Hampton Roads Coastal Resources Technical Assistance Program
Fiscal Year 2013 - 2014

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HAMPTON ROADS PLANNING DISTRICT COMMISSION
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INTERIM EXECUTIVE DIRECTOR

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YORK COUNTY
THOMAS G. SHEPPARD JR.
J. MARK CARTER

Executive Committee Member

PROJECT STAFF

WHITNEY S. KATCHMARK
PRINCIPAL WATER RESOURCES ENGINEER

BENJAMIN McFARLANE
SENIOR REGIONAL PLANNER

SARA KIDD
SENIOR REGIONAL PLANNER

MICHAEL LONG
GENERAL SERVICES MANAGER

CHRISTOPHER W. VAIGNEUR
ASSISTANT GENERAL SERVICES MANAGER

JENNIFER COLEMAN
ADMINISTRATIVE ASSISTANT
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Prepared by the staff of the Hampton Roads Planning District Commission

JANUARY 2015
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ABSTRACT

This report describes the environmental technical assistance program conducted by the Hampton Roads Planning District Commission during FY 2013 – 2014 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, such as the Chesapeake Bay and wetlands, public information and education, and technical assistance to Hampton Roads localities. It contains representative examples of the technical work, comment letters, outreach materials, and associated materials generated and used in assisting the region’s seventeen local governments, supporting the Virginia Coastal Zone Management Program, and working with the other Planning District Commissions in the Coastal Zone.

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INTRODUCTION

In March 2013, 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 its seventeen member local governments and to coordinate their response to those issues. It also provides assistance to the incorporated towns in the region as well as to a wide variety of non-governmental stakeholders. This Program has operated successfully with financial assistance from the Virginia Coastal Zone Management Program since the VCZMP’s inception in 1986. In October 2013, the HRPDC was awarded financial assistance to maintain its Technical Assistance Program through September 2014; this award was later extended through December 2014. 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 Commission’s efforts related to climate change and sea level rise, 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, Groundwater, 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 intergovernmental 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

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1 The Hampton Roads Planning District Commission consists of the Cities of Chesapeake, Franklin, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg, the Counties of Gloucester, Isle of Wight, James City, Southampton, Surry, and York, and the Town of Smithfield. Smithfield joined the HRPDC as a full member on July 1, 2014.
Program, such as the environmental impact review program, wetlands and dune regulations, Chesapeake Bay Preservation Act (CBPA) regulations, air quality regulations, and the large number of state water quality programs. This participation results in cost savings to the state by educating localities collectively about state and federal initiatives and coordinating local government input to these efforts. Over the past twenty-eight (28) 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 environmental site design, flood hazard management, geographic information systems, land conservation, sea level rise, watershed management, and comprehensive coastal resources management plans. 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 Virginia 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, encroachment issues, Coast Guard permits for marine events and operations, 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, including water and wastewater data, soil surveys, historic aerial photographs, and regional land use data. HRPDC also houses and collects a wide variety of GIS datasets from various federal, state, and local partners, including LiDAR elevation data, as well as datasets developed by HRPDC staff.

The FY 2013 – 2014 Hampton Roads Technical Assistance Program enabled the region’s localities to continue to address, in a comprehensive and integrated fashion, many 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 and Chesapeake Bay TMDL implementation, wetlands protection, shoreline management, climate change/sea level rise and energy initiatives, public access, and environmental database development and analysis through the HRPDC’s 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 2013 – 2014 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 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 development and implementation of the Chesapeake Bay Total Maximum Daily Load (TMDL).

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. Local staff representatives are regularly contacted to identify any concerns individual local governments may have with specific projects. On occasion, the Hampton Roads Planning District Commission may be informed on particular projects with significant regional or local impacts. 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 particular issues. HRPDC staff responds to nearly all requests for comments from the Department of Environmental Quality (DEQ).

From October 1, 2013 through September 30, 2014, the HRPDC staff reviewed and commented on fifty-four (54) environmental impact assessments and statements for both state and federal projects. Projects reviewed in FY 2013 – 2014 ranged widely in complexity. The HRPDC, in cooperation with the localities, worked to ensure that these projects were coordinated and met local government requirements. HRPDC's responses are combined with any others from state agencies when DEQ makes its final determinations. While these determinations (and the collected comments) are conveyed back to HRPDC, DEQ staff does not generally identify any specific impacts to projects based on HRPDC staff comments. However, in several cases DEQ staff or staff from other state agencies has followed up with HRPDC staff to have comments clarified. An example from this grant year would be a U.S. Army Corps of Engineers project in Norfolk (DEQ#14-082F), which resulted in additional consultation between the Virginia Marine Resources Commission staff, HRPDC, and the City of Norfolk.

In addition to environmental impact reviews and assessments, HRPDC staff also reviews grant proposals for federal and state funding. These proposals are reviewed for local and regional impacts and significance, as well as to ensure that tasks are not duplicated. From October 1, 2013 through September 30, 2014, the HRPDC staff reviewed and commented on twenty-four (24) grant proposals.

Appendix A contains a listing of all projects and proposals reviewed through this program component during the period from October 1, 2013, through September 30, 2014, 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. All environmental documents reviewed since July 2001 have been entered into the database. HRPDC comment letters for the following projects are included in Appendix A:
1) DEQ#13-188F, Center Point Intermodal Center Permit Modification, Kenyon Road Connector
2) DEQ#13-213F, Cascade East Apartments
3) DEQ#14-025F, Construction and Operation of a Small Arms Range Facility at Naval Weapons Station Yorktown
4) DEQ#14-054S, Construct a Consolidated Scientific Research Facility
5) DEQ#14-062F, Defense Logistics Agency Fuel Pier Replacement Project, Joint Base Langley-Eustis-Langley, Hampton
6) DEQ#14-082F, Fort Norfolk Shoreline Stabilization Project
7) DEQ#14-111F, Surry-Skiffes Creek-Whealton Powerline Project

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 request 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 nine years of experience with the modified review system, it appears that the review process works much more efficiently.

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 seventeen 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. During FY 2013-2014, this program included regional participation on state panels addressing stormwater management, the Chesapeake Bay Program, and climate change.

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 Coastal Policy Team meetings on March 26, 2014 and September 30, 2014. HRPDC also attended two Coastal PDC meetings during the term of the grant in November 2013 (hosted by the Richmond Regional PDC) and June 2014 (hosted by the Northern Virginia Regional Commission).

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 in 2014 focused on exchanging information among the PDCs on issues such as TMDLs, nonpoint source pollution, and climate change.
pollution management plans, the Community Rating System, and PDC studies and projects related to sea level rise and water quality.

**Chesapeake Bay Program**

The Hampton Roads Technical Assistance Program continues to support the HRPDC’s participation, 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 Commission’s involvement with the Chesapeake Bay Program continued with the development of the Tributary Strategies and the Chesapeake Bay Watershed Model. Implementation of the Chesapeake Bay TMDL continues to be a major focus of HRPDC’s environmental work.

In addition, both HRPDC and Hampton Roads local government staff maintain involvement on various federal and state advisory and regulatory committees. While this participation is often funded by other programs, the HRPDC provides a forum, through the Regional Environmental Committee, for those representatives to gather information and responses from other local governments in the region, and to convey information from these advisory groups back to the region.

