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**REGIONAL COOPERATION IN STORMWATER MANAGEMENT**

**FISCAL YEAR 2005-2006**

**A STATUS REPORT**

**This report was included in the HRPDC Work Program  
for FY 2006-2007, approved by the Commission at its  
Executive Committee Meeting of March 15, 2006.**

**Prepared by the staff of the  
Hampton Roads Planning District Commission  
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Management Fiscal Year 2005-2006:  
A Status Report**

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### ABSTRACT

This document describes cooperative activities related to stormwater management undertaken by Hampton Roads local governments during Fiscal Year 2005-2006. Activities described include the Regional Information Exchange Process, Public Information and Education, Legislative and Regulatory Issues, Cooperative Regional Studies and Related Programs and Projects in which the localities participate. One of a series of Annual Reports, this document is used by the region's twelve localities with stormwater permits to assist them in meeting their permit requirements.

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## INTRODUCTION

Working through the Hampton Roads Planning District Commission, the region's sixteen member cities and counties cooperated on a variety of stormwater management activities during Fiscal Year 2005-2006. 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. Activities undertaken in previous years are documented in a series of reports:

- Regional Cooperation in Stormwater Management: Fiscal Year 1995-1996: A Status Report.
- Regional Cooperation in Stormwater Management: Fiscal Year 1996-1997: A Status Report.
- Regional Cooperation in Stormwater Management: Fiscal Year 1997-1998: A Status Report.
- Regional Cooperation in Stormwater Management: Fiscal Year 1998-1999: A Status Report.
- Regional Cooperation in Stormwater Management: Fiscal Year 1999-2000: A Status Report.
- Regional Cooperation in Stormwater Management: Fiscal Year 2000-2001: A Status Report
- Regional Cooperation in Stormwater Management: Fiscal Year 2001-2002: A Status Report
- Regional Cooperation in Stormwater Management: Fiscal Year 2002-2003: A Status Report
- Regional Cooperation in Stormwater Management: Fiscal Year 2003-2004: A Status Report
- Regional Cooperation in Stormwater Management: Fiscal Year 2004-2005: A Status Report

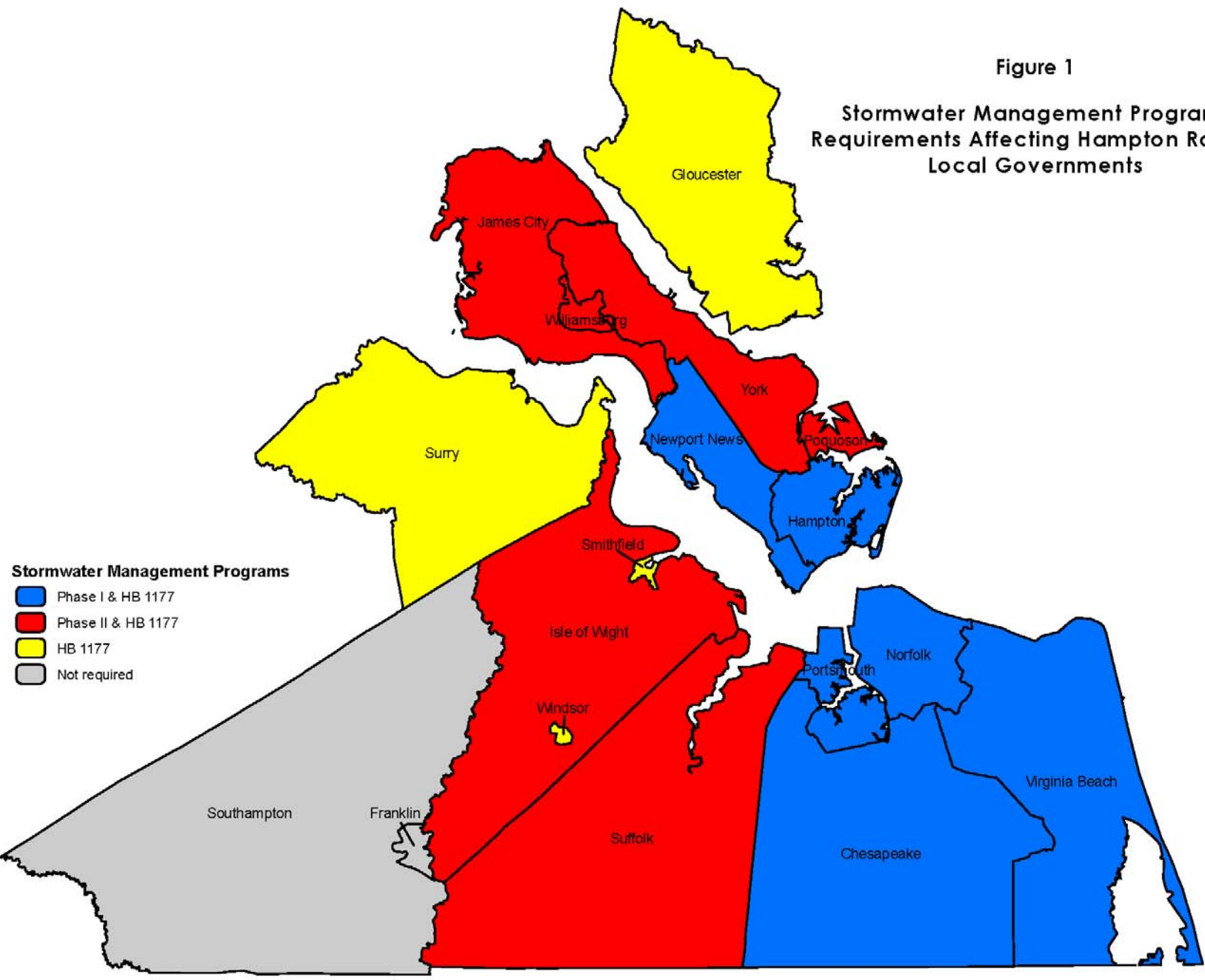
Cooperative activities documented in this report represent a continuation of an ongoing effort, which has involved concerted activity since 1992.

The Cities of Chesapeake, Hampton, Newport News, Norfolk, Portsmouth and Virginia Beach were first issued MS4 Permits under the VPDES program in 1996. These permits were reissued in 2001. The Cities of Poquoson, Suffolk and Williamsburg and the Counties of Isle of Wight, James City and York obtained Phase II Municipal Separate Storm Sewer System (MS4) Permits in March 2003 under the Virginia Pollutant Discharge Elimination System (VPDES) program. Although they are not presently covered by the VPDES Permit requirement, five other localities, including the

City of Franklin, the Town of Smithfield and the Counties of Gloucester, Southampton and Surry also participate in the Regional Program. It should be noted that both Gloucester and Surry Counties and the Towns of Smithfield and Windsor are governed by the requirements of HB 1177, which was enacted by the Virginia General Assembly in 2004. Figure 1 depicts the localities covered by this program. This report summarizes the cooperative activities undertaken during Fiscal Year 2005-2006 to facilitate compliance with the VPDES Permit requirements and to assist those Hampton Roads localities that are not presently covered by the permit program to address stormwater management in a voluntary, proactive fashion. It should also be noted that all sixteen localities that are members of the HRPDC participate in a number of other programs, which have at least a tangential relationship to the success of the stormwater management program.

Figure 1

Stormwater Management Program Requirements Affecting Hampton Roads Local Governments



Stormwater Management Programs

- Phase I & HB 1177
- Phase II & HB 1177
- HB 1177
- Not required

## **FORMAL REGIONAL PROGRAM**

The HRPDC Regional Stormwater Management Committee (RSMC) recommended during FY 1995-1996 that a formal regional program be established at the HRPDC, to be funded by the participating member localities for an initial period of up to three years. The program, established in July 1996, 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. Development and refinement of the regional program is a cooperative venture between the HRPDC staff and the Regional Stormwater Management Committee. The Regional Program is evaluated annually by the RSMC. Several aspects of the program were incorporated into the second term of the Phase I MS4 Permits, issued in 2001. The applications submitted in 2005 for the third term of the Phase I MS4 Permits also include a number of regional program components.

During FY 2001-2002, the localities that are covered under Phase II of the Permit Program requested that the HRPDC facilitate a cooperative approach to development of their permit applications and stormwater management programs. Through this cooperative effort, the HRPDC developed a regionally consistent stormwater management program in cooperation with the affected localities. Applications for permits based on this program were developed and the Virginia Department of Environmental Quality issued Phase II MS4 Permits incorporating the regional program to the affected localities in March 2003. Ongoing activities under the Phase II Permits are addressing program development and implementation in a cooperative fashion.

During FY 1997-1998, the RSMC reached consensus on an appropriate allocation of attention and resources to the components of the regional program. At that time, it was agreed that the bulk of the program's financial resources should be devoted to public information and education, including training, with the remainder of the financial resources allocated equally to legislative and regulatory issues, regional studies, and technical assistance. As the program has evolved since then, the basic annual funding level for the cooperative regional program has increased, and the allocation of funds among program elements has changed slightly with technical studies and assistance commanding a larger share of the program.

Activities that are specific to the Phase II Program are being conducted through a separate local contribution. During FY 2002-2003, these funds were devoted primarily to technical support for program development and application preparation. Since that time, Phase II Program funding has been used to develop technical components of the local stormwater management programs and program implementation, to support local public information and training programs, to support program coordination among the localities and to prepare the individual Annual Reports for the six Phase II communities.

To support development and operation of the stormwater education program, a Public Information and Education Subcommittee consisting of local stormwater education/public information staff was established in 1997. The regional stormwater

education program is known as HR STORM. Program funding supports, in part, HRPDC staff members, who also coordinate the region's water conservation education program (HR WET), the regional litter control and recycling education program (HR CLEAN), the regional wastewater (fats, oil and grease) educational program (HR FOG), as well as other regional environmental education, public information and training programs. The HRPDC staff is facilitating a number of cooperative ventures among these programs, which serve to enhance the effectiveness of all of them. The local financial commitment also enables the HRPDC to support technical and policy staff to pursue the various technical and policy initiatives involved in the Regional Stormwater Management Program.

As described above, the components of the Regional Stormwater Management Program continue to be the following:

**Public Education and Training.** The Public Information/Education and Training components of the regional program constitute a major element of the Phase I program, based on the allocation of financial resources. After a period of relatively flat funding, the HR STORM program received a substantial increase in funding for FY 2005-2006. The HRPDC employs two professional staff persons to develop and conduct this element of the program as well as related educational initiatives. The Public Information and Education Subcommittee (HR STORM) was established during FY 1997-1998 and meets on a monthly basis. The HR STORM Program and its accomplishments for the year are summarized in a subsequent section of this report and in the companion HR STORM Program Report for Fiscal Year 2005-2006.

During FY 2005-2006, the HRPDC staff worked with the six Phase II communities to develop and conduct training programs for local government staff. Those programs were designed to assist the localities in meeting the Good Housekeeping Management Measure. Program topics prioritized by the Phase II Subcommittee for this Fiscal Year included pollution prevention and landscape maintenance. The HRPDC staff coordinated the logistical and technical aspects of a regional training seminar, held in the City of Hampton, which addressed pollution prevention issues related to landscape maintenance.

