

**REGIONAL COOPERATION IN STORMWATER MANAGEMENT**

**FISCAL YEAR 2016-2017**

**A STATUS REPORT**

**This report was included in the HRPDC Work Program for FY 2016-2017, approved by the Commission at its Executive Committee Meeting on June 16, 2016**

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

**September 2017**

## REPORT DOCUMENTATION

**TITLE:**  
**Regional Cooperation in Stormwater  
Management Fiscal Year 2016-2017:  
A Status Report**

**REPORT DATE**  
**September 2017**

**GRANT/SPONSORING AGENCY**  
LOCAL FUNDS

**AUTHORS:**  
Katherine C. Filippino  
Whitney S. Katchmark  
Jillian C. Sunderland

**ORGANIZATION NAME,  
ADDRESS AND TELEPHONE**  
Hampton Roads Planning  
District Commission  
723 Woodlake Drive  
Chesapeake, Virginia 23320  
(757) 420-8300  
<http://www.hrpdcva.gov>

### ABSTRACT

This document describes cooperative activities related to stormwater management undertaken by Hampton Roads local governments during Fiscal Year 2016-2017. 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

The Hampton Roads Planning District Commission, in cooperation with the regional Stormwater Workgroup, prepared this report.

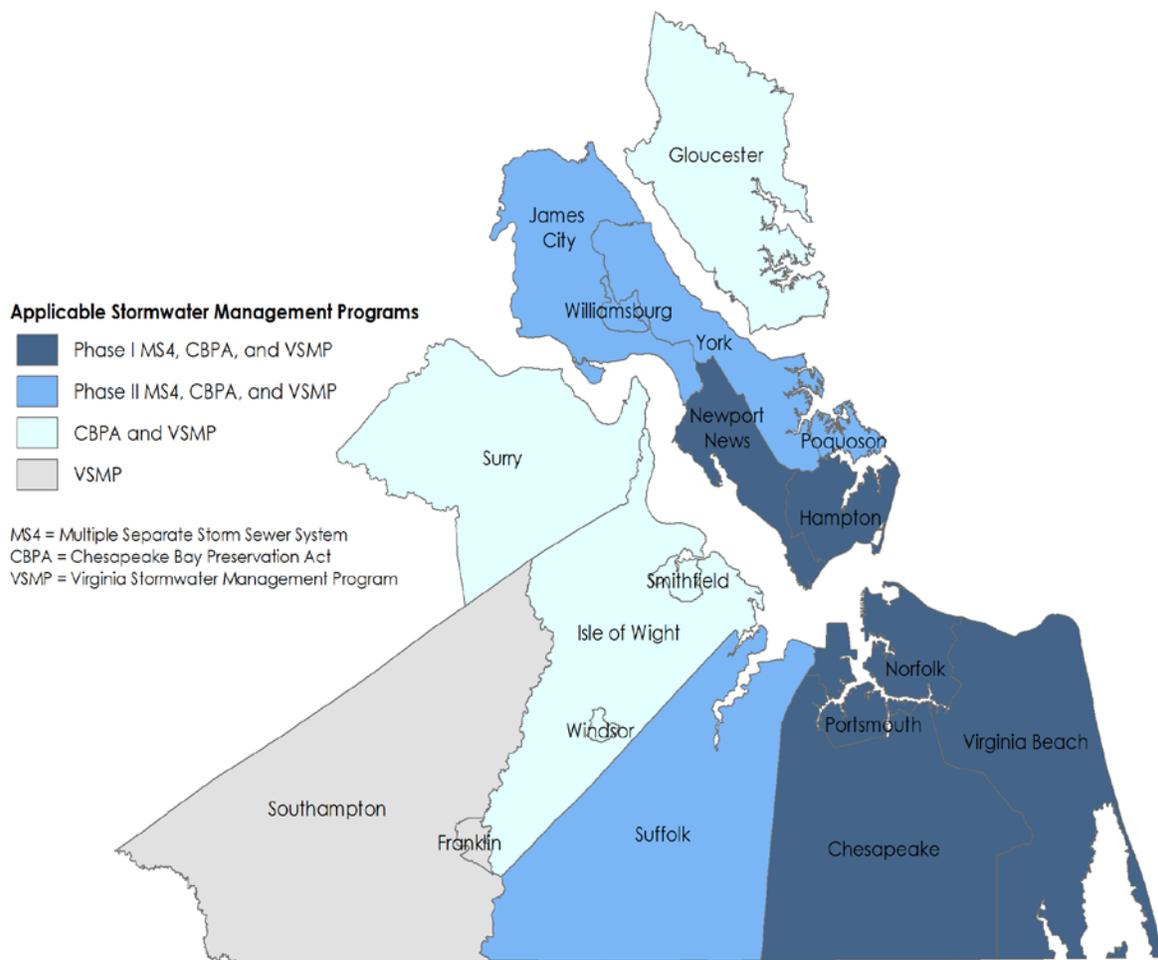
Preparation of this report was included in the HRPDC Unified Planning Work Program for FY 2016-2017, approved by the Commission at its Executive Committee Meeting of June 16, 2016.

