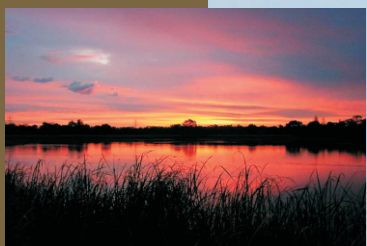
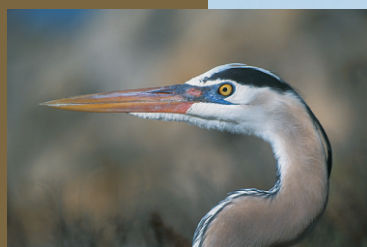


Hampton Roads Coastal Resources Technical Assistance Program

Fiscal Year 2008 - 2009



Virginia Coastal Zone
MANAGEMENT PROGRAM



NOVEMBER 2009

PEP09-07

HAMPTON ROADS PLANNING DISTRICT COMMISSION

CHESAPEAKE

AMAR DWARKANATH
WILLIAM E. HARRELL
CLIFTON E. HAYES, JR
* ALAN P. KRASNOFF
ELLA P. WARD

FRANKLIN

* JUNE FLEMING
ROSA M. LAWRENCE

GLOUCESTER COUNTY

* BRENDA G. GARTON
GREGORY WOODARD

HAMPTON

ROSS A. KEARNEY
JAMES B. OLIVER
* MOLLY JOSEPH WARD

ISLE OF WIGHT COUNTY

W. DOUGLAS CASKEY
* STAN D. CLARK

JAMES CITY COUNTY

* BRUCE C. GOODSON
SANFORD B. WANNER

NEWPORT NEWS

* JOE S. FRANK
VACANT
SHARON P. SCOTT

NORFOLK

ANTHONY L. BURFOOT
* PAUL D. FRAIM
DR. THERESA W. WHIBLEY
REGINA V.K. WILLIAMS
BARCLAY C. WINN

POQUOSON

* J. RANDALL WHEELER
GORDON C. HELSEL, JR.

PORTSMOUTH

KENNETH L. CHANDLER
* DOUGLAS L. SMITH

SOUTHAMPTON COUNTY

ANITA T. FELTS
* MICHAEL W. JOHNSON

SUFFOLK

* SELENA CUFFEE-GLENN
LINDA T. JOHNSON

SURRY COUNTY

* TYRONE W. FRANKLIN
JOHN M. SEWARD

VIRGINIA BEACH

HARRY E. DIEZEL
ROBERT DYER
BARBARA M. HENLEY
LOUIS R. JONES
* WILLIAM D. SESSOMS
JAMES K. SPORE
JOHN E. UHRIN

WILLIAMSBURG

JACKSON C. TUTTLE, II
* JEANNE ZEIDLER

YORK COUNTY

* JAMES O. McREYNOLDS
THOMAS G. SHEPPERD, JR.

*EXECUTIVE COMMITTEE MEMBER

PROJECT STAFF

DWIGHT L. FARMER

EXECUTIVE DIRECTOR/SECRETARY

JOHN M. CARLOCK

DEPUTY EXECUTIVE DIRECTOR

ERIC J. WALBERG
JULIA B. HILLEGASS
SARA J. KIDD
CLAIRE JONES
JENNIFER L. TRIBO
HOLLY B. MILLER

PHYSICAL AND ENVIRONMENTAL PLANNING ADMINISTRATOR
SENIOR ENVIRONMENTAL PLANNER
SENIOR ENVIRONMENTAL GIS PLANNER
PHYSICAL AND ENVIRONMENTAL PLANNER
PHYSICAL AND ENVIRONMENTAL PLANNER
ENVIRONMENTAL EDUCATOR

FRANCES D. HUGHEY

ADMINISTRATIVE ASSISTANT

ROBERT C. JACOBS
MICHAEL R. LONG
BRIAN MILLER
CHRISTOPHER W. VAIGNEUR

GENERAL SERVICES MANAGER
ASSISTANT GENERAL SERVICES MANAGER
COMMUNICATIONS DESIGNER
REPROGRAPHIC COORDINATOR

**HAMPTON ROADS TECHNICAL ASSISTANCE PROGRAM
REGIONAL COASTAL RESOURCES MANAGEMENT PROGRAM
FOR HAMPTON ROADS**

**FISCAL YEAR 2008 – 2009
FINAL REPORT**

This report was produced, in part, through financial assistance from the Virginia Coastal Zone Management Program in the Virginia Department of Environmental Quality through Grant No. NA08NOS4190466 from the National Oceanic and Atmospheric Administration. The views expressed herein are those of the authors and do not necessarily reflect the views of NOAA or any of its sub-agencies. Federal financial assistance to this project amounted to \$60,000 or approximately fifty percent of the total project cost.

Preparation of this report was included in the HRPDC Unified Planning Work Program for FY 2008 – 2009, approved by the Commission at its Executive Committee Meeting of March 19, 2008, and in the HRPDC Unified Planning Work Program for FY 2009 – 2010, approved by the Commission at its Executive Committee Meeting of March 18, 2009.

**Prepared by the staff of the
Hampton Roads Planning District Commission**

NOVEMBER 2009

PEP 09-07

REPORT DOCUMENTATION

TITLE:
Hampton Roads Coastal Resources
Technical Assistance Program
Fiscal Year 2008-2009

REPORT DATE
November 2009

GRANT/SPONSORING AGENCY
DEQ/NOAA/LOCAL FUNDS

AUTHORS:
Claire Jones
Eric J. Walberg
Julia B. Hillegass
Sara J. Kidd
Jennifer L. Tribo
Holly B. Miller
John M. Carlock

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

ABSTRACT

This report describes the environmental technical assistance program conducted by the Hampton Roads Planning District Commission during FY 2008 – 2009 through its Coastal Resources Management Program. This program encompasses environmental impact review, participation in state and federal programs, coordination of regional environmental programs addressing environmental issues, including the Chesapeake Bay, wetlands, and the Albemarle-Pamlico Estuaries in North Carolina, public information and education and technical assistance to the localities. It contains representative examples of the reports, comment letters, newsletters and associated materials generated and used in assisting the region's sixteen local governments, supporting the Virginia Coastal Zone Management Program and working with the other Planning District Commissions in the Coastal Zone.

ACKNOWLEDGMENTS

This report was produced, in part, through financial assistance from the Virginia Coastal Zone Management Program in the Virginia Department of Environmental Quality through Grant No. NA08NOS4190466 from the National Oceanic and Atmospheric Administration. The views expressed herein are those of the authors and do not necessarily reflect the views of NOAA or any of its sub-agencies.

Preparation of this report was included in the HRPDC Unified Planning Work Program for FY 2008 – 2009, approved by the Commission at its Executive Committee Meeting of March 19, 2008, and in the HRPDC Unified Planning Work Program for FY 2009 – 2010, approved by the Commission at its Executive Committee Meeting of March 18, 2009.

TABLE OF CONTENTS

INTRODUCTION.....	1
PROGRAM OBJECTIVES.....	2
PROGRAM ACCOMPLISHMENTS.....	3
VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM SUPPORT	3
TECHNICAL STUDIES	14
LOCAL ASSISTANCE AND COORDINATION	20
PUBLIC INFORMATION, EDUCATION AND TRAINING.....	34
CONCLUSIONS.....	37
 APPENDIX A: LISTING OF ENVIRONMENTAL IMPACT REVIEWS AND REPRESENTATIVE COMMENT LETTERS	
 APPENDIX B: ENVIRONMENTAL GEOGRAPHIC INFORMATION SYSTEM – SAMPLE MAPS	
 APPENDIX C: HRPDC COMMENTS ON STATE REGULATORY ISSUES	
 APPENDIX D: NEWSLETTER ARTICLES	

INTRODUCTION

In March 2008, the Hampton Roads Planning District Commission submitted a proposal to the Virginia Coastal Zone Management Program (VCZMP) for funding to continue the HRPDC's Technical Assistance Program. Through this program, the HRPDC provides technical assistance on a variety of environmental and coastal resources management issues to the sixteen cities and counties of the Hampton Roads region and to coordinate their response to those issues. It also provides assistance to the eight incorporated towns in the region as well as to a wide variety of private entities. This Program has operated successfully with financial assistance from the Virginia Coastal Zone Management Program since the Program's inception in 1986. In October 2008, the HRPDC was awarded financial assistance to maintain its Technical Assistance Program through September 2009. This report provides an overview of the activities and accomplishments of the Hampton Roads Technical Assistance (Regional Coastal Resources Management) Program during that period.

The Hampton Roads Technical Assistance Program is a comprehensive, interrelated initiative, providing on-call staff capability, a regional coordination mechanism, and related technical studies. It assists the region's localities on short-term local issues, ensures a collective response to regional, state and federal issues as they arise, and facilitates cooperation and coordination among the localities. The ideas for major technical studies, such as the Hampton Roads Tributary Strategy Program including the Hampton Roads Watershed Roundtable, ongoing analysis of the impacts of the Chesapeake Bay Agreement and related regulatory initiatives, the regional green infrastructure project, coordination of regional involvement in the state's TMDL process, the Energy Efficiency and Conservation Block Grant Program and other energy issues, and the climate change initiative, as well as the staff follow-up to carry them to fruition have been provided through the Technical Assistance Program.

Of particular significance, VCZMP funding for this program has provided seed money allowing the region to undertake new environmental initiatives, such as the Regional Water Supply, Ground Water, Wastewater and Stormwater Management Programs, including the public information and education components of each. These regional initiatives, which continue to evolve, are now institutionalized and have been enhanced through dedicated local funding. These regional programs are unique examples of inter-governmental cooperation in management of coastal resources in the Commonwealth.

The Hampton Roads Technical Assistance Program also enables the HRPDC to participate in and support a number of core elements of the Virginia Coastal Zone Management Program, such as environmental impact review, wetlands and dune regulations, Chesapeake Bay Preservation Act (CBPA) regulations, and the large number of state water quality programs. This participation results in cost savings to the state in terms of educating localities about state and federal initiatives and coordinating local government input to these efforts. Over the past twenty (20) years, several hundred local government staff members from the region's sixteen local governments have received technical training in wetlands regulations and delineation, CBPA

implementation, erosion and sediment control, stormwater management, low impact development and better site design, flood hazard management, geographic information systems, land conservation and watershed management. Local government board members, staff from other PDCs, and representatives of the private sector have also participated. As a result, the effectiveness of local government implementation has increased.

Through review of environmental impact documents and coastal zone consistency determinations, the regional program has also facilitated rapid resolution of local government concerns with the impacts of state projects proposed by the Virginia Department of Transportation (VDOT), the Community College System, state supported colleges and universities and others, as well as federal projects such as port security and inspection systems, harbor dredging, military facility construction and operations, Base Realignment and Closure decisions and encroachment issues, Outer Continental Shelf Energy Development and related resource management programs.

The Technical Assistance Program allows the HRPDC to serve as a central source of environmental data and information, ranging from wetlands and soils mapping to aerial photographs, water and wastewater data and information about potential hazardous waste disposal activities for local governments and the private sector.

The FY 2008 – 2009 Hampton Roads Technical Assistance Program enabled the region's localities to continue to address, in a comprehensive and integrated fashion, all aspects of coastal resources management - the Chesapeake Bay Program, implementation of the Albemarle-Pamlico National Estuary Program with North Carolina, environmental impact review, local comprehensive planning, CBPA implementation, wetlands protection, shoreline management, Virginia's climate change and energy initiatives, public access, and environmental data base development and analysis through the HRPDC Geographic Information System (GIS). The program has allowed the continuation of regional support for and participation in the VCZMP, regional participation in other state and federal initiatives, completion of necessary technical studies, technical assistance to the region's localities and conduct of public information and education activities.

PROGRAM OBJECTIVES

At the outset of the FY 2008 – 2009 Hampton Roads Technical Assistance Program, the HRPDC, in cooperation with staff from its member local governments, established six (6) objectives for the Program. These overall objectives, while expanded in scope, have remained largely the same since program inception. They are:

1. To assist the localities of Hampton Roads Virginia to implement the recommendations of the Virginia Coastal Zone Management Program, related state and federal environmental management programs as well as the Chesapeake Bay Program, as embodied in the Chesapeake Bay Agreement 2000 and related state legislation and regulations.

2. To support the Commonwealth of Virginia in implementing the VCZMP through coordination of local and regional review of environmental impact assessments/statements, applications for state and federal environmental permits and related environmental documents and by serving as an information conduit between the state and localities on coastal resource management issues.
3. To complete regional environmental studies, necessary to support local government consideration of the Chesapeake Bay Agreement priorities, including land use and growth forecasts.
4. To enable Hampton Roads Virginia to continue to play an active role in the development, implementation and refinement of the Virginia Coastal Zone Management Program, Chesapeake Bay Agreement, Chesapeake Bay Preservation Act and related environmental initiatives.
5. To improve the coordination and quality of local and regional decision-making concerning coastal and related environmental resources.
6. To increase public awareness of the value of coastal resources and of the local and regional efforts to manage them.

To accomplish these objectives, a comprehensive program was structured involving a range of activities in the following categories: VCZMP Program Support, Technical Studies, Local Assistance and Coordination, and Public Information and Education.

PROGRAM ACCOMPLISHMENTS

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM SUPPORT

Environmental Impact Review

The HRPDC staff reviews and comments on all applications for state and federal regulatory permits and the associated Environmental Impact Assessments/Statements. On a monthly basis, the Hampton Roads Planning District Commission is apprised of all EIA/EIS projects that are under review. Generally, no formal action is taken by the Commission as a result of this notification; however, historically, the Commission has requested more extensive HRPDC staff and local government review of an issue.

In the past, review of Corps of Engineers' proposals to revise the Nationwide Permit Program under Section 404 of the Clean Water Act led to extensive comments from the HRPDC and renewal of a regional focus on wetlands issues. This effort led, in part, to extensive involvement of staff from the HRPDC and the member local governments in the state's consideration of wetlands legislation and regulations during the period from 1998 to the present, ongoing development of federal regulations and the development and refinement of the State Programmatic General Permit. The region's interest in

wetlands continues. The HRPDC staff has continued to work with local government and other interests to ensure that institutional arrangements are in place to address wetlands regulations, mitigation requirements and development issues.

The HRPDC staff reviewed and commented on approximately seventy-three (73) environmental impact assessments and statements for both state and federal projects. Six years ago, review of federal projects for consistency with Virginia's Coastal Zone Management Program was added to the state environmental impact review program. By virtue of this addition, the number of projects submitted through the review process and the content of those reviews has increased substantially. Projects reviewed in FY 2008 – 2009 ranged widely in complexity. They included numerous U. S. Department of Housing and Urban Development projects, military construction and Base Realignment and Closure (BRAC) projects, several college and university building projects, and continuing review of the 5-Year Outer Continental Shelf Oil and Gas Leasing Program. The HRPDC, in cooperation with the localities, worked to ensure that these projects were coordinated and met local government requirements. For most projects, it is not known what the ultimate impact of PDC and local government comments may have been.

Appendix A contains a listing of all projects reviewed through this program component during the period from October 1, 2008, through September 30, 2009, as well as sample comment letters on representative projects. To improve the information available for consideration by the Commission and to facilitate tracking of local and state actions on environmental documents, the HRPDC staff developed a database and reporting system during a previous grant year. The HRPDC began using the reporting form in July 2001. All environmental documents reviewed since that time have been entered into the database.

Coordination of review and comment on environmental documents with the region's localities is frequently problematic, because of time constraints placed on the review process by the state and, in some cases, by project applicants who requested expedited review from the state. Historically, environmental documents were distributed by the state to the Chief Administrative Officers in the localities. Internal distribution did not always go to the same local government staff person and frequently prevented the locality and the HRPDC from commenting within the state's time constraints. In May 2003, local government and HRPDC staff recommended that the region's Chief Administrative Officers designate specific staff persons to coordinate internal review of environmental documents. Following the internal designation of contact points, the DEQ was formally requested to distribute all documents to the designated staff contact/coordinator. After more than six years of experience with the modified review system, it appears that the review process works much more efficiently.

The HRPDC staff reviewed all Corps of Engineers Permits/Public Notices for private and public agency dredging and other waterfront construction activities. The purpose of this review is to ensure that the localities are aware of the pending project. Data obtained through these reviews is incorporated directly into ongoing HRPDC studies of

shoreline management issues in the region, as well as in all local comprehensive plans being prepared by the HRPDC on behalf of the localities. This activity is a follow-up to two technical studies, Regional Shoreline Element of Comprehensive Plans, and Managing Multiple Recreational Use Conflicts in the Waters of Hampton Roads, prepared previously by the HRPDC. Both studies were funded through Virginia Coastal Zone Management Program Competitive Grants and were based on ideas generated through the Regional Coordination Process discussed below.

Based on legislation enacted during the 1996 Session of the General Assembly, all public notices for Virginia Pollutant Discharge Elimination System, Ground Water Withdrawal, Virginia Water Protection, Hazardous Waste and Air Emissions Permits are provided to local governments and PDCs for review. To facilitate this effort, the staff developed and maintains a tracking system and database for all five types of permits.

Participation in State and Federal Programs

Several state and federal environmental programs encourage use of PDCs as a cost-effective mechanism for informing local governments and seeking their input for state and federal program development and accomplishment. For example, the Chesapeake Bay Program in both its 1996 and 2002 Local Government Participation Action Plans, recommended better use of technical assistance providers, such as PDCs, to serve as vehicles to distribute information and outreach on Chesapeake Bay-related issues. It also suggested development of a network of local officials and staff with expertise in dealing with resource protection issues. Virginia's Regional Cooperation Act strongly recommends this type of role for PDCs. Several programs, including the Virginia Coastal Zone Management Program, do use the PDCs in this manner. Historically, NOAA's Section 312 evaluation of the Virginia Coastal Zone Management Program has recognized the benefits and cost-effectiveness of the network of PDCs in supporting the VCZMP and in assisting their member local governments. During the 2006 NOAA evaluation of the Virginia Coastal Zone Management Program, the Evaluation Team provided favorable comments on the role and activities of PDCs. Those comments were formalized in the final Section 312 Evaluation Report.