**Legislative/Regulatory Monitoring.** This element of the program involves monitoring of state and federal legislative and regulatory activities that may impact local stormwater management programs. Based on this monitoring activity, the HRPDC staff develops briefing materials for use by the localities, including consideration by the governing bodies. As appropriate, the 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 past four years. Issues addressed have included development of the Virginia Regulations for the Phase II Program, revisions to the General Permits for Industrial and Construction Activities, legislative studies of the state's stormwater management programs, including the state legislation that integrated the state's stormwater management programs in one agency. Other issues addressed through the Regional Stormwater Management Program have included state funding for natural resource

programs, restructuring the permit fee programs of the Department of Environmental Quality, state funding for water quality improvements and several new state water quality regulations. During FY 2005-2006, the region emphasized the evolving regulatory stormwater program of the Department of Conservation and Recreation, associated guidance and pending regulations governing local stormwater management programs, permits for construction activities and permit fees.

**Regional Studies.** Through this element, the HRPDC staff is charged with undertaking appropriate regional studies to support local stormwater management programs. This includes coordinating and managing consultant efforts. Over the last several years, a number of technical studies have been completed through the regional program. They include:

- Regional Stormwater Loading Study: Proposed Regional Monitoring Program and Program Effectiveness Indicators, September 1999.
- Stormwater Program Effectiveness Indicators: Indicator Tool, 2000.
- Review of Phase II MS4 Permit Regulations, 2000.
- Analysis of Water Quality Monitoring Data: MS4 Permits Years 1-5, 2001.
- Regional Indicators of Stormwater Management Program Effectiveness (5 reports, various dates).
- Indicators of Stormwater Management Program Effectiveness for the six individual Phase I localities, annually.
- Phase II Permit Annual Reports (6 reports), 2004 and 2005.
- Development of Reapplications for Phase I Permits, 2005.
- MS4 Program Plans for Phase I localities, 2006.
- Estimates of pollutant loading and pollutant reduction for Phase I localities, 2006.

These reports served as the basis for modifications to the Phase I Permits in 2001, establishment of the Phase II Program in 2002, the 2005-2006 Phase I Permit reapplication process, and reflect overall enhancement of the region's ability to comply with the stormwater permits in a cost-effective manner.

The Effectiveness Indicators report, which is incorporated into the localities' Annual Reports, is described in more detail later in this report. On an annual basis, the HRPDC staff prepares the individual Effectiveness Indicators' reports for the six Phase I localities as well as a comprehensive regional summary of those reports. Work is now underway to integrate the six Phase II communities into the Effectiveness Indicators' reporting system.

**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. During the past three years, the HRPDC staff assisted the City of Suffolk, as a member of the Technical Advisory Committee, in the development and establishment of a stormwater utility. The HRPDC also assisted the City's consultant in evaluating public information and education options for use in the City's program. In FY 2004-2005, the HRPDC also assisted the City of Norfolk and the City of Hampton with a joint EPA and DCR audit of their stormwater management program. During the auditing process, HRPDC staff members addressed questions on regional cooperation and the effectiveness indicators database tracking system. During FY 2005-2006, the HRPDC staff worked with the Town of Smithfield to structure the process for development of a comprehensive stormwater management program for the Town. The HRPDC Committee process also provides a forum, allowing state regulatory agency staff to meet with the region's localities to discuss evolving stormwater management and other environmental regulations. Comprehensive technical data and information is maintained in the HRPDC library for use by the participating localities as well as the public. In addition, the HRPDC staff provides technical information and advice to all of the participating localities on a wide variety of issues upon request. Finally, the HRPDC is frequently requested by localities from other parts of Virginia and adjacent states for assistance due to its experience with stormwater management programs in Hampton Roads.

## **REGIONAL STORMWATER MANAGEMENT PROGRAM GOALS**

The HRPDC and the Regional Stormwater Management Committee undertook a comprehensive effort in FY 1998-1999, called the Regional Loading Study. This effort was completed in September 1999. The project included development by the RSMC of 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 Establishing the Hampton Roads Regional Stormwater Management Program." 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 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.

### **MEMORANDUM OF AGREEMENT**

As indicated in the previous section, 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 sixteen member local governments. During the past ten (10) years, the localities have increasingly incorporated program elements, such as the regional education program and the indicators of stormwater program effectiveness, into their stormwater programs and MS4 Permits. Establishment of the Phase II Program made it apparent that a more formal agreement among the participants was necessary to support the regional program. Based on that, the HRPDC staff and RSMC developed a Memorandum of Agreement (MOA), formalizing the existing regional program, while providing a structure for future program evolution and regional cooperation.

The MOA outlines the basic regulatory and programmatic premises for the cooperative program, incorporating the Regional Program Goals, outlined in the preceding section. It establishes a division of program responsibilities among the HRPDC and the participating localities and establishes the role and responsibilities of the Regional Stormwater Management Committee. It formalizes the traditional method of allocating program costs, addresses questions of legal liability for program implementation and includes other general provisions.

In January 2003, the Hampton Roads Planning District Commission approved the Memorandum of Agreement Establishing the Hampton Roads Regional Stormwater Management Program and referred the MOA to the sixteen participating cities and counties for consideration. Fifteen cities and counties, including the twelve localities with MS4 Permits, have executed the MOA. Copies of the Memorandum of Agreement were included in the FY 2002-2003 Regional Cooperation Summary report, which was provided to the Department of Environmental Quality and in the FY 2004-2005 Regional Cooperation Summary report, which was provided to the Department of Conservation and Recreation.

## **INFORMATION EXCHANGE PROCESS**

### **Monthly Meetings**

The sixteen communities are represented on the HRPDC Regional Stormwater Management Committee, which meets monthly. These monthly meetings provide an opportunity to exchange information about successful stormwater management techniques, program activities, utility structures and policies, and a myriad of related environmental issues. The Hampton Roads Sanitation District, the regional wastewater treatment agency, has historically provided monitoring and laboratory analytical support for the permitted (Phase I MS4) communities' programs. HRSD and the Departments of Conservation and Recreation (DCR) and Environmental Quality (DEQ), the state regulatory agencies, are also members of the Committee. DCR was given responsibility for the MS4 Program and the Construction Permit Program in 2004. DEQ retains responsibility for the state's Industrial Stormwater Permit Program. It should be noted that DCR is also responsible for the state's voluntary nonpoint source programs, as well as the regulatory Erosion and Sediment Control Program. Both the United States Navy and the Virginia Department of Transportation, which are required to meet the Phase II VPDES Permit Regulations, began participating in Committee discussions during FY 2000-2001. They also participate on the Phase II Subcommittee. Finally, in 2004, the United States Geological Survey began participating in the Committee's discussions.

The monthly meetings provide a forum for exchange of information and coordination among the permitted communities, while providing educational background and preparation for staff from the non-permitted localities. Several related state programs, including those implementing the Virginia Stormwater Management Act, Erosion and Sediment Control Law, and Chesapeake Bay Preservation Act, as well as the evolving Chesapeake Bay Program water quality studies, including Tributary Strategies and the delisting of the Bay and its Tributaries as "impaired waters," govern all of the localities. Increasingly, the region's localities are affected by and involved in the state's TMDL (Total Maximum Daily Load) Studies and Implementation Plan processes. Issues associated with these programs are also addressed during the monthly meetings.

During FY 2005-2006, representatives of the Regional Stormwater Management Committee participated with representatives of the other HRPDC Environmental Committees, in assisting the HRPDC staff to design its comprehensive work program. The HRPDC work program continues to include a strategic planning initiative, identified previously as a high priority activity by this group. This initiative, which is designed to further improve the functioning and organization of the regional environmental committee structure, began during FY 2000-2001 and will continue in FY 2006-2007. Recommendations developed to date include continuation of the joint monthly meetings of the HRPDC environmental committees, when appropriate to the issues being discussed. In addition, the process identified the need for further strengthening of the regional role in environmental policy development and regulatory integration. During FY 2005-2006, the Committees continued the long-term effort to better integrate the various reporting requirements associated with the state's stormwater management programs

and to explore institutional approaches to further enhance the region's environmental planning and management programs. These efforts will continue during FY 2006-2007 and will involve increasing dialogue with the HRPDC Commission in addressing long-term environmental issues.

Representatives of the RSMC participate in the HRPDC Ad Hoc Environmental Strategic Planning Subcommittee, which includes representatives of the HRPDC Directors of Utilities and Hampton Roads Chesapeake Bay Committees, as well as representatives of the regional wastewater and solid waste operating agencies. That group was established to address a number of issues that cut across traditional Committee responsibilities, including watershed planning and funding. Subcommittee recommendations are considered by the "parent" committees prior to presentation to the HRPDC for action. This group became more active during Fiscal Year 2003-2004 in response to state planning and funding initiatives. It devoted considerable attention to the efforts by the DEQ to restructure its permit fee programs and to the deliberations of the Natural Resource Funding Commission. Based on the success of those efforts, the Strategic Planning Subcommittee has continued its efforts, focusing on water quality standards, environmental legislation and regulations and funding for water quality improvement programs. Formal policy statements are developed by the Strategic Planning Subcommittee, concurred with by the "parent" committees (Regional Stormwater Management, Directors of Utilities and Chesapeake Bay), and endorsed by the HRPDC.

The Proprietary BMP Subcommittee, consisting of local stormwater engineers and program managers and state stormwater staff has continued to explore methods for evaluating the effectiveness and uses of proprietary/manufactured best management practices. During FY 2004-2005, the subcommittee developed general evaluation criteria, an evaluation worksheet and a fact sheet template. Because of the workload associated with the permit reapplication process, this initiative was placed on hold during FY 2005-2006. It is expected that it will be reactivated during the next fiscal year.

### **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 regularly by representatives of the Virginia Department of Conservation and Recreation (DCR) on state initiatives related to the Virginia Stormwater Management Regulations, by representatives of the DCR Division of Chesapeake Bay Local Assistance on various aspects of the CBPA Regulations and associated guidance, by staff from DEQ and the Virginia Marine Resources Commission (VMRC) on state wetlands program requirements, by DEQ staff on the TMDL process and by staff from DCR and DEQ concerning the Chesapeake Bay Program Tributary Strategies' efforts. Table 1 summarizes the myriad of agency

briefings provided to the Joint Environmental Committee during the Fiscal Year. Although not all briefings were directly related to stormwater management, they provided a contextual basis for local management efforts and assisted in further integrating the local and regional approach to environmental management.

**TABLE I**  
**SUMMARY OF AGENCY BRIEFINGS**  
**JOINT ENVIRONMENTAL COMMITTEE**  
**July 2005 - June 2006**

<b>Date</b>	<b>Agency</b>	<b>Topic</b>
7/5/2005	Department of Conservation and Recreation	National Flood Insurance Program
	Department of Conservation and Recreation	Chesapeake Club
8/4/2005	City of Hampton	Chesapeake Bay Preservation Act Policy Committee/NOIRA
	City of Virginia Beach	Lake Nutrient Standards
	Department of Conservation and Recreation	Tributary Strategies Program
9/1/2005	City of Virginia Beach	Lake Nutrient Standards
	United States Geological Survey	Bacteria Source Tracking Studies
10/6/2005	Department of Conservation and Recreation	Stormwater Management Program Indicators of Effectiveness
12/1/2005	City of Chesapeake	Virginia Water Protection Program General Permit regulations
1/5/2006	Division of Chesapeake Bay Local Assistance	Chesapeake Bay Preservation Act programs
	City of Chesapeake	Virginia Water Protection Program General Permit regulations
	Department of Conservation and Recreation	Stormwater Permits
2/2/2006	Virginia Marine Resources Commission	Virginia's Wetlands Mitigation and Compensation Policy and Supplemental Guidelines
	Division of Chesapeake Bay Local Assistance	Chesapeake Bay Preservation Act programs
	Department of Conservation and Recreation	Stormwater Permits
3/2/2006	City of Virginia Beach	Lake Nutrient Standards
	City of Virginia Beach	DCR Stormwater Management Regulations
4/6/2006	Division of Chesapeake Bay Local Assistance	Chesapeake Bay Preservation Act programs
	Department of Environmental Quality	Virginia Water Protection Permit Program
5/11/2006	Department of Conservation and Recreation	Virginia Outdoors Plan 2007
	Department of Environmental Quality	Virginia Water Protection Permit Program
6/1/2006	Hampton Roads Sanitation District	VPDES General Watershed Permit for Nutrient Discharges and Nutrient Trading

In addition to the briefings provided by state and federal agencies and private organizations, the Committee received regular briefings from HRPDC staff and other Committee members on a number of state legislative and regulatory issues and related local and regional programs that have potential implications for local stormwater management programs. These included the Total Maximum Daily Load process and local Implementation Plan development, revisions to the Virginia Water Protection Permit Regulations, revisions to state water quality standards, new state agency policies on wetlands mitigation, CBPA issues, wastewater treatment and management issues, green infrastructure/conservation corridor planning and guidelines for the use of funding from the state's Water Quality Improvement Fund. In many cases, the Committee member or HRPDC staff person providing the briefing served as the region's official representative on the Technical Advisory Committee, convened by the state agency to assist it in developing the regulations.