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 and counties and town (Figure 1) cooperated on a variety of stormwater management activities during Fiscal Year 2016-2017. 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 James City County, Isle of Wight County, and York County 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 and 2013. 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 Stormwater System 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 2016-2017 represents the first year of the five-year permit cycle. This year, the permittees were focused on revising their MS4 Program Plans to incorporate the requirements of their new permits. The Program Plans were required to be submitted to DEQ for review and approval on July 1, 2017.

### ***Phase II Localities***

The Phase II General Permit was reissued on July 1, 2013. FY 2016-2017 represents the fourth year in the permit cycle. The permittees continue to implement their first Chesapeake Bay Action Plans, which were submitted in FY 2014-2015. Their first local TMDL Action Plans were due to DEQ on July 1, 2016.

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 developed training materials and hosted various webcasts to assist with these efforts. More detailed descriptions are available in the *Training* section of this report. askHRgreen.org conducted regional media campaigns for pet waste reduction, 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, the Hampton Roads Sanitation District (HRSD), and the US Navy.

### ***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 Virginia Coastal Zone Management Program on the native plants guide, the DEQ Tidewater Regional Office on local TMDLs, the Commonwealth Center for Recurrent Flooding Resiliency on the technical assistance services they offer, the Virginia Department of Health Division of Shellfish Sanitation on their bacteria source tracking projects,

the Virginia Master Naturalists on their training program, and the DEQ Central Office on Chesapeake Bay TMDL Phase III Watershed Implementation Plan outreach.

### ***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 and research, 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 and are held quarterly. The Workgroup serves an advisory role to the Regional Environmental Committee. In FY 2017, three meetings were held. In December 2016, Mr. Fred Cunningham (DEQ-Central Office) spoke to the group regarding the state's interpretation of the Federal MS4 Remand Rule and the state study to evaluate BMP implementation in areas with a seasonally high groundwater table. In March 2017, Dr. Jeff Cornwell (University of Maryland Center for Environmental Science) presented his research on the availability of nutrients in eroding wetland sediments and gave an update on the status of the oyster aquaculture CBP Expert Panel. And finally, in June 2017, Mr. James Davis-Martin (DEQ-Central Office) spoke about the Phase 6 model inputs and BMP strategies for Virginia going forward.

## **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 June 2011, the 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 discuss education priorities for stormwater. In FY 2017, the subcommittee focused on ensuring that the regional education campaign fulfills the outreach requirements of the current Phase II General Permit and many of the outreach objectives of the individual Phase I permits. The subcommittee also continued the program to distribute pet waste stations to interested community members throughout Hampton Roads. 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 2017 programs.