In the Hampton Roads region, the Hampton Roads Technical Assistance Program and its associated committees provide such a network. Both HRPDC staff and local government members of the HRPDC Advisory Committees frequently serve on state and federal advisory groups. On a regular basis, the participating localities request that the HRPDC staff serve as their representative to these advisory groups. Alternatively, the Committees may select a local government member to represent the region. In both cases, the HRPDC Committees provide all sixteen member localities with a mechanism to participate, at least indirectly, in the state or federal program(s). Also, data and information on Hampton Roads conditions are provided by the Hampton Roads representative (HRPDC or local government staff) to state and federal agencies on behalf of the localities, thus minimizing state and federal agency data collection and input costs.

The HRPDC staff worked closely with state and federal agencies on coordination of programs as they affect the Hampton Roads region. This work involved follow-up to previous studies conducted by the HRPDC with VCZMP-funding, serving on advisory committees supporting plan and regulatory development, and development of new cooperative initiatives involving state, local, federal and private entities.

Virginia Coastal Zone Management Program

During the grant period, the HRPDC staff continued to participate in Coastal Zone PDC meetings, contributing to the ongoing refinement of the Virginia Coastal Zone Management Program. The HRPDC staff participated in the work group advising the VCZMP staff in the development of the state's Coastal and Estuarine Lands Conservation Program and in the Planning Committee for the 2007 Coastal Partners Workshop.

One priority of the VCZMP has been to develop baseline data and analytical tools to assist the state and Tidewater localities in improving their ability to manage coastal resources. During the past year, projects by the Virginia Institute of Marine Science and the Department of Conservation and Recreation, Division of Natural Heritage, to inventory and map significant aquatic resources and areas (blue infrastructure) and a network of land and corridors with important terrestrial features (green infrastructure), respectively, have continued. During Fiscal Year 2007, HRPDC staff participated in the Green Infrastructure Advisory Workgroup hosted by DCR. This included a presentation on Hampton Roads green infrastructure initiatives made to the Workgroup at its December 19, 2007 meeting. HRPDC staff has also continued to participate as a member of the Coastal Policy Team.

During FY 2004 – 2005, the HRPDC staff received grant funding from the Virginia Coastal Zone Management Program to undertake a regional green infrastructure planning project, building on work accomplished through the Southern Watershed Special Area Management Program. The need for and appropriateness of conducting this project for the entire region was identified through the Regional Coordination process. This project, the Hampton Roads Conservation Corridor Study, was approved by the HRPDC in July 2006. During FY 2005 – 2006, the HRPDC received funding from DCR to conduct workshops on green infrastructure financing and implementation. Following these sessions, the HRPDC continued its green infrastructure research, provided a series of briefings to state and local agencies and interest groups, and made presentations at the Environment Virginia and Virginia GIS Conferences on the green infrastructure efforts in Hampton Roads. These efforts were documented in a locally funded study, Green Infrastructure in Hampton Roads, which was approved by the HRPDC in July 2007. Recommendations in this report included investigation to determine the feasibility of requiring dedication of green infrastructure in conjunction with new development and consideration of green infrastructure as a component of stormwater management.

During FY 2007 – 2008 HRPDC staff organized a regional workshop on the use of green infrastructure to address military base encroachment issues. The workshop featured presentations on the Readiness and Environmental Protection Initiative (REPI) and case studies of military facilities and localities that have partnered in the application of green infrastructure to buffer military facilities. In addition, HRPDC staff has been involved in a series of presentations on green infrastructure topics at a variety of conferences and professional society meetings.

The HRPDC has continued to partner with the Virginia Coastal Zone Management Program on an update of the regional green infrastructure program in FY 2008 – 2009. The update includes integration of new data available from the Virginia Department of Conservation and Recreation and the Virginia Department of Game and Inland Fisheries. In addition, HRPDC staff has developed a regional ranking of development pressure that will be used in identifying high priority conservation areas. The results of this effort, funded through a separate VCZMP grant, are documented in another report.

National Park Service

On a regular basis, the staff continued to work with representatives of the Colonial National Historic Park on National Park Service (NPS) technical studies in the areas of ground and surface water management, natural areas conservation and shoreline management. Insofar as water resources management and natural areas conservation are concerned, this involved technical review and comment on NPS proposals and studies conducted by other federal agencies, such as the U.S. Geological Survey, and private consultants.

A first step in expanding the National Park Service presence in the Chesapeake Bay Watershed was taken with the establishment of the Chesapeake Bay Gateways Program. There are presently fourteen (14) designated Chesapeake Bay Gateways sites and trails in the Hampton Roads region. The HRPDC has historically supported increased funding to assist local governments and nongovernmental organizations in developing and managing Chesapeake Bay Gateway sites.

In December 2006, legislation was enacted establishing the Captain John Smith Chesapeake National Historic Trail. Throughout the study process that preceded this designation, the HRPDC staff monitored this effort, reviewed proposed trail routes, participated in agency meetings regarding these efforts, and provided briefings to the region's localities. After the trail became part of the National Trail System, the NPS began preparation of a Comprehensive Management Plan for the trail. The HRPDC staff continues to monitor this process and provide input as necessary. In addition to the NPS study, the Virginia Department of Conservation and Recreation developed proposed trails to commemorate Captain John Smith's adventures on the James and York Rivers. During 2008 – 2009, HRPDC staff has monitored the evolution of these efforts and attended public meetings regarding the development of the trails. The HRPDC staff will continue to participate in this process during FY 2009 - 2010.

Chesapeake Bay Program

The Hampton Roads Technical Assistance Program continues to enable the HRPDC to participate, on behalf of its member localities, in the Chesapeake Bay Program. Beginning in FY 1998-1999, this element of the Program received greatly increased emphasis through several initiatives, including the renewal of the Chesapeake Bay Local Government Advisory Committee, establishment of a Metropolitan Areas Work Group, development of the Chesapeake Bay Agreement 2000 and development of new and revised Chesapeake Bay Program Implementation Strategies. The importance of this area of emphasis was stressed by the Commission in its reaction to staff presentations on the Chesapeake Bay Agreement and related issues during both 2000 and 2001.

In Spring 2002, the HRPDC directed the staff to further expand its involvement on behalf of the region's localities in Chesapeake Bay Program initiatives. Ongoing discussion of the Tributary Strategies Program, evolving water quality standards and related funding and regulatory initiatives underscored the Commission's interest in and priority for a regional approach to Chesapeake Bay issues. In January 2005, the HRPDC approved a Compendium of Commission positions and comments on the Chesapeake Bay Program and related issues. Over the past four years, the HRPDC staff has monitored ongoing Chesapeake Bay Program activities in preparation for the next generation of the Chesapeake Bay Watershed Model, revisions to the Tributary Strategies, development of the TMDL for the Bay, and the recently issued Chesapeake Bay Executive Order. The local governments are briefed regularly on these efforts.

In September 2009, the U.S. EPA issued a draft report fulfilling Section 202 of Executive Order 13508, which make recommendations to the Federal Leadership Committee (FLC) for a strategy to define the next generation of tools and actions to restore water quality in the Chesapeake Bay and described the changes to be made to regulations, programs, and policies to implement these actions. The report was reviewed by HRPDC staff and a synopsis provided to the Joint Environmental Committee. Review and comment on the evolving federal strategy will continue in FY 2009 – 2010.

Metropolitan Areas Work Group

In Spring 1999, representatives of the HRPDC and several of its member local governments met with their counterparts from the Washington, D.C. and Baltimore, Maryland metropolitan areas, as well as other local governments and regional agencies from throughout the Bay Watershed. These discussions led to the establishment of a Metropolitan Areas Work Group. The MAWG operated for four years as an informal organization discussing Chesapeake Bay and related issues identified by the participants.

Although the MAWG no longer serves as an active forum for metropolitan localities and regional agencies, the original members continue to share information informally

through conference calls and extensive use of email. The former members of the MAWG continue to participate in a variety of Chesapeake Bay Program work groups, task forces and committees. The relationships established among the former members continue to enable the metropolitan areas to work together on the Chesapeake Bay Program and related issues. For example, several of the regional agencies actively alert each other to pending issues and needs for information on a variety of environmental issues, such as stormwater management, TMDLs, and green infrastructure.

Chesapeake Bay Program Committees

The HRPDC monitors the work of key Chesapeake Bay committees and participates via email or conference call. These include the Chesapeake Bay Local Government Advisory Committee, the Urban Stormwater Work Group, the Nutrient Subcommittee, and the Land, Growth and Stewardship Subcommittee. Through the HRPDC Joint Environmental (Hampton Roads Chesapeake Bay and Regional Stormwater Management) Committees, the region's localities receive regular updates on the activities of these committees.

During the 1999 - 2003 period, the HRPDC staff along with the other members of the Metropolitan Areas Work Group participated in the quarterly meetings of the Chesapeake Bay Local Government Advisory Committee. The HRPDC staff continues to monitor the quarterly meetings and activities of the CBLGAC and, as appropriate, provides regular briefings to the localities.

The Stormwater Directive, which incorporated many of the region's recommendations, was signed by the Chesapeake Executive Council in December 2001 and led to the formation of the Urban Stormwater Work Group. The Work Group has evolved into the Water Quality Committee and continues to focus its efforts on tracking Best Management Practices implementation, determining the costs and effectiveness of various BMPs, developing incentives for the implementation of stormwater management programs and Low Impact Development concepts, analyzing the relationship between municipal stormwater permits and tributary strategies and determining the costs of implementing stormwater management programs. It has not tackled the issue of overlapping and sometimes conflicting and redundant stormwater management regulations, as recommended by the HRPDC staff. (Insofar as Virginia is concerned, that issue was addressed in part through the enactment in 2004 of legislation integrating the Commonwealth's several stormwater management programs.)

During FY 2006 – 2007, HRPDC staff participated in Technical Advisory Committee meetings organized by the Land, Growth and Stewardship Subcommittee to address consistency between regional land use projections in Northern Virginia and Hampton Roads and the Chesapeake Bay Program's 2030 land use projections. The TAC reviewed modeling approaches for trend projections in a number of sectors, including urban growth models and point source outflow trend projections.

In FY 2007 – 2008, HRPDC staff worked with the Virginia Department of Conservation and Recreation to facilitate local government review of the Chesapeake Bay Program's 2030 land use projections. This effort was funded in part by DCR and the VCZMP. HRPDC staff distributed maps and spreadsheets containing the projection information to member localities for review. In addition, HRPDC staff provided a series of briefings to local government staff on the modeling techniques used to develop the projections and the details of the review process. HRPDC staff also answered questions from local government staff on a case by case basis. The results of the review process were collected and summarized by HRPDC staff and returned to DCR.

State Chesapeake Bay Initiatives

Over the past several years, the HRPDC has participated in several initiatives, associated with the Chesapeake Bay Agreement at the state level. They include participation in focus groups directed at improved communications with local government about Chesapeake Bay issues, coordination of local government input to the annual reports of the Secretary of Natural Resources, facilitation of discussions among the localities regarding watershed planning, and development of a regional technical framework that could be used by the region's localities and others to integrate the myriad of watershed planning initiatives, including the institutional relationships that would be needed to effectively accomplish integrated watershed planning.

The major focus of regional discussions and work on Chesapeake Bay-related topics during the year was the development of implementation procedures for Phase III of the Chesapeake Bay Preservation Act and the evolving stormwater permit requirements. HRPDC staff also continued to monitor TMDL development activities. These efforts have included briefings to the Hampton Roads Chesapeake Bay and Stormwater Committees, participation in conference calls and webinars, and review and comment on materials developed by the state. These efforts will continue in FY 2009 – 2010.

North Carolina River Basin Water Quality Planning

Based in part on a 1996 HRPDC staff briefing to the North Carolina Chowan Basin Regional Council, staff from the HRPDC represented Virginia local governments on both the Chowan and the Pasquotank Regional Councils from 1996 to 2005. Staff from the Crater PDC also served on the Chowan Council. The Councils were originally established by the North Carolina Governor to pursue implementation of the Albemarle-Pamlico National Estuary Program in the Chowan Basin. Much of these two watersheds lies in Virginia. Membership on the Councils facilitated improved relationships between local governments in the two states. The Councils are no longer active.

The States of North Carolina and Virginia executed an Agreement to work cooperatively in managing environmental issues in the watershed of the Albemarle-Pamlico Sounds Estuary, in October 2001. This formalized effort begun nearly two decades ago, through HRPDC technical studies and participation in the Albemarle-Pamlico Estuarine Study as well as efforts by the HRPDC, its member local governments and the Virginia Coastal

Zone Management Program through the Southern Watershed Special Area Management Program. Through a Bi-State Technical Advisory Committee, a number of cooperative water quality management and other projects were evaluated during 2003 and 2004. In May 2005, the Governor of North Carolina authorized the formation of the Albemarle-Pamlico National Estuary Program (APNEP) Policy Board, including representatives from Virginia. At the invitation of the State of North Carolina, HRPDC staff is serving on this Board, which met two times during 2008 – 2009.

In 2001, the State of North Carolina instituted, in cooperation with the Corps of Engineers, a comprehensive study of environmental issues including water quality in the Currituck Sound Watershed. The HRPDC staff serves on the Technical Advisory Committee for this project. During 2002 and 2003, this effort emphasized technical analysis by the Corps of Engineers. The Technical Advisory Committee began meeting again in 2004. The HRPDC staff is also serving on the water quality and modeling work group. Based on technical work previously accomplished through the SWAMP Program, the HRPDC has been able to help shape the direction of the COE studies. After a period of inactivity, the COE hosted a meeting related to this project in October 2006. HRPDC staff participated in this meeting. COE staff has continued to work with several partner agencies to collect information on the Currituck Sound and to start the process of modeling the system. HRPDC staff participated in a stakeholder meeting, which was held in October 2008. This effort has is now on hold due to federal funding constraints; however, the COE has indicated its intention to restart this project in the near future. HRPDC staff will continue to participate in this process.

A related COE initiative, which involves participation by both states, is a comprehensive study of the Dismal Swamp Canal. The purpose of the study is to determine whether construction of alternatives for reduction in flood impacts, environmental restoration and protection, and related purposes for the City of Chesapeake in the vicinity of the Dismal Swamp and Dismal Swamp Canal, is justified and in the Federal interest. The HRPDC staff is also serving along with local government representatives on the Technical Committee guiding this study. This study has proceeded in FY 2008 – 2009, and is now nearing completion. As a result of this effort, two sites in Chesapeake have been identified for wetlands restoration and tree replanting, which is expected to begin in FY 2009 - 2010.

This combination of initiatives led to discussions among the North Carolina and Virginia localities in the Pasquotank Watershed, facilitated by the HRPDC, focusing on exchange of information and coordination of watershed management efforts. This should further enhance the effectiveness of the Southern Watershed Special Area Management Program (SWAMP), developed through a separate Section 309 Grant Project. In fact, during 2004, the State of North Carolina provided modest financial assistance to the HRPDC to facilitate these ongoing discussions. The partnership between the Southern Watershed Area Management Program and the Albemarle-Pamlico National Estuarine Program (APNEP) has supported the development of a better working relationship between the Cities of Chesapeake and Virginia Beach in Virginia and the Counties of Camden and Currituck in North Carolina. In addition, the

grant funding helped to support the continuation of significant watershed planning and environmental education activities in Virginia. In FY 2008 – 2009, the ongoing development of the Northwest River Watershed Management Plan has been building on the accomplishments of SWAMP and the relationships established between these localities by evaluating land use policies and development controls in a cross-border watershed. HRPDC staff also continues to work with North Carolina through APNEP on regional open space and watershed planning initiatives. Taken together these activities provide a framework for sustaining and improving the management of the significant natural resources of southeastern Virginia and northeastern North Carolina.

Other State and Federal Advisory Committees

The HRPDC staff represents the region's localities on a number of other state and federal agency advisory committees. They include:

1. U.S. Army Corps of Engineers (COE), Craney Island Expansion Study Advisory Group and Technical Committee
2. COE, Elizabeth River Restoration Study Steering Committee. This effort began in 1996-1997 with funding from the VCZMP Technical Assistance Program. HRPDC staff work through 2001 was conducted through a contract with the COE. Because the project did not move forward at that time, while efforts were underway to resolve contractual issues between the COE and localities, no COE contractual assistance was available from 2001 to 2007. At the request of the local governments, state and COE, HRPDC staff involvement continued and was supported, in part, through the TA program. This is another example of VCZMP providing the seed for a regional initiative. In Fall 2004, agreement was reached among the COE, state and four localities to move forward with the next phase of the project. This consensus, involving legal and technical staffs from the participants, was facilitated by the HRPDC. Beginning in July 2007, the COE again began providing financial support to the Steering Committee effort. During FY 2008-2009, design work continued for wetlands restoration and bottom remediation in some parts of the river while implementation proceeded in other areas with funding assistance from state and local sources.
3. COE, Technical Committee, Lynnhaven River Basin Restoration Study. At the request of the City of Virginia Beach, the HRPDC chairs and facilitates the Steering Committee for this project. (This work, under contract to the City of Virginia Beach, is modeled after the successful Elizabeth River Project, described above.)
4. COE, Currituck Sound Watershed Restoration Study Technical Committee and Hydrologic Work Group

5. DEQ, PCB Technical Advisory Committee
6. DEQ, Coastal Policy Team
7. DCR, BMP Clearinghouse Committee
8. DCR, Stormwater Management Regulations Technical Advisory Committee.
9. DCR, Chesapeake Bay Preservation Act (CBPA) Phase III Local Government Advisory Committee
10. DCR, Construction General Permit Regulations Technical Advisory Committee
11. Virginia Water Resources Research Center, Statewide Advisory Board

Involvement on these Committees includes participation in meetings, review of extensive draft materials, briefing and coordination with local government staff and the Commission, and provision of input reflecting the views of those groups to the Advisory Committee and state or federal agency staff. In some cases, as noted above, the HRPDC has been requested by the participants to chair advisory committees, which expands the effort to include facilitating the consensus and providing logistical support to the committees. On several occasions, the various state agencies and the COE have requested HRPDC staff input and advice concerning ongoing and proposed studies in other areas of Virginia. This advice has focused on appropriate institutional alternatives that could be used to accomplish the studies.

In addition, local government staff have frequently been chosen through the regional coordination process to serve on advisory committees addressing a number of concerns, including stormwater management and related activities, water supply planning, dam safety, wetlands regulations, lake nutrient standards, water quality standards, nutrient reduction technology for wastewater, nutrient trading, and CBPA implementation. In each of these cases, the HRPDC staff provides support to the region's representative and ensures that the local governments have an opportunity through the regional coordination process to have input to the state effort.