The ongoing activities of both the York River Watershed Council and the Lower James River (Hampton Roads) Watershed Roundtable in support of the Tributary Strategies program and related water quality initiatives were discussed. The Watershed Roundtable approach is Virginia's preferred approach to nonpoint source pollution management. All members of the RSMC participate in the Roundtables, along with representatives from other local government departments, regional and state agencies, Soil and Water Conservation Districts and private organizations. During FY 2005-2006, the Roundtable process was largely inactive because of the higher priority placed on stormwater and wastewater management issues by the region's localities and the ongoing development of a refined Chesapeake Bay Model by the Chesapeake Bay Program. It is expected that the Roundtable process will be reenergized during FY 2006-2007.

MS4 Permit issues, both Phase I and Phase II, were discussed with DEQ and DCR staff, as well as representatives of other permittees, such as the U.S. Navy, the Virginia Department of Transportation, the Hampton Roads Sanitation District, and several other state agencies. During FY 2005-2006, these issues were the highest priority for the Regional Stormwater Management Committee and consumed large portions of the Agenda for most RSMC meetings as well as a number of special meetings.

### **Stormwater Utility Issues**

The localities exchange information about their experiences with various aspects of the stormwater utility (program financing mechanism). Participants are given advance notice of issues developing in adjacent communities on various aspects of the program – citizen and business concerns and legislative issues. On an annual basis, the HRPDC compiles a Stormwater Utility Matrix, which provides basic information about the structure and status of the local utilities. Allowing for easy reference and comparison, the matrix has been used in responding to requests for comparative information from local elected officials, citizens and the development community. As the Phase II localities address funding for stormwater management facilities and programs, the

experience of the Phase I localities with establishment of stormwater utilities has been invaluable. Efforts are underway to develop a comprehensive stormwater program matrix, including Phase I and Phase II communities and addressing both utility and programmatic issues.

## **Educational Materials**

Previous reports have described the exchange and sharing of educational materials through the Regional Stormwater Management Committee. Since the establishment of the Public Information and Education Subcommittee (HR STORM), this exchange now occurs through the Subcommittee. On a regular basis, the RSMC and HR STORM are briefed on the activities being undertaken by the two groups and decisions that they have reached, share meeting minutes, and on an as needed basis, meet together to discuss program issues.

## **STORMWATER MANAGEMENT EDUCATION**

The Regional Stormwater Education Program consists of three broad categories of activities – HR STORM, Phase II staff training, which is coordinated through the Phase II Subcommittee, and routine educational activities, which are conducted by the HRPDC staff. The formal stormwater education program, as mentioned above, is handled chiefly through HR STORM. These initiatives focus on building the capacities of local government programs, as well as implementing educational efforts that greatly benefit from joint creative and financial collaboration. Every effort is made to create programmatic enhancements to local government efforts, not duplications of those efforts.

## **HR STORM**

The Public Information and Education Subcommittee (HR STORM) was established during FY 1997-1998. This effort has long been considered a critical component of the regional program, based on the success of the Regional Stormwater Management Committee process, as well as prior successes in regional water conservation education efforts. It was evident that a regional approach to stormwater education, which takes advantage of the economies of scale and the various talents of the participating localities associated with a cooperative effort, would best achieve the goals of the Hampton Roads Regional Stormwater Management Committee (RSMC). Thus, HR STORM was devised as the public information and education component of the regional program. The following Mission Statement and Program Goals continue to guide the regional effort:

### **Mission Statement**

***To cultivate a region-wide pollution prevention ethic that will protect and enhance area waterways through stormwater education.***

## Program Goals

- ***Increase public understanding of stormwater issues.***
- ***Augment and enhance local stormwater education programs.***
- ***Increase participation by the general public in programs and activities to reduce stormwater pollution.***

## Accomplishments

During FY 2005-2006, HR STORM paid particular attention to educating the youth of Hampton Roads on the Chesapeake Bay watershed and ways to reduce stormwater pollution. Programs targeting education about proper disposal of pet waste and automotive chemicals were also expanded. For the campaigns, new educational tools were developed and other popular promotional products, targeting specific audiences, were distributed throughout the region. Education continues to be the key in increasing awareness and changing behaviors.

HR STORM initiated a new regional educational project titled *Newspapers In Education* (NIE). The local newspapers work with various Hampton Roads school systems in the distribution of a print piece targeted to stormwater issues in the Hampton Roads region. While many pre-developed pieces are available to the schools, HR STORM sought this opportunity to educate the youth on a local level, specifically the region's 6<sup>th</sup> grade students. HR STORM used this initiative to incorporate the watershed and water quality Standards of Learning requirements developed by the Virginia Department of Education (VDOE) along with the regional information. HR STORM will continue to work with the local papers to distribute the product during the FY 2006-2007 school year.

Recent program accomplishments are described in detail in the companion report, **HR STORM Annual Report: FY 2005-06**. Highlights of that report include:

- *Implementation and expansion of an extensive multi-media advertising campaign.*
- *Real estate ads educating potential homebuyers on the maintenance needs of BMPs continue to be released monthly through The Daily Press's Home Pages and The Virginian-Pilot's Home Search publications.*
- *Enhancement and maintenance of website – [www.hrstorm.org](http://www.hrstorm.org).*
- *Maintenance of the regional stormwater Info-Line, (757) 58-STORM. In fiscal year 2005-06, the HR STORM Info-Line had over 200 visitors and continues to feature an option to speak directly with HRPDC staff.*
- *New educational banners on proper pet waste and automotive waste disposal were developed and displayed at various public venues. New promotional items were also developed and distributed.*

- *The committee began developing an educational tabloid as part of the nationally recognized, Newspapers In Education campaign. This initiative is a partnership between the newspapers, the public schools of Hampton Roads and HR STORM.*
- *HR STORM partners with HR WET in regional events. HR STORM co-hosted a booth at the McDonald's Garden Center's Outdoor 2006 show in Virginia Beach reaching approximately 3,000 visitors.*
- *Targeted promotions in pollution prevention with special emphasis on automotive fluids and pet waste.*
- *HR STORM awarded \$4,771 in HR3 Mini-Grant funding for eighteen projects during the last year. Over 7,256 youths were impacted by the awarded mini-grants.*
- *Collaboration continues with the HR<sup>3</sup> committees on various projects such as the HR<sup>3</sup> Mini-Grant Program and publication of a joint tip-page in such regional distributions as the Homearama supplement in The Virginian-Pilot and WVEC Channel-13 Hurricane Guide.*

## **Routine Educational Activities**

### Organization Briefings

Staff from the HRPDC, the Regional Stormwater Management Committee and HR STORM have discussed the program with various private organizations, business groups and civic organizations. They include the Chambers of Commerce, Builders and Realtors Associations, environmental organizations, civic leagues, professional organizations and academic groups. In a number of cases, these discussions may have been part of presentations on related topics, such as the Chesapeake Bay Program.

During FY 2005-2006, the HRPDC staff represented the region in several major panels and presentations on stormwater management issues. They were:

- July 14, 2005 – Presentation to Offshore Energy Task Force on potential impacts of offshore energy development on Hampton Roads
- October 5, 2005 – Presentation at the Coastal Partners Workshop on SWAMP
- October 2005-Present (Bimonthly) – Region 2 Math & Science Coalition
- October 2005-Present (Bimonthly) – South Hampton Roads Resource Conservation & Development (RC&D) Council
- October 24, 2005 – Virginia Geographic Information Systems Conference

- November 7, 2005 – Presentation to William and Mary law class on coastal planning issues and property rights
- November 30, 2005 – Regional Chesapeake Bay Board Member Training
- March 2, 2006 – Virginia Envirothon Training
- March 7, 2006 – Area VI Soil and Water Conservation District Annual Meeting
- March 20, 2006 – Virginia Lakes and Watershed Association
- March 23, 2006 – Soil and Water Conservation Board
- March 29, 2006 – Chowan Watershed Roundtable Kick-off Meeting
- March 30, 2006 – Stormwater Phase II Training
- April 4, 2006: Presentation to Currituck County, NC Open Space Task Force on SWAMP Conservation Corridor System
- April 19-20, 2006 – Environment Virginia 2006
- April 21, 2006 – Virginia Chapter American Society of Landscape Architects
- May 25, 2006 – Presentation at HRPDC Green Infrastructure Workshop on SWAMP Conservation Corridor System and the Hampton Roads Conservation Corridor Study
- June 7, 2006 – Presentation at Department of Forestry Green Infrastructure Class Reunion on the Hampton Roads Conservation Corridor Study
- June 8, 2006 – Presentation to DCR Watershed Planning Workshop on SWAMP Conservation Corridor System and the Hampton Roads Conservation Corridor Study

A number of these presentations addressed multiple programs. Other programs and activities covered included the implications of the Chesapeake Bay Program for local governments, the overall HRPDC water resources programs, wetlands regulations, pending legislative and regulatory issues, state funding and permit fees, and the range of regional environmental education initiatives, including HR STORM, in addition to the regional stormwater management program.

### HRPDC Agenda Packets

Status reports on regional program activities and issues being addressed by the Committee are provided to the members of the Hampton Roads Planning District Commission, consisting of elected officials and the Chief Administrative Officers of the sixteen communities, on a monthly basis. In October 2005, the HRPDC Executive Committee received and approved the report, Regional Cooperation in Stormwater Management Fiscal Year 2004-2005: A Status Report. In November 2005, the HRPDC

Executive Committee received and approved the report, Indicators of Stormwater Management Program Effectiveness: Fiscal Year 2004-2005. Issues related to stormwater management were included in HRPDC staff briefing materials and presentations to the Commission in reports concerning various aspects of the Chesapeake Bay Program, state legislation and regulations, and Coastal Zone Management.

#### HRPDC Newsletter

Brief status reports on the program are also included in the HRPDC Quarterly Newsletter, Hampton Roads Review. The newsletter has a quarterly distribution to local government officials, citizen groups, including civic leagues, business groups, including the Chambers of Commerce, as well as state and federal legislators, in excess of 3,000. Back issues of Environmental Reviews, the former HRPDC special quarterly newsletter on environmental issues, dealing with stormwater management and related programs, are routinely distributed by the HRPDC as public information resources. Instead of the quarterly Environmental Reviews, the HRPDC now produces occasional special reports on topics of interest. Plans are underway to prepare a special report on various aspects of the regional stormwater management program during FY 2006-2007.