**SPECIAL PROJECTS AND TECHNICAL STUDIES**

The HRPDC staff regularly coordinates with local and regional partners to identify timely and appropriate special projects or technical studies that address important regional issues. The HRPDC staff and regional advisory committees identify potential topics for special projects or technical studies during the grant application process, but often there are important issues that arise during the grant year, and this grant allows HRPDC staff to respond to those needs as they occur. Throughout the course of this grant, the HRPDC staff identified and completed work on three special projects. These projects were:

1) Continuation and completion of assistance to the Virginia Association of Counties regarding the impact of changing insurance industry practices on coastal communities
2) Revision and updating of regional maps to support the TapIt program promoting the use of reusable water bottles
3) Revision and updating of a regional digital elevation model to reflect newly acquired LiDAR elevation data

In May 2013 the HRPDC staff was contacted by staff from the Virginia Association of Counties (VACo) seeking assistance with assessing the impact of changing insurance industry practices on coastal communities. In particular, there were reports of insurance
companies withdrawing or increasing the cost of homeowner’s insurance in certain communities. The HRPDC staff was asked to assemble data and develop maps to illustrate the potential impact of these changes. During this grant project, the HRPDC finalized the collection and analysis of local property data and developed, in consultation with VACo, a final map design. Data was collected for forty-two (42) of forty-four (44) coastal cities and counties. Two maps, showing areas and the total value of property within 2,500 feet of tidal waters and a second showing areas and the total value of property within one mile of tidal waters, were created for each community. A summary of the data showing the total impact on each city, county, planning district, and the coastal zone was also created. These products were incorporated into VACo’s report to its members, which is available on the VACo website.² Two examples of the final maps and the local data summary are included in Appendix B.

The HRPDC manages askHRgreen.org, a regional environmental education campaign program that provides information on a wide variety of issues to local governments, businesses, and residents. AskHRgreen.org also maintains partnerships with many local, regional, state, and national environmental advocacy programs. One of these programs is TapIt, which promotes using tap water and reusable water bottles instead of bottled water. As part of this grant project, the HRPDC staff updated regional maps showing the locations and contact information for area businesses participating in the TapIt program; these businesses allow the general public to refill water bottles for free. This work involved verifying that these businesses were still open and that contact information was correct, creating a GIS layer showing the locations of these businesses, and creating new maps, which are available to the public on the askHRgreen.org website.³ The maps are included in Appendix C.

One of the projects conducted under the HRPDC’s FY11-12 technical assistance program was the creation of a seamless regional digital elevation model (DEM) that combined several sub-regional elevation datasets into a single layer. During the FY13-14 grant year, the HRPDC contributed to the acquisition of new Light Detection and Ranging (LiDAR) elevation data for eight localities in the eastern half of Hampton Roads which had been excluded from some previous data acquisition efforts. This new dataset is a significant improvement over previous datasets, incorporating higher resolution, better accuracy, and additional considerations, such as a requirement to acquire the data around low tide (a requirement that was included in the scope of work at the request of the HRPDC and other Virginia stakeholders, such as VIMS). The HRPDC staff has used this new data to update the regional digital elevation model, which has resulted in a more accurate layer with fewer gaps and errors. A description of the new DEM is included in Appendix D.

² http://www.vaco.org/vaco-coastal-insurance-report/
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. 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, Hoffler Creek Wildlife Foundation, Lynnhaven River NOW, and others in their environmental planning and restoration initiatives. Aerial photographs and additional technical information on wetlands, hazardous waste sites, and soils are provided to private consultants. A specific example of local technical assistance is the provision of tide gauge data to James City County to assist with their discussions and planning for flooding and sea level rise.

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 region’s green infrastructure plan, regional climate change research and analysis, and various stormwater and water resource management studies. Discussions have also taken place regarding the need for additional data, such as regional land use/land cover, elevation, and subsidence trends, to be collected for use in various technical analyses.

The HRPDC staff continued to advise the region’s seventeen 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. Most of the region’s member localities have received individual assistance through this program during the past year. An increasing emphasis of local government support on environmental issues has been in the legislative and regulatory arena. During FY 2013 – 2014, the areas of emphasis included stormwater management, groundwater issues, the Chesapeake Bay TMDL, sea level rise, and climate change.
The HRPDC staff continued development and enhancement of the region's geographic information system (GIS). 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, comprehensive planning services, local government requests, and other ongoing HRPDC programs. A specific example is the organization and distribution of LiDAR data and derived products to individual local governments.

**Regional Coordination Process**

The Hampton Roads Technical Assistance Program enables the HRPDC to maintain a regional coordination process on environmental issues while also providing links to other ongoing regional environmental programs. Historically, this has been achieved through the Hampton Roads Joint Environmental Committee, which was comprised of the Chesapeake Bay Committee and the Regional Stormwater Management Committee. In August 2013, the Joint Environmental Committee voted to dissolve and adopt new by-laws as the Hampton Roads Regional Environmental Committee, which held its first meeting in September 2013. Through the Regional Environmental Committee, HRPDC staff support local governments in implementing legal requirements regulatory programs, such as the Chesapeake Bay Preservation Act, Chesapeake Bay TMDL, and Comprehensive Coastal Resource Management Plans. This process also helps the region by providing support for coastal resources management and environmental education.

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. Because of issues associated with stormwater regulations and the Chesapeake Bay TMDL, the HRPDC staff and Committee continued to focus on them during the year. Sea level rise and flooding were also discussed several times during the course of the grant. The meetings usually include several main presentations and often include discussion of potential project ideas or responses to regulatory developments. Each meeting also closes with an opportunity for regional and local staff to provide status reports or ask questions on issues relevant to the committee.

The following points summarize the activities of the Hampton Roads Regional Environmental Committee during the year.

- **October 3, 2013** – The Regional Environmental Committee heard presentations from two outside speakers, Mr. Clifton Bell (Brown and Caldwell) and Ms. Kelly Burks-Copes (U.S. Army Corps of Engineers). Mr. Bell’s presentation was on a DEQ study on Chlorophyll-a and its potential implications for total maximum daily load requirements. Ms. Burks-Copes’s presentation covered a study by the USACE Engineer Research and Development Center on the vulnerability of Naval Station Norfolk to flooding and sea level rise. The HRPDC staff also updated the Committee...
on its Section 309 grant project ("Land and Water Quality in Hampton Roads"), the status of upcoming VCZMP-funded grants, stormwater monitoring data for TMDLs, and the regional stormwater program budget.

- November 7, 2013 – This meeting featured briefings from the HRPDC staff and DEQ representatives. HRPDC staff updated the Committee on the HRPDC’s Section 309 grant project, state-level discussions about nutrient trading regulations, and an effort led by the Virginia Association of Counties looking at homeowners insurance in coastal communities. DEQ representatives updated the Committee on various TMDLs in the region and stormwater program requirements.