Coastal Zone PDC Network

The Coastal PDCs provide a network linking all regional agencies and localities in the Coastal Zone to address environmental issues. Although somewhat more limited in scope, similar networks exist among the Coastal PDCs and their non-coastal counterparts in the southern watersheds insofar as interstate environmental issues with the State of North Carolina are concerned, and with their counterparts throughout the Chesapeake Bay Watershed on Chesapeake Bay related issues. The HRPDC staff has

played an integral role in the development and enhancement of these larger networks as well.

Efforts to coordinate activities with the other Coastal PDCs in all facets of environmental planning continued throughout the year. Representative activities focused on exchanging information among the PDCs on the Chesapeake Bay Program including the Chesapeake Bay Agreement, Special Area Management Planning, Blue and Green Infrastructure, septic tanks, erosion and sediment control, stormwater management, financial issues, energy conservation, training for local government staff and general planning issues. The DCR-funded Chesapeake Bay land use review was coordinated through this process.

These efforts also involved coordination with non-coastal PDCs on the Chesapeake Bay Agreement, Tributary Strategies, stormwater management and follow-up activities with the State of North Carolina Albemarle-Pamlico National Estuary Program (APNEP), which is funded through the EPA National Estuary Program. The need for and desirability of coordination between the Coastal and non-Coastal PDCs will continue in the coming year in light of implementation activities under the Virginia-North Carolina Bi-State Agreement, ongoing implementation of the Chesapeake Bay Agreement and various watershed planning and water quality management initiatives.

HRPDC staff also participated in the VAPDC Environmental Committee, which met in January and July 2009. Discussion at these meetings focused on green infrastructure, the Chesapeake Bay and related TMDL processes. The VAPDC has created a standing environmental committee. HRPDC staff will continue to participate in this process.

HRPDC staff participated in Coastal Policy Team meetings on November 5, 2008, February 18, 2009, and September 30, 2009. HRPDC staff offered input on the pending Section 309 Assessment and Strategy and recommended increased emphasis on near-shore and offshore energy issues.

The HRPDC participated in a Virginia Coastal PDC meeting on January 12, 2009, and hosted the meeting held on June 11, 2009. Topics covered included an update on the grant application process by Coastal Program staff, an update by NOAA staff on the structure and content of progress reports associated with Coastal Program grants, a discussion of the pending Bay-wide TMDL and Coastal PDC project updates.

HRPDC staff participated in the Coastal Wind Energy meetings held on September 21 and 30, 2009. HRPDC staff is also assisting the U.S. Minerals Management Service (MMS) and the Virginia Department of Mines, Minerals, and Energy (DMME) in structuring an Offshore Wind Task Force for Hampton Roads.

HRPDC staff is coordinating the Energy Efficiency and Conservation Block Grant process in Hampton Roads. The coordination efforts have resulted in several of the direct grant communities dedicating funding for a regional carbon inventory and the development of a regional grant application for lighting upgrades.

TECHNICAL STUDIES

Coastal and Estuarine Land Conservation Program Plan

The Coastal and Estuarine Land Conservation Program (CELCP) was established in 2002 for the purpose of protecting coastal and estuarine land with significant ecological, conservation, historical, recreational, or aesthetic value. The CELCP funding process requires the development of a Coastal and Estuarine Land Conservation Program Plan by each coastal state. These plans should outline coastal land conservation priorities and an evaluation process for proposals submitted to the state. To fulfill this requirement, the VCZMP has developed a draft CELCP Plan for Virginia. HRPDC staff participated in the process to develop the draft plan and is assisting with the review and finalization of the plan.

As one element of the Hampton Roads Joint Land Use Study, the HRPDC staff facilitated development of a cooperative approach to land acquisition in the Inter-Facility Traffic Corridor between NAS Oceana and NALF Fentress. This effort involved the Cities of Chesapeake and Virginia Beach and the U.S. Navy. Building on prior work conducted through the SWAMP Program, the “JLUS Strategy” integrated acquisition priorities based on natural resource protection, environmental mitigation, land use compatibility with military air operations and economic issues. The Strategy served as the basis for requests by the U.S. Navy for funding under the Department of Defense Encroachment Partnering Program and by the HRPDC for funding under the Coastal and Estuarine Lands Conservation Program. Proposals for CELCP funding were developed in both 2005 and 2006 through a cooperative process involving the HRPDC, the cities of Chesapeake and Virginia Beach, and DEQ. These proposals were developed by the U. S. Navy and the HRPDC, in cooperation with the two cities. During both FY07 and FY08, the Navy was successful in obtaining funding. The Strategy is also being used by the City of Chesapeake in prioritizing projects under the its Open Space Acquisition Program, developed, in part, through the SWAMP Program, and by the City of Virginia Beach in prioritizing land acquisition opportunities in the area around NAS Oceana. During FY 2007 – 2008, the CELCP funding application was revised and resubmitted on behalf of both cities but did not receive funding. The project was not resubmitted in FY 2008 – 2009.

HRPDC staff worked with the City of Virginia Beach and the Conservation Fund to develop a proposal for the purchase of a set of parcels in the Lynnhaven and Elizabeth River watersheds. The parcels are part of the Hampton Roads Conservation Corridor System and their protection would contribute to a linked system of wetlands and adjacent uplands in the urbanized portion of Virginia Beach. This proposal was endorsed by the HRPDC. Unfortunately the proposal did not score highly on the list of State priorities and the project was not funded. The project was not resubmitted in FY 2008 – 2009 due to the same reason.

In discussing this project and future efforts to conserve land in the region, the Commission directed the staff to develop a system for prioritizing acquisition projects within the region. This system is being developed through the VCZMP funded Green Infrastructure Project during FY 2008 – 2009 and will be completed in FY 2009 – 2010.

Tributary Strategies

Through July 1, 1999, the HRPDC participated in the Tributary Strategy development process under a separate VCZMP-funded competitive grant. Refer to HRPDC, Development of Nutrient Management Options for Chesapeake Bay Tributary Strategies - Hampton Roads Planning District: James and York Rivers and Small Coastal Basins - Phase III Final Report, December 1999, for a detailed discussion of this effort. Since 1999, the HRPDC staff has continued to facilitate a regional process through funding under either the Technical Assistance Program or the DCR Bay Implementation Grant. A detailed discussion of this effort for the period from July 1, 1999 through September 30, 2003 was included in the HRPDC reports on its Coastal Zone Resource Management Program Technical Assistance Program for those years. Brief summaries have been included in the last several reports.

The HRPDC staff has continued to be actively involved in the Chesapeake Bay Program. Regional efforts have focused on the development of water quality criteria (CBP), water quality standards and associated regulations (state), funding, the state's watershed planning process and the development of a TMDL for the Bay and its tributaries. Work efforts have involved monitoring both the Bay Program and state efforts, supporting regional participation in state advisory committees and commenting on draft regulations, technical documents and strategies. It has been accomplished through the Hampton Roads Joint Environmental Committee and the Hampton Roads Watershed Roundtable.

Through the Roundtable project, a number of private watershed organizations and other interest groups have become engaged in Chesapeake Bay Program initiatives. On a regular basis over the past five (5) years, Roundtable members have been briefed by staff from the HRPDC, local governments, Soil and Water Conservation Districts, state agencies and the Chesapeake Bay Program on the ongoing water quality studies and tributary strategy efforts. They also received briefings from fellow Roundtable members on ongoing projects being conducted within the region by localities, state agencies and private organizations. Communication between those private groups and state and local government staff involved in the development of water quality and other resource management efforts has been enhanced. This experience enabled the Hampton Roads region to move forward aggressively in working with the state to develop the Hampton Roads portions of both the James River and the York River Tributary Strategies and ongoing water quality efforts.

The HRPDC staff and members of the Hampton Roads Joint Environmental Committee continue to be active participants in the state-led effort to address water quality in the York River as it relates to the Chesapeake Bay. Again, the participants were prepared

for this effort through the long-standing HRPDC effort to facilitate the region's involvement in the Chesapeake Bay Program's efforts. Financial support from the VCZMP Technical Assistance Program has enabled this preparation and participation to occur. During FY 2004 – 2005, HRPDC staff attended quarterly meetings of the York River and Small Coastal Basins Watershed Roundtable. Although the group met infrequently in 2006, its activity increased in FY 2007 – 2008. HRPDC staff participated in two steering committee meetings and two subcommittee meetings in 2008 - 2009, assisted with the completion of an educational brochure for the general public, and attended a green infrastructure workshop hosted by the Roundtable. HRPDC staff will continue to participate in the Roundtable in FY 2009 – 2010.

During FY 2008 – 2009, HRPDC staff attended regular meetings of the Albemarle-Chowan Watershed Roundtable and participated in the second annual River Day event hosted by the group in June 2009. HRPDC staff also participated in meetings of the Virginia Watershed Alliance and assisted with efforts to develop a comprehensive water policy statement and objectives for the group. HRPDC staff will continue to monitor and participate in these efforts in FY 2009 – 2010.

The Tributary Strategies process is expected to receive renewed attention during the coming year. The Chesapeake Bay Program has completed the next generation of the Chesapeake Bay Watershed Model. This model is critical to revising the Tributary Strategies. It is understood that the revised Strategies will constitute, at least in part, the implementation plan component of the Chesapeake Bay TMDL, which is now in preparation. HRPDC staff will remain involved in the process of developing the Bay-wide TMDL and implementation plan in FY 2009 – 2010.

Through funding from DCR, the HRPDC has expanded the Roundtable concept into a Hampton Roads Roundtable that incorporates a variety of interests from throughout the region. The Roundtable brings together business, agriculture, trade associations, development and building associations, and environmental and citizens groups in an open forum that will promote discussion of regional environmental issues and provide an opportunity for consensus building among these diverse groups. The Roundtable met three times during FY 2008 – 2009 to discuss issues of mutual interest and to determine the future direction of this effort. This group will continue to meet in FY 2009 – 2010.

Environmental Strategic Planning Studies

The HRPDC staff and Environmental Committees have identified the need for a more proactive approach to involving the Commission in addressing environmental issues during the coming Fiscal Year. The HRPDC staff began this effort by developing a Discussion Paper on major environmental issues facing Hampton Roads over the next 5 – 10 years. This Paper was reviewed and refined through a series of discussions with the Environmental Strategic Planning Subcommittee, the Directors of Utilities Committee and the Joint Environmental Committee. The refined Paper served as the basis for briefing the HRPDC at its September 2006 Executive Committee Meeting on

the issues and the comprehensive process developed for considering them. This process was successful in achieving regional consensus in developing a Regional Special Order by Consent on Sanitary Sewer Overflows, implementation of the Order, maintaining a concerted regional stormwater management effort, and developing policy level consensus on moving forward with a regional green infrastructure plan.

Through FY 2008-2009, discussions among the localities on strategic direction for the Commission in addressing environmental issues have continued. They will receive further emphasis during the next fiscal year as the Commission begins to evaluate and refocus its activities.

Other Studies

Through its Directors of Utilities Committee, the HRPDC staff finalized, in 1997, Regional Water Supply Watershed Management in Hampton Roads, partially funded under a prior VCZMP grant. Based on this effort, the HRPDC staff, in cooperation with the Directors of Utilities Committee and the Directors of Planning for the region's sixteen localities, developed a Model Water Supply Watershed Management Ordinance, which was completed in 1999. In 2002, the HRPDC and the region's localities completed, in cooperation with the Virginia Department of Health, an assessment of contamination threats to the region's water supplies (surface and ground) through the state's Source Water Assessment Program. Work to monitor development activities in proximity to the region's water supply intakes continues. These watershed management planning initiatives are other examples of a VCZMP grant serving as the seed for successful new local initiatives. Similarly, work by the HRPDC to undertake groundwater impact studies for the member local governments, and, in cooperation with DEQ and the U.S. Geological Survey, to examine Coastal Plain ground water issues and update the Coastal Plain Ground Water Model are examples of a VCZMP-funded project serving as the seed for successful local initiatives. Based on this work, the HRPDC and DEQ are exploring needed modifications to the state's ground water regulatory approach.

The region's long experience with cooperative consideration of water resource issues, which received an initial jump-start with funding from the Coastal Zone Management Program, facilitated cooperative consideration of several major issues during FY 2007 – 2008. This effort resulted in major initiatives, funded separately by the local governments, which will continue for the next several years. These include the Hampton Roads Regional Water Supply Plan, which is being developed to comply with the requirements of 9 VAC 25-780 by establishing a planning process and developing a regional water supply plan enabling twenty-four local governments in Hampton Roads to meet the state regulations.

In 1998, the HRPDC completed the study, Managing Multiple Recreational Use Conflicts in the Waters of Hampton Roads, through a VCZMP competitive grant. This study served as the basis for work through the Section 309 Southern Watershed Area Management Program to develop a Memorandum of Agreement for Waterway Use Conflict Education on the North Landing River, which was executed in October 2001. A

copy of the MOA was provided separately to DEQ as part of the project completion report for Phase VI of the SWAMP Program. As indicated in the SWAMP Phase VIII completion report, a draft MOA for Back Bay was also prepared. Following intensive public review of the draft MOA, this information was incorporated into educational materials that were more acceptable to the citizens than an MOA, which implied a regulatory program.

In order to implement the North Landing River Water Use Conflict MOA and the related Back Bay Educational Program, educational brochures and signs were developed through the SWAMP Program. Funding through the VCZMP program was also obtained to support construction of informational kiosks to be placed at public access sites in the two watersheds. The kiosks were installed in 2005. During 2006, the U.S. Fish and Wildlife Service instituted a regulatory approach to managing water use in the Back Bay National Wildlife Refuge waters.

Over the past several years, the HRPDC has conducted, in cooperation with the Cities of Chesapeake and Virginia Beach and the Department of Environmental Quality, the Southern Watershed Special Areas Management Program (SWAMP). Several components of the SWAMP Program were completed concurrently with the HRPDC FY 2002-2003 Technical Assistance Program. Although VCZMP funding for the SWAMP Program ended with completion of Phase VIII in 2005, the localities and the state and federal signatories to the various MOAs, developed through SWAMP, have indicated the need to continue a number of SWAMP-related activities. They include the MOA, noted previously and the Multiple Benefits Conservation Plan MOA, which is designed to bring more certainty and effectiveness to the compensatory mitigation process. Absent other funding, support for these efforts is being provided through the Technical Assistance Program. Also, because of the success of the MBCP effort to date, its potential application to the rest of the region is being evaluated through development of the Conservation Corridor (green infrastructure framework) for the region. Separate funding to support that effort was obtained from the VCZMP for work conducted during FY 2004 – 2005 and FY 2008 – 2009. As is true of many other initiatives, the idea for this competitive project evolved through the Regional Coordination process. The Hampton Roads Conservation Corridor Study, which was completed in July 2006, is serving as the basis for ongoing regional work.

Two workshops on green infrastructure topics were conducted by the HRPDC in 2006. In addition to the workshops, several initiatives are underway to capitalize on the Conservation Corridor project. These efforts include continued discussions with the APNEP Program in North Carolina on the development of a green infrastructure network that links across the Virginia/North Carolina border, development of a summary report on green infrastructure efforts in Hampton Roads – Green Infrastructure in Hampton Roads, continued work with Hampton Roads localities to refine and integrate the Conservation Corridor system with future land use plans, and applications for grant funding to support land acquisition in the SWAMP conservation corridors. During FY 2008 – 2009, HRPDC has been developing the Northwest River Watershed Management Plan in partnership with the City of Chesapeake and The Nature

Conservancy. This plan builds on the accomplishments of SWAMP by integrating with and informing evolving land use policies and development controls within the Rural Overlay District in Chesapeake. This project is designed to enhance the city's efforts to protect water quality in the Northwest River watershed, which serves as its primary drinking water supply.

LOCAL ASSISTANCE AND COORDINATION

Technical Assistance

This element of the Hampton Roads Technical Assistance Program entails staff support and assistance to local governments and private entities as they address key coastal resources and other environmental issues such as TMDLs, habitat restoration, riparian buffer creation and protection, energy, climate change, aspects of the Chesapeake Bay Program, wetlands and dune protection, and nonpoint source pollution in their comprehensive planning process and related activities. Specific local projects to be addressed through this element are identified by the localities throughout the grant year. On average, the HRPDC staff responds to five (5) to ten (10) requests for assistance under this program from the local governments per week. These requests encompass assistance on grant proposals, assistance on permit issues, identification of state or federal agencies that may be of assistance for local projects, information about legislation or regulations, identification of technical resources that may be useful to a locality in developing a study, and responding to an elected official's request for information. The localities and others frequently turn to the HRPDC for assistance on GIS mapping and analysis projects. Through this element of the program, the HRPDC staff also assists private entities, such as the Back Bay Restoration Foundation, Elizabeth River Project, Friends of Powhatan Creek, Hoffer Creek Wildlife Foundation, Lynnhaven River NOW and others in their environmental planning and restoration initiatives. Additional technical information on wetlands, hazardous waste sites, soils and aerial photographs is provided to private consultants. It should be noted that the soils information being used for the region's core cities, both in paper and digital form, was initially prepared through a VCZMP grant to the HRPDC.

The HRPDC staff continued to work with representatives of the affected local governments in their review, evaluation and use of recent PDC environmental management reports. The focus of this effort has been on the review and use of the Tributary Strategies studies, Hampton Roads Conservation Corridor Study, and the various stormwater and water resource management studies, completed over the last several years.

Since 2002, the HRPDC staff has worked closely with Lynnhaven River NOW in establishing a watershed organization to enhance city, state and federal efforts to restore the Lynnhaven River. Lynnhaven River NOW has formally organized to support watershed planning initiatives being pursued by the City of Virginia Beach and to actively promote private individual efforts at watershed protection and restoration. The

HRPDC staff continues to support this initiative through active involvement in its education and marketing programs.

The HRPDC continued to participate on working groups for the Elizabeth River Project. The HRPDC Chairman and Executive Director serve on the ERP Leadership Review Board. The HRPDC staff provides technical support to the Chairman and the Executive Director in these roles. The HRPDC staff continues to serve on the ERP Sediment Remediation Advisory Committee and participated in initiatives to address redevelopment of the Money Point area in the City of Chesapeake, the update of the ERP Watershed Action Plan, the Superfund project at Atlantic Wood Industries, the Lafayette River Watershed Plan and related activities. The HRPDC staff continues to work with the ERP staff on other issues, such as stormwater management and development and exchange of educational materials.