#### Displays and Exhibits

In 1998, the HRPDC, on behalf of the Regional Stormwater Management Committee, cooperated with the Elizabeth River Project (ERP), which received grant funding from the National Environmental Education and Training Foundation to support development of a permanent stormwater exhibit at Nauticus – The National Maritime Center in Norfolk, a traveling stormwater exhibit for use throughout the region, and a training workshop on stormwater issues for teachers. The Traveling Exhibit, completed in March 1999, continues to be used by the HRPDC and participating localities for static display and activity-based events. The HRPDC manages the ongoing scheduling of the Traveling Exhibit.

Based on experience with the Traveling Exhibit and extensive discussions among the members of HR STORM, the HRPDC developed modified versions of the Traveling Exhibit. Two, smaller, more portable displays, based primarily on the Traveling Exhibit have been developed and are now in use throughout the region. These exhibits offer substantially more flexibility of use and will be fairly easy to modify if appropriate.

A Poster Session on the regional stormwater education activities was presented at the National Nonpoint Source Conference in 2003. The committees and the HRPDC staff reproduced that presentation as a poster for distribution. It remains available for use and distribution.

## **LEGISLATIVE AND REGULATORY ISSUES**

### **Permit Discussions**

All six communities that required VPDES Permits during Phase I received their initial permits early in Calendar Year 1996. Early in 2001, these permits were reissued for an additional five-year term. The new permits included two new/modified program elements that had been developed in a cooperative fashion through work accomplished during the first permit term: HR STORM, the regional stormwater education program, and the use of Program Effectiveness Indicators instead of continuing chemical water quality monitoring. Extensive discussions of permit-related issues were held with DEQ staff both prior to and after submission of the applications. The permits also include a number of other regionally consistent requirements and provisions.

During FY 2001-2002, permit-related discussions focused on response to the new VPDES Regulations for Phase II MS4 Permits and VPDES Regulations for Small Construction Site Permits. In addition, the Phase I localities shared experience with DEQ and DCR program reviews and audits. The Phase I localities also discussed preparation of their Annual Reports to ensure some degree of consistency among the reports.

In response to several state and federal initiatives, permit-related discussions expanded during FY 2002-2003. The Phase II Regulations and development of regionally consistent permit applications elicited considerable discussion by both the RSMC and the Phase II Subcommittee. The need for a regionally consistent approach by DEQ to permit treatment for schools in both Phase I and Phase II communities was a primary topic affecting all localities. Phase I localities discussed their experience with the first Compliance Audits by the U.S. Environmental Protection Agency of Hampton Roads localities in early 2003. The evolving revisions to the state's General Permits for Industrial and Construction Activity Stormwater Management were addressed during a number of meetings.

The emphasis of permit-related discussions shifted during FY 2003-2004 from the existing permits and permit regulations to the potential impact and opportunities inherent in the state effort to restructure the state stormwater management program. Throughout the first half of the year, the HRPDC and the localities participated in state meetings, sponsored by the state agencies, the Virginia Municipal League and the Virginia Association of Counties dealing with the potential restructuring. These included determining the appropriate agency to administer the new program, identifying opportunities for local governments in program implementation and determining the relationship between the restructured state program and the U.S. Environmental Protection Agency. These discussions continued through the second half of the year as the Virginia General Assembly considered legislation. The region provided input to the state at several points in this process to ensure that local government needs were adequately addressed in the legislation as finally enacted. Since passage of the legislation, the HRPDC and localities have continued discussions with DCR staff on the program transition and eventual implementation.

The six Phase I localities submitted applications for renewal of their VPDES Permits to the Department of Conservation and Recreation during the fall of 2005. Anticipating these applications and desiring to address the requirements of the permit program and the integrated state stormwater management program, which resulted from the passage of HB 1177, in a consistent fashion, the region's localities acted in Spring 2005 to retain consultant assistance through the HRPDC. A consultant was retained to assist all sixteen localities in addressing the new state requirements and to develop regionally consistent applications for the Phase I MS4 Permits. This effort involved extensive review of existing programs, state and federal regulations and the preliminary results of EPA Compliance Audits of some MS4 Programs. Through intensive consultant and staff efforts, the permit applications were developed.

Ongoing permit negotiations with DCR continued throughout FY 2005-2006 in a cooperative fashion. Several iterations of draft permits have been reviewed by the Committee with comments and recommended modifications provided to DCR following each review. In February 2005, DCR staff advised the Committee that detailed program plans, updating the localities' stormwater management plans originally prepared in the early 1990s, would be required to support the reapplications. Again, through a cooperative process, the Phase I localities developed MS4 Program Plans, which were submitted to DCR in May 2005. Additional permit review meetings have been held since that time. It is now expected that the new permits will be issued during FY 2006-2007, following formal review by the U.S. Environmental Protection Agency and the public.

The six Phase II permits for Hampton Roads localities will expire in early 2008. The Phase II Permit Regulation will also expire in late 2007. It is expected that DCR will begin the process of developing new Phase II Regulations early in 2007. Anticipating the need to reapply for these permits, the Phase II Subcommittee has begun discussions of the permit reapplication process as well as the regulatory development process. The Phase II localities have indicated their intent to work cooperatively to address development of the new regulations and reapplication for the Permits.

### **Regulatory Participation**

The Regional Stormwater Management Committee continues its active participation in the state and federal regulatory process. Regulations developed by the U.S. Environmental Protection Agency and the Virginia Departments of Environmental Quality and Conservation and Recreation have been reviewed and consensus position statements developed. Regulations addressed during this Fiscal Year included the following:

- The 2004 Session of the Virginia General Assembly enacted HB 1177 to integrate all of the state's stormwater management programs and to consolidate them in the Department of Conservation and Recreation. This addresses the major recommendations of action taken by the HRPDC in 2001, as recommended by the HRPDC Joint Environmental Committees.

Regulatory activity to accomplish the integration began in spring 2004 and concluded with EPA delegation of the permit program to DCR in January 2005. Efforts to delegate the construction general permit program to local governments will continue.

- During FY 2005-2006, DCR began the process of developing new stormwater regulations to implement the requirements of HB 1177. These regulations will address stormwater permitting for construction activities, local stormwater program requirements and permit fees. DCR established a Technical Advisory Committee (TAC) to assist in developing these regulations. Two members of the RSMC, as recommended by the Committee, were asked to serve on the TAC. In addition to the formal TAC representatives, other Committee members regularly participate in the deliberations of the TAC. The official TAC members and HRPDC staff regularly brief the RSMC on the regulatory development process, receive Committee input and use that input in making recommendations in the TAC process. The HRPDC staff has collected information from the region's localities to support the effort to determine appropriate permit fees.
- One element of the regulatory activity addresses streamlining of reporting requirements for the MS4 Permits, Erosion and Sediment Control Law and Chesapeake Bay Preservation Act. Since FY 2001-2002, the Regional Stormwater Management Committee has been addressing this issue. Efforts have focused on developing an integrated set of indicators and a single reporting format that can be recommended to the state for consideration. Recent permit discussions with DCR underscore continuing interest on the part of the localities with having a streamlined and coordinated reporting system. They have also emphasized the need for guidance on state expectations for the reporting and tracking system. The HRPDC staff will continue to facilitate efforts by the Regional Stormwater Management Committee to develop such a system. The web-based Hampton Roads Sanitary Sewer Overflow Reporting System, discussed elsewhere in this report, provides an operational example of how such an integrated system could work.
- DCR Proprietary BMP Committee. At the June 6, 2002, meeting of the RSMC, staff from the Virginia Department of Conservation and Recreation advised the Committee that it was considering establishment of a statewide committee to review proprietary best management practices and to advise the state on the appropriateness of including various proposals in state guidance. The RSMC recommended that one of its members be included on this advisory committee. The state DCR subsequently elected not to establish a committee at this time. The RSMC continued discussions of the appropriateness of establishing a regional approach to the Proprietary BMP issue throughout the past two years. This effort reached fruition in May 2004 with the establishment of a regional approach to the use of Proprietary BMPs.

Initial presentations by vendors were held during the fall of 2004. The RSMC is continuing to pursue a regional approach to consideration of proprietary and manufactured BMPs.

- The state proceeded with revisions to Water Quality Standards to reflect the results of the Chesapeake Bay Program studies on water quality and living resource conditions in the Chesapeake Bay and its Tributaries. The RSMC continues to participate in the technical review of these proposed standards and the evaluation of their impacts on local government program operations. Representatives of the Joint Environmental Committee served on the Technical Advisory Committee established by DEQ to assist in this effort. This facilitated local government review of and reaction to the proposed standards, which were finalized during FY 2005-2006.
- To implement the new Water Quality Standards, the state also convened a Technical Advisory Committee to assist it in the development of wastewater treatment technology standards and a nutrient trading program. Again, regional representatives served on the Technical Advisory Committee, established by DEQ to assist in regulatory development. This assisted review by the localities through the Joint Environmental Committee process and led to the development of consensus recommendations for consideration by the HRPDC. These regulations are expected to be finalized by the state early in FY 2006-2007.
- During FY 2003-2004, the Department of Environmental Quality undertook a review of and made revisions to its four General Permits under the Virginia Water Protection Permit Program. Staff from the HRPDC and one of the member localities participated on the Technical Advisory Committee convened to advise the state on this process. Most of the revisions under discussion were administrative and technical in nature and reflected the state's three years of experience with this program. The RSMC was briefed regularly on the progress of this effort. The regulations were released for public review and comment in June 2004. Through the Joint Environmental Committee process, the RSMC was involved in the development of regional comments on the regulatory revisions. Because of ongoing changes in other aspects of the VWPP Program, the state reconvened the Technical Advisory Committee during the summer of 2005 to assist in further changes to the General Permits. Again, staffs from the HRPDC and one of the member localities are serving on the Committee. Proposed revisions were completed and reviewed by the region's localities during FY 2005-2006.
- During FY 2004-2005, the Department of Environmental Quality began the process of developing nutrient standards for lakes. As requested by the HRPDC, local government staff from the RSMC and the HRPDC Directors of Utilities Committee served on the state's Technical Advisory Committee. These individuals briefed the Committees on a regular basis. Proposed

Standards were released during the fall of 2005 for public review. The RSMC participated in a coordinated regional review of these regulations and development of formal technical and policy recommendations for consideration by the HRPDC. The regulations were finalized late in FY 2005-2006.

- The Department of Environmental Quality developed regulations governing local and regional water supply planning and the permitting of water supply regulations during the past three years. The HRPDC staff and representatives of the HRPDC Directors of Utilities Committee participated on the TAC convened to assist DEQ in developing these regulations, which were finalized during FY 2005-2006. The TAC for these regulations as well as the TAC noted above for the wetlands regulations is expected to be reconvened early in FY 2006-2007 to consider additional regulatory changes and integration of the results of the earlier regulatory effort.
- The Department of Environmental Quality has begun exploration of delegation of the Section 404 Wetlands Permit Regulations to the state. Representatives from the HRPDC and one of the localities have been requested to serve on a work group to advise DEQ on this initiative. This initiative will continue through FY 2006-2007.
- The Department of Conservation and Recreation is proceeding with revisions to its Dam Safety Regulations. Representatives of the RSMC and the HRPDC Directors of Utilities Committee are serving on the TAC, convened by DCR to assist in this regulatory effort, which began during FY 2005-2006. The representatives regularly brief the Committees on the process and convey regional concerns back to the TAC. It is expected that the Committee will develop formal recommendations on proposed revisions to the regulations during FY 2006-2007.
- The Virginia Secretary of Natural Resources, working through DEQ and DCR, has established a Technical Advisory Committee to assist in development and refinement of guidelines for funding of projects under the state's Water Quality Improvement Fund. During both FY 2004-2005 and FY 2005-2006, the HRPDC staff represented the region on this state committee. The RSMC has participated in the review of the state guidelines and provided recommendations on draft guidelines. In addition, the RSMC participated during FY 2005-2006 through the HRPDC Joint Environmental Committee process in developing a regional process for prioritizing applications from Hampton Roads for funding through the Water Quality Improvement Fund.