- January 2, 2014 – This meeting featured updates from the HRPDC staff to the Committee on a circular developed by the U.S. Geological Survey (with HRPDC assistance) on land subsidence and sea level rise in the region, the status of various VCZMP-funded grants, and a grant opportunity from the Hurricane Sandy Coastal Resiliency Competitive Grant Program. The meeting also included a discussion on the regional legislative agenda and a listening session for the Committee to provide input as part of the Envision Hampton Roads regional strategic planning effort. Presentations from HRPDC staff on the HRPDC 2040 Socioeconomic Forecast and a regional bacteria study. HRPDC staff also briefed the Committee on updates from the Coastal Zone Management Program and the status of several HRPDC-CZM grant projects.

- February 6, 2014 – This meeting featured a presentation from Ms. Jackie Rickards (Middle Peninsula PDC) on the MPPDC’s Section 309 grant project efforts to date. The meeting also included updates from the HRPDC staff on the regional legislative agenda, VCZMP grants and other information on the VCZMP, the Hurricane Sandy Coastal Resiliency Grant Program, and information and events related to sea level rise and recurrent flooding.

- March 6, 2014 – This meeting featured two presentations from outside speakers. Ms. Justine Woodward (VMRC) gave a presentation to the Committee on the status of the living shoreline general permit, which was called for in SB964. Mr. Russ Baxter, DEQ, gave a presentation to the Committee on the upcoming revised Chesapeake Watershed Agreement and its differences from the previous agreement. The meeting also featured briefings from the HRPDC staff to the Committee on the HRPDC’s FY15 Unified Planning Work Program, the results of the annual HRPDC retreat, regional environmental education efforts, and HRPDC VCZMP-funded grant projects and developments.

- April 3, 2014 – This meeting featured two presentations. Mr. Clay Bernick (Virginia Beach), a Committee member, gave a presentation on the City of Virginia Beach’s North Landing River Greenway Management Plan and other greenways planning efforts. Mr. Jim Redick (Norfolk) gave a presentation on the efforts of the Secure Commonwealth Panel’s Recurrent Flooding Subpanel. The meeting also included
updates from the HRPDC staff on VCZMP-funded grant projects, potential program changes to the VCZMP, and sea level rise. The Committee also discussed the need for establishing official subcommittees on particular issues.

- May 1, 2014 – This meeting featured presentations from two local staff members. Mr. David Mergen (Chesapeake) gave a presentation on EPA’s proposed changes to the definition of “Waters of the U.S.” in the Clean Water Act; a discussion of potential regional comments followed the presentation. Mr. Kevin DuBois (Norfolk) gave a presentation to the Committee on the status of the Shoreline Management Best Management Practices Panel Report for the Chesapeake Bay Program. The meeting also included updates from the HRPDC staff on sea level rise and VCZMP grant opportunities and continued discussion regarding establishing official subcommittees.

- June 5, 2014 – This meeting featured a series of updates and briefings from the HRPDC staff on hazard mitigation assistance grants, draft regional comments on the definition of “Waters of the U.S,” regional environmental education initiatives, sea level rise, VCZMP grant opportunities, and the HRPDC retreat. The Committee also voted in favor of establishing a regional technical environmental working group that would discuss issues such as TMDLs in greater detail than the full Committee.

- July 3, 2014 – This meeting featured a series of presentations and updates from the HRPDC staff. Topics of discussion included regional legislative priorities, sea level rise related events and projects, the Chesapeake Bay Program, VCZMP competitive grants for PDCs, the Envision Hampton Roads regional strategic planning effort, and a proposal from DEQ for the HRPDC to engage in long range environmental planning.

- August 7, 2014 – This meeting featured a presentation from the City of Virginia Beach and the HRPDC staff on a joint project on developing an example local sea level rise adaptation plan for the city. The meeting also featured updates from the HRPDC staff on sea level rise, LiDAR elevation data, regional trails, environmental education initiatives, an analysis on the state stormwater local assistance fund, and statewide land cover data. The Committee also voted to allocate funds for enhancement to the regional Permit Administration and Review System (PARS), a web-based tracking system for reporting stormwater BMPs in compliance with Municipal Separate Stormwater Sewer System (MS4) permits.

- September 4, 2014 – This meeting featured a presentation from Ms. Joan Salvati of the Department of Environmental Quality on upcoming compliance reviews for local Chesapeake Bay Preservation Act programs. The meeting also included discussions on regional comments on the proposed definition of “Waters of the U.S.” and stormwater budget. The Committee also received updates from the HRPDC staff on several reports, including the askHRGreen.org final report, the regional stormwater cooperation summary, and the report on the HRPDC/Virginia Beach sea level rise
planning effort. The HRPDC staff also led a visioning session with the Committee for the Envision Hampton Roads regional strategic planning effort.

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 groundwater 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.

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 Chesapeake Bay TMDL, climate change and sea level rise, the Sustainable Communities Regional Planning Grant Program and sustainability initiatives, stormwater management, solid waste, sanitary sewer overflows, the regional water supply plan, and HR Green, the HRPDC's environmental education and outreach program.

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, HRPDC staff represented the region in several major panels and presentations on environmental issues. These include stormwater management, the Chesapeake Bay TMDL, groundwater, climate change and sea level rise, water supply, and pesticides. 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. These meetings and presentations included:

- Presentation and panel participation at 5th Annual Southeast Florida Regional Climate Leadership Summit, “Living with Water in Hampton Roads: Lessons from Ten Years of Storms, Flooding, and Sea Level Rise” – November 7, 2013
- Presentation to Pruden Center Class, “What’s Planning Got To Do With Me?” – December 11, 2013
- Presentation at Transportation Research Board Annual Meeting (with Sam Belfield, HRTPO), “Developing Partnerships to Prepare for Climate Change Impacts to Roadways Serving the Military” – January 13, 2014
- Presentation to Virginia Coastal Coalition Board, “Regional Planning for Sea Level Rise in Hampton Roads” – February 21, 2014
- Presentation at 2014 DEQ Environmental Excellence Conference, “Planning for Climate Change and Sea Level Rise in Hampton Roads” – March 12, 2014
- Presentation at 2014 Virginia Beach Watersheds Forum, “Planning for Climate Change and Sea Level Rise in Hampton Roads,”– March 13, 2014
- Presentation and panel participation at 2014 Environment Virginia Symposium, “Local Planning for Sea Level Rise: Challenges, Obstacles, and Opportunities” – April 8, 2014
➢ Presentation to Portsmouth Partnership Board of Directors, “Regional Planning for Climate Change in Hampton Roads,” – May 12, 2014


➢ Presentation to Old Dominion University class, “Regional Planning for Sea Level Rise in Hampton Roads: Connecting Science and Policy,” – June 26, 2014


➢ Presentation at Climate Adaptation for Coastal Communities Training, “Hampton Roads Regional Vulnerability to Sea Level Rise,” – July 30, 2014

A copy of the presentation given at the Pruden Center on December 11, 2013 is included in Appendix E.