Training Topic	Date
Center for Watershed Protection – Incentivizing BMP Installation in Communities with Stormwater Utilities (webcast)	Sept 2016
Center for Watershed Protection – Retrofitting Revisited Forward Into the Past (webcast)	Oct 2016
Center for Watershed Protection – Stormwater Contaminants of Emerging Concern (webcast)	Mar 2017
Center for Watershed Protection – Nutrient Trading (webcast)	May 2017
Center for Watershed Protection – Making Urban Trees Count (webcast)	June 2017
IDDE in the Coastal Plain – Field Guide	Apr 2017
Identifying Illicit Discharges in the Coastal Plain – Video 1	Apr 2017
Tracking and Eliminating Illicit Discharges in the Coastal Plain – Video 2	Apr 2017
Excal Visual - Stormwater Pollution Prevention – Bulk Video Purchase	May 2017

### **Webcasts**

The Stormwater Regional Workgroup purchased a series of webcasts from the Center for Watershed Protection to view throughout FY 2017. HRPDC hosted the webcasts so that one subscription could be shared.

### ***Illicit Discharge Detection and Elimination (IDDE) in the Coastal Plain***

Using grant funds provided by the National Fish and Wildlife Foundation, HRPDC staff, along with consultant partners, completed the IDDE in the Coastal Plain training project in May 2017. The final project deliverables are unique resources that are specifically designed to enhance capacity of the MS4 communities in the Coastal Plain. The project team produced two IDDE training videos and a customizable Field Guide.

The first video, *Identifying Illicit Discharges in the Coastal Plain*, is geared towards municipal staff from departments, such as Parks and Recreation, Utilities, Fire, and Police, who may

witness and report discharges. The video addresses what a suspected illicit discharge might look like and runs for 15 minutes.

The second video, *Tracking and Eliminating Illicit Discharges in the Coastal Plain*, is targeted to environmental staff who will conduct investigations to determine the source of a suspected illicit discharge and take steps to eliminate it. The video covers storm drain mapping, how to account for tidal influences, and field testing parameters. The video is 12 minutes long.

The field guide, *Illicit Discharge Detection and Elimination Field Guide for the Coastal Plain: How to Identify and Quickly Report Pollution Problems*, includes descriptions and photographs of the most common pollution problems, characteristics of illicit discharges, and written procedures.

### ***Stormwater Pollution Prevention Videos***

Excal Visual Inc. produces an extensive line of environmental training videos covering topics such as spill response, hazardous waste management, and stormwater management. Several localities were interested in purchasing pollution prevention training kits. HRPDC staff coordinated with Excal Visual Inc. over several months to evaluate purchasing options. The localities were able to purchase training kits at a discounted rate based on volume. By placing a regional order of fourteen videos, the localities were able to obtain them at half the original 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 2016-2017, the regional emphasis was on the fees related to the consolidated Virginia Erosion and Stormwater Management Program, developing guidelines for the use of proprietary BMPs for stormwater regulation compliance, the Phase II MS4 General Permit reissuance, the new individual MS4 permit for the Virginia Department of Transportation, the state nutrient trading regulations, the state's study on the use of stormwater practices in areas with a seasonally high water table, 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.

### ***Fees Related to the Consolidated Virginia Erosion and Stormwater Management Program***

In FY 2017, HRPDC served on the Stakeholders Advisory Group to evaluate the fees associated with the Erosion and Sediment Control and Stormwater Management combined program. There is a state fee structure that specifies the fees to be paid for coverage under the General

Permit for Discharges of Stormwater from Construction Activities that varies according to the disturbed acreage. It states the minimum amount to be collected by the locality, and the portion required by DEQ. The Stakeholders Advisory Group was charged with determining whether the fee structure is adequate to fund the program. Regional input was focused on preserving a locality's flexibility to increase permit fees as needed to support the local program. The Stakeholder Advisory Group reached consensus that DEQ cannot fund the state portion of the program with the current fee structure. It is anticipated that a new Advisory Group will be formed to evaluate options for increasing DEQ's funding for the program.