## REGIONAL STUDIES

### Stormwater Program Effectiveness Indicator Tool

During FY 1999-2000, the HRPDC retained the consultant firm CH2M Hill to assist the RSMC to develop indicators of stormwater program effectiveness. Development of the indicators was recommended in the 1999 Regional Loading Study. A preliminary set of indicators was included in that study. The FY 1999-2000 work focused on refinement of the Indicators and development of a tool, in the form of a Microsoft Access database, for use in compiling and reporting the data. This work was completed in August 2000. As indicated previously in this report, use of the Indicators of Program Effectiveness instead of chemical monitoring was proposed to DEQ during development of the VPDES Stormwater Permits, which were reissued in Spring 2001. The Program Effectiveness Indicators are included as a required element of each Phase I locality's annual report. The Program Effectiveness Indicators will be incorporated into the Year 4 Annual Reports for the Phase II localities, which will be submitted in 2007. The Program Effectiveness Indicators include pollutant loads, acreage of greenlands, erosion and sediment control activities, stormwater BMP implementation, flooding and drainage management, operations and maintenance activities, illicit discharge detection activities, and public education activities.

The HRPDC staff completed development of the fifth annual report, Indicators of Stormwater Management Program Effectiveness: Fiscal Year 2004-2005. This report was presented to and accepted by the HRPDC in November 2005. The sixth annual report, Indicators of Stormwater Management Program Effectiveness: Fiscal Year 2005-2006, is included separately in each locality's annual report. Because of delays in the issuance of new Phase I Permits, it is anticipated that the next annual report to be submitted in October 2007 will also include an effectiveness indicators report.

Following completion of the first two Indicators' reports, the HRPDC staff worked to incorporate suggested changes to the Microsoft Access database to improve data input and report production. This involved eliminating redundant environmental education indicators and enhancing the efficiency of printing the effectiveness indicators reports. These improvements were incorporated into the annual reports, beginning with the FY 2002-2003 annual reports. The Program Effectiveness Indicators and the reporting process will continue to evolve as the HRPDC and local staffs gain additional experience and new guidance is provided by the state. Future improvements may include adaptation of the web-based reporting approach, developed through the City of Virginia Beach's FY 2002-2003 efforts and further upgrades to the pollutant loading calculation model. The availability of funding is a key factor in determining when these refinements will be incorporated into the regional system.

A formal reevaluation of the Indicators Program was included with the cooperative effort to develop permit renewal applications. This effort resulted in additional clarification of some of the indicators and development of guidance to facilitate regional consistency in reporting for the current fiscal year.

## **Regional Reporting Program**

In August 2002, the HRPDC staff briefed the state Commission on the Future of Virginia's Environment (Bolling Commission) on issues with the state's stormwater management program that had initially been raised by the RSMC. These issues included the problem of duplicative reporting to the various state agencies involved in stormwater management. Local reporting is required under the VPDES Stormwater Permits, Erosion and Sediment Control Program, and the Chesapeake Bay Preservation Act Program. Additional requirements for reporting associated with implementation of the Chesapeake Bay Agreement are evolving. Reporting is required on an annual basis and on a more frequent basis for some factors.

To address the reporting requirements, a Subcommittee of the RSMC was established to work with members of the HRPDC Hampton Roads Chesapeake Bay Committee. The Subcommittee was charged with developing recommendations on an integrated reporting package that would meet the needs of the state agencies, while minimizing the burden on the localities. The Subcommittee determined that the Indicators of Stormwater Program Effectiveness provided an excellent model and framework for this effort. This project was placed on hold in early FY 2002-2003 pending a decision to move forward with a state initiative to better integrate the state's stormwater management programs and related local reporting. With the passage of HB 1177 in 2004, which consolidates all state stormwater management programs in the DCR and the 2004 legislative consolidation of CBLAD into DCR, it was expected that the effort to better integrate local reporting to the state would receive renewed attention during FY 2004-2005. That effort has been delayed and will now proceed during FY 2006-2007 following finalization of the new Phase I MS4 Permits and of the new State Stormwater Management Regulations. The regional effort will reflect the experience gained through the web-based Hampton Roads Sanitary Sewer Overflow Reporting System, developed in 2004 by the HRPDC staff in cooperation with the HRPDC Directors of Utilities Committee and the Department of Environmental Quality.

## **Stormwater Monitoring Program**

During the Phase I permit application process and the first term for the Phase I Permits, the RSMC coordinated a concerted effort to maximize regional consistency in the Stormwater Monitoring Program. The Hampton Roads Sanitation District (HRSD), the regional wastewater treatment agency, is a member of the Regional Stormwater Management Committee. When the six Phase I cities prepared their initial permit applications, HRSD had already established a comprehensive water quality sampling and analysis program. HRSD's capabilities in water quality monitoring and analysis were brought to bear on the initial application-related data collection and analytical efforts. This cooperative monitoring program, with some modifications based on experience and development of new capability in the region, was maintained throughout the first Phase I Permit term.

The details of the original regional sampling program protocols were included in the HRPDC report, Regional Cooperation in Stormwater Management Fiscal Year 1995-

1996: A Status Report. All of the stormwater monitoring and analysis, conducted during the first permit term was accomplished in accordance with the HRSD Quality Assurance/Quality Control Program, which has been approved by the U.S. Environmental Protection Agency, using uniform criteria, developed during FY 1995-96 by the six permitted communities, HRSD and interested non-permitted communities. Results of this monitoring program and the analysis of the monitoring data were documented in each of the Annual Reports, submitted by the six Phase I localities in 2001.

With the development of Indicators of Stormwater Program Effectiveness and incorporation of the Indicators into the second term of the permits, water quality monitoring is no longer a required activity under the permits for the Phase I localities. However, the regional capability that was developed and/or enhanced during the first permit term continues to be used in a number of special studies, including determination of pollutant reduction efficiencies of Best Management Practices and sampling of bacteria levels in various water bodies throughout the region. The HRSD capability also enhances the region's ability to evaluate the technical appropriateness of various water quality evaluations conducted by the state and others.

During the permit reapplication and negotiation process during FY 2005-2006, the RSMC discussed monitoring at great length. Future monitoring programs remain tied to special studies until such time as the new MS4 Permits are issued.

### **Program Effectiveness Indicators**

As indicated previously, Indicators of Stormwater Program Effectiveness have been developed and incorporated into the VPDES Stormwater Permits for the six Phase I localities, issued in 2001. The first Program Effectiveness Indicators Report was included in each locality's Annual Report for FY 2000-2001. That report covered only a partial year in many cases, because the permit itself only covered part of the Fiscal Year. The Program Effectiveness Indicators' Reports have been included as a separate section in each locality's Annual Report for each reporting year since 2001. In addition, the HRPDC staff prepares a regional summary of the reports, which is presented to the HRPDC for approval and distribution during the fall of each year.

During FY 2005-2006, the RSMC reviewed the Indicators Program to develop improved guidance for reporting. This was designed to address concerns raised by EPA and DCR during audits of the stormwater programs of several of the localities. This guidance was used by the localities in completing the current year reports. The Indicators were also proposed for continuation in the MS4 Permit reapplications. Because the region's localities are continuing to operate under the permits issued in 2001, it is expected that the Indicators will also be used in reporting on activities during FY 2006-2007.

## **PHASE II STORMWATER PERMIT PROGRAM**

In late 1999, the U.S. Environmental Protection Agency promulgated the final Phase II Stormwater Permit Regulations. To facilitate review of the regulations, the HRPDC staff prepared a Review and Summary of the Regulations. That review summarized regulatory requirements, highlighted differences between the Phase I and Phase II regulations, noted potential issues that needed to be considered by the Phase II localities in determining their response to the regulations and suggested alternative approaches by which the region's localities could meet the new requirements in a cooperative fashion. That report served as the basis for the region's six Phase II localities moving forward in a cooperative fashion to address the Phase II Permit requirements.

### **Permit Process**

The Phase II localities – Cities of Poquoson, Suffolk and Williamsburg and Counties of Isle of Wight, James City and York – began meeting in May 2000 as a Subcommittee of the Regional Stormwater Management Committee. Coordinated by the HRPDC, the Phase II Subcommittee continues to meet separately to frame cooperative approaches to satisfy the Phase II requirements, to share information on existing program issues and to develop and refine the individual local government programs. Funding to support this element of the program is provided separately by the six Phase II localities. The Phase II localities received their initial MS4 Permits from DEQ under the state's Phase II MS4 General Permit Regulation in March 2003.

### **Measurable Goals Progress**

As noted in a previous section, the HRPDC and fifteen Hampton Roads local governments have executed the Memorandum of Agreement for Regional Stormwater Management Program. Regarding the Phase II local governments, the MOA identifies the HRPDC as being responsible for administering the Public Education and Outreach Minimum Management Measure required by their permits. The HRPDC will satisfy this permit requirement through its successful regional stormwater education program, HR STORM. The MOA also represents the accomplishment of one of the Measurable Goals identified for the first year of the Phase II permits.

In March 2003, HRPDC staff developed a BMP tracking spreadsheet to assist the localities in tracking stormwater BMPs as required by the Post Construction Storm Water Management Minimum Management Measure. This spreadsheet was finalized in June 2003. During FY 2003-2004, the six Phase II localities began using this system in tracking BMPs. Use of this common tracking system facilitates regional consistency in BMP tracking and reporting. Completion of the spreadsheet also represents an accomplishment of one of the Measurable Goals. The permit annual reports present this BMP information.

Over the past three years, the HRPDC staff and Phase II localities have worked to develop programs to satisfy the Illicit Discharge Detection and Elimination Minimum Management Measure of the Regulations. A draft model illicit discharge ordinance to assist local governments in satisfying permit requirements has been developed by the HRPDC staff. Ordinance adoption has been deferred by most of the Phase II localities pending finalization of the new DCR Stormwater Management Regulations. This deferral will allow the Phase II localities to adopt a single comprehensive stormwater management ordinance, which addresses all state requirements for local programs. The Phase II localities are continuing to evaluate options for establishing and implementing an illicit discharge program. Other Hampton Roads localities and the Hampton Roads Sanitation District have assisted the Phase II Subcommittee in this evaluation. The Subcommittee examined mapping and dry weather screening methods and discussed how to develop the most effective illicit discharge program in light of the unique challenges confronting the Phase II communities.

Over 50 local government stormwater staff, as well as other interested agency personnel, were trained on stormwater basics through the Phase II initiatives. Trainings were held in February and March of 2004, both on the Southside and Peninsula, to acquaint staff involved in all aspects of the stormwater program with the impacts of the regulations. In Spring 2005, a training workshop on fleet maintenance was held for the Phase II localities. In Spring 2006, a training workshop on landscaping and landscape maintenance was held for the Phase II localities. A number of staff from Phase I and non-permitted localities also participated in the several Phase II training programs. The half-day trainings provided a basic overview of the rationale behind the regulations and the minimum management measures to improve stormwater quality.