In August 2010, HRPDC replaced a quarterly newsletter with an online publication an e-mailed “HRPDC Weekly Update,” which was distributed to nearly 4,000 individuals. In July 2011, the “HRPDC Weekly Update” was moved to a bi-weekly schedule and renamed the “Hampton Roads Update” and later renamed the “Hampton Roads e-Newsletter” in April 2012. The online publication was shifted to a list of news articles and reports from HRPDC staff directly accessible from the HRPDC website’s homepage (www.hrpdcva.gov). To enhance the effectiveness of all HRPDC public information materials, HRPDC Special Reports on specific topics are also developed and distributed to supplement the regular newsletter. All newsletters and special reports are now distributed electronically. During this grant, HRPDC planning staff posted twenty (20) entries related to coastal management issues. Examples of these articles are included in Appendix F.

The HRPDC staff has devoted considerable attention and effort over the past year to the continued refinement of the Commission’s web page (www.hrpdcva.gov). The website contains copies of all newsletters, complete copies of HRPDC technical reports and an overview of Commission activities. All Commission and most committee meeting agenda materials are now posted and available on the HRPDC website. It contains an extensive section devoted to the HRPDC’s regional planning and water resources programs, including links to a number of other federal, state, local, and private sector sites. Efforts to further enhance the website remain ongoing. A Commission Action Summary is posted after each meeting, and the meetings can be viewed on YouTube in their entirety.4

Through the Hampton Roads Joint Environmental Committee and Regional Environmental Committee, HRPDC staff has provided, facilitated, or hosted training on a variety of topics

4 https://www.youtube.com/user/HRPDC
to localities. HRPDC also subscribes to and hosts a series of webinars provided by the American Planning Association (APA) and American Institute of Certified Planners (AICP). These webinars cover a variety of planning issues and provide Certification Maintenance (CM) credits to AICP planners. Two of the training events this past year also provided Continuing Education Credits (CECs) for Certified Floodplain Managers (CFMs). HRPDC staff publicizes and coordinates these training webinars and opportunities. In total, these training opportunities provided local staff with up to 31 AICP Certification Maintenance credits and 16.5 CFM Continuing Education Credits. The specific training opportunities are listed below.

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<th>Program Title</th>
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<td>Comprehensive Coastal Resource Management Plans</td>
<td>Virginia Institute of Marine Science</td>
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<td>AICP Webinar: Planning Ethics and the Law</td>
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CZM SUCCESS STORY: PLANNING FOR SEA LEVEL RISE IN HAMPTON ROADS

In October 2008, the HRPDC was awarded the first of four grants by the Virginia CZM Program to study the impacts of climate change on the Hampton Roads region and identify potential responses to those impacts (FY ’08 Task 12.03). Additional grants were awarded in October 2009 (FY ’09 Task 12.04), October 2010 (FY ’10 Task 12.04), and October 2011 (FY ’11 Task 51). This effort required considerable research and analysis, and resulted in four separate reports which are now available on the HRPDC’s website. These reports included the results of significant GIS analyses and mapping efforts, and have formed part of the basis for an ongoing regional discussion of how local governments in Hampton Roads should respond to climate change impacts, particularly sea level rise, which was early on identified as one of the greatest concerns for this region. One of the most useful components of this effort has been the development of a set of maps showing the potential inundation impacts of various sea level rise scenarios; the latest version of these maps was included in the HRPDC’s July 2013 Coastal Resiliency Final Report.

As a result of these grants, the HRPDC has developed a significant knowledge base and data relevant to climate change and sea level rise. This expertise has enabled the HRPDC staff to contribute to regional discussions on how best to plan for and adapt to flooding and sea level rise. In recognition of this importance, the HRPDC contributed $80,000 to a regional LiDAR elevation acquisition effort in partnership with the U.S. Geological Survey, the National Geospatial-Intelligence Agency, the Hampton Roads Sanitation District, Old Dominion University, and the Virginia Geographic Information Network. This new data will allow for updated flooding and sea level rise inundation maps and many other local and regional research projects and analyses. In addition, the HRPDC is now considering how to proceed with acquiring monitoring data on land subsidence as a way to address sea level rise and groundwater management issues.

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 3,000 square miles and 1.7 million residents. It provides a vehicle for the ten cities, six counties, eleven towns, and 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 responses 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, PROPOSAL REVIEWS,
AND REPRESENTATIVE COMMENT LETTERS
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### 2013 – 2014 Environmental Impact Reviews

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<td>Parole Board Building</td>
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<td>Joint Logistics Over-the-Shore Activities at Joint Expeditionary Base</td>
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<td>Little Creek-Fort Story</td>
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<td>Willoughby Spit and Vicinity Coastal Storm Damage Reduction Project</td>
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<td>Chesapeake Energy Center Shoreline Erosion Repairs - Priority 1 Area</td>
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<td>Baseball Batting Cage Facility</td>
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<td>Center Point Intermodal Center Permit Modification, Kenyon Road Connector</td>
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<td>Hurricane Sandy Related Geophysical &amp; Geological Surveys Along the Atlantic to Identify OCS Sand Res</td>
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<td>13-200F</td>
<td>Integrated Natural Resources Management Plan, Camp Pendleton Collective Training Center</td>
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<td>13-196S</td>
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<td>Old Dominion University</td>
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<td>Lee Hall Reservoir Dam Improvements Addendum</td>
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<td>14-004S</td>
<td>Southeastern Virginia Training Center, Administrative Building</td>
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<td>Construct Airport Security Perimeter Road, Chesapeake Regional Airport</td>
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<td>Integrated Cultural Resources Management Plan Revision, Facilities of the Virginia National Guard</td>
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<td>Library - Phase II Project</td>
<td>Christopher Newport University</td>
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<td>Construction and Operation of a Small Arms Range Facility at Naval Weapons Station Yorktown</td>
<td>DOD/Department of the Navy</td>
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<td>USO Patriotic Festival and Oceanfront Air Show</td>
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<td>Replace Brown Hall</td>
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<td>Outdoor Interpretive Areas, Signage, &amp; Amenities Project</td>
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<td>Hadley Park at Greenbrier</td>
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<td>Fire Station Construction in Capron, VA</td>
<td>Capron Volunteer Fire Department &amp; First Aid Squad, Inc. (CVFD)</td>
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<td>NOAA 309 - Wetlands-Managing and Adapting Coastal Habitats to Preserve Ecological Services with Increasing Sea Level and Development Pressure</td>
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<td>National Park Service - National Maritime Heritage Grant Program</td>
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December 3, 2013

Mr. John E. Fisher  
Virginia Department of Environmental Quality  
Office of Environmental Impact Review  
629 East Main Street, 6th Floor  
Richmond, VA 23219

RE: DEQ#13-188F, Center Point Intermodal Center Permit Modification, Kenyon Road Connector (ENV: GEN)

Dear Mr. Fisher,

Pursuant to your request, the staff of the HRPDC has reviewed the Federal Consistency Determination for the following project, Center Point Intermodal Center Permit Modification, Kenyon Road Connector, in the City of Suffolk. We have consulted with City staff regarding this project.

Based on this review, the proposal appears to be consistent with local and regional plans and policies. The project descriptions states that the “Kenyon Road Connector will result in impacts to approximately 2.8 acres of RPA.” Although public roads are exempt from the performance requirements of Suffolk’s Chesapeake Bay Preservation Overlay District ordinance, (as long as they are “in accordance with the City’s Erosion and Sedimentation Control and Stormwater Management Ordinance requirements”), public road projects must show that “the road alignment and design has been optimized, consistent with all applicable requirements, to prevent or otherwise minimize the encroachment in the RPA and to minimize the adverse effects on water quality,” Suffolk Unified Development Ordinance Article 4, Section 31-415 (f)(3)(A)). The HRPDC staff understands that the applicant and City staff are working together to address this requirement.