### ***Proprietary BMPs for Stormwater Compliance***

The new 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 non-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. That process remains ongoing. In FY 2017, HRPDC staff has been involved with parallel efforts by the Chesapeake Bay Program (CBP) and the Water Environment Federation to develop testing protocols for MTDs.

### ***Phase II MS4 General Permit Reissuance***

The Phase II MS4 general permit expires on June 30, 2018. HRPDC staff served on the Technical Advisory Committee established to assist DEQ with revising the permit language. The Technical Advisory Committee met nine times from October 2016 through May 2017 and reviewed all sections of the permit twice.

The federal MS4 Remand Rule ("Rule") was finalized in November 2017, and the general permit has to be updated to comply. DEQ is following the Traditional Approach outlined in the Rule which requires the general permit to contain clear, specific, and measurable requirements. For example, for minimum control measure 1, public education and outreach, permittees are to implement a certain number of strategies that they select from the list of DEQ- or CBP-approved BMPs provided in the permit.

Regional input was focused on preserving a permittee's flexibility to implement BMPs that work best for them. DEQ intends to share a final draft of the permit with the Technical Advisory Committee and the EPA in September 2017 for review. A formal public comment

period will be held this fall. DEQ has planned to submit the final permit to the State Water Control Board for approval in November 2017.

#### ***Virginia Department of Transportation Individual MS4 Permit***

Instead of continuing coverage under the Phase II MS4 general permit, DEQ issued VDOT an individual MS4 permit with an effective date of July 1, 2017. HRPDC staff followed the development of the VDOT permit closely to monitor any potential precedent that could be set for future locality MS4 permits. The draft VDOT MS4 permit went out for public notice on May 4, 2017. Some of the permit conditions were different than what had been discussed during the Technical Advisory Committee meetings for the Phase II general MS4 permit. HRPDC submitted comments to request a consistent approach across all of the VDPES permits, specifically: remove the requirement for DEQ to approve the MS4 Program Plan; remove “dechlorinated” from the water line flushing exemption; remove the requirement to track routine BMP maintenance activities; and finally, ensure that the compliance standard for local TMDLs is to implement BMPs from the list provided. The final VDOT MS4 permit became effective on July 1, 2017, and the permit language is more closely aligned with the positions DEQ had taken during the meetings for the Phase II MS4 general permit.

#### ***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. This regulation is another step towards a successful trading program because it will make additional nonpoint source nutrient credits available for point source 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: supported the definition of management area; requested that a public hearing be held for nutrient certification requests; asked for clarification of credits purchased within MS4s by private parties; and 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. DEQ presented a list of issues that have failed to reach consensus. It is anticipated that a revised regulation will go out for public comment later this year. Regional concerns with nutrient credit trading are focused on local water quality protection and the types of purchased credits MS4 permittees can claim in their Chesapeake Bay Action Plans. HRPDC staff continues to serve on the Regulatory Advisory Panel.

***Application of the Postdevelopment Stormwater Management Technical Criteria in Areas with a Seasonal High Groundwater Table – House Joint Resolution 587 (2015)***

In 2015, House Joint Resolution (HJR) 587 requested that DEQ perform a two-year study of the application of the postdevelopment stormwater management technical criteria in areas with a seasonal high groundwater table (SHGT). DEQ submitted the Phase 1 report to the General Assembly in January 2016. The Phase 1 report provided background information and summarized the challenges of implementing infiltration BMPs in the coastal plain.

In December 2016, DEQ released a draft of the Phase 2 report, which included a continued search and study of the literature and stormwater design manuals used in other states. The report includes examples of BMPs used in other states in areas with a SHGT that are not currently approved for use in Virginia. The HRPDC submitted comments that: requested CBP-approved BMPs be added to the BMP Clearinghouse; DEQ develop guidance on how to use BMPs effectively in areas with a SHGT; and requested a clear process for seeking DEQ approval of innovative BMPs.