The HRPDC staff continued to advise the region's sixteen localities on environmental issues in conjunction with development of and revisions to local comprehensive plans, development regulations and related issues. The primary issues addressed through this program continue to be state and federal Wetlands Regulatory Programs, Stormwater Management Programs, groundwater issues and all facets of the Chesapeake Bay Program. All of the region's member localities have received individual assistance through this program during the past year. A major element of this effort continues to be assisting the localities in achieving and maintaining consistency with the Chesapeake Bay Preservation Act Regulations. An increasing emphasis of local government support on environmental issues has been in the legislative and regulatory arena. During FY 2008 – 2009, the areas of emphasis included stormwater management, groundwater issues, energy development, and Phase III of the Chesapeake Bay Preservation Act.

The HRPDC staff assisted several private consultants in the acquisition of aerial photography and related data for use in environmental audits and certifications on the hazardous waste status of various commercial and industrial sites. Several consultants and agencies were assisted in acquiring nonpoint source/stormwater data, information about Best Management Practices including vegetative practices, soils and nontidal wetlands, as well as updates on the status of environmental management programs, including legislation and regulations. HRPDC staff also provided assistance to consultants conducting environmental impact assessments.

The HRPDC staff continued development and enhancement of the region's Geographic Information System, using ARCINFO, ARCVIEW, ARCIMS and ARCGIS. The HRPDC staff continued to work with the localities, other PDCs and state agencies in both Virginia and North Carolina in coordination of GIS planning and implementation. With the HRPDC system now fully functional, a concerted effort is being made to take advantage of this technology in all HRPDC technical studies. GIS development activities have focused on support for ongoing grant-funded technical studies, e.g. Hampton Roads Conservation Corridor Study, for comprehensive planning services, conducted for individual local governments, and other ongoing HRPDC programs. As with many other components of the HRPDC planning program, VCZMP financial support enabled

the HRPDC to establish the environmental component of its GIS system. It provided a seed for the establishment of a comprehensive regional system, which is now capable of supporting a variety of regional initiatives.

Appendix B contains samples of map coverages produced through the GIS program to support HRPDC technical studies and technical assistance requests from localities and other groups. These requests included a build-out scenario for the City of Poquoson and a regional map depicting 1-mile overlap areas for use by local government planning departments in Southside Hampton Roads. This effort has helped to frame discussion among a newly formed group of planners from the Southside who wish to coordinate their planning efforts and discuss areas of mutual concern on a regular basis. HRPDC staff is participating in these discussions. In FY 2009 – 2010, the HRPDC's GIS capabilities will be used to understand the impact of the International Paper facility closure in Western Tidewater. This will include both environmental and economic parameters, which will be considered on a regional scale.

Bacteria Source Tracking

As part of the special project outlined in the FY 2008 – 2009 work program, HRPDC staff has been leading a regional effort to develop a bacterial identification methodology for the Hampton Roads region. Proven genetic techniques will be used to differentiate bacteria sources at the species level so that TMDL plans can be designed and targeted to address the cause of the bacterial impairment. University researchers will conduct a bacteria source tracking study, which will receive separate funding from the Hampton Roads Sanitation District (HRSD) and the following localities: James City County, Norfolk, Portsmouth, Suffolk, Virginia Beach, Williamsburg and York County. HRSD will be holding contracts with the universities conducting the study, and a letter agreement has been developed with HRSD to distribute the funds that will be collected by the HRPDC. Preliminary work will start in December 2009 or January 2010, but most bacterial sampling will not start until June 2010. A number of pilot sites will be used for the study, including Moore's Creek in York County, Shingle Creek in Suffolk, and Milldam Creek in Virginia Beach.

Regional Coordination Process

The Hampton Roads Technical Assistance Program enables the HRPDC to maintain the regional coordination process on environmental issues through the Hampton Roads Chesapeake Bay Committee in cooperation with the Regional Stormwater Management Committee, while also providing links to other ongoing regional environmental programs. This element supports local government implementation of the Bay Act, coastal resources management, and other state and federal environmental programs. Links to other HRPDC environmental committees, addressing stormwater, wastewater, water supply, and ground water management, as well as the Chesapeake Bay Program and North Carolina environmental initiatives are maintained through HRPDC staff support and common Committee memberships from both the region's localities and state agencies. During 2008 and 2009, the HRPDC staff continued its efforts to

enhance this linkage through the convening of joint meetings of several of the committees.

Historically, a major emphasis of the regional coordination process has been on work with the local governments in responding to the Chesapeake Bay Preservation Act implementation process, while ensuring that local efforts may take advantage of other related initiatives. The Hampton Roads Chesapeake Bay Committee is the primary institutional mechanism for accomplishing this. The Chesapeake Bay Committee has worked to coordinate development, refinement, and implementation of local programs to comply with the Bay Act Regulations, and to develop a regionally consistent approach to use of the Intensely Developed Areas provisions of the Bay Act Regulations. During FY 2008 – 2009, the Committee focused on Phase III of CBPA implementation and the impact of the evolving state stormwater regulations. The Committee provided two representatives to the Phase III Local Government Advisory Committee, which supplied DCR with guidance regarding the procedure and content of Phase III local program reviews. HRPDC staff also participated in the LGAC process.

During the course of the grant year, the HRPDC staff continued coordination of the ongoing consideration by the region's localities of various watershed issues. Significant activities related to the Chesapeake Bay TMDL development effort included Committee participation in and monitoring of the activities of the York River and Small Coastal Basins Roundtable and the Albemarle-Chowan Roundtable as well as the coordination of the Hampton Roads Watershed Roundtable. Because of regulatory issues associated with stormwater and wastewater, the HRPDC staff and Committees focused on those issues during the year. Therefore, attention to watershed issues was reduced when compared to previous years.

The following points summarize the activities of the Hampton Roads Chesapeake Bay Committee during the year. Most meetings were joint meetings with the Regional Stormwater Management Committee. (To simplify this discussion, joint meetings of these committees are referred to as meetings of the HRPDC Joint Environmental Committees.) Because of the close link between the activities of those Committees, this section also addresses the activities of the Hampton Roads Watershed Roundtable.

- October 2, 2008 - This was a meeting of the Joint Environmental Committee. DCR-DCBLA staff was present to brief the committee on Phase III activities. Staff from the cities of Chesapeake and Virginia Beach provided a report on the activities of the Soil and Water Conservation Board related to stormwater management regulations. HRPDC staff provided reports on several annual stormwater and education reports, the Regional Conservation Corridor Program, and potential legislation impacting the region. The Committee recommended approval of the HR STORM Annual Report and the Regional Stormwater Cooperation Report with corrections.
- November 6, 2008 - This was a meeting of the Joint Environmental Committee. DCR-DCBLA staff provided the Committee with a briefing on the

status of ongoing activities, including CBPA program reviews and Phase III development. USGS staff presented information on efforts by the Ohio Water Science Center to develop real-time forecasting capabilities on bacteria levels at beaches. HRPDC staff provided the Committee with briefings on the Environmental Strategic Planning Process, the Construction General Permit Regulation, the progress of the Extreme BMP Makeover Project, the Hampton Roads Watershed Roundtable, the Bay-Wide Stormwater Partners Retreat, and proposed tree canopy legislation. The Committee discussed the need for a regional stakeholder group to discuss the proposed legislation and come to a consensus on tree canopy legislation to present to the legislature. A subcommittee meeting to develop the stakeholder process was suggested to be held while moving forward with a recommendation to the Commission at its November meeting.

- November 12, 2008 – This was a meeting of the Hampton Roads Watershed Roundtable. It included representatives from Peninsula housing and environmental groups. Topics discussed included TMDLs and green infrastructure. Participants gave feedback on several areas, including the Roundtable's mission and goals and climate change discussions. A workshop focusing on green building and efficiency issues was suggested and scheduled for January.
- December 4, 2008 - This was a meeting of the Joint Environmental Committee. DCR-DCBLA staff briefed the Committee on local CBPA compliance, Phase III implementation checklists, and available grants. Norfolk city staff gave a presentation on the city's experience with Beach Vitex and phragmites. VMRC staff discussed regulatory issues dealing with eradicating invasive species. HRPDC staff also provided briefings on a number of subjects, including the Regional Indicators of Stormwater Management Program Effectiveness Report, the Construction General Permit, the Extreme BMP Makeover Project, and the HRPDC budget. The Committee also recommended approval of the HRPDC VCZMP Technical Assistance Final Report presented at this meeting.
- January 8, 2009 - This was a meeting of the Joint Environmental Committee. DCR staff briefed the Committee on the process for finalizing and public noticing the draft stormwater permits. Staff from the Center for Watershed Protection gave a presentation on the CWP's work with developing better BMPs and on a draft outline of the proposed Extreme BMP workshop. The committee expressed concern about time constraints for the workshop. And suggested some solutions. HRPDC staff reported on the status of the Governor's Commission on Climate Change and provided an update on a number of energy-related activities at the state and federal levels.
- January 30, 2009 - This was a meeting of the Hampton Roads Watershed Roundtable. Mr. Chuck Miller, a local green builder, gave a presentation to a

diverse meeting group of developers, housing advocates, and others. Chesapeake city staff discussed their Green Cities Program, and Virginia Beach city staff discussed their Go Green program. A contingent from the Newport News Planning Department was on hand to learn about the Green Cities initiative.

- February 5, 2009 - This was a meeting of the Joint Environmental Committee. DCR-DCBLA staff provided an update to the Committee on CBLA activities and programs. HRPDC staff gave a presentation on the need for a bacteria study and its proposed scope. The Committee agreed that the project should move forward with a more detailed proposal and cost estimates from the researchers. HRPDC staff provided the Committee with additional briefings on the recent committee retreat, upcoming stormwater training, Coastal Resources Management Program grants, the Extreme BMP Makeover Project, and the Hampton Roads Watershed Roundtable. The Committee also discussed stormwater program budgets, which were circulated by letter ballot, and agreed to ratify the letter ballot approvals.
- March 5, 2009 - This was a meeting of the Joint Environmental Committee. Staff with the DCR Division of Natural Heritage briefed the Committee on issues related to invasive species management. DEQ staff provided the Committee with a briefing on PCB monitoring in the Elizabeth River. HRPDC staff provided the Committee with briefings on the status of the continuing services contract. Ten proposals were received. The selection subcommittee met and selected two of the proposals for further review; these proposals were from URS and a partnership between CH2M Hill and Camp Dresser McKee. The subcommittee recommended that contracts be set up with both groups. The Committee concurred with the recommendation. HRPDC staff also provided briefings on recent regional stormwater training, the Coastal Resources Management Program grants, and the Extreme BMP Makeover Project. The Committee endorsed the HRPDC grant proposals for CZM funding and recommended the proposals be approved by the HRPDC.
- April 2, 2009 - This was a meeting of the Joint Environmental Committee. HRPDC staff gave a presentation to the Committee on conditions in the economy and the effects of the American Recovery and Reinvestment Act. HRPDC staff also provided updates on a number of items, including the March stormwater workshops, the status of the proposed bacteria study, the upcoming HRPDC Retreat, and the status of the Phase I stormwater permits. The Committee also discussed the invasive species issue from the previous meeting.
- May 7, 2009 - This was a meeting of the Joint Environmental Committee. Staff from the Homebuilders Association of Virginia gave a presentation on HBAV's proposed stormwater regulations as an alternative to those currently being developed DCR. This was followed by a lengthy discussion by the

Committee. HRPDC staff also briefed the Committee on a variety of activities, including stormwater regulations, the regional climate change and green infrastructure studies being developed, the proposed bacteria study, and the Energy Efficiency and Conservation Block Grant Program.

- June 4, 2009 - This was a meeting of the Joint Environmental Committee. DCBLA staff gave a presentation on the implementation plan for Phase III of the Chesapeake Bay Preservation Act. Virginia Sea Grant staff gave a presentation to the Committee on the status of the program's strategic plan. HRPDC staff also briefed the Committee on a variety of activities, including stormwater regulations, the bacteria source tracking initiative, the Energy Efficiency and Conservation Block Grant Program, and the FY 2010 work program. The Committee asked for confirmation of HRSD participation in the bacteria study.
- June 30, 2009 - This was a meeting of the Hampton Roads Watershed Roundtable. Representatives of Ciba Corporation discussed the energy co-generation at the regional landfill in Suffolk. This landfill gas to electricity and steam generation project requires regional cooperation and is having positive impacts on both air quality and energy consumption in Hampton Roads. In addition, HRPDC staff provided the Roundtable with a briefing on the Energy Efficiency and Conservation Block Grants (EECBG) Program.
- July 2, 2009 - This was a meeting of the Joint Environmental Committee. Chesapeake and Virginia Beach staff provided a briefing on the progress of proposed tree canopy legislation for the region. HRPDC staff provided briefings on the bacteria source tracking initiative, the Energy Efficiency and Conservation Block Grant Program, and the Chesapeake Club education marketing campaign. HRPDC staff also discussed comments on the new stormwater regulations with the Committee. The group discussed and agreed on the following recommendations: A 10% reduction in phosphorus for developed sites; infiltration recommendations; a grace period for working out the BMP clearinghouse and stormwater management handbook with a strong, formalized feedback process; a change in the definition of wetlands to account for connected and non-connected wetlands; a grandfathering provision for already-approved plans with a set cutoff date and additional locality discretion; and, support for APA-Virginia's position and recommendations on adding more local flexibility, especially in urbanized areas.
- August 6, 2009 - This was a meeting of the Joint Environmental Committee. Staff from the EPA Chesapeake Bay Program Office gave a presentation via conference call on the status of the Chesapeake Bay TMDL. DEQ staff gave a brief conference call presentation on the recent establishment of the Mid-Atlantic Regional Council on the Ocean (MARCO). HRPDC staff also

provided an update on the Energy Efficiency and Conservation Block Grant Program.

- September 3, 2009 - This was a meeting of the Joint Environmental Committee. HRPDC staff briefed the Committee on the status of the draft stormwater regulations. Proposed changes made in response to public comments include separate regulations for Chesapeake Bay watershed areas and non-Chesapeake Bay watershed areas, different regulations for small sites or sites within UDAs, the creation and administration of offsite mitigation or buy down programs, and grandfathering of current projects and water quality. Representatives from VDOT gave a presentation on new Secondary Street Acceptance Requirements that went into effect July 1, 2009. DCR-DCBLA staff provided the Committee with an update on Phase III development. The Committee expressed concern over the standards for compliance with the Phase III goals. Some of these standards are difficult or impractical to implement; for example, there is no way to verify agricultural practices that intrude into CBPAs because plans are not submitted to localities. Similarly, using a checklist that does not incorporate quantitative standards will leave localities with no way to force development to conform to Phase III goals. Localities cannot require developers to go above minimum requirements, so model ordinances that identify measureable thresholds or requirements that will meet the Phase III standards are desired. Finally, HRPDC staff provided an update on the Energy Efficiency and Conservation Block Grant Program and a NOIRA from DEQ proposing to develop TMDLs for flow as a pollutant.

During FY 2008 – 2009, the Regional Chesapeake Bay Implementation Subcommittee met twice to discuss matters of common concern. Topics of discussion included proposed local Chesapeake Bay Ordinance revisions, Phase III CBPA implementation, and local program reviews methods and initiatives.

TABLE I
SUMMARY OF AGENCY BRIEFINGS
JOINT ENVIRONMENTAL COMMITTEE
October 2008 - September 2009

Date	Agency	Topic
10/2/2008	City of Chesapeake/Virginia Beach/DCR	Soil and Water Conservation Board actions
	Division of Chesapeake Bay Local Assistance	Chesapeake Bay Preservation Act Phase III
11/6/2008	Division of Chesapeake Bay Local Assistance	Chesapeake Bay Preservation Act programs
	USGS	Forecasting Bacteria Levels
12/4/2008	Division of Chesapeake Bay Local Assistance	Chesapeake Bay Preservation Act programs
	City of Norfolk/VMRC	Invasive species
1/8/2009	Department of Conservation and Recreation	Stormwater permit review
	Center for Watershed Protection	Extreme BMP Makeover
2/5/2009	Division of Chesapeake Bay Local Assistance	Chesapeake Bay Preservation Act programs
3/5/2009	DCR, Division of Natural Heritage	Invasive species
	Department of Environmental Quality	PCB Monitoring
4/2/2009	City of Virginia Beach	Invasive species
5/7/2009	Homebuilders Association of Virginia	Stormwater regulations
6/4/2009	Division of Chesapeake Bay Local Assistance	Chesapeake Bay Preservation Act programs
	Virginia Sea Grant	Virginia Sea Grant strategic plan
7/2/2009	City of Chesapeake/City of Virginia Beach	Tree canopy legislation
8/6/2009	EPA, Chesapeake Bay Program	Chesapeake Baywide TMDL
	Department of Environmental Quality	Mid-Atlantic Regional Council on the Ocean
	Department of Conservation and Recreation	Stormwater regulations
	Division of Chesapeake Bay Local Assistance	CBPA implementation activities
9/3/2009	Department of Transportation	Secondary Street Acceptance Requirements
	Division of Chesapeake Bay Local Assistance	Chesapeake Bay Preservation Act Phase III

As indicated in the previous synopsis of meetings conducted as part of the Regional Coordination Process, the HRPDC staff facilitated development of consensus comments by the Committees on a number of state and federal regulatory issues and programs. Copies of representative comment packages are included in Appendix C.

Other Environmental Coordination Processes

Wetlands Process

During the course of the year, the HRPDC staff monitored developments associated with the state and federal wetlands regulatory programs, advising the localities on federal regulatory guidance, technical studies and development, implementation of the State Programmatic General Permit by the Norfolk District of the Corps of Engineers, and pending federal legislation. Information on wetlands issues has been exchanged electronically and through the monthly meetings of the HRPDC Environmental Committees.

The discussions of the HRPDC staff and the HRPDC Ad Hoc Wetlands Advisory Committee positioned the region so that it could proactively respond to the Virginia Water Protection Permit Regulations. They have also laid the groundwork for the region to examine a number of implementation options to facilitate compliance with these regulations. As noted previously, the Multiple Benefits Conservation Plan model, developed through the SWAMP Program, is being evaluated as a vehicle for moving forward with a regional response to the Wetlands Regulations. It also assisted in developing the green infrastructure program for the region. The green infrastructure/conservation corridor study provides another vehicle for use in addressing wetlands issues.