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

Copy: Robert Goumas, SU  
Brian Alperin, SU
January 15, 2014

Mr. John E. Fisher
Virginia Department of Environmental Quality
Office of Environmental Impact Review
629 East Main Street, 6th Floor
Richmond, VA  23219

RE:    DEQ#13-213F, Cascade East Apartments (ENV: GEN)

Dear Mr. Fisher,

Pursuant to your request, the staff of the Hampton Roads Planning District Commission has reviewed the Federal Consistency Determination for the following project, Cascade East Apartments, in the City of Virginia Beach. We have consulted with City staff regarding this project.

Based on this review, the proposal appears to be consistent with local and regional plans and policies. The determination implies that the project is located in the Chesapeake Bay Watershed; the proposed site is actually located in the Southern Watersheds of Virginia Beach. As such, the project is not subject to the City’s Chesapeake Bay Preservation Area Ordinance. However, the project must comply with the City’s Southern Watersheds Management Ordinance.

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

BJM/fw

Copy:   Clay Bernick, VB
March 18, 2014

Mr. John E. Fisher
Virginia Department of Environmental Quality
Office of Environmental Impact Review
629 East Main Street, 6th Floor
Richmond, VA 23219

RE: DEQ#14-025F, Construction and Operation of a Small Arms Range Facility at Naval Weapons Station Yorktown (ENV: GEN)

Dear Mr. Fisher,

Pursuant to your request, the staff of the Hampton Roads Planning District Commission has reviewed the Federal Consistency Determination (FCD) for the following project, Construction and Operation of a Small Arms Range Facility at Naval Weapons Station Yorktown, located in James City and York Counties. We have consulted with staff from both counties regarding this project.

Based on this review, the proposal appears to be consistent with local and regional plans and policies. However, both counties have expressed concerns with the current design or placement of the facility and would prefer that the current plans be amended to address those concerns.

1) The current plans could cause significant noise impacts to the surrounding area. A residential development is currently proposed in York County less than half a mile from the proposed rifle range. Both Counties have requested that any noise impacts from the project be mitigated to the maximum extent practicable.

2) Interstate 64, located adjacent to both proposed ranges, will eventually be widened to four lanes in each direction from Newport News to Richmond. This should be addressed in the FCD and accounted for in the layout and placement of the ranges.

3) It appears that the construction of the rifle range will occur within a Chesapeake Bay Preservation Act (CBPA) Resource Protection Area (RPA). This is illustrated in Attachment A. According to York County’s Code of Ordinances, RPAs “have an intrinsic water quality value due to the ecological and biological processes they perform or are sensitive to impacts, which may result in significant degradation to the quality of state waters.” As such, York County and the HRPDC recommend that the range be constructed outside the limits of the RPA to the maximum extent practicable.
4) The construction of the rifle range and new pistol range facility will occur in the King Creek Watershed, which currently is impaired for both recreation (due to the presence of Enterococcus) and shellfishing (due to the presence of Fecal Coliform). A Bacterial Total Maximum Daily Load (TMDL) has been developed for the Queen Creek, King Creek, and Felgates Creek Watersheds. The text of the FCD mentions the use of septic tanks and leach field systems for on-site wastewater disposal. The HRPDC staff recommends that the Navy coordinate with York County to determine the optimal placement of any on-site wastewater facilities.

5) York County is also entirely located within the Chesapeake Bay Watershed, which is subject to the Chesapeake Bay TMDL. The HRPDC staff recommends that the Navy provide more detail on what stormwater management facilities will be used to mitigate water quality impacts.

6) York County staff reports that the project site is located within the County’s Historical Resources Management Overlay District, which would normally require that the development undergo a Phase I archaeological study prior to construction. The HRPDC staff recommends that the Navy coordinate with York County to implement this policy to the maximum extent practicable.

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

Attachment

Copy: Luke Vinciguerra, JC
Al Maddalena, YK
Attachment A:
Location of Chesapeake Bay Preservation Areas Near Proposed Small Arms Range Facility, NWS Yorktown

Legend
- Resource Protection Area
- Resource Management Area

Approximate Location of Rifle Range
Approximate Location of Pistol Range
May 2, 2014

Ms. Julia H. Wellman
Virginia Department of Environmental Quality
Office of Environmental Impact Review
629 East Main Street, 6th Floor
Richmond, VA 23219

RE: DEQ#14-054S, Construct a Consolidated Scientific Research Facility (ENV:GEN)

Dear Ms. Wellman,

Pursuant to your request, the staff of the Hampton Roads Planning District Commission has reviewed the Environmental Impact Report for the following project, Construct a Consolidated Scientific Research Facility, at the Virginia Institute of Marine Science (VIMS) in Gloucester County. We have consulted with County staff regarding this project.

Based on this review, the proposal appears to be consistent with local and regional plans and policies. We recommend that VIMS coordinate with Gloucester County to ensure that the project complies with local historic preservation policies and environmental ordinances, including Gloucester County’s Chesapeake Bay Preservation Ordinance.

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

Copy:  Scott Rae, GL
May 21, 2014

Ms. Julia H. Wellman
Virginia Department of Environmental Quality
Office of Environmental Impact Review
629 East Main Street, 6th Floor
Richmond, VA 23219

RE: DEQ#14-062F, Defense Logistics Agency Fuel Pier Replacement Project, Joint Base Langley-Eustis (Langley), Hampton (ENV:GEN)

Dear Ms. Wellman,

Pursuant to your request, the staff of the Hampton Roads Planning District Commission has reviewed the Draft Environmental Assessment and the Federal Consistency Determination for the following project, Defense Logistics Agency Fuel Pier Replacement Project, Joint Base Langley-Eustis (Langley), in the City of Hampton. We have consulted with City staff regarding this project.

Based on this review, the proposal appears to be consistent with local and regional plans and policies. However, Hampton City staff has indicated that tidal wetlands may be present on the site (the provided documentation states that none are present). HRPDC staff suggests that the applicant coordinate with city staff to address this issue and any other applicable local ordinance or permit requirements.

In addition, the Draft Environmental Assessment notes that the new pier “will be constructed at a height of 11 feet above mean lower low water (MLLW) to avoid submergence and related equipment damage during extreme storm events.” This standard appears to have been determined based on past extreme high water levels. Given that the current pier has been in place for more than sixty years, HRPDC staff suggests that the new pier’s design should take projected sea level rise into account when determining the appropriate design height. By 2075, sea level is projected to rise between 1.8 feet and 4.7 feet at the Sewell's Point Tide Gauge, based on the global sea level rise scenarios developed for the 2014 National Climate Assessment and local land movement trends.
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

BJM/fw

Copy: David Stromberg, HA
     Bruce Sturk, HA
June 19, 2014

Mr. John E. Fisher
Virginia Department of Environmental Quality
Office of Environmental Impact Review
629 East Main Street, 6th Floor
Richmond, VA  23219

RE:    DEQ#14-082F, Fort Norfolk Shoreline Stabilization Project
       (ENV: GEN)

Dear Mr. Fisher,

Pursuant to your request, the staff of the Hampton Roads Planning District Commission has reviewed the Draft Environmental Assessment and Federal Consistency Determination for the following project, Fort Norfolk Shoreline Stabilization Project, in the City of Norfolk. We have consulted with City staff regarding this project.