The final Phase 2 report was presented to the General Assembly in January 2017. The recommendations will be revisited during the development of the regulations for the new consolidated Virginia Erosion and Stormwater Management Program.

***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*.

Virginia is required to develop a Phase III Watershed Implementation Plan by 2018 that will describe how Virginia will achieve the required nutrient and sediment reductions from 2017 through 2025. In FY 2015, Virginia began the development of this plan 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 December 2016 and July 2017. Meetings included the data inputs for the Phase 6 model, Virginia fertilizer law, the James River chlorophyll criteria study, and the midpoint assessment schedule.

As part of Virginia's efforts to develop the Phase III WIP, DEQ staff is leading outreach meetings across the state. HRPDC hosted the outreach meeting for Hampton Roads on June 1, 2017. 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.

## **REGIONAL STUDIES**

### ***Water Quality Monitoring Study***

In FY 2014, the HRPDC and the Phase I localities partnered with the USGS and the HRSD to create the Hampton Roads Regional Water Quality Monitoring Program (HRRWQMP). 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 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. Seven stations were installed. In FY 2016, three additional stations were installed. In FY 2017, the remaining two stations were brought online. The twelve stations are collecting storm event samples, which are analyzed for nutrients and sediments. The stations continuously monitor flow, turbidity, 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 HRRWQMP was incorporated into the new Phase I MS4 permits. HRPDC staff is developing 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).

### ***Stormwater Program Matrix***

A comprehensive stormwater program matrix, including Phase I and Phase II communities, was developed in FY 2000 to address both utility and programmatic issues. HRPDC staff coordinates with local government stormwater program staff to update the information in the matrix annually.

### ***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 2018.

#### ***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 analyses services while the local governments are providing staff time for the investigations. HRPDC hosted Dr. Raul Gonzalez (HRSD) as he introduced the program and sought locality partners. Several localities have taken advantage of the program so far.

#### **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 2017, 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 renewed in 2013.

## **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. Users can query a variety of reports to satisfy the reporting requirements of their stormwater permits. In FY 2016, 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 meets today's 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 2018 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 Chesapeake Bay Program (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 ongoing 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 has continued to follow the activities of the CBP primarily through participation in the Urban Stormwater Workgroup,

the Land Use Workgroup, and the Water Quality Goal Implementation Team. HRPDC staff serves on the Climate Resiliency Workgroup, which was established to evaluate the impacts of climate change on the CBP's goals and activities. HRPDC staff participated in the Local Area Targets Task Force, which was charged to make recommendations whether the Phase III WIPs should include local area targets and if so, options for how these targets could be expressed in different jurisdictions. HRPDC staff also serves on Virginia's WIP III Stakeholder Advisory Group (SAG). HRPDC staff continues to participate in the development of the ongoing James River Chlorophyll-a study.

#### ***Chesapeake Bay Preservation Act Program***

Fifteen of the seventeen member localities continue to implement programs in response to the Virginia Chesapeake Bay Preservation Act (CBPA). Stormwater management is one component of those programs. Although the CBPA is not formally part of the multi-state CBP, described above, it serves as one element of local government implementation actions to comply with their MS4 Permits and to meet the goals of the CBP.

#### ***HRSD - Sustainable Water Initiative for Tomorrow (SWIFT)***

HRSD is developing the 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 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 and has described the advantages of using the credits generated by the project to meet MS4 pollution reduction requirements.

HRSD, HRPDC staff, and the MS4 permittees collaborated to develop a regional template for the memorandums of agreement to establish the framework for trading stormwater pollutant reduction credits. It is anticipated that individual MOAs with each of the eleven MS4 permittees will be signed by October 1, 2017.

## **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.