample capacity to absorb load reductions required from stormwater dischargers in Hampton Roads through at least 2036.

HRSD is developing the Sustainable Water Initiative for Tomorrow (SWIFT) project, their multi-year initiative that will take treated wastewater, purify it to drinking water standards, and then inject it into the Potomac Aquifer. In addition to replenishing the water in the aquifer, the SWIFT project will significantly reduce the volume of treated wastewater reaching the James, York, and Elizabeth Rivers. The project will generate enough permanent nutrient and sediment credits to meet almost all of the regional urban stormwater waste load allocations in the Chesapeake Bay TMDL. Mr. Ted Henifin (General Manager for HRSD) has given several presentations on the project at the Regional Environmental Committee and Regional Stormwater Workgroup meetings.

Trading with HRSD, first using the capacity credits and then using the permanent credits from SWIFT, allows MS4 permittees to change their focus from costly stormwater retrofit projects to addressing recurrent flooding and climate change adaptation.

CONCLUSION

Through the Hampton Roads Planning District Commission, the seventeen localities of Hampton Roads have established a comprehensive Regional Stormwater Management Program. This program provides technical assistance, coordination, comprehensive technical studies and policy analyses and stormwater education. The Regional Stormwater Management Program enables the region's localities to participate actively and effectively in state and federal regulatory matters. It has enhanced the ability of the eleven localities with VPDES Permits for their Municipal Separate Storm Sewer Systems to comply with permit requirements.

The Regional Stormwater Management Program provides a mechanism through which the strengths of the seventeen local stormwater programs can be mutually supportive. It allows for cost-effective compliance with permit requirements, resolution of citizen concerns with stormwater drainage and water quality matters, promotes regional consistency, and achievement of improved environmental quality throughout the Hampton Roads Region.