Based on this review, the proposal appears to be consistent with local and regional plans and policies. However, we have identified several issues that should be accounted for by the applicant. First, the consistency determination as written does not address whether the proposed project would be consistent with the Coastal Lands Management Enforceable Policy of the Virginia Coastal Zone Management Program. Although shoreline stabilization projects are considered "water dependent uses" and therefore allowed within areas that would be considered Resource Protection Areas, such projects are still required to comply with applicable erosion and sediment control and Chesapeake Bay Preservation Act performance standards.

Second, the proposed project will involve construction of a bulkhead and shoreline stabilization at elevations between mean low water and mean high water. Such areas are considered to be nonvegetated wetlands according to Norfolk’s Wetlands and Coastal Primary Sand Dunes ordinance. Therefore, the applicant is required to apply for and receive a permit from the Norfolk Wetlands Board.

In addition, given that Norfolk is experiencing greater than average relative sea level rise, we recommend that the applicant incorporate both historic and projected sea level rise into the proposed project’s design. We note that the provided documents refer to local tidal datums.
These datums are based on measurements from 1983-2001 and are considered to be representative of conditions in 1992. Since then mean sea level in Norfolk has risen nearly four (4) inches, and future sea level rise is projected to be significant.

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

Copy: Lee Rosenberg, NO
      Kevin Du Bois, NO
September 12, 2014

Mr. John E. Fisher  
Virginia Department of Environmental Quality  
Office of Environmental Impact Review  
629 East Main Street, 6th Floor  
Richmond, VA 23219

RE: DEQ#14-111F, Surry-Skiffes Creek-Wheaton Powerline Project  
(ENV:GEN)

Dear Mr. Fisher,

Pursuant to your request, the staff of the Hampton Roads Planning District Commission has reviewed the Federal Consistency Determination for the following project, Surry-Skiffes Creek-Wheaton Powerline Project, which will pass through the cities of Hampton and Newport News and the counties of James City, Surry, and York. We have consulted with local staff regarding this project.

Based on this review, the proposal appears to be consistent with local and regional plans and policies, as long as it complies with all applicable local codes and ordinances. The HRPDC staff concurs with the recommendations from James City County regarding contaminated soils, shoreline erosion, flood hazard areas, and impacts to archaeological, historic, and recreational resources, and suggests that Dominion consult with the County to address these issues.

We note that James City County has appealed a decision by the State Corporation Commission that asserts the switching station to be built in James City County is considered part of the transmission line for purposes of satisfying §56.46.1, which states the approval of transmission lines by the SCC satisfies “the requirements of §15.2-2232 and local zoning ordinances with respect to such transmission line[s].” Whether or not the ruling by the SCC is upheld, its determination that the switching station is part of the transmission line does not necessarily satisfy other sections of the Code of Virginia or the County Code. A plain reading of §56.46.1.A suggests that such an approval only satisfies local requirements related to comprehensive planning and zoning or, in other words, land use policy.
Approval pursuant to §56.46.1 does not appear to satisfy local requirements (adopted pursuant to state law) related to land disturbance and development, such as erosion and sediment control, stormwater management, or Chesapeake Bay Preservation. James City County's erosion and sediment control, stormwater management, and Chesapeake Bay Preservation ordinances are all separate from its zoning ordinance. We concur with the County's assessment that the actual transmission lines are exempt from the County's Chesapeake Bay Preservation ordinance and are subject to the linear project standards and provisions of §62.1-44.15:31. We also concur with the County's assessment that the switching station is distinct from the linear transmission lines for purposes of the Virginia Stormwater Management Act, Virginia Stormwater Management Program regulations, Chesapeake Bay Preservation Act, and Chesapeake Bay Preservation Area Designation and Management Regulations. As such, the switching station is subject to the County's stormwater management and erosion and sediment control ordinances, in addition to the County's Chesapeake Bay Preservation ordinance. We recommend that Dominion consult with the County to ensure that all local ordinance requirements are met.

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

Sincerely,

Randy R. Keaton
Interim Executive Director

BJM/jc

Copy: Susan Kassel, NN
     Al Maddalena, YK
     Leanne Pollock, JC
     Rhonda Russell, SY
     David Stromberg, HA
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APPENDIX B:
VACO COASTAL INSURANCE TASK FORCE COASTAL COMMUNITIES DATA SUMMARY AND SAMPLE MAPS
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## Coastal Communities Summary Spreadsheet – 1/2/14

Prepared by the staff of the Hampton Roads Planning District Commission
Contact: Benjamin McFarlane, AICP, Regional Planner
bmcfarlane@hrpdcva.gov
757-420-8300