## **Annual Reporting**

In March 2004, the HRPDC staff in cooperation with the six Phase II localities completed the first annual reports of activities under their Permits. The annual reports documented progress in meeting the Measurable Goals in their permits. The Virginia Department of Environmental Quality (DEQ) accepted these reports as complying with the regulations, noting their thoroughness. In March 2005, the second annual reports were completed and submitted to DCR. Under the Phase II Permits, no annual report was required for 2006. The Subcommittee has begun preparation for the year 4 Phase II annual reports, which are due in March 2007.

## **FY 2005-2006 Program**

Efforts under the Phase II Program during FY 2005-2006 focused on exchange of information among the localities about program implementation issues, illicit discharge program development, participation in the ongoing regional deliberations of regulatory issues, and participation in the regional consultant effort to define a regionally consistent approach to complying with the new state requirements and expectations in response to the passage of HB 1177. Preparations for the Year 4 annual reports and development of applications for re-issuance of the Phase II MS4 Permits have begun through the regional process.

## **RELATED PROGRAMS AND PROJECTS**

In various combinations, the twelve (12) MS4 communities, as well as their non-permitted counterpart communities, in Hampton Roads participate in a wide variety of related programs. These programs are noted here because of their relationship with stormwater management.

### **Chesapeake Bay Program**

Over the past several years, the Hampton Roads Region has devoted considerable attention to the ongoing Chesapeake Bay Program (CBP). In June 2000, the Chesapeake Executive Council (Governors of Maryland, Virginia and Pennsylvania; Mayor of the District of Columbia; Administrator of EPA; and the Chairman of the Chesapeake Bay Commission) signed the Chesapeake Bay Agreement 2000. Working with the localities through joint meetings of the Regional Stormwater Management, Hampton Roads Tributary Strategies Steering and Hampton Roads Chesapeake Bay Committees, the HRPDC staff coordinated local response to the process of developing the Agreement; regional evaluation of the impact of the Agreement itself on local programs; and development and evaluation of various options for implementing key components of the Agreement. Key areas of focus in looking at the implementation activities are the water quality modeling that will serve as the basis for ultimate development of revised Tributary Strategies and state water quality standards, ongoing development of stormwater management programs and watershed planning initiatives. This involves monitoring the work of the Chesapeake Bay Program's Urban Stormwater Work Group and various state and federal work groups focusing on land development and watershed planning.

Legislation enacted by the 2001 Session of the Virginia General Assembly requires the Secretary of Natural Resources to advise the General Assembly annually on progress in meeting the Chesapeake Bay Agreement, including local initiatives. During 2001, the HRPDC coordinated regional input to the first report, submitted in November 2001. The Coastal Planning District Commission Committee, chaired until July 2005 by the HRPDC, coordinated development of the local government section in 2002, 2003 and 2004. The HRPDC staff continues to work to ensure that the Integrated Reporting package being considered by the Regional Stormwater Management Committee will be consistent with reporting requirements under the Chesapeake Bay Agreement.

To facilitate local government participation in Chesapeake Bay Program activities, the HRPDC staff has actively participated, on behalf of the localities, in a number of CBP initiatives. HRPDC staff and RSMC members 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. The HRPDC staff is presently serving on the CBP Urban Stormwater Work Group and in deliberations of the Land, Growth and Stewardship Subcommittee dealing with development and watershed modeling.

HRPDC staff and Committee representatives were instrumental in the formation of the Chesapeake Bay Metropolitan Areas Work Group to provide metropolitan local governments with a stronger voice in the Program. The HRPDC staff served on the Steering Committee, which guided the Work Group's activities. Although the Work Group no longer meets regularly, members of the Metro Work Group continue to exchange information about Chesapeake Bay Program and related issues.

The HRPDC Regional Stormwater Management, Chesapeake Bay, and Tributary Strategies Steering Committees participated extensively in the development and review of the new water quality criteria for the Chesapeake Bay. The criteria, which have been approved by the Chesapeake Bay Program, specify the water clarity, dissolved oxygen, and chlorophyll *a* levels necessary to protect the living resources of the Chesapeake Bay. Based on this participation, the region maintained its active involvement in the state's efforts to incorporate the Bay water quality criteria into its own state water quality standards, including participation on the state's Technical Advisory Committee, which advised the DEQ in the development of the revised standards and review and comment on the proposed standards when they were released. Building on the Water Quality Standards, which were adopted by the State Water Control Board in late 2004, the SWCB also developed treatment technology standards for wastewater treatment plants. To support implementation of the Water Quality Standards and treatment technology standards, the Virginia General Assembly enacted legislation in 2005 to authorize the establishment of nutrient trading programs. Shortly after the legislation was enacted, the SWCB announced its intent to develop regulations governing nutrient trading programs. In all three cases, the HRPDC facilitated local government review through the HRPDC Joint Environmental and Directors of Utilities Committee process. Consensus recommendations were developed and adopted by the HRPDC. Local government staff members, who serve on the HRPDC Committees, were appointed to the state's Technical Advisory Committees for each of these regulations, as recommended by the HRPDC.

During FY 2005-2006, the HRPDC staff worked with the local government participants in the regional process to develop an application to the Chesapeake Bay Program's Local Government Advisory Committee for recognition of the Hampton Roads Region as a Bay Partner Region. The application documented the many programs being conducted by Hampton Roads localities and regional agencies to address environmental quality throughout the region. Although the application was unsuccessful because this recognition program is focused on local governments, it has served as the catalyst for the Bay Program to begin development of a formal regional recognition program.

### **Hampton Roads Tributary Strategies Program**

The region's sixteen communities have participated actively in this program, which involves working with the state and others to develop strategies for reducing nutrient (nitrogen and phosphorus) and sediment loading to the Chesapeake Bay and its tributaries, since its inception in 1993. Originally developed as the result of the 1987

Chesapeake Bay Agreement and the 1992 Amendments to that Agreement, the Tributary Strategies effort was reemphasized in the Chesapeake Bay Agreement 2000. Completion of Tributary Strategies is also required of the state by legislation enacted in 1996 by the Virginia General Assembly. Originally targeted only at nutrient reduction, the Strategy effort was expanded during 1998-1999, based on results of the EPA water quality model for the Chesapeake Bay, to include sediment reductions. Working through the HRPDC and local government representatives, this effort is closely coordinated with the work of the twelve permitted cities and counties.

In previous years, the HRPDC staff developed a series of reports, documenting all local government programs, which may assist in nutrient reduction, and a comprehensive list of management options, which could be considered for implementation by the localities and others. Evaluation of this list and selection of specific options to be included in the Implementation Plans for the James and York River and Small Coastal Basins Strategies in Hampton Roads were originally expected to be completed during Fiscal Year 1998-1999. This effort was delayed by state and federal efforts to further refine the nutrient and sediment goals for the Bay and its Tributaries, which resulted from the commitments in the Chesapeake Bay Agreement 2000. The previous section describes regional activities undertaken with respect to the refinement of the reduction goals.

Based on the Chesapeake Bay Agreement 2000, the state and its partners in the Bay Program have focused their efforts on the development and implementation of programs necessary to “delist” or remove the Bay and its Tributaries from the “impaired waters” list.

After a short hiatus during the reevaluation effort, the regional effort to develop Tributary Strategies and implementation plans was reactivated during the summer of 2003. It served as a major focus of regional activity throughout FY 2003-2004 and early FY 2004-2005. Tributary Strategy issues were discussed extensively at the monthly joint meetings of the RSMC and the Hampton Roads Chesapeake Bay and Tributary Strategies Committees. In addition, members of these Committees participate in the both the Lower James River (Hampton Roads) Watershed Roundtable and the York Forum, which also include representatives of point source, agricultural and environmental interests.

To support regional efforts addressing the Chesapeake Bay Program and Tributary Strategies, the HRPDC Committees recommended that key state officials brief the members of the Hampton Roads Planning District Commission on the program and its implications for local governments. Major briefings of the Commission by the Secretary and Assistant Secretary of Natural Resources occurred in 2003 and 2004. The Region’s efforts to address the various aspects of the Chesapeake Bay Program led to approval by the HRPDC in January 2005 of a Compendium of Position Statements concerning the Chesapeake Bay Program and the reaffirmation by the Commission of historic positions.

A renewed effort to develop the Tributary Strategy Implementation Plan for the Lower James River and the Hampton Roads portion of the York River began during FY 2004-2005. Work has been delayed by the priority placed on stormwater permits and sanitary sewer overflow regulatory issues by the region's localities. It is expected that a draft Implementation Plan will be developed during FY 2006-2007. The region's localities have reached general consensus that this Plan should be developed using the region's successful approach to the TMDL Implementation Planning process and should be based on the region's efforts to reach consensus on management options, noted above.

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

Fourteen of the sixteen member localities, including the six cities with Phase I MS4 Permits and the six localities with Phase II MS4 Permits, are implementing programs in response to the Virginia Chesapeake Bay Preservation Act. Stormwater management is one component of those programs. Although the CBPA is not formally part of the multi-state Chesapeake Bay Program, 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 Bay Program. Through the HRPDC Chesapeake Bay Committee, which also involves the region's non-permitted communities, staff members responsible for implementation of that program share information on successful program activities. These efforts are closely coordinated with the Regional Stormwater Management Committee. Routinely, the two Committees, meet jointly to address technical and regulatory issues of common concern.

During FY 2005-2006, the HRPDC hosted and conducted a training program on the CBPA and related administrative issues for local government appeals board members and staff. Future sessions are being planned to address technical aspects of the CBPA. The HRPDC staff, working with the Hampton Roads Chesapeake Bay Committee compiled a status report on local government programs to implement the CBPA. Based on recommendations from the Hampton Roads Chesapeake Bay Committee, the HRPDC staff will facilitate development of a regional CBPA implementation manual during FY 2006-2007.

### **Southern Watershed Special Area Management Program**

The Southern Watershed Special Area Management Program (SWAMP), which involves the Cities of Chesapeake and Virginia Beach, the Virginia Department of Environmental Quality (Virginia Coastal Program) and the HRPDC began in 1992. In 1995, the two cities formalized their relationship through a Memorandum of Agreement calling for continued cooperation in addressing the Southern Watersheds -- Back Bay and the North Landing and Northwest Rivers. The program focused on basic technical studies and development of a regional consensus on managing development in this watershed. For a period of approximately eight years, considerable state funding was obtained through the Virginia Coastal Zone Management Program to support this local initiative. Additional funding to support these ongoing initiatives was obtained from the State of North Carolina.

Through the SWAMP program, consultant efforts resulted in development of a Strategic Plan for Agriculture; Conservation Planning Options, focusing on natural heritage areas; a comprehensive Multiple Benefits Conservation Plan; and a Rural Area Preservation Program. The comprehensive plans and development regulations of the two cities were evaluated to determine appropriate ways to include conservation design principles in local developments. Major portions of these studies have been incorporated into the comprehensive plans of the two cities. Based on work completed through the SWAMP Program, a private developer has implemented a site plan for a conservation subdivision along the Elizabeth River in the City of Chesapeake. Preliminary concept plans for this project were developed by one of the SWAMP consultants in cooperation with the developer and the City.

Of considerable long-term importance was the execution during FY 2000-2001 and 2001-2002 of two Memoranda of Agreement between the two cities, the HRPDC and a wide range of state and federal agencies and private interests. They include:

- North Landing River Water Use Conflict Memorandum of Agreement
- Multiple Benefits Conservation Plan Memorandum of Agreement

The latter agreement commits the signatory agencies to participate in a process to improve the wetlands compensation process in the Southern Watersheds. A Technical Advisory Committee has been established to facilitate and guide this effort. A Conservation Corridor System is included in the Memorandum as a guide to the location of compensation sites, including stormwater management options. The Advisory Committee has developed a technical process for using the above-noted studies to support mitigation approaches that are consistent with the goals of the MOA.

