

**REGIONAL COOPERATION IN STORMWATER MANAGEMENT**

**FISCAL YEAR 2017-2018**

**A STATUS REPORT**

**This report was included in the HRPDC Work Program for FY 2017-2018, approved by the Commission at its Executive Committee Meeting on May 18, 2017**

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

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## REPORT DOCUMENTATION

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### ABSTRACT

This document describes cooperative activities related to stormwater management undertaken by Hampton Roads local governments during Fiscal Year 2017-2018. 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

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

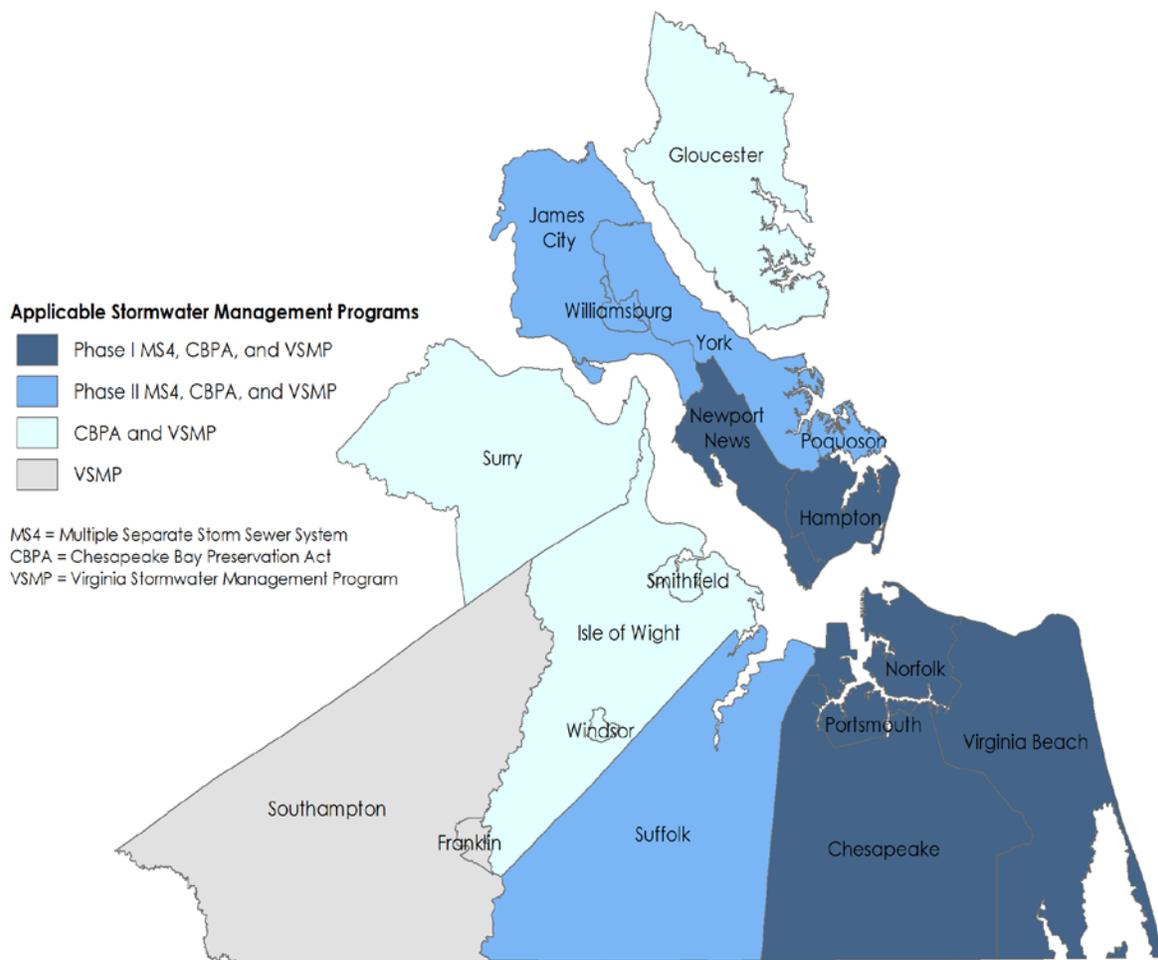
Preparation of this report was included in the HRPDC Unified Planning Work Program for FY 2017-2018, approved by the Commission at its Executive Committee Meeting of May 18, 2017.