Stormwater Management

Efforts to coordinate local government stormwater management programs are continuing. Key issues being considered through this process are compliance with state and federal regulations, public education, state efforts to implement the consolidated stormwater program, proposed stormwater management regulations, and development of renewed Municipal Separate Storm Sewer System (MS4) permits for the region's six larger municipalities. Major emphasis is being placed on the development of new state stormwater management regulations and negotiation of the Phase I MS4 permits. Permit applications for the Phase II localities were developed and issued consistent with new Phase II regulations. This is a continuation of activities conducted from 1987 to 1995 through both the Technical Assistance Program and competitive grants from the VCZMP. As indicated in previous reports, a formal regional stormwater management program, funded through special local assessments, has been established and has continued to grow since 1997. The VCZMP funding provided the seed to establish this program. Building on this prior work, the HRPDC staff is facilitating successful locally funded efforts by the region's localities to develop and implement a regionally consistent approach to the Regulations requiring Virginia Stormwater Management Program

Permits for Municipal Separate Storm Sewer Systems. The six Phase I localities have been operating under state permits since 1996. The six Phase II localities received their VPDES Permits in March 2003. In March 2004, 2005, and 2007, the HRPDC coordinated the effort by these six localities to complete their annual permit reports. Annually, considerable input is provided to the six Phase I localities for their annual reports. Work continues to develop and refine program elements consistent with those permits. The Phase I stormwater permits have been administratively continued since 2006.

During 2003, the HRPDC and the member localities finalized a Memorandum of Agreement, formally establishing the Regional Stormwater Management Program. The MOA outlines the duties and responsibilities of the HRPDC and the localities to develop and implement regional stormwater management programs, establishes the funding mechanism to support those programs and addresses liability issues. It provides a strong institutional framework for long-term program development and planning to resolve stormwater related water quantity and quality problems. The MOA was re-executed in March 2008.

Water Supply

In May 1993, the staff was requested to take on a significant new activity - development of a local/regional position on the proper role of state government in water supply planning, regulation and/or provision. Initiated, in part, as a response to the State Water Commission's effort to develop a state water policy, this activity, originally funded through a VCZMP Technical Assistance Grant, has evolved into a comprehensive locally funded water resource management program. Reflecting regional input, developed through the Directors of Utilities Committee, legislation was enacted during the 2003 Session of the General Assembly to establish a state water planning program, involving preparation of local and/or regional water supply plans. Because of its earlier work on this topic, the Hampton Roads region was positioned to play an influential role in this effort. From 2003 through 2006, the HRPDC staff and Directors of Utilities Committee participated in the state's Technical Advisory Committee, reviewing and commenting on draft materials developed through this process. The basic planning regulation became effective in November 2005 and permit regulations affecting water supply projects became final in 2007.

In 1997, the HRPDC staff in cooperation with the HRPDC Directors of Utilities and Directors of Planning Committees completed Water Supply Watershed Management in Hampton Roads, the preparation of which was partially funded through a competitive grant from the VCZMP. Based on the report's recommendations, the HRPDC staff in cooperation with the Committees developed a Model Water Supply Watershed Management Ordinance. With financial assistance from the Virginia Department of Health, the HRPDC staff and Committees successfully completed the Hampton Roads Source Water Assessment Program, which is required to meet federal Safe Drinking Water Regulations and which was one of the primary technical recommendations of the VCZMP-funded effort. Efforts to integrate the Model Ordinance and the SWAP data and

recommendations into local land use planning and regulation are continuing. Several localities have recently expressed a desire to revisit and enhance this watershed protection initiative. Again, the VCZMP provided the seed, through financial support for the local coordination process and a comprehensive technical study, for an important local initiative.

In January 2004, the HRPDC Directors of Utilities Committee endorsed a proposal to develop a regional water supply plan for the Hampton Roads Region that ensures the long-term availability of a high quality, safe water supply for the citizens of Hampton Roads and enables the localities of the Hampton Roads Region to meet the local and regional water supply planning requirements of the Commonwealth of Virginia. All local governments in Hampton Roads must submit to DEQ a local water supply plan or participate in the submittal of a regional water supply plan. The local governments in Hampton Roads recognize the benefits, in terms of cost, coordination and regulatory compliance, of proceeding with a Regional Water Supply Planning Process. Consensus regional goals to guide the water supply planning program have been developed. A Memorandum of Agreement to guide this process was executed by the HRPDC and 24 localities in Spring 2007. HRPDC staff research, data collection, and analysis are underway, in cooperation with the Directors of Utilities Committee.

Wastewater

Fat, oil and grease (FOG) discharged by residential, commercial and institutional and industrial users present a significant problem for wastewater collection and treatment systems. To address these problems, a growing number of local governments have adopted public education and regulatory programs dealing with FOG management. Since this is a problem region-wide, it made sense to approach it collaboratively. A small subcommittee was formed under the auspices of the Hampton Roads Planning District to begin the initial phases of a regional FOG education effort. The subcommittee evaluated and analyzed local SSO data and noticed patterns in residential areas, as well as “restaurant alleys”. With a limited initial budget, baseline research was conducted and the initial phases of the program will focus on residents and restaurants.

A regional web-based reporting system for sanitary sewer overflows, the Hampton Roads Sanitary Sewer Overflow Reporting System (SSORS), has increased efficiencies for localities as well as the Department of Environmental Quality. Coordinated by the HRPDC in conjunction with the member localities, HRSD, URS Corporation and the DEQ, this effort fully automated reporting requirements for sanitary sewer overflows in the region. HRPDC staff continues to manage the database and provide technical assistance for participating localities and the DEQ. In addition to streamlining the reporting process, localities are able to conduct queries and generate reports to increase efficiencies in their systems. Efforts to further enhance the SSORS system to include GIS capabilities and other improvements were begun. Additional enhancements include a more consistent methodology for characterizing sanitary sewer overflows (SSOs). HRPDC staff has presented this system at a variety of conferences and meetings across the Commonwealth, with the long-term goal of attempting to take the

system statewide.

Beginning in 2001, the HRPDC staff and the Directors of Utilities Committee developed a comprehensive approach to addressing wastewater issues in Hampton Roads. In addition to the educational and reporting efforts described above, a series of studies identified the need for additional facilities for drying grit and grease removed from the wastewater system and the feasibility of providing regional facilities to address that need. One facility is presently being built through the Hampton Roads Sanitation District (HRSD), based on an agreement facilitated by the HRPDC staff. This facility will open in January 2010. An agreement for a second facility is being facilitated by the HRPDC staff with five Peninsula localities and HRSD. This project is now on hold due to budgetary constraints.

During 2005, the U.S. Environmental Protection Agency and DEQ advised the Hampton Roads localities of their intent to develop consent orders with the region's localities and the regional wastewater treatment agency to manage sanitary sewer overflows. This initiative implements the EPA's national enforcement policy concerning wet weather flows. The Hampton Roads localities and the HRSD agreed to work through the HRPDC to develop a regional approach to the initiative. For two years, the region worked with DEQ to develop a Regional Consent Order. The Order is supported by Regional Technical Standards to guide the necessary technical studies, evaluation, and operation of the wastewater system as well as design of future facilities. To ensure that the technical requirements of the Order and the Regional Wet Weather Management Plan, which is being developed, are implemented in a cooperative fashion, thirteen localities, HRSD, and the HRPDC executed a Memorandum of Agreement. This agreement will outlive the Consent Order. In September 2007, the State Water Control Board approved the Regional Consent Order Package.

Since execution of the Consent Order, the Hampton Roads Capacity Team continues to address issues of regional importance, including reporting requirements and compliance with the Order. A Hampton Roads Fat Oils and Grease (HR FOG) program has been developed to improve regional consistency in grease control device installation, maintenance, enforcement, and training. Additional efforts targeted to homeowners regarding proper disposal of FOG include advertising and development of a new website. Localities are in the process of signing the regional Memorandum of Agreement and enhancing the regional model ordinance developed by HRPDC staff. In addition, a web-based training component for food service establishment (FSE) employees and grease haulers is currently in the development phase. An Infiltration/Inflow (I/I) Abatement Program is also in development.

Through the regional coordination process, the HRPDC works to ensure that local government planning and implementation activities in the areas of stormwater management, water supply and ground water management, wastewater, Chesapeake Bay Preservation Act and Virginia Coastal Zone Management Program are coordinated and mutually supportive. The synergy inherent in this coordination process provides

opportunities for local government innovation and enhancement of activities in each of these areas.

Environmental Strategic Planning Process

The HRPDC staff continues to work with the HRPDC Hampton Roads Chesapeake Bay, Regional Stormwater Management, and Directors of Utilities Committees, as well as the three regional environmental education programs, to evaluate and enhance the HRPDC Environmental Planning Program. This effort is directed at ensuring that HRPDC activities assist the localities in the most cost-effective and comprehensive fashion. This has resulted in a number of improvements to HRPDC program management and direction and has enhanced the effectiveness of several regional positions. Accomplishments of this ongoing strategic planning effort include:

- Joint Meetings of the environmental committees, including the Hampton Roads Chesapeake Bay and Regional Stormwater Management Committees.
- Increased use of electronic communications.
- Restructuring of the Lower James River (Hampton Roads) Watershed Roundtable into the Hampton Roads Watershed Roundtable.
- Integration of regional environmental education programs under the name HR3, becoming HR Green.
- Preparation of several environmental education materials through HR Green (HR3).
- Review, analysis, and preparation of regional comments regarding water quality standards, nutrients, technology standards, wetlands and stormwater regulations, and the Chesapeake Bay restoration.
- Examination of cross-cutting issues, such as watershed management planning and appropriate institutional arrangements to more effectively address such issues.

The HRPDC Environmental Strategic Planning Subcommittee functions as an executive committee of the primary environmental committees. It enables the staff and localities to focus attention on a limited number of critical issues and develop consensus recommendations, which, in turn, were recommended by the primary committees to the Commission for consideration. Because of the effectiveness of the Subcommittee process in dealing with cross-cutting issues, the Subcommittee process is continuing.

PUBLIC INFORMATION, EDUCATION AND TRAINING

An integral component of the Hampton Roads Technical Assistance Program is the provision of public information and education on environmental issues in the Hampton Roads region. Provision of public information and education was identified by the participating localities at the outset of the program in 1986 as a critical need that could be met cooperatively through the HRPDC. Since that time, the HRPDC staff has provided written communications and briefings to the Commission and a wide range of interest groups on environmental issues and has provided regular briefings to many of those groups. These efforts continued during the grant year.

To ensure that the members of the HRPDC are kept informed about the status of ongoing HRPDC environmental program activities and pending environmental issues that may affect the Hampton Roads region, Project Status Reports on the HRPDC Coastal Resources Management Program and related issues are included in the Monthly Agendas for the HRPDC Executive Committee and Commission Meetings. In addition to the written Agenda materials, the HRPDC staff also routinely briefs the Commission on environmental issues of importance. During the year, briefings were given to the HRPDC on the following topics: the state water quality assessment report/impaired water list, stormwater management, Total Maximum Daily Load (TMDL) studies and plans, sanitary sewer overflows, the regional water supply plan, and HR FOG.

The HRPDC staff has provided briefings on regional environmental programs, environmental issues and state and federal regulations to a variety of groups. They include civic leagues, business and professional organizations, service clubs, schools and interest groups. The HRPDC staff has presented papers on related HRPDC technical studies and programs at several state, regional and national conferences. A number of briefings were also provided to state agency Boards, Legislative Commissions, local government Planning Commissions, City Councils/County Boards, and Town Councils on regional environmental projects and issues.

During the grant period, the HRPDC staff represented the region in several major panels and presentations on environmental issues. They included stormwater management, water conservation, pollution prevention, FOG, and green infrastructure.

- October 21, 2008: Lorman Seminar, Stormwater Management Regulations
- November 13, 2008: Seminar, HRPDC Consultant Needs, Old Dominion University Civil and Environmental Engineering Visiting Council
- November 20, 2008: Dam Safety Workshop, Association of Flood Plain Managers

- January 26, 2009: Green Infrastructure in Hampton Roads, Mid-Atlantic Horticultural Short Course, Virginia Beach
- February 10, 2009: Green Infrastructure in Hampton Roads: Network Design and Green Infrastructure in Hampton Roads: Implementation, EPA Regional Science Workshop (Green Infrastructure: Linking People, Nature and Landscapes through Sound Science), Annapolis, MD
- February 25, 2009: Green Infrastructure in Hampton Roads, Virginia Department of Conservation and Recreation Regional Managers Meeting, Virginia Beach
- March 18, 2009: Climate Change in Hampton Roads, Back Bay Forum, Virginia Beach
- March 25, 2009: Moderated Panel Discussion on the Governor's Commission on Climate Change, Virginia Chapter of the American Planning Association Conference, Williamsburg
- April 1, 2009: Regional Water Conservation Initiatives – Water Environmental Conference, Newport Beach, CA
- April 28, 2009: Virginia Dare SWCD Strategic Planning
- April 28, 2009: Regional FOG Program Briefing, Town of Smithfield Water & Sewer Committee
- May 8, 2009: PARS Training, Portsmouth
- May 11, 2009: Regional FOG Program Briefing, York County
- May 21, 2009: Regional FOG Stakeholders Meeting, Newport News
- May 29, 2009: Regional FOG Stakeholders Meeting, Chesapeake
- July 13, 2009: Regional FOG Stakeholders Meeting, Smithfield
- July 30, 2009: Peanut SWCD Strategic Planning Facilitation
- July 31, 2009: Regional FOG Stakeholders Meeting, Newport News
- August 19, 2009: Regional FOG Program Briefing, Suffolk
- August 27, 2009: PARS Training, York County
- September 3, 2009: Bacteria Source Tracking Study, Isle of Wight County
- September 14, 2009: Regional FOG Program Presentation, Water JAM

- September 15, 2009: Green Infrastructure in Hampton Roads, University of Virginia Planning Class
- September 17, 2009: Green Infrastructure in Hampton Roads, Rappahannock-Rapidan Regional Commission Living Lands Workshop

A number of these presentations addressed multiple programs. Programs and activities covered included water supply planning, green infrastructure, TMDL regulations, pollution prevention, the overall HRPDC water resources program, watershed modeling, wetlands regulations, regional environmental education initiatives, and the regional stormwater management program.

The regional environmental education committees, collectively known as HR Green - the Hampton Roads Water Efficiency Team (HR WET), HR STORM, HR FOG (Fats, Oils, and Grease) and HR CLEAN - continue to work together to address common issues and to enhance the effectiveness of their educational programs. This is an ongoing effort, which requires consensus among a wide range of local government departments. To date, the joint educational efforts have focused on improving the cost-effectiveness of media contracts, distributing funding through an educational mini-grant program, production of a family activity book and production of joint advertising in regional publications.

As part of the Newspapers in Education (NIE) youth education project, HR Green partnered with the region's newspapers, The Virginian-Pilot and Daily Press, to develop a Hampton Roads-specific education piece about the region's watershed. While many pre-developed pieces are available to the schools through NIE, HR Green sought this opportunity to educate the region's youth on topics tailored to the Hampton Roads region. In addition to providing regional stormwater information, HR Green used this initiative to incorporate the watershed and water quality Standards of Learning requirements developed by the Virginia Department of Education (VDOE) along with regions specific information. A teacher guide was also developed and distributed. The tab, We All Live on the Water, was partially funded through a grant by the Chesapeake Bay License Plate Fund and matched with local government contributions and HRPDC staff time. The print pieces were distributed to the schools in April and May 2008. The guide was reprinted in Summer 2009.

On a quarterly basis, the HRPDC prepares and distributes a newsletter, Hampton Roads Review, to nearly 3,000 individuals and groups throughout Hampton Roads. Through January 1998, the newsletter included a special insert, called Environmental Reviews and later, Environmental Update. The insert, as well as other topical (transportation, economics and census) inserts, was eliminated from the newsletter following that issue, as part of an agency restructuring of the public information program. As a result of this restructuring, the space devoted to the programs of each of the functional departments has been increased. To enhance the effectiveness of all HRPDC public information materials, HRPDC Special Reports on specific topics may be

developed and distributed to supplement the regular newsletter. Representative articles are included in Appendix D. Beginning in 2009, copies of Hampton Roads Review produced during the grant year are also available online at <http://www.hrpdc.org/Documents/Newsletter.asp>.

The HRPDC staff has devoted considerable attention and effort over the past year to the continued refinement of the Commission's Internet Home Page (www.hrpdcva.gov). The Home Page contains copies of all newsletters, occasional complete copies of HRPDC technical reports and an overview of Commission activities. All Commission meeting agenda materials are now posted and available on the HRPDC web page (<http://www.hrpdc.org/Index.asp>). It now contains an extensive section devoted to the HRPDC environmental planning program, including links to a number of other federal, state, local, and private sector sites. Efforts to further enhance the Home Page remain ongoing.

Through the Hampton Roads Joint Environmental Committee, HRPDC staff has provided training on a variety of topics to localities. Subjects over the past year included:

- Pollution Prevention on Municipal Sites (Southside, Peninsula)
- Stormwater Management in the Coastal Zone/Extreme BMP Makeover
- Illicit Discharge Detection and Elimination Training for Phase II Communities

The workshops incorporated pre- and post-tests to gauge prior knowledge of the subject matter as well as how much participants had learned during the workshops. The HRPDC also hosted a number of webcast trainings on topics including stormwater retrofits, Green Streets, stormwater compliance management, and the Chesapeake Bay TMDL. Additional training related to the proposed stormwater regulations will be held in conjunction with the Extreme BMP Makeover Project in FY 2009 - 2010.

CONCLUSIONS

Through the Hampton Roads Technical Assistance Program, the HRPDC has provided technical assistance to its member local governments and others; has delivered public information and education to the citizens and government officials of the region; has conducted important technical studies; and has coordinated a regional approach to participation in state and federal environmental programs, while also providing cost-effective support to the Virginia Coastal Zone Management Program.