Based on the SWAMP work, the HRPDC staff has recently completed a comprehensive Conservation Corridor (Green Infrastructure) study, applying the concepts and approach to the entire Hampton Roads region. This project was completed through financial support from the Virginia Coastal Zone Management Program in DEQ. To facilitate use of that study, the HRPDC received financial assistance from DCR to conduct two workshops on green infrastructure financing and implementation. This program will continue during FY 2006-2007 with an emphasis on identifying ways that the green infrastructure system may be integrated into the comprehensive plans of all of the region's localities and be used more effectively in water quality management.

The various SWAMP studies, as reflected in the Conservation Corridor System and Multiple Benefits Conservation Plan MOA are being extensively used by the two localities in the watershed. Sites being considered as mitigation for wetlands impacts associated with the proposed Southeastern Parkway and Greenbelt were identified through the SWAMP process. Also, through the Joint Land Use Study, facilitated by the HRPDC and involving the Cities of Chesapeake, Norfolk and Virginia Beach and the

U.S. Navy, sites identified in the SWAMP Conservation Corridor System are being considered for acquisition to assist in protecting NAS Oceana from urban encroachment. Both the Navy and the Cities of Chesapeake and Virginia Beach have used this work to support proposals for Congressional funding through both the Departments of Defense and the federal Coastal and Estuarine Lands Conservation Program.

### **Regional Water Supply Watershed Management Program**

Through the HRPDC, the region's localities are pursuing a comprehensive Regional Water Supply Watershed Management Program, focusing on protection of surface water components of municipal water supplies. Regional best management practices and other stormwater management practices have been identified as important tools for protecting the water supplies. Working with the HRPDC Directors of Utilities (Water Supply) Committee, in cooperation with the Directors of Planning for the member localities, several studies have been completed in recent years. They include:

- December 1997 – Principles to guide interjurisdictional management efforts for the watersheds of municipal water supply reservoirs.
- December 1997 – comprehensive resource document, Water Supply Watershed Management in Hampton Roads. Recommendations found in that resource document were summarized in Regional Water Supply Watershed Management Program: Executive Summary, which recommends a comprehensive regional approach to water supply protection. This effort is expected to guide, at least in part, future stormwater management initiatives in water supply watersheds.
- December 1999 – Model Water Supply Watershed Management Ordinance. Again, stormwater management initiatives are a key element of the evolving ordinance. The model ordinance is being considered by a number of the localities.
- September 2002 – Hampton Roads Source Water Assessment Program. This effort involved development of comprehensive inventories of land use activities within the watersheds of the region's water supply reservoirs, river intakes and wells. Risks associated with those land uses were analyzed and the susceptibility of the region's water sources to contamination from those land use activities was determined. This effort satisfied the requirements of the EPA and the Virginia Department of Health under the Safe Drinking Water Act.

The various studies have recommended that enhanced educational efforts, focusing on watershed management, addressing both water supply and water quality issues, be implemented. To carry out these recommendations, the HRPDC completed a public information brochure in 2003 on steps that individual citizens can take to protect their drinking water. These steps are equally valid for general stormwater management.

## **Water Supply Planning**

Beginning with the drought of 2002, the Department of Environmental Quality embarked on an intensive effort to develop regulations governing water supply planning and permitting. Much of this effort was directed by legislation enacted by the Virginia General Assembly in 2003. Through the HRPDC Directors of Utilities Committee, the HRPDC and sixteen localities were heavily involved in these efforts. Building on Position Statements adopted by the HRPDC in 2002 and 2003, two members of the Directors of Utilities Committee and the HRPDC staff served on the Technical Advisory Committees, established by DEQ to assist in the development of the necessary regulations. The HRPDC, as recommended by the Committee, adopted a formal position in support of the water supply planning regulations as finally proposed. These Regulations, governing local and regional water supply planning, became effective in late 2005. The region was also heavily involved in the effort beginning in FY 2003-2004 to develop modifications to the Virginia Water Protection Permit Regulations as they apply to water supply projects. Those regulations became final in early 2006. As noted earlier in this report, DEQ is reconvening the permitting TAC to assist it integrating the host of changes that have been made to the Virginia Water Protection Permit regulations over the past three years and to address other needed regulatory refinements.

Beginning in late Fall 2005, the HRPDC Directors of Utilities Committee began discussions on possible approaches to meeting the planning requirements in a cooperative, regional fashion. With a small grant from DEQ, the HRPDC staff and Utilities Committee have developed a framework for accomplishing development of a regional water supply and educational materials on the state planning requirements. It is expected that the regional planning framework will be presented to the HRPDC and local governments for consideration in Fall 2006. If approved by the Commission and localities, a regional water supply plan will be developed over the next two years.

## **Watershed Restoration Studies**

The HRPDC staff is facilitating local efforts on two major watershed restoration studies involving the U.S. Army Corps of Engineers (COE), the state and the region's localities. These studies are the Elizabeth River Restoration Study and the Lynnhaven River Restoration Study. For both studies, the HRPDC chairs a Project Steering Committee, involving the COE, numerous state agencies, the affected locality or localities, academia, other federal agencies and watershed organizations.

### **Elizabeth River Restoration Study**

The Elizabeth River Restoration Study began in Spring 1997, when the Norfolk District of the Corps of Engineers (COE) received funding to undertake a comprehensive study of the Elizabeth River to determine the federal interest, if any, in undertaking restoration activities, focusing on sediment remediation and wetlands restoration. The Cities of Chesapeake, Norfolk, Portsmouth and Virginia Beach, the Commonwealth of Virginia and the HRPDC are participating in this project.

The COE completed the Reconnaissance Study phase of this project in March 1998. Based on technical work accomplished by the COE and input from the four cities and the state, five sediment remediation sites and fourteen wetlands restoration sites were determined to warrant further study. The Feasibility Study, which began in 1998, was completed in Spring 2001. Following extensive contract discussion, the Preconstruction Engineering Design (PED) Agreement was executed in late 2004. Design of the sediment remediation effort is underway with a projected completion date in Fall 2006. Project construction is scheduled for 2007 and beyond depending upon the availability of state, federal and local funding. Agreements are now in place to support an additional Feasibility Study addressing sediment remediation.

Many of the wetlands restoration sites, selected for evaluation and preliminary design, are located at municipal stormwater outfalls. Although at least two of the wetlands projects are ready to proceed, federal funding constraints are presently delaying efforts to complete design and construction.

Because of ongoing issues with project funding, the Steering Committee developed a comprehensive package of wetlands restoration and sediment remediation projects and a request for state, local and federal funding to support them. The project package was approved by the HRPDC in July 2005 and transmitted to state, federal and local government agencies and governing bodies. The package was revised in January 2006. The Steering Committee is proceeding with development of a long-term funding strategy to ensure that all project sponsors are aware of when and at what level funding will be required and to serve as the basis for ongoing project support.

### Lynnhaven River Restoration Study

The Corps of Engineers completed the Reconnaissance Phase of the comprehensive Lynnhaven River Restoration Study during FY 2002-2003. That effort involves a number of state and federal agencies, the City of Virginia Beach and the HRPDC. This project is now in the second year of a five-year Feasibility Study. Stormwater has been implicated in the various environmental problems in the Watershed and solutions involving enhanced stormwater management are being considered during the Feasibility Study. The Feasibility Study includes a comprehensive hydrologic and water quality modeling effort. The 2002 General Assembly adopted a Joint Resolution directing state agencies, coordinated by the Department of Conservation and Recreation to support this effort. The Project Steering Committee, involving the COE, state agencies and several city departments, is providing overall direction and integration to these initiatives.

### Other Restoration Studies

The Corps of Engineers is also conducting other watershed restoration studies that affect the Hampton Roads Region. A comprehensive restoration study, being conducted by the Wilmington District of the COE, is underway for the Currituck Sound in North Carolina. The watershed extends into Virginia, including all of the Southern Watersheds of Chesapeake and Virginia Beach. The HRPDC staff is representing the

region on the Project Steering Committee and the study's water quality technical committee. Other studies in the Chowan and James River Basins are being contemplated by the COE.

## **Non-Profit Environmental Organization Efforts**

### Elizabeth River Project

The Cities of Chesapeake, Norfolk, Portsmouth and Virginia Beach, the HRSD and the HRPDC are all active participants in the Elizabeth River Project (ERP). This is a non-profit organization, consisting of representatives of citizens, businesses, environmental organizations, academia and local governments, which is actively pursuing a variety of management restoration initiatives for the Elizabeth River.

Completed in mid-2002, the revised Action Plan of the Elizabeth River Project makes management of urban stormwater a high priority. A major focus of the ERP's efforts is cleanup of contaminated sediment in the River. The HRPDC staff and representatives from several of the localities participate on the ERP Sediment Remediation Task Force. That group is examining a number of remediation projects including one at the Money Point area of the City of Chesapeake. That project also included an examination of redevelopment options for the adjacent industrial lands. The Institute for Environmental Negotiation at the University of Virginia has obtained federal grant funding to facilitate the evaluation of upland redevelopment activities and remediation options for the Money Point Project. The City of Chesapeake and the HRPDC staff participate in the Task Force guiding the effort. A similar grant-funded project has been undertaken by the ERP to develop and implement an environmental site design and demonstration of low impact development techniques on a site along Scotts Creek in the City of Portsmouth. Both the City of Portsmouth and the HRPDC participate in this initiative.

### Lynnhaven River 2007

A private, non-profit organization, Lynnhaven River 2007, focusing on the restoration of the Lynnhaven River, formed early in 2003. The HRPDC staff participated in the discussions leading to creation of the organization through provision of technical assistance and recommendations. Educational efforts, addressing proper management of pet wastes, have been developed and coordinated among Lynnhaven River 2007, HR STORM and the Virginia Beach SPCA. The City of Virginia Beach is heavily involved in a number of the organization's activities. Both the City and the HRPDC staff continue to participate in the Lynnhaven River 2007 Board and committees.

### Back Bay Restoration Foundation

The Back Bay Restoration Foundation (BBRF) was formed in the late 1980s to focus attention on the Back Bay Watershed in Virginia Beach. The HRPDC staff and the City of Virginia Beach have worked closely with BBRF throughout its history on a number of educational and water quality management initiatives. This work is continuing.

## Other Watershed Organizations

A number of watershed and other environmental organizations are evolving throughout the Hampton Roads region. The local governments generally work closely with these organizations in conducting various educational programs that support municipal stormwater management, the goals of the organization and general environmental management. The HRPDC staff participates with the various organizations whenever possible to support the regional stormwater and environmental management initiatives.

## **State Water Quality Management Planning**

Under the Clean Water Act, state legislation, water quality management planning regulations and a consent order involving the Commonwealth of Virginia and the federal government, the state is proceeding with development of a substantial number of TMDL (Total Maximum Daily Load) Studies and subsequent development of TMDL Implementation Plans. This work follows from the classification of the waters by the state as meeting or failing to meet water quality standards. Waterbodies that fail to meet water quality standards are classified as “impaired,” triggering the requirement to prepare the TMDL study. Once a TMDL Study is completed, state law requires the development of an Implementation Plan, which will restore water quality in the waterbody to a level that meets water quality standards.

The HRPDC staff has coordinated regional involvement in the “impaired waters” listing process. This has entailed providing opportunities through the Joint Environmental Committee for education of local government staff on the TMDL process, development of technical comments on the “impaired waters” list and response to the development of TMDLs themselves.