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 2017-2018. 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 2017-2018 represents the second year of the five-year permit cycle. This year, the permittees were focused on developing their Chesapeake Bay and local TMDL Action Plans. The Action Plans were required to be submitted to DEQ for review and approval by July 1, 2018.

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

The Phase II General Permit was reissued on July 1, 2013. FY 2017-2018 represents the fifth 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. The permittees have been closely monitoring the development of the new MS4 General Permit.

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. The regional environmental education organization, 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 US Department of Agriculture on waterfowl control, the

Virginia Department of Transportation on their Chesapeake Bay TMDL Action Plan, and the US Army Corps of Engineers on their Chesapeake Bay Comprehensive Plan.

### ***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 2018, three meetings were held in September, March, and June. On September 7, 2017, Mr. Colin Stief, a Senior Applications Manager with the Chesapeake Conservancy, discussed the BMP Calculator Tool developed for York County, Pennsylvania, the GIS mapping tools for stormwater infrastructure in Washington D.C., and the green infrastructure connectivity maps developed for Maryland. On March 1, 2018, Ms. Nasrin Alamdari, a PhD student of Dr. David Sample at Virginia Tech, presented a talk entitled, “How Effective Stormwater Control Measures Are in the Face of Climate Change”. Ms. Alamdari was joined by City of Virginia Beach engineers, Ms. Shanda Davenport and Mr. Greg Johnson, who discussed how the City of Virginia Beach may address these concerns. On June 7, 2018, the Workgroup welcomed Mr. Bill Keeling from the Virginia Department of Environmental Quality for a presentation on BMP reporting.

## **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 discuss education priorities for stormwater. In FY 2018, 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 2018 programs.

<b>Training Topic</b>	<b>Date</b>
Center for Watershed Protection – Making Urban Trees Count (webcast)	June 2017
Manufactured Treatment Devices Workshop	Dec 2017
Center for Watershed Protection – Stream and BMP Monitoring (webcast)	Mar 2018
Center for Watershed Protection – National Stormwater Conference (online)	Apr 2018
Center for Watershed Protection – Bioretention Design Modifications (webcast)	May 2018
Wetlands Permitting Workshop for Local Government Staff	May 2018
Center for Watershed Protection – Retrofitting the Urban Environment: What’s New (webcast)	June 2018

### ***Webcasts***

The Stormwater Regional Workgroup purchased a series of webcasts from the Center for Watershed Protection to view throughout FY 2018. HRPDC hosted the webcasts so that one subscription could be shared.

### ***Manufactured Treatment Devices (MTD) Workshop***

HRPDC staff partnered with Contech Engineered Solutions and Hydro International to offer a half-day MTD Workshop that covered the basics of how MTDs treat runoff, the history of MTDs in the Virginia BMP Clearinghouse, appropriate utilization of the devices in the field, and maintenance considerations. The Workshop had 38 attendees, representing local governments, state agencies, consultants, and the Navy.

### ***US Army Corps Wetlands Permitting Workshop for Local Government Staff***

HRPDC and Norfolk District staff collaborated to host a half-day Wetlands Permitting Workshop. The topics covered included the background and organization of the Regulatory

Branch, best practices for completing wetland permit applications, coordination with other agencies, and the new Regional General Permit. The Workshop was geared specifically to local government staff and had nearly 70 participants.

## **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 2018, the regional emphasis was on the Phase II MS4 General Permit reissuance, the Construction General Permit reissuance, House Bill 1774 Workgroup, 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.

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

HRPDC staff served on the Technical Advisory Committee (TAC) established to assist DEQ with revising the permit language. The TAC 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 had 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.

The Phase II MS4 General Permit, which was set to expire on June 30, 2018, has been administratively continued. The formal public comment period was delayed and ran from January 8, 2018 through March 9, 2018. DEQ intends to present the revised draft to the State Water Control Board in August 2018.

A regional comment letter was submitted in March 2018. The comments were focused on consistency between the permit requirements and the registration statement and also between the language in the permit and existing federal and state law.

### ***Construction General Permit Reissuance***

The existing Construction General Permit (GP) expires on June 30, 2019. HRPDC staff serves on the TAC for the permit reissuance. The TAC met six times 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 to making the Virginia Construction GP 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 intends to present the revised draft of the Construction GP at the September State Water Control Board meeting. A formal public comment period will follow this fall.