The Hampton Roads Technical Assistance Program conducted through the VCZMP is a cost-effective solution to the need for environmental cooperation and coordination in the Hampton Roads Region of 3000 square miles and 1.6 million residents. It provides a vehicle for the sixteen member local jurisdictions, a number of state and federal agencies and others to exchange information and develop coordinated approaches to environmental management issues, while concurrently providing technical support for

routine local government planning and management activities. Based on state and federal legislative and executive branch response to comments and recommendations developed through this process, it is an effective means for the region's localities to communicate their views on environmental issues. It also provides a cost-effective means of ensuring that this region can participate in and support important environmental initiatives of the Commonwealth, such as the Virginia Coastal Zone Management Program and the Chesapeake Bay Program. It also appears to be a cost-effective mechanism for the Virginia Coastal Zone Management Program and related state environmental programs to use in communicating with and soliciting input from local government. Over the years, funding from the VCZMP through the Hampton Roads Technical Assistance Program has provided the region with the seed to establish a number of new regional programs in the areas of water supply planning and coordination, watershed management, stormwater management and environmental education. The HRPDC and its member local governments continue to believe that the Hampton Roads Technical Assistance Program is an extremely valuable and cost-effective approach to environmental planning and management in the Hampton Roads Region.

APPENDIX A

**LISTING OF
ENVIRONMENTAL IMPACT REVIEWS
AND
REPRESENTATIVE COMMENT LETTERS**

HRPDC Environmental Impact Reviews, FY 2008 - 2009

Number	Received	Sponsor	Name	Locality1	Locality2	Locality3
08-200F	10/3/2008	DOD/Navy	Clean P-8A Poseidon Integrated Testing (IT)-3 Airworthiness Flight Testing Program	HRPDC		
08-207F	10/17/2008	DOD/USACE	Oyster Restoration in Chesapeake Bay Including the Use of a Native and/or Nonnative Oyster	HRPDC		
08-210S	10/22/2008	Virginia Community College System	Norfolk Student Center, Tidewater Community College	Norfolk		
08-216F	11/5/2008	NASA	Hydro-Impact Basin Project, NASA Langley Research Center	Hampton		
08-217F	11/10/2008	DOD/Navy	Transition of E-2C Hawkeye Aircraft to E-2D Advanced Hawkeye Aircraft at Naval Station Norfolk	Norfolk		
08-221F	11/17/2008	DOD/USACE	Installation of a Picnic Shelter and Latrine on Camp Moonyah Boy Scout Camp	Chesapeake		
NA	11/26/2008	DOD/Navy	Homeporting of Additional Surface Ships at Naval Station Mayport, Florida	Norfolk		
08-231F	12/3/2008	NASA	Center	Hampton		
08-233F	12/4/2008	US HUD	Eagle Harbor - Phase II Apartments	Isle of Wight		
08-235S	12/15/2008	State Corporation Commission	GPC Green Energy, LLC MW Landfill Gas-to-Energy Generation Facility, PUE 2008-00085	Suffolk		
08-237F	12/19/2008	US HUD	Oak Crest at Battlefield Apartments	Chesapeake		
08-239F	12/19/2008	FAA	Franklin Municipal Airport Form C EA to Acquire Land for Runway Protection Zone	Isle of Wight		
09-002F	1/9/2009	US Department of Energy	Disposition of DOE Excess Depleted Uranium, Natural Uranium, Low-Enriched Uranium	HRPDC		
09-003F	1/12/2009	DOD/Navy	Complex	HRPDC		
09-006F	1/20/2009	DOD/Navy	Shoreline Stabilization at Naval Amphibious Base Little Creek	Beach		
09-011F	1/26/2009	DOD/Navy	Dredging of Norfolk Harbor Channel, Norfolk and Portsmouth, VA	Norfolk	Portsmouth	
09-012F	1/26/2009	DOI/MMS	Notice of Intent & Call for Geological & Geophysical Exploration on the Atlantic OCS	HRPDC		
09-010F	1/26/2009	DOI/MMS	Draft Proposed 5-Year OCS Oil & Gas Leasing Program for 2010-2015 & NOI to Prepare EIS	HRPDC		
09-017F	1/30/2009	US HUD	The Arlington at Chesapeake Apartments	Chesapeake		
09-030F	2/13/2009	Development	Wachovia Center Apartments	Norfolk		
09-031F	2/17/2009	US DOE/Fed. Energy Regulatory Commission	Lines VM-127 Pipeline Replacement by Columbia Gas Transmission Corporation	News		
09-032F	2/19/2009	NASA	LaRC	Hampton		
09-041F	2/27/2009	DOD/Navy	Installation of an Artificial Reef, Naval Amphibious Base Little Creek	Beach		
09-049F	3/13/2009	US HUD	Proposed East Beach, 4921 Pretty Lake Avenue	Norfolk		
09-050S	3/13/2009	The College of William and Mary	North Campus Chiller Plant Addition	Williamsburg		
09-053F	3/17/2009	US HUD	New Dawn Assisted Living - Williamsburg	County		
09-056F	3/24/2009	DOD/Navy	Construction of Human Performance Shelter Facilities, NAS Oceana Dam Neck Annex	Beach		
09-057F	3/25/2009	NASA	Deconstruction of 21 Buildings at NASA LaRC	Hampton		
09-061F	3/30/2009	DOD/Navy	Installation of Four Navigational Buoys at Pier 11	Norfolk		
09-060F	4/1/2009	USDOT/FAA	Airport	Chesapeake		
09-070S	4/14/2009	Jamestown-Yorktown Foundation	Temporary Parking Area	County		
09-073F	4/20/2009	DOD/Air Force/Air National Guard	Construction Program, Virginia Air National Guard 203 Red Horse Squadron	Beach		
09-078F	4/23/2009	DOD/USACE	Sandbridge Beach Erosion Control and Hurricane Protection Project	Beach		
09-080F	4/27/2009	USDOT/FAA	Taxiway A and General Aviation Apron Asphalt Repair and Rehab at Norfolk International Airport	Norfolk		
09-083F	4/29/2009	NASA	Expansion of the Wallops Flight Facility Launch Range	County		
09-097S	5/14/2009	College of William and Mary	The Sherman and Gloria H. Cohen Career Center Construction	Williamsburg		
09-101S	5/21/2009	Old Dominion University	Student Success Center	Norfolk		
09-100S	5/21/2009	Old Dominion University	Systems Research and Academic Building	Norfolk		
09-106F	6/5/2009	DOD/Army	Fort Story Stone Breakwater/Revetment	Beach		
09-110F	6/8/2009	DHS/Coast Guard	Upgrade Waterline Distribution System at U.S. Coast Guard Training Center Yorktown	York County		
09-112F	6/11/2009	U.S. Customs and Border Protection	High Energy Mobile X-Ray Inspection Systems at the Port of Virginia	Norfolk	Portsmouth	News
09-113S	6/12/2009	Norfolk State University	Godwin Hall	Norfolk		
09-114S	6/12/2009	US Army Corps of Engineers	Oyster	HRPDC		
09-116F	6/17/2009	DHS/Coast Guard	South Norfolk Jordan Bridge	Chesapeake	Portsmouth	
09-117F	6/17/2009	Development	Judeo-Christian Outreach Center	Beach		
09-123F	6/19/2009	U.S. Dept of Housing and Urban Development	Eagle Harbor Phase II	Isle of Wight		
09-121F	6/19/2009	USDOT/FAA	International)	Norfolk		
09-124S	6/22/2009	Norfolk State University	Demolition and Construction of New Library	Norfolk		
09-130S	7/1/2009	Christopher Newport University	Ratcliffe Hall Renovations and Addition	News		
09-131F	7/1/2009	DOD/Navy	Installation of Floating Docks at Pier 60, Naval Amphibious Base Little Creek	Beach		
09-132F	7/6/2009	DOD/Army	Felker Army Airfield Vegetation Clearing	News		
09-134S	7/6/2009	College of William and Mary	Pedestrian Trail and Bridge	Williamsburg		
09-139F	7/9/2009	FAA	Acquire Land for the Runway Protection Zone (RPZ) to Runway 5, Chesapeake Regional Airport	Chesapeake		
09-138F	7/9/2009	DOD/Army Corps of Engineers	Craney Island Eastward Expansion	Portsmouth		
09-137F	7/13/2009	DHS/Coast Guard	Maintenance Dredging of Boat Launch Area and Small Boat Basin Area, USCG, Portsmouth	Portsmouth		
09-140F	7/14/2009	DHS/Coast Guard	Deepwater Training Facility at USCG Training Center Yorktown	York County		
09-150S	7/30/2009	Old Dominion University	Metheny Baseball Stadium Improvements	Norfolk		
09-144F	8/3/2009	DOD/U.S. Department of the Navy	Proposed Dredging of Norfolk Harbor Channel	Norfolk	Portsmouth	Chesapeake
09-155S	8/5/2009	State Corporation Commission	Hayes-Yorktown 230 kV Transmission Line, Dominion Virginia Power	York County	Gloucester	
09-159S	8/12/2009	Christopher Newport University	New Chapel	News		
09-161S	8/13/2009	Virginia Community College System	Learning Resource Center, Phase I, TCC	Beach		

HRPDC Environmental Impact Reviews, FY 2008 - 2009

Number	Received	Sponsor	Name	Locality1	Locality2	Locality3
09-160F	8/14/2009	USDOT/FAA	North Terminal Development Area, Chesapeake Regional Airport	Chesapeake		
09-165F	8/20/2009	U.S. Dept of Housing and Urban Development	Evergreens at Bethel	Portsmouth		
09-166F	8/20/2009	U.S. Dept of Housing and Urban Development	Lakewood Manor Apartments	Norfolk		
09-168F	8/25/2009	DOD/Navy	Repairs to the W306 and W305 Bulkheads, Naval Station Norfolk	Norfolk		
09-167F	8/26/2009	DOD/Navy	Repairs to CEP-102 Bulkhead, Naval Station Norfolk	Norfolk		
09-171S	9/1/2009	Old Dominion University	New Art Building	Norfolk		
09-182F	9/8/2009	USHUD	Culpepper Landing Apartments	Chesapeake		
09-185F	9/9/2009	NASA Langley	Center	Hampton		
09-189F	9/18/2009	USHUD	Fenwick Manor at Blenheim and Fenwick Chase at Blenheim	Chesapeake		
09-193F	9/29/2009	DOD/Navy	67th Street Oceanfront Property Redevelopment at U.S. Navy Oceanfront Property	Beach		
09-194F	9/29/2009	DOD/Navy	Construction of Mid-Atlantic Joint Regional Correctional Facility, Northwest Annex	Chesapeake		



BRUCE C. GOODSON, CHAIRMAN • STAN D. CLARK, VICE CHAIRMAN • JAMES O. McREYNOLDS, TREASURER
DWIGHT L. FARMER, EXECUTIVE DIRECTOR/SECRETARY

February 20, 2009

Mr. John E. Fisher
Department of Environmental Quality
Office of Environmental Impact Review
629 East Main Street, Sixth Floor
Richmond, Virginia 23219

Re: Notice of Intent & Call for Geological and Geophysical Exploration on the Atlantic
Outer Continental Shelf DEQ #09-012F (ENV:GEN)

Dear Mr. Fisher:

Pursuant to your request, the staff of the Hampton Roads Planning District Commission (HRPDC) has reviewed the Notice of Intent & Call for Geological and Geophysical Exploration on the Atlantic Outer Continental Shelf.

Based on this review, we offer the following comments. As stated in previous comment letters on related matters, energy exploration and development in Virginia's coastal waters have the potential to exacerbate potential use conflicts. To address these potential use conflicts, it is essential that state and local governments be involved in the planning process associated with the development of the lease program. In addition, the nature of the proposed exploration may impact endangered species and marine mammals in general and should be addressed during the development of the programmatic EIS for this project.

We appreciate the opportunity to review this project. If you have any questions, please do not hesitate to call.

Sincerely,

Dwight L. Farmer
Executive Director/Secretary

MLJ/fh

MAILED
FEB 24 2009
HRPDC



BRUCE C. GOODSON, CHAIRMAN • STAN D. CLARK, VICE CHAIRMAN • JAMES O. McREYNOLDS, TREASURER
DWIGHT L. FARMER, EXECUTIVE DIRECTOR/SECRETARY

September 23, 2009

Ms. Anne N. Pinion
Department of Environmental Quality
Office of Environmental Impact Review
629 East Main Street, Sixth Floor
Richmond, Virginia 23219

Re: North Terminal Development Area, Chesapeake Regional Airport
DEQ 09-160F (ENV:GEN)

Dear Ms. Pinion:

Pursuant to your request, the staff of the Hampton Roads Planning District Commission has reviewed the Environmental Assessment and Consistency Certification for the proposed North Terminal at Chesapeake Regional Airport. We have contacted the City of Chesapeake concerning the project.

Based on this review, we offer the following comments. The Virginia Department of Environmental Quality's 2008 303(d) List shows that all monitored segments of the Northwest River and some of its tributaries are impaired for aquatic life and recreation due to low dissolved oxygen levels and the presence of E. coli. Two segments of the river were newly listed in 2008 for not meeting water quality standards: the Upper for recreation/E. coli bacteria and the Middle for fish consumption due to mercury in fish tissue. Because the proposed development area is located in the Northwest River Watershed, which also serves as the primary drinking water source for the City, every effort should be made to avoid unnecessary impacts to water quality.

City staff notes that the airport is located in an area that is currently the subject of a watershed planning effort and that the proposed development area project should be consistent with the Multiple Benefits Conservation Program (MBCP) Memorandum of Agreement signed by the City in 2002. The MBCP recommends that the selection of compensation sites enhance the conservation corridor system in the Southern Watershed Area of Chesapeake, when feasible.

The City's comments on this project are attached. We concur with their findings and recommendations. Complete copies of the MBCP are also available and can be obtained through the HRPDC.

MAILED
SEP 24 2009
HRPDC

Handwritten signature/initials

Ms. Anne N. Pinion
September 23, 2009
Page 2

We appreciate the opportunity to review this project. If you have any questions, please do not hesitate to call.

Sincerely,

A handwritten signature in black ink, reading "Dwight L. Farmer". The signature is written in a cursive style with a large, stylized "D" and "F".

Dwight L. Farmer
Executive Director/Secretary

MLJ/fh

Attachment

Copy: Mr. Brian Ballard, CH

Claire JONES - North Terminal Area Environmental Assessment

From: "Brian Ballard" <bballard@cityofchesapeake.net>
To: "Claire Jones" <cjones@hrpdcva.gov>
Date: 9/18/2009 4:28 PM
Subject: North Terminal Area Environmental Assessment

Claire-

Here are my comments for the Chesapeake Regional Airport North Terminal Area Environmental Assessment: The proposed project is located within the City's Northwest River Watershed Protection District. This area is subject to a Watershed Study being developed by the HRPDC under contract with the City of Chesapeake and the Nature Conservancy due to the fact that the Northwest River is the primary drinking water supply for the City. In addition, the watershed contains natural resource recognized on both the State and National level for their ecological value. Special care needs to be taken in the construction and operations of the proposed facilities to ensure that the water quality and resource value of this area is protected. Consideration should be given to alternatives that minimize impacts to these resources. Any wetland mitigation that occurs due to proposed impacts should be consistent with the Multiple Benefits Conservation Program (MBCP) Memorandum of Agreement on wetlands mitigation in the Southern Watersheds of Chesapeake and Virginia Beach that was developed in 2002 as part of the Southern Watershed Area Management Program.

Let me know if you need any additional information-
Brian

Brian Ballard, AICP
Principal Planner
Chesapeake Planning Department
P.O. Box 15225
Chesapeake, VA 23328