The Lynnhaven River has been identified as impaired by the state with respect to water quality standards for direct harvest of shellfish. During FY 2003-2004, the HRPDC participated with Virginia Beach staff in reviewing a TMDL (Total Maximum Daily Load) Study associated with this impairment. This is the first Shellfish TMDL for an urban waterway completed by the state. Working in cooperation with the City of Virginia Beach and DEQ, the HRPDC facilitated development of a TMDL Implementation Plan for the Lynnhaven River. This Plan was completed in Spring 2005 and is expected to be considered for approval by the State Water Control Board in December 2006.

The HRPDC staff is working with the region’s other localities in participating in TMDL studies for approximately twenty watersheds. The most recent estimates are that nearly twenty studies and implementation plans must be completed in the Hampton Roads region before the state-federal consent order deadline of 2010. To assist the region’s localities in addressing this requirement and ensuring that Implementation Plans are consistent with the ability of the localities to implement the recommendations, the HRPDC staff is working with DEQ to devise a cooperative regional partnership to coordinate the TMDL study process with the localities and to develop the required

Implementation Plans. This initiative will become increasingly important during FY 2006-2007.

### **Other Watershed Initiatives**

A number of efforts are underway to improve watershed planning as a means of addressing a variety of environmental issues. These include the establishment of watershed roundtables, development of protocols and guidance on performing watershed management planning and various educational initiatives. The HRPDC staff, members of the RSMC, and members of other regional environmental committees, are playing active roles in these efforts.

The Commonwealth of Virginia has indicated its desire to work with watershed roundtables or councils in the revision and implementation of Tributary Strategies and other watershed management plans. These groups are to include a broad range of stakeholders, representing local governments, agricultural and industrial interests and environmental organizations. The HRPDC staff facilitates the operation of the Lower James River (Hampton Roads) Watershed Roundtable, which consists of the RSMC, members of the other HRPDC environmental committees, agricultural interests and environmental organizations. The Roundtable met regularly through November 2002, when state financial support for the program was terminated as part of the state's budget reductions. With limited state financial support, the Roundtable began meeting regularly during Fall 2004 to continue consideration of tributary strategy implementation options. This activity was discussed in detail earlier in the report. This effort is expected to continue through FY 2006-2007.

The HRPDC staff and representatives of the localities in the York River Watershed, including Gloucester County, James City County, Poquoson, Williamsburg and York County, participate in the York Watershed Forum. This group, established originally under the auspices of the various Soil and Water Conservation Districts in the watershed, was managed initially by the state and the Middle Peninsula Planning District Commission to serve as a means of providing local input to and support for the tributary strategy process in the York River Basin. After a brief hiatus, the York River Watershed effort has been reactivated and is expected to continue its work on the tributary strategy during FY 2006-2007.

The Department of Conservation and Recreation has recently initiated efforts to develop a Chowan River Watershed Roundtable. The HRPDC staff and representatives of the localities in the Chowan Watershed are actively involved in the Chowan Roundtable effort. The involved localities include the Cities of Chesapeake, Franklin, Suffolk and Virginia Beach and the Counties of Isle of Wight, Southampton and Surry.

On behalf of the region's localities, the HRPDC staff participated actively in the effort to create the Virginia Watershed Alliance, which is a network of the Watershed Roundtables serving all of the watershed areas in the Commonwealth. Most of this work has been accomplished through teleconferences. Annual meetings have "piggybacked" on other statewide meetings.

Staff members from the HRPDC and localities also participate on various state committees developing watershed planning guidance and training materials. These include the Chesapeake Bay Program watershed planning initiative and the state's companion effort to tailor the Bay Program's efforts to Virginia.

As can be seen from the preceding discussion, a myriad of watershed planning initiatives are underway at the state level. They are being translated into a variety of local implementation programs. The Chesapeake Bay Program and the Clean Water Act planning and regulatory programs include other initiatives with a watershed-planning component. Because of the complexity and potential duplication inherent in these efforts, the HRPDC directed the staff to continue working with the localities during FY 2005-2006 to develop a regionally consistent approach to coordinating watershed-planning programs. Local involvement is being accomplished through the HRPDC Ad Hoc Environmental Strategic Planning Subcommittee, which includes representatives of the RSMC. The regional TMDL initiative, noted above, is one aspect of the region's response to that direction.

### **Sanitary Sewer Overflows**

Based on the success of the Regional Stormwater Management Program efforts, the HRPDC Directors of Utilities Committee has established through the HRPDC a regional wastewater program to address the Sanitary Sewer Overflow (SSO) issue, as well as related activities. Initially, the regional wastewater program focused on review of evolving federal regulations to govern the management of wastewater systems to reduce sanitary sewer overflows. Those regulations were placed on hold by the Environmental Protection Agency in early 2001 to permit further internal review. It is not known when they will be released.

With the promulgation of the federal regulations on hold, the HRPDC staff and Directors of Utilities Committee turned their attention to development of standard regional procedures for identifying, responding to and reporting to DEQ on the occurrence of sanitary sewer overflows. A reporting protocol and field procedures were finalized in late 2002. A training program for wastewater field personnel is being developed. In late 2004, the HRPDC staff began implementing an electronic reporting and record keeping system. With contractor assistance, a web-based reporting and data management system, modeled on the stormwater system, previously developed through the Stormwater Program Effectiveness Indicators Project and the companion reporting program developed by the City of Virginia Beach, was finalized and went "live" on October 12, 2004. This system is considered to be a model and HRPDC staff has provided informational briefings and presentations on this system to a variety of agencies across the state. One of the briefings was to the DEQ Senior Management Team, which expressed considerable interest in expanding the system statewide. Unfortunately, state funding constraints have precluded that effort to date. The web-based aspects of this effort may be used to further enhance the regional stormwater reporting system. Because of the obvious similarities of these two programs that deal with potential pollutant discharge under wet weather conditions, and because sanitary

sewer overflows are considered an illicit discharge insofar as the MS4 Permits are concerned, it is expected that the RSMC and the Directors of Utilities Committee will cooperate closely in addressing these issues.

EPA has recently initiated discussions with DEQ and the region's wastewater treatment and collection systems under its National Wet Weather Strategy. The intent of these discussions is the establishment of a coordinated and enforceable mechanism to address potential operational issues with the region's wastewater system. Part of this strategy is to ensure that all large wastewater treatment systems (flows greater than 100 million gallons per day) and their satellite collection systems are operating under state or federal consent orders. The Hampton Roads region meets that criterion. Based on that, the DEQ, in conjunction with EPA, instituted discussions with the region's localities and HRSD through the HRPDC Directors of Utilities Committee in Summer 2005 regarding development of a consent order.

The HRPDC staff is facilitating work by the localities and HRSD to develop a coordinated regional response to this initiative. Work is underway on development of a single consent order addressing the SSO issue in those parts of the region covered by the HRSD wastewater system – fourteen cities, counties and towns. This order will establish the framework for sewer system evaluation, flow monitoring, determination of allowable levels of infiltration/inflow, system modeling, and the appropriate balance between system and treatment capacity and collection systems. Regional design guidelines have been developed as a consensus of the parties. This effort will continue through FY 2006-2007 with the expected signing of the consent order in late 2007.

The Directors of Utilities Committee has identified the presence of fats, oils and grease in the sanitary sewer system as a major cause of sewer system blockages and associated overflows. To address this issue, the Committee and HRPDC staff have developed a regional educational initiative. This effort, known as HR FOG, focused in FY 2004-2005 on development of baseline information about resident and industry (food service) knowledge of the issue. The HR FOG subcommittee has developed a regional FOG communication plan and long-range program budget. A regionally consistent "canned" presentation has been developed for use by all local governments in communicating with civic leagues and homeowners associations. Local government staff has received some initial training on-site at local restaurants regarding FOG disposal procedures, as well as training from Valley Proteins regarding grease disposal. Additional public information and educational materials will be developed in response to the baseline research and work with partnering agencies such as the Hampton Roads Sanitation District and the local Health Departments.

### **North Carolina Initiatives**

In October 2001, the Commonwealth of Virginia and the State of North Carolina executed a Memorandum of Agreement to cooperate on projects to improve environmental conditions in the watershed of the Albemarle-Pamlico Sounds. This area includes the Southern Watersheds of Chesapeake and Virginia Beach and the Chowan River Watershed in the Cities of Franklin and Suffolk and the Counties of Isle of Wight,

Southampton and Surry.

In January 2004, the HRPDC received a small grant to facilitate cooperative discussions between the Cities of Chesapeake and Virginia Beach and the adjacent North Carolina Counties of Camden and Currituck. Based on expressions of interest on the part of the four localities, the HRPDC is continuing to facilitate discussions, while seeking additional funding to support this cooperative multi-state, regional initiative. The North Carolina funding also provided for exchange of information about the SWAMP Program between the Cities of Chesapeake and Virginia Beach and the several localities in the western portion of Hampton Roads. These discussions are facilitating the involvement of Hampton Roads localities in the state initiative to establish a Chowan River Watershed Roundtable.

The State of North Carolina has recently restructured its Albemarle-Pamlico National Estuary Program. This restructuring provides for a significantly increased role for the Commonwealth of Virginia and Virginia localities in the management and operation of the program. The HRPDC staff is serving on the Program Policy Council, established by the State of North Carolina to provide primary program oversight.

## **CONCLUSION**

Through the Hampton Roads Planning District Commission, the sixteen 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, supporting both permitted and non-permitted localities alike. 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 twelve localities with VPDES Permits for their Municipal Separate Storm Sewer Systems to comply with permit requirements. Their long history of participating in the Regional Stormwater Management Program, enhanced the efforts by the localities that obtained Phase II MS4 Permits in 2003 to move forward cooperatively with permit applications and program development. In fact, their participation in the regional program over the past decade led to the establishment of the cooperative Phase II Permit component of the regional program.

Since the HRPDC staff also coordinates a number of other regional environmental initiatives, the program allows for effective coordination and regional balancing of the various activities. This characteristic of the regional programs facilitated efforts, which began during FY 2002-2003, by representatives of the RSMC, Directors of Utilities and Hampton Roads Chesapeake Bay Committees and the regional wastewater and solid waste management agencies to address a number of environmental funding and regulatory issues of common interest. On several occasions over the last several years, the HRPDC formally endorsed recommendations developed through this coordinated initiative on state water quality and technology standards,

funding guidelines, implementation strategies, as well as on state legislation addressing funding needs for water quality improvement programs.

During FY 2005-2006, the value of the Regional Stormwater Management Program as a vehicle for addressing stormwater management regulatory issues was highlighted. The region's six localities with Phase I MS4 Permits developed cooperatively their applications for permit re-issuance. They also developed MS4 Program Plans on a cooperative basis. By using a single consultant through the HRPDC, they were able to meet state deadlines and requirements in a cost-effective and timely fashion. They were also able to ensure that stormwater management in Hampton Roads would continue to be implemented in a regionally consistent manner to the economic benefit of the citizens and businesses of the region while ensuring a high level of environmental and water quality protection.

By recognizing the common market and media system available to the localities and the public, the HR STORM educational program provides a cost-effective means of providing comprehensive information to support and enhance the sixteen individual local programs. Additional joint efforts with HR WET and HR CLEAN, under the auspices of HR<sup>3</sup>, including an environmental tabloid inserted into the major daily newspapers in the region, a mini-grant program and the development of a family activity booklet all take advantage of an even greater economy of scale. By pooling resources from the three major environmental education initiatives on appropriate collaborative efforts, a unified regional message is presented which can inform residents of the overlapping benefits of environmental stewardship.

The Regional Stormwater Management Program provides a mechanism through which the strengths of the sixteen 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, and achievement of improved environmental quality throughout the Hampton Roads Region.