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<td>$9,166,352,000</td>
<td>4,634</td>
<td>$1,520,647,000</td>
<td>16.6%</td>
<td>9,449</td>
<td>$2,941,644,000</td>
<td>32.1%</td>
</tr>
<tr>
<td>King George</td>
<td>13,202</td>
<td>$1,908,598,000</td>
<td>3,591</td>
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<td>26.3%</td>
<td>4,772</td>
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<td>36.5%</td>
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<td>6,113</td>
<td>$1,221,626,000</td>
<td>64.9%</td>
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<td>9,757</td>
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<td>Total Number of Properties</td>
<td>Total Assessed Value of Improvements</td>
<td>Total Number of Properties within 2,500' of the Shoreline</td>
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<tr>
<td>Middlesex</td>
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</tr>
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<td>54,387</td>
<td>$13,633,154,000</td>
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<td>$4,557,314,000</td>
<td>33.4%</td>
<td>27,945</td>
<td>$7,016,464,000</td>
<td>51.5%</td>
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<tr>
<td>Norfolk</td>
<td>68,777</td>
<td>$13,514,529,000</td>
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<td>64,639</td>
<td>$13,036,810,000</td>
<td>96.5%</td>
</tr>
<tr>
<td>Northampton</td>
<td>12,767</td>
<td>$610,806,000</td>
<td>5,353</td>
<td>$298,707,000</td>
<td>48.9%</td>
<td>7,611</td>
<td>$394,749,000</td>
<td>64.6%</td>
</tr>
<tr>
<td>Northumberland</td>
<td>19,940</td>
<td>$1,555,788,000</td>
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<td>$1,721,127,000</td>
<td>1,548</td>
<td>$228,442,000</td>
<td>13.3%</td>
<td>4,034</td>
<td>$451,973,000</td>
<td>26.3%</td>
</tr>
<tr>
<td>Poquoson</td>
<td>5,531</td>
<td>$935,185,000</td>
<td>4,143</td>
<td>$731,818,000</td>
<td>78.3%</td>
<td>5,475</td>
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<td>$7,796,066,000</td>
<td>66.9%</td>
<td>28,399</td>
<td>$10,461,503,000</td>
<td>89.8%</td>
</tr>
<tr>
<td>Prince George</td>
<td>13,682</td>
<td>$3,527,054,000</td>
<td>856</td>
<td>$1,656,743,000</td>
<td>47.0%</td>
<td>1,591</td>
<td>$1,742,731,000</td>
<td>49.4%</td>
</tr>
<tr>
<td>Prince William</td>
<td>143,763</td>
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<td>6,951</td>
<td>$1,740,334,000</td>
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<td>18,398</td>
<td>$3,893,377,000</td>
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<tr>
<td>Richmond</td>
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<td>1,525</td>
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<td>2,373</td>
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<tr>
<td>Spotsylvania</td>
<td>62,298</td>
<td>$8,264,291,000</td>
<td>1,184</td>
<td>$230,635,000</td>
<td>2.8%</td>
<td>2,273</td>
<td>$381,614,000</td>
<td>4.6%</td>
</tr>
<tr>
<td>Suffolk</td>
<td>54,898</td>
<td>$9,319,973,000</td>
<td>2,850</td>
<td>$372,858,000</td>
<td>4.0%</td>
<td>6,399</td>
<td>$833,134,000</td>
<td>8.9%</td>
</tr>
<tr>
<td>Surry</td>
<td>39,292</td>
<td>$6,467,879,000</td>
<td>8,428</td>
<td>$1,962,008,000</td>
<td>30.3%</td>
<td>16,815</td>
<td>$3,656,326,000</td>
<td>56.5%</td>
</tr>
<tr>
<td>Virginia Beach</td>
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<td>$31,699,928,000</td>
<td>46,641</td>
<td>$10,468,936,000</td>
<td>33.0%</td>
<td>72,075</td>
<td>$17,169,030,000</td>
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<tr>
<td>Westmoreland</td>
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<td>$786,843,000</td>
<td>17,885</td>
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<td>64.5%</td>
<td>21,077</td>
<td>$571,265,000</td>
<td>72.6%</td>
</tr>
<tr>
<td>Williamsburg</td>
<td>4,466</td>
<td>$1,605,553,000</td>
<td>109</td>
<td>$37,296,000</td>
<td>2.3%</td>
<td>425</td>
<td>$148,087,000</td>
<td>9.2%</td>
</tr>
<tr>
<td>York</td>
<td>26,090</td>
<td>$7,313,566,000</td>
<td>7,808</td>
<td>$2,836,965,000</td>
<td>38.8%</td>
<td>12,951</td>
<td>$4,062,218,000</td>
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</tr>
<tr>
<td>Total</td>
<td>1,921,113</td>
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<td>597,879</td>
<td>$141,274,446,000</td>
<td>30.3%</td>
</tr>
</tbody>
</table>

* Data for the following coastal cities and counties was not yet available for this analysis: Essex County and King and Queen County.
** All property values have been rounded to the nearest thousand dollars.
## Accomack-Northampton Planning District Commission

<table>
<thead>
<tr>
<th>Locality</th>
<th>Total Number of Properties</th>
<th>Total Assessed Value of Improvements</th>
<th>Total Number of Properties within 2,500' of the Shoreline</th>
<th>Total Assessed Value of Properties within 2,500' of the Shoreline</th>
<th>% of Total Value</th>
<th>Total Number of Properties within One Mile of the Shoreline</th>
<th>Total Assessed Value of Properties within One Mile of the Shoreline</th>
<th>% of Total Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accomack</td>
<td>41,111</td>
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<td>20,186</td>
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<td>58.1%</td>
<td>27,235</td>
<td>$1,740,123,000</td>
<td>68.1%</td>
</tr>
<tr>
<td>Northampton</td>
<td>12,767</td>
<td>$610,806,000</td>
<td>5,353</td>
<td>$298,707,000</td>
<td>48.9%</td>
<td>7,611</td>
<td>$394,749,000</td>
<td>64.6%</td>
</tr>
<tr>
<td>Total</td>
<td>53,878</td>
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<td>56.3%</td>
<td>34,846</td>
<td>$2,134,871,000</td>
<td>67.4%</td>
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</tbody>
</table>

## Crater Planning District Commission

<table>
<thead>
<tr>
<th>Locality</th>
<th>Total Number of Properties</th>
<th>Total Assessed Value of Improvements</th>
<th>Total Number of Properties within 2,500' of the Shoreline</th>
<th>Total Assessed Value of Properties within 2,500' of the Shoreline</th>
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<th>Total Assessed Value of Properties within One Mile of the Shoreline</th>
<th>% of Total Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charles City</td>
<td>5,889</td>
<td>$331,765,000</td>
<td>915</td>
<td>$88,548,000</td>
<td>26.7%</td>
<td>1,576</td>
<td>$117,622,000</td>
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</tr>
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<td>Chesterfield</td>
<td>124,975</td>
<td>$22,506,418,000</td>
<td>2,568</td>
<td>$680,817,000</td>
<td>3.0%</td>
<td>6,946</td>
<td>$1,714,896,000</td>
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<tr>
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<td>$1,206,183,000</td>
<td>2,497</td>
<td>$517,165,000</td>
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<td>4,751</td>
<td>$816,800,000</td>
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<td>32.0%</td>
<td>4,448</td>
<td>$589,821,000</td>
<td>51.9%</td>
</tr>
<tr>
<td>Petersburg</td>
<td>14,202</td>
<td>$1,721,127,000</td>
<td>1,548</td>
<td>$228,442,000</td>
<td>13.3%</td>
<td>4,034</td>
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<tr>
<td>Prince George</td>
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<td>856</td>
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<td>47.0%</td>
<td>1,591</td>
<td>$1,742,731,000</td>
<td>49.4%</td>
</tr>
<tr>
<td>Surry</td>
<td>6,515</td>
<td>$510,594,000</td>
<td>1,273</td>
<td>$115,635,000</td>
<td>22.6%</td>
<td>1,873</td>
<td>$154,310,000</td>
<td>30.2%</td>
</tr>
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<td>25,219</td>
<td>$5,588,153,000</td>
<td>18.1%</td>
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<tr>
<td>Locality</td>
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<td>-------------</td>
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<td>4,103</td>
<td>$1,130,322,000</td>
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<tr>
<td>King George</td>
<td>13,202</td>
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<td>4.0%</td>
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<td>Locality</td>
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</tr>
<tr>
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<td>$4,062,218,000</td>
<td>55.5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>612,808</strong></td>
<td><strong>$131,521,718,000</strong></td>
<td><strong>211,753</strong></td>
<td><strong>$51,917,991,000</strong></td>
<td><strong>39.5%</strong></td>
<td><strong>347,863</strong></td>
<td><strong>$79,358,715,000</strong></td>
<td><strong>60.3%</strong></td>
</tr>
</tbody>
</table>
### Middle Peninsula Planning District Commission