P: 757.382.6176
F: 757.382.8356

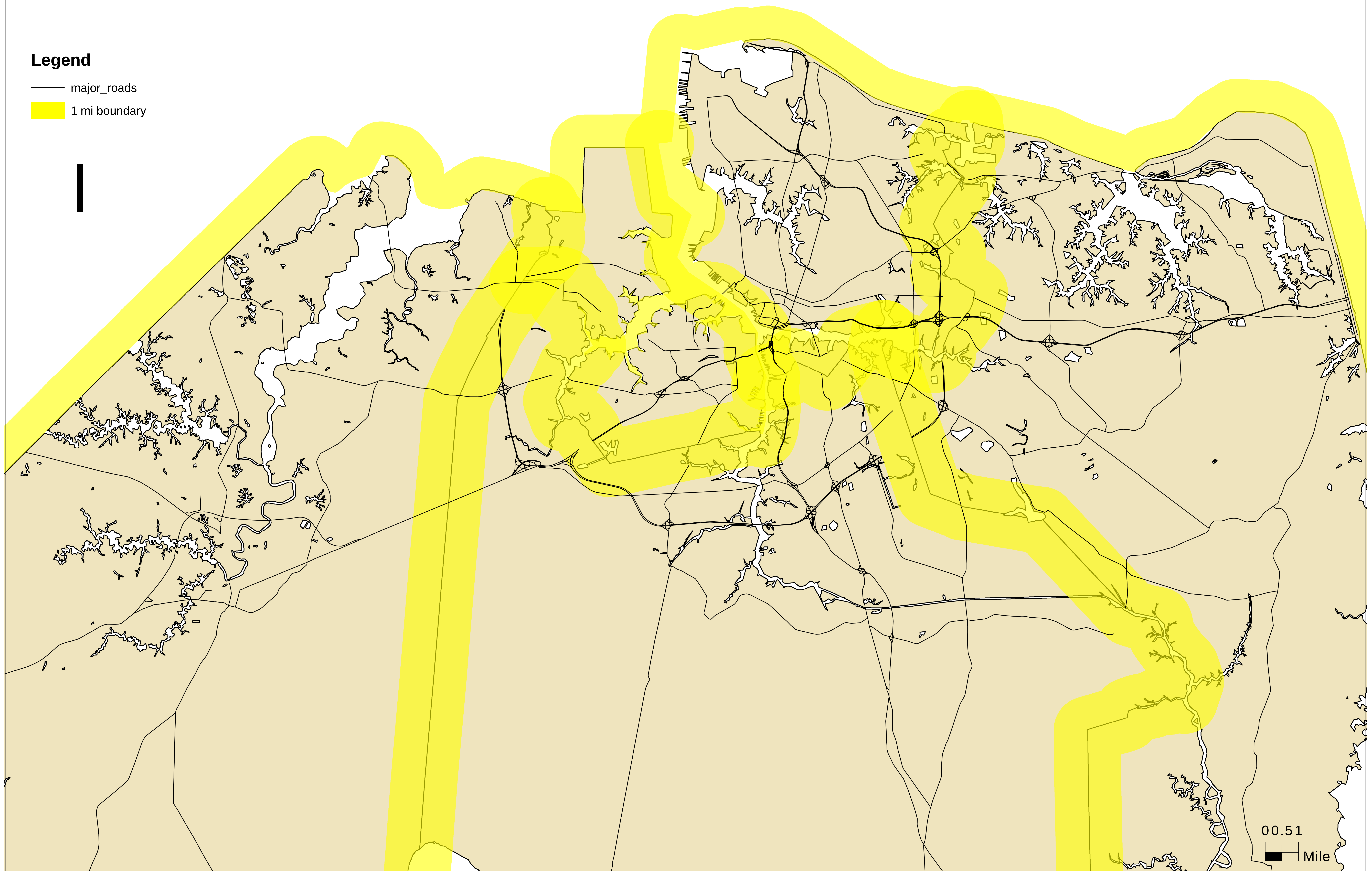
<http://cityofchesapeake.net>

APPENDIX B

ENVIRONMENTAL GEOGRAPHIC INFORMATION SYSTEM – SAMPLE MAPS

Legend

- major_roads
- 1 mi boundary



South Hampton Roads Comprehensive Planning One Mile Overlap Areas

Map Created by HRPDC Staff, September 2008





Chesapeake Bay Watershed

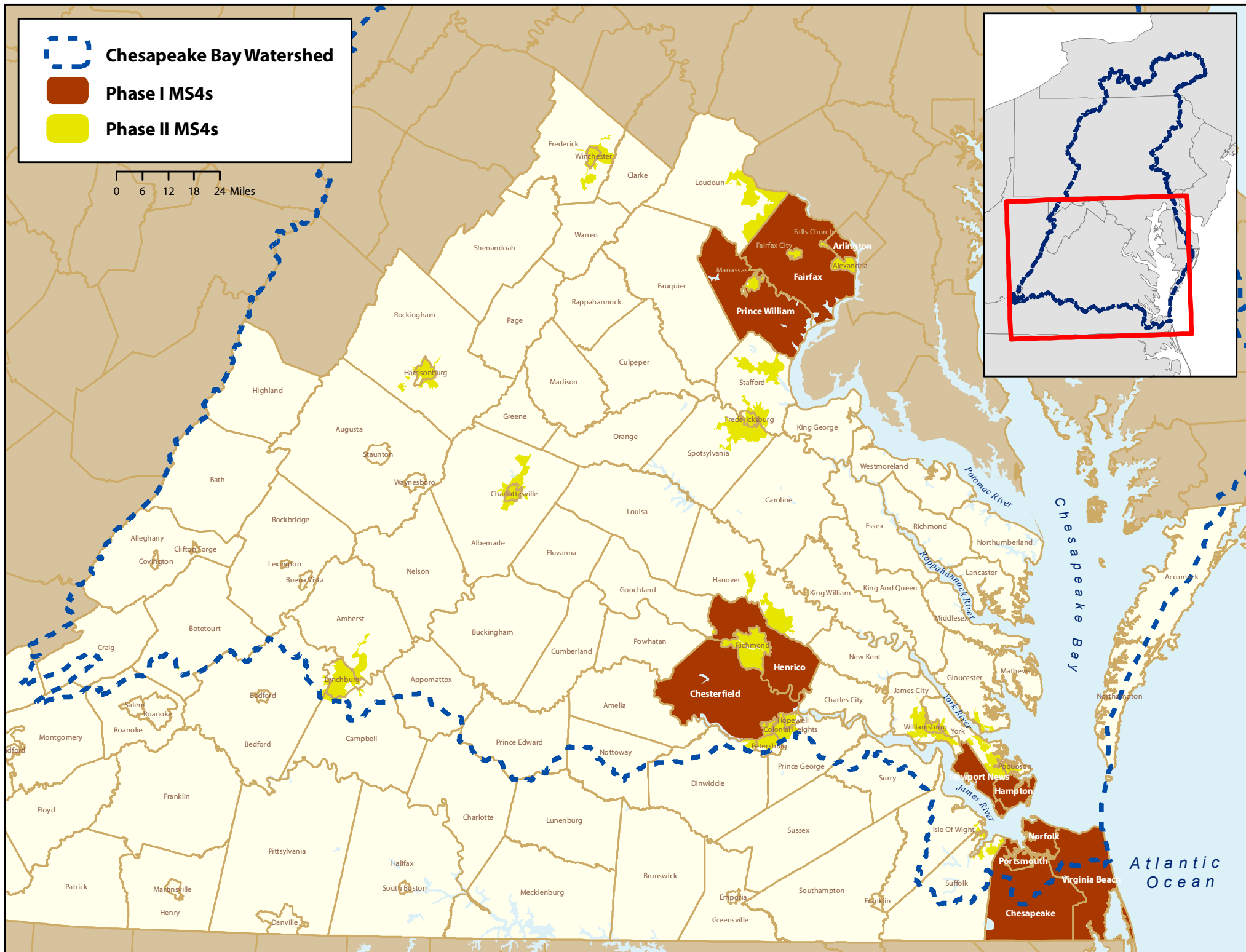
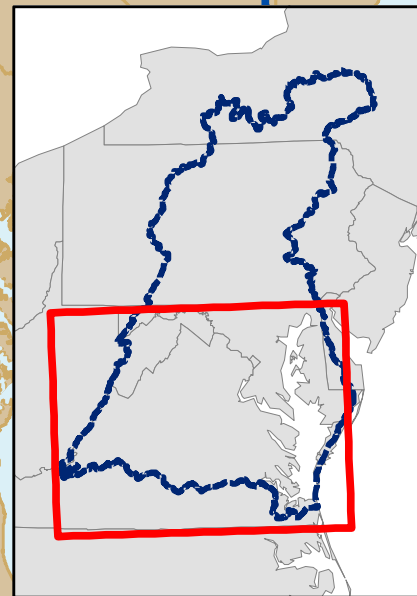


Phase I MS4s



Phase II MS4s

0 6 12 18 24 Miles



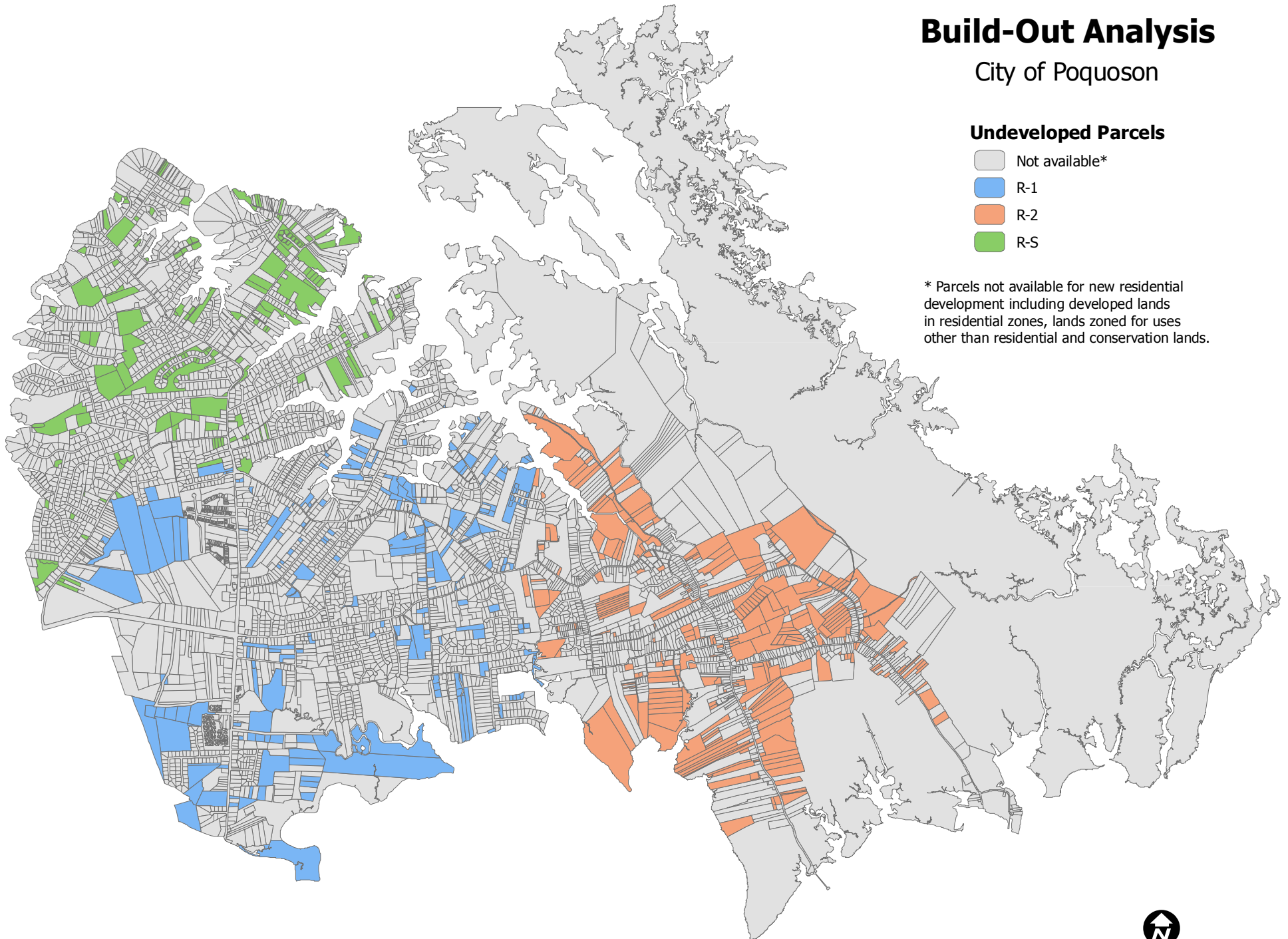
Build-Out Analysis

City of Poquoson

Undeveloped Parcels

-  Not available*
-  R-1
-  R-2
-  R-S

* Parcels not available for new residential development including developed lands in residential zones, lands zoned for uses other than residential and conservation lands.



APPENDIX C

HRPDC COMMENTS ON STATE REGULATORY ISSUES



BRUCE C. GOODSON, CHAIRMAN • STAN D. CLARK, VICE CHAIRMAN • JAMES O. McREYNOLDS, TREASURER
DWIGHT L. FARMER, EXECUTIVE DIRECTOR/SECRETARY

BY EMAIL AND US POSTAL SERVICE

February 19, 2009

Mr. Joseph H. Maroon, Director
Department of Conservation and Recreation
203 Governor Street, Suite 302
Richmond, Virginia 23219-2094

RE: MS4 Phase I Permits – Chesapeake, Hampton,
Newport News, Norfolk, Portsmouth and Virginia Beach
(POW:STORMWATER – Phase I)

Dear Mr. Maroon:

On February 6, 2009, staff from the Cities of Chesapeake, Norfolk and Portsmouth and the HRPDC were advised by email from Mr. Doug Fritz, DCR, of a change to the draft MS4 Permits for those three cities. This followed previous discussions and emails, on or about January 30, 2009, indicating that the final draft permits were ready to be sent to the localities prior to issuing public notices on the draft permits.

The change involves the deletion of one sentence from Section I.A.2. Authorized Discharges and Receiving Water Limitations, of the Permit. This sentence reads: "Implementation of best management practices consistent with the provisions of an iterative MS4 Program required pursuant to this permit constitutes compliance with the compliance target of reducing pollutants to the "maximum extent practicable," protects water quality, ensures compliance by the permittee with water quality standards, and satisfies the appropriate water quality requirements of the Clean Water Act and regulations." We understand that the same change is being made to the draft permits for the Cities of Hampton, Newport News and Virginia Beach.

The Hampton Roads localities are concerned about this change for a number of reasons. The change was made, at the last minute, to permits that were understood to be ready for public notice. The change was made with no advance notice to or opportunity for discussion with the affected localities. With this change, the permits appear to require immediate compliance with water quality standards contrary to long-standing EPA policy and guidance that stormwater programs are to result in reduction of pollutants in stormwater to the "maximum extent practicable" and were to be implemented to achieve the water quality-based requirements of the Clean Water Act.

MAILED

FEB 24

HRPDC

HEADQUARTERS • THE REGIONAL BUILDING • 723 WOODLAKE DRIVE • CHESAPEAKE, VIRGINIA 23320 • (757) 420-8300
PENINSULA OFFICE • 2101 EXECUTIVE DRIVE • SUITE C • HAMPTON, VIRGINIA 23666 • (757) 262-0094

POW STORMWATER - Phase I

Mr. Joseph H. Maroon
February 19, 2009
Page 2

through an iterative, adaptive management approach to the implementation of stormwater controls.¹ The significant departure from the iterative adaptive, management approach embodied in this change raises serious questions about the rationale for and value of the myriad programmatic requirements, found in Section I.C. of the permit.

The Hampton Roads Planning District Commission is submitting these comments on behalf of the six affected Hampton Roads localities. The following paragraphs provide background information and place the region's concerns with this change to the permit in an historical context.

As you are aware, the Hampton Roads localities have worked cooperatively to develop regionally consistent stormwater management programs that meet the requirements of the state and federal law. Current efforts continue a tradition of working together to address these requirements that dates to the late 1980s.

The six localities submitted applications for the renewal of their MS4 Permits in September 2005. At the request of DCR staff, they updated and submitted MS4 Program Plans in Spring 2006. Since that time, working through the HRPDC Regional Stormwater Management Committee, the localities have reviewed and commented on a number of draft versions of the permits. We have worked closely with your staff to refine these draft permits to ensure that they meet the regulatory requirements while including permit conditions that are achievable within the constraints of local government resources and that protect and improve water quality conditions. In November 2007, the HRPDC staff, on behalf of the six affected localities, advised you and the Board of Soil and Water Conservation (Board) of our belief that the permit draft, considered by the Board at its November 2007 meeting, represented a substantial improvement over previous versions of the permit and incorporated the iterative, adaptive management approach to MS4 permitting reflected in EPA policy and guidance.

The HRPDC comments also reflected local and regional understanding that the U.S. Environmental Protection Agency, Region III, had continuing concerns with the draft permits and might propose additional amendments. The comment letter noted a number of local and regional concerns with those potential amendments. The HRPDC comments noted that the permits would require the establishment or enhancement of significant programmatic initiatives, increased tracking and reporting, increased staffing to carry out those responsibilities and increased financial commitment on the part of the localities.

¹ "The policy outlined in this memorandum affirms the appropriateness of an iterative, adaptive management BMP approach, whereby permits include effluent limits (e.g., a combination of structural and non-structural BMPs) that address storm water discharges, implement mechanisms to evaluate the performance of such controls, and make adjustments (i.e., more stringent controls or specific BMPs) that address storm water discharges." See., memorandum from Robert H. Wayland to Water Division Directors, Establishing Total Maximum daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs (November 22, 2002) at page 5. .

Mr. Joseph H. Maroon
February 19, 2009
Page 3

Acknowledging the significance of these local financial commitments, the localities at that time indicated their belief that those draft permits provided for the efficient and effective utilization of these resources to improve water quality. The HRPDC comments concluded by urging the Board of Soil and Water Conservation and DCR staff to move forward with review and preparation of those permits for public notice.

Over the intervening months, the six localities and the HRPDC have continued to work with DCR staff to fine tune the permits and have been working together on language to be used in those cases where approved TMDL Waste Load Allocations have been developed. It was our understanding, as late as February 4, 2009, that the permits for Chesapeake, Norfolk and Portsmouth, were ready to go out for public comment. Thus, we were particularly surprised and concerned by a February 5, 2009 phone call and the February 6, 2009 email from DCR staff, referred to above.

Based on the concerns noted above, the region's localities wish to withhold issuance of public notices for these permits pending resolution of concerns about this significant change to the permit language. The region's localities are fully prepared and desire to continue working with DCR staff to address these concerns in an expeditious manner so that environmentally sound, cost-effective permits may be issued.

Thank you for the opportunity to provide these comments, on behalf of the region's six Phase I member localities – the Cities of Chesapeake, Hampton, Newport News, Norfolk, Portsmouth and Virginia Beach. We look forward to the opportunity to continue working with you and your staff to finalize drafts of these permits for public notice.

Sincerely,



John M. Carlock
Deputy Executive Director

JMC/fh

Copy: Mr. David Dowling

Mr. Lee Hill

Mr. Doug Fritz

HRPDC Regional Stormwater Management Committee - Local Governments Only

Mr. David Evans, McGuire Woods

Mr. David McGuigan, EPA



BRUCE C. GOODSON, CHAIRMAN • STAN D. CLARK, VICE CHAIRMAN • JAMES O. McREYNOLDS, TREASURER
DWIGHT L. FARMER, EXECUTIVE DIRECTOR/SECRETARY

May 27, 2009

The Honorable L. Preston Bryant, Jr.
Secretary of Natural Resources
Patrick Henry Building
1111 East Broad Street
Richmond, VA 23219

RE: Appointment of Hampton Roads Representative to the Invasive Species
Advisory Committee

Dear Secretary Bryant:

I am writing to request the appointment of a representative from the Hampton Roads region to the Virginia Invasive Species Advisory Committee. The Hampton Roads Planning District Commission's Joint Environmental Committee has discussed this issue and recommends that Mr. Edwin L. Rosenberg, manager of the Environmental Services Division in the City of Norfolk Department of Planning and Community Development be appointed to the Committee. Mr. Rosenberg has identified several invasive species issues in Hampton Roads including the appearance of Beach Vitex in the City of Norfolk. Mr. Rosenberg would bring years of experience in coastal planning and management to the Committee and would provide a valuable link between the staffs of the Hampton Roads communities and the Invasive Species Working Group.

Mr. Rosenberg's contact information is as follows:

Edwin L. Rosenberg
Manager, Environmental Services Division
Department of Planning & Community Development
Rm. 508, City Hall Building
810 Union Street
Norfolk, VA 23510
PH: (757) 664-4373
CELL: (757) 510-4593
FAX: (757) 664-4370
lee.rosenberg@norfolk.gov

MAILED
MAY 28 2 54 PM '09
HRPDC

The Honorable L. Preston Bryant, Jr.
May 27, 2009
Page 2

Thank you for your consideration of this request. Please contact me or John Carlock of the HRPDC staff if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Dwight L. Farmer". The signature is written in a cursive style with a large, stylized "D" and "F".

Dwight L. Farmer
Executive Director/Secretary

EJW/fh



August 11, 2009

Mr. Joseph H. Maroon, Director
Department of Conservation and Recreation
203 Governor Street, Suite 302
Richmond, VA 23219

Dear Mr. Maroon:

While the members of the Hampton Roads Planning District Commission (HRPDC) recognize the substantial effort undertaken by the staff of the Department of Conservation and Recreation (DCR) in developing the proposed revisions to the Virginia Stormwater Regulations, 4 VAC 50-60, we continue to have significant concerns about the impact of these Regulations on the cost of housing, development patterns, and water quality.