#### ***House Bill 1774 – Stormwater Management in Rural Tidewater Localities***

The General Assembly requested that the Commonwealth Center for Recurrent Flooding Resiliency convene a workgroup to study the administration of the Commonwealth's current stormwater management program, as well as the potential treatment and use of water in roadside ditches in rural, Tidewater Virginia localities (as defined by the workgroup). HRPDC staff served on the Workgroup, which met three times from August through November 2017. The Workgroup developed a report to propose potential solutions to address rural Tidewater localities' concerns regarding administration of regulatory coverage for land disturbances of between 2,500 square feet and one (1) acre, and to assess potential innovative alternatives for treatment and use of stormwater in these rural Tidewater localities. In the 2018 session, the General Assembly approved two out of several recommendations from the Workgroup. One bill allows rural Tidewater localities to use a tiered approach to the water quantity requirements of the stormwater management program that is based upon the percent of impervious cover in a watershed. The second bill allows rural Tidewater localities to acceptance a signed and sealed plan by a licensed professional in lieu of review by the locality for land disturbing activities between 2,500 square feet and 1 acre.

#### ***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 2018, HRPDC staff 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*.

Virginia is required to develop a Phase III Watershed Implementation Plan by 2019 that will describe how the state 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 March, April, and June of 2018.

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 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.

In FY 2019, DEQ is contracting 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, the HRPDC staff will coordinate three stakeholder meetings from August through October 2018 to share best practices, discuss potential management strategies, and propose policy changes for obtaining nutrient reductions.

## **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 (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 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, all twelve stations continued to collect 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 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).

#### ***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. 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.

#### ***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 2019.

### ***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. 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 2018, 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 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 2019 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) and continues to participate in the development of the ongoing James River Chlorophyll-a study. On behalf of the HRPDC, Mr. Tim Hare, ARCADIS, served on the Scientific and Technical Advisory Committee (STAC) that was tasked with evaluating the impacts of climate change on BMPs.

### ***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.

### ***Trading with HRSD***

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

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.

### ***Local Government Coordination with the Norfolk District of the US Army Corps of Engineers***

HRPDC staff was asked to reach out to the Regulatory Branch of the Norfolk District to work towards improving communications between the Army Corps and the localities, especially in regards to wetlands permitting. The localities have shared their concerns with regulators being incommunicative, staff regularly changing, and permitting delays. HRPDC staff met with Mr. Tom Walker, Chief of the Regulatory Branch, and some of his staff to share experiences and to try to determine how the localities could better position themselves during the joint permit application process. The meeting resulted in the training Workshop that was held on May 31, 2018. HRPDC staff continues the dialogue with the Regulatory Branch to facilitate the exchange of information and improve communications.

### ***Virginia Conservation Assistance Program (VCAP)***

The VCAP is an urban cost-share program that provides financial reimbursement to property owners installing eligible small-scale BMPs in the Chesapeake Bay watershed. The program has been funded with federal dollars from the US Environmental Protection Agency (EPA) and the National Fish and Wildlife Foundation (NFWF). The program has installed about 300 BMPs over the last couple of years and applications are waiting to be funded.

VCAP is administered by the Soil and Water Conservation Districts (SWCD) and is limited to projects in localities that are included in a SWCD. This means that several localities in Hampton Roads are not eligible for the program including the Cities of Portsmouth, Norfolk, Hampton, Newport News, and Poquoson. HRPDC staff was tasked with exploring options for expanding the reach of the program. Staff spoke with the Coordinator of VCAP, the Executive Director of the SWCDs, and several District Managers. Currently, there is no capacity to expand the program into other localities due to limited staff at the SWCDs and funding constraints. In order to qualify for the program, the Cities would either have to pursue becoming part of a SWCD or would need to create a MOA and provide funding for additional staff at their nearest SWCD. HRPDC staff researched these options and presented the findings to the Stormwater Managers. It is not practical for the Cities to become part of an existing SWCD or to create their own. HRPDC staff will continue to advocate for the expansion of VCAP as part of the Phase III Watershed Implementation Plan (WIP) for the Chesapeake Bay TMDL. The program is well-suited to achieve reductions in urban areas beyond MS4 service areas.

### **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.