At the Commission meeting on July 15, 2009, the HRPDC acted to endorse the following position and attached comments reflecting its discussion of the technical issues raised by the HRPDC staff and members of the Regional Stormwater Management Committee. The HRPDC believes that these technical and financial concerns must be addressed in order to ensure that future long-term local government compliance with Municipal Separate Storm Sewer System (MS4) permits and the Chesapeake Bay TMDL is not jeopardized by unachievable standards.

- The draft VSMP Permit Regulations creates a financial disincentive to redevelop urban areas, especially very small sites, and consequently increases the negative impact of development on water quality.
 - o A regional cost-benefit analysis conducted by area A/E firms found that it was thirty times more expensive to remove one pound of phosphorus from redevelopment projects compared to new development projects (see Table 1).
 - o The Department of Planning and Budget commented that, "Higher phosphorus control costs in high density developments create financial disincentives that may work at cross purposes with larger watershed objectives."
- The proposed Regulations are in conflict with House Bill 3202 that requires localities with high growth rates to designate Urban Development Areas (UDA) and with the Smart Growth principles encouraged by EPA.
 - o Development within an UDA under this regulation would be prohibitively expensive, and would likely eliminate the option for affordable housing.

Mr. Joseph H. Maroon
August 11, 2009
Page 2

- Proposed provisions for watershed management plans to offset the cost of redevelopment are inadequate and incomplete.
 - o These plans will take time and considerable resources for the local governments to develop, and will likely not be complete when the Regulations become effective or when the local governments are required to adopt the Program.

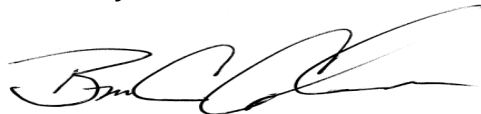
The Commission requests the following DCR actions:

1. Establish a TAC to develop the needed guidance and sufficient timelines for the creation of watershed management plans that encourage retrofits and increasing urban density. DCR's publication, *Local Watershed Planning in Virginia* could serve as a valuable starting point for such guidance.
2. Retain the existing requirement to decrease the phosphorus load for redevelopment projects by ten percent of the existing load.
3. Add a provision for localities to grant a waiver for properties contained within the locally designated urban development areas (UDAs).
4. Expand the toolbox of best management practices within urbanized areas to include smart growth BMPs as described in the EPA publication *Using Smart Growth Techniques as Stormwater Best Management Practices*.

Although the Hampton Roads Planning District Commission and the members of the HRPDC Regional Stormwater Management Committee believe that considerable progress has been made in developing a regulatory system to address the water quality and quantity issues associated with stormwater, we cannot support the Regulations as currently proposed for the reasons stated above. Attached is an extended list of technical concerns and recommended revisions to the proposed Regulations.

We look forward to continue working with DCR to address the above-noted concerns and to continue improving the regulations to the benefit of the Commonwealth.

Sincerely,



Bruce C. Goodson
Chairman

JLT/kg
Attachments

cc: L. Preston Bryant, Jr., Secretary of Natural Resources
Hampton Roads General Assembly Delegation

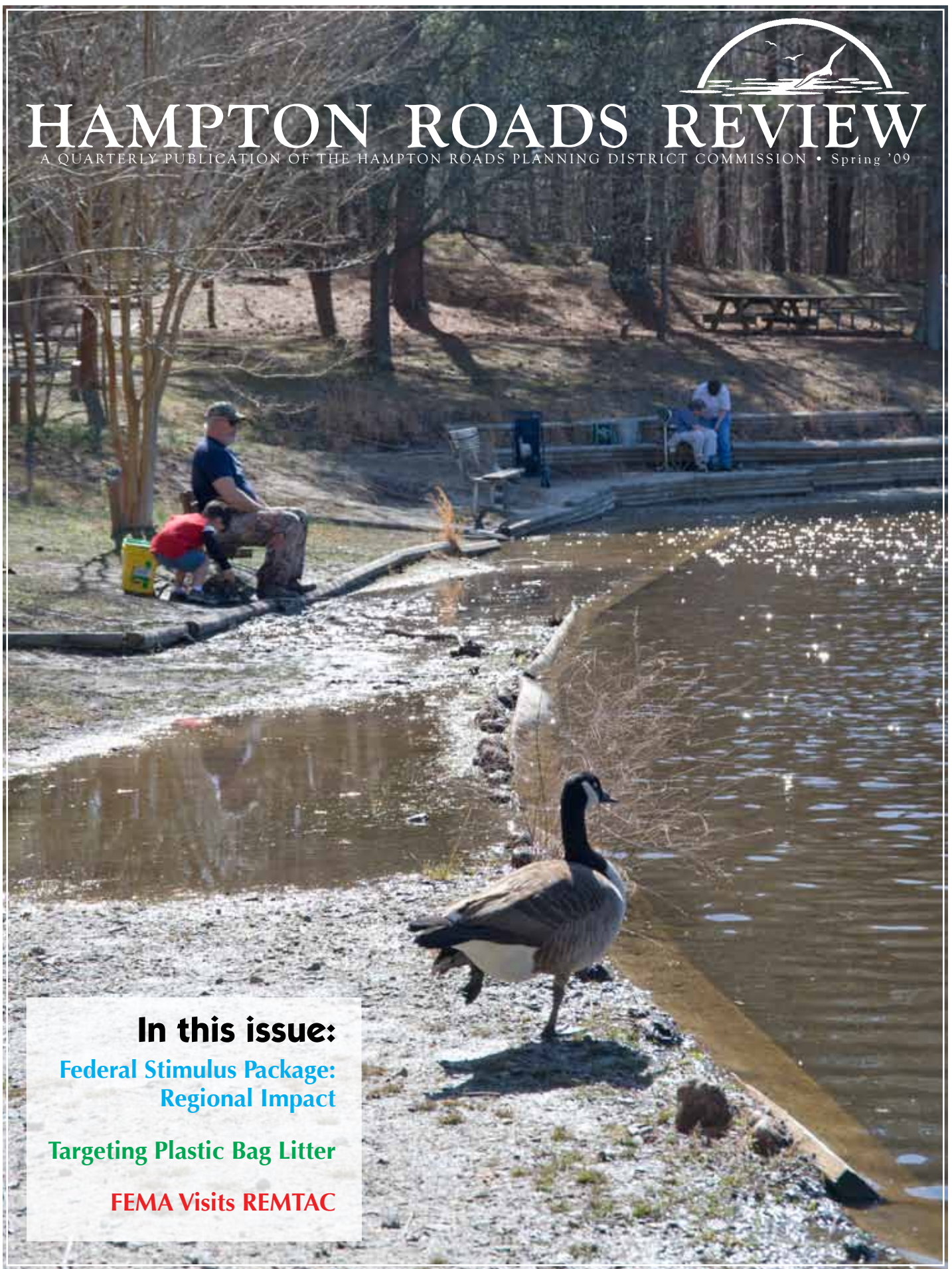
APPENDIX D

NEWSLETTER ARTICLES



HAMPTON ROADS REVIEW

A QUARTERLY PUBLICATION OF THE HAMPTON ROADS PLANNING DISTRICT COMMISSION • Spring '09



In this issue:

**Federal Stimulus Package:
Regional Impact**

Targeting Plastic Bag Litter

FEMA Visits REMTAC

Hampton Roads H2O – Help To Others – Program

By John Carlok, jcarlock@hrpdcva.gov

HRPDC Deputy Executive Director

In January 2007, the HRPDC approved a recommendation from the HRPDC staff and Directors of Utilities Committee that the Hampton Roads H2O – Help to Others – Program be incorporated as a 501(c)(3) non-profit. Following approval by fourteen of the member jurisdictions, the towns of Smithfield and Windsor and Hampton Roads Sanitation District (HRSD), papers were filed with and approved by the State Corporation Commission.

On March 4, 2009, the Hampton Roads H2O Program held its organizational meeting. The Board of Directors consists of the Director of Utilities or his/her designee from the participating members. The Board selected a slate of officers:

President – Tom Leahy, Director of Public Utilities, Virginia Beach

Vice-President – Brian Ramaley, Director of Newport News Waterworks

Secretary/Treasurer – Ted Henifin, General Manager HRSD

The H2O Executive Committee consists of the Officers listed above, as well as Suffolk Public Utilities Director, Al Moor and Larry Foster, James County Service Authority (JCSA) General Manager.

As requested by the Board, the HRPDC staff is filing the appropriate papers with the Internal Revenue Service to obtain tax deductible status for donations to the program. The HRPDC and HRSD staffs are proceeding with arrangements for a Spring 2009 fund raising campaign.



Regional Water Supply Plan

By Whitney Katchmark, wkatchmark@hrpdcva.gov

Senior Regional Geologist

A Regional Water Supply Plan is being developed to comply with state regulation 9 VAC 25-780. The regulation establishes a planning process and criteria that all local governments must use in the development of local or regional water plans.

The plan has three major components: 1) existing water sources and water use, 2) projected water demands and a statement of need, and 3) water demand management and a drought response plan. A draft of the existing water sources and water use section has been completed and the localities have already reviewed the information compiled relevant to water demand management and drought response.

HRPDC staff is currently developing projected water demands for the next 30-50 years. The plan also includes creating a GIS database of community water systems and self-supplied users of more than 300,000 gallons per month. A draft of the entire plan is expected to be completed in July 2009. The Department of Environmental Quality will review the plan and the State Water Control Board will determine whether the plan complies with the regulation.

Physical Planning

HR CLEAN Brings Regional Attention to Plastic Bag Litter

By Holly Miller, hmliller@hrpdcva.gov

Environmental Educator

Eighty individuals gathered in Smithfield to discuss an invasive and migratory species: the plastic bag. HR CLEAN organized a regional conference, "Are Plastic Bags Sacking the Environment?" to discuss the impacts of the plastic bags on the environment. Government workers, citizens, and recycling and retail workers participated in the conference to brainstorm ideas on innovative regional efforts to balance commerce, convenience and the environment.

Turtles, fish, sharks, and other aquatic life are endangered by plastic bags and particles every day. Christina Trapani, Virginia Aquarium Stranding Team, spoke at the conference. Her presentation showed slides of wildlife which had ingested or become entangled in plastic bags. Her presentation is available on www.hrclean.org (Warning: The presentation contains graphic photos.).

Farmers are also impacted by plastic bags. Littered bags become entangled in equipment, degrade the quality of cotton crops, and kill livestock when ingested. A regional group has been working for over a year to find a solution to the problem. At the conference, the Virginia Plastic Bag Advisory Council shared a pilot program they developed for



Isle of Wight. The program focuses on recycling and public education, and will be implemented once funding is received.

The conference generated articles in the *Daily Press*, *The Virginian-Pilot*, and the *Smithfield Times*. The news articles and presentations from the conference are posted at www.hrclean.org.



Why did the sea turtle eat the plastic bag? Because it looked like a jellyfish.



Visit the HR WET Educational Trailer at these area events!

For more information, contact Holly Miller, Environmental Educator at hmliller@hrpdcva.gov or 757-420-8300.

Earth Day Celebration- April 18, 2009, Waller Mill Park, Williamsburg

Earth Day- May 3, 2009, Mt. Trashmore, Virginia Beach

Chesapeake Jubilee- May 15-17, 2009, City Park, Chesapeake

Virginia Beach Relay for Life- June 6, 2009, Williams Farm Park, Virginia Beach

Olden Days- June 27, 2009, Downtown, Smithfield



Localities Gather Data, Assess Sanitary Sewer System

By Julia B. Hillegass, jhillegass@hrpdcva.gov
Senior Environmental Planner

The region's thirteen affected localities and the Hampton Roads Sanitation District (HRSD) continue to make progress in complying with the Regional Special Order by Consent, issued by the Virginia Department of Environmental Quality (DEQ). Most recently, participating localities have submitted their Sanitary Sewer Evaluation Survey (SSES) Plan, which outlines the methodology by which the physical sanitary sewer system will be evaluated in order to:

- Identify and prioritize sanitary sewer basins for further investigation;
- Establish baseline estimates of inflow and infiltration;
- Select the appropriate approach for further basin investigation; and
- Establish a schedule for the necessary field activities.

While localities may take somewhat different approaches, the goal of each SSES Plan is to make certain that the necessary work is done in the most cost effective manner, to alleviate redundancy, and to address the most pertinent needs of the system, thus ensuring the best use of public funds while improving water quality.

The next step in the process is completion of the Flow Evaluation Report, which is due to DEQ on May 26, 2009. The Flow Evaluation Report serves to:

- Document the flow, pressure and rainfall monitoring activities performed;
- Present the monitoring data;



- Describe the methodology for applying data to basins that are similar;
- Present the results of flow analyses and how those analyses impacted SSES basin identification; and
- Document any findings and conclusions, such as limitations, seasonal flows, future data collection needs and model calibration considerations.

Concurrent with this work, localities are also supplying HRSD with various data to populate the regional model. This model will utilize what is known about flow to determine potential Sanitary Sewer Overflows (SSOs), given an agreed upon level of service. Future work can then focus on regional system improvements and expansion to meet customer needs while ensuring water quality.



Climate Change Impact Study Underway

By Eric Walberg, ewalberg@hrpdcva.gov

Principal Environmental Planner

HRPDC Physical and Environmental Planning staff is examining the potential ramifications of climate change on the Hampton Roads region. Southeastern Virginia and eastern North Carolina are among the most vulnerable areas in the United States to sea level rise. The Chesapeake Bay Program's Scientific and Technical Advisory Committee projects that sea levels in the Chesapeake Bay region will be 0.7-1.6 meters (2.3-5.2 feet) higher by 2100. Potential impacts in Hampton Roads include increased damage from storm surge flooding and eventual loss of homes and businesses in low-lying areas. The HRPDC climate change project assesses the threat associated with sea level rise and other aspects of climate change on the region and brings a broad cross-section of stakeholders together to discuss actions that might be taken to both mitigate and adapt to projected changes.

Updating the Regional Green Infrastructure Network

By Eric Walberg, ewalberg@hrpdcva.gov

Principal Environmental Planner

Updates to the Hampton Roads regional green infrastructure network are underway. The regional green infrastructure network consists of lands that, when properly managed, provide valuable ecological services such as water quality protection, flood protection and support of rich biological diversity. In addition, the open space networks provide abundant recreational opportunities and a backdrop for environmentally conscious development.

The regional network update will include the latest local government future land use plans and new data and modeling from the Virginia Department of Conservation and Recreation and the Virginia Department of Game and Inland Fisheries. Meetings are currently underway with the Hampton Roads localities and state agencies to collect the information needed for the update.

Roundtable Holds Green Building Meeting

By Claire Jones, cjones@hrpdcva.gov

Environmental Planner

The Hampton Roads Watershed Roundtable hosted a Green Building and Green Communities Meeting on January 30, 2009, at the HRPDC offices in Chesapeake. The meeting drew interest from local community staffs and housing officials as well as from long-time Roundtable members. Mr. Chuck Miller of Miller Custom Homes provided those in attendance with a primer on the anatomy of a green house and the meaning of going green for the homebuilding sector of Hampton Roads.

Green building methods address a number of common elements including energy efficiency, water use, indoor air quality, materials, waste, and adherence to local building codes. In addition, staff from the cities of Chesapeake and Virginia Beach discussed their green community programs: Sustainable Chesapeake and Go Green Virginia Beach. Costs and savings associated with green government programs were also discussed. The next Roundtable meeting is expected to be held in the spring and will focus on the topic of green energy.



Regional Pollution Prevention Training Spurs Local Actions

By Julia B. Hillegass, jhillegass@hrpdcva.gov

Senior Environmental Planner

Over 60 local government employees participated in regional trainings offered by HRPDC on pollution prevention. The training workshops, held on March 18 in Chesapeake and March 19 in Williamsburg, are a requirement of the Phase II MS4 Permits and were designed to highlight each municipal employee's responsibility for pollution prevention, specifically related to the stormwater system.

Local governments perform a variety of operations that have the potential to impact stormwater quality. Similarly, a variety of departments have key roles in stormwater regulatory compliance. Maintenance activities of roads, buildings and vehicles; waste disposal; fertilizer and pesticide storage and handling; as well as fuel and other chemical storage are just a few of the potential pollution issues that localities must remain vigilant in controlling every day. Standard operating procedures are a critical part of daily pollution prevention and all staff members, in the event they are needed, should understand spill response procedures as well.

The regional trainings provided concrete examples of potential problem areas, allowed time for localities to share how they handle certain situations and provided opportunity for cross-functional teams to develop action plans to take back to their locality. The training sessions provided much-needed opportunities for inter- and intra-departmental discussions on how to better meet the requirements of each local permit.

TMDL Status

By Jennifer Tribo, jtribo@hrpdcva.gov

Environmental Planner

The HRPDC staff is wrapping up work on Total Maximum Daily Load (TMDL) Implementation Plans in Virginia Beach, Hampton, York County, and Poquoson. The final public meeting for Implementation Plans for bacteria TMDLs in the North Landing River and Back Bay watersheds was held on January 26. Final public meetings for Implementation Plans for bacteria in the Poquoson and Back River watersheds are expected to be held in the spring 2009.

In addition, HRPDC personnel are working with staff in James City County and Suffolk to develop Implementation Plans for bacteria TMDLs in the Mill and Powhatan Creek watersheds and the Upper Nansemond watershed, respectively. Public meetings to initiate these projects will be held in late spring or early summer.



Build-Out Scenarios Studied for Northwest River

By Eric Walberg, ewalberg@hrpdcva.gov

Principal Environmental Planner

Build-out scenarios for the Northwest River watershed are being generated to determine the future of development patterns in southern Chesapeake. The Northwest River is the primary supply of drinking water for Chesapeake, so assessing development impacts is critical to ensuring a safe, abundant water supply for residents.

The first of the build-out scenarios will be based on the existing zoning and development controls and will provide both numeric totals and spatial distribution for currently permitted development types. Two alternative future development scenarios will be examined:

- Land use projections developed in conjunction with the City's Comprehensive Plan.
- An analysis of possible modifications to the existing development controls.

The build-out scenarios will provide stakeholders with a range of options to consider for the rural tier of the City.