<table>
<thead>
<tr>
<th>Locality</th>
<th>Total Number of Properties</th>
<th>Total Assessed Value of Improvements</th>
<th>Total Number of Properties within 2,500' of the Shoreline</th>
<th>Total Assessed Value of Properties within 2,500' of the Shoreline</th>
<th>% of Total Value</th>
<th>Total Number of Properties within One Mile of the Shoreline</th>
<th>Total Assessed Value of Properties within One Mile of the Shoreline</th>
<th>% of Total Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gloucester</td>
<td>24,733</td>
<td>$2,967,695,000</td>
<td>11,497</td>
<td>$1,314,673,000</td>
<td>44.3%</td>
<td>15,199</td>
<td>$1,659,415,000</td>
<td>55.9%</td>
</tr>
<tr>
<td>King William</td>
<td>13,054</td>
<td>$1,883,441,000</td>
<td>4,673</td>
<td>$1,107,924,000</td>
<td>58.8%</td>
<td>6,113</td>
<td>$1,221,626,000</td>
<td>64.9%</td>
</tr>
<tr>
<td>Mathews</td>
<td>10,161</td>
<td>$688,621,000</td>
<td>8,538</td>
<td>$626,181,000</td>
<td>90.9%</td>
<td>9,757</td>
<td>$673,991,000</td>
<td>97.9%</td>
</tr>
<tr>
<td>Middlesex</td>
<td>14,033</td>
<td>$1,356,103,000</td>
<td>9,260</td>
<td>$946,929,000</td>
<td>69.8%</td>
<td>11,132</td>
<td>$1,170,803,000</td>
<td>86.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>61,981</strong></td>
<td><strong>$6,895,860,000</strong></td>
<td><strong>33,968</strong></td>
<td><strong>$3,995,705,000</strong></td>
<td><strong>57.9%</strong></td>
<td><strong>42,201</strong></td>
<td><strong>$4,725,834,000</strong></td>
<td><strong>68.5%</strong></td>
</tr>
</tbody>
</table>

* Data for the following coastal cities and counties was not yet available for this analysis: Essex County and King and Queen County.

### Northern Neck Planning District Commission

<table>
<thead>
<tr>
<th>Locality</th>
<th>Total Number of Properties</th>
<th>Total Assessed Value of Improvements</th>
<th>Total Number of Properties within 2,500' of the Shoreline</th>
<th>Total Assessed Value of Properties within 2,500' of the Shoreline</th>
<th>% of Total Value</th>
<th>Total Number of Properties within One Mile of the Shoreline</th>
<th>Total Assessed Value of Properties within One Mile of the Shoreline</th>
<th>% of Total Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lancaster</td>
<td>15,824</td>
<td>$671,256,000</td>
<td>9,910</td>
<td>$472,415,000</td>
<td>70.4%</td>
<td>12,393</td>
<td>$545,544,000</td>
<td>81.3%</td>
</tr>
<tr>
<td>Northumberland</td>
<td>19,940</td>
<td>$1,555,788,000</td>
<td>13,723</td>
<td>$1,202,316,000</td>
<td>77.3%</td>
<td>15,752</td>
<td>$1,301,036,000</td>
<td>83.6%</td>
</tr>
<tr>
<td>Richmond</td>
<td>7,794</td>
<td>$535,834,000</td>
<td>1,525</td>
<td>$103,830,000</td>
<td>19.4%</td>
<td>2,373</td>
<td>$152,090,000</td>
<td>28.4%</td>
</tr>
<tr>
<td>Westmoreland</td>
<td>26,858</td>
<td>$786,843,000</td>
<td>17,885</td>
<td>$507,785,000</td>
<td>64.5%</td>
<td>21,077</td>
<td>$571,265,000</td>
<td>72.6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>70,416</strong></td>
<td><strong>$3,549,721,000</strong></td>
<td><strong>43,043</strong></td>
<td><strong>$2,286,346,000</strong></td>
<td><strong>64.4%</strong></td>
<td><strong>51,595</strong></td>
<td><strong>$2,569,935,000</strong></td>
<td><strong>72.4%</strong></td>
</tr>
</tbody>
</table>
### Northern Virginia Regional Commission

<table>
<thead>
<tr>
<th>Locality</th>
<th>Total Number of Properties</th>
<th>Total Assessed Value of Improvements</th>
<th>Total Number of Properties within 2,500’ of the Shoreline</th>
<th>Total Assessed Value of Properties within 2,500’ of the Shoreline</th>
<th>% of Total Value</th>
<th>Total Number of Properties within One Mile of the Shoreline</th>
<th>Total Assessed Value of Properties within One Mile of the Shoreline</th>
<th>% of Total Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexandria</td>
<td>25,080</td>
<td>$18,010,442,000</td>
<td>5,767</td>
<td>$5,811,997,000</td>
<td>32.3%</td>
<td>14,049</td>
<td>$10,124,721,000</td>
<td>56.2%</td>
</tr>
<tr>
<td>Arlington</td>
<td>38,235</td>
<td>$25,543,902,000</td>
<td>2,118</td>
<td>$5,423,270,000</td>
<td>21.2%</td>
<td>7,085</td>
<td>$13,058,523,000</td>
<td>51.1%</td>
</tr>
<tr>
<td>Fairfax</td>
<td>358,978</td>
<td>$140,624,358,000</td>
<td>14,655</td>
<td>$5,943,958,000</td>
<td>4.2%</td>
<td>31,648</td>
<td>$11,348,242,000</td>
<td>8.1%</td>
</tr>
<tr>
<td>Prince William</td>
<td>143,763</td>
<td>$31,935,361,000</td>
<td>6,951</td>
<td>$1,740,334,000</td>
<td>5.4%</td>
<td>18,398</td>
<td>$3,893,377,000</td>
<td>12.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>566,056</td>
<td><strong>$216,114,063,000</strong></td>
<td><strong>29,491</strong></td>
<td><strong>$18,919,559,000</strong></td>
<td><strong>8.8%</strong></td>
<td><strong>71,180</strong></td>
<td><strong>$38,424,862,000</strong></td>
<td><strong>17.8%</strong></td>
</tr>
</tbody>
</table>

### Richmond Regional Planning District Commission

<table>
<thead>
<tr>
<th>Locality</th>
<th>Total Number of Properties</th>
<th>Total Assessed Value of Improvements</th>
<th>Total Number of Properties within 2,500’ of the Shoreline</th>
<th>Total Assessed Value of Properties within 2,500’ of the Shoreline</th>
<th>% of Total Value</th>
<th>Total Number of Properties within One Mile of the Shoreline</th>
<th>Total Assessed Value of Properties within One Mile of the Shoreline</th>
<th>% of Total Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charles City</td>
<td>5,889</td>
<td>$331,765,000</td>
<td>915</td>
<td>$88,548,000</td>
<td>26.7%</td>
<td>1,576</td>
<td>$117,622,000</td>
<td>35.5%</td>
</tr>
<tr>
<td>Chesterfield</td>
<td>124,975</td>
<td>$22,506,418,000</td>
<td>2,568</td>
<td>$680,817,000</td>
<td>3.0%</td>
<td>6,946</td>
<td>$1,714,896,000</td>
<td>7.6%</td>
</tr>
<tr>
<td>Hanover</td>
<td>47,095</td>
<td>$8,762,019,000</td>
<td>152</td>
<td>$24,635,000</td>
<td>0.3%</td>
<td>271</td>
<td>$41,080,000</td>
<td>0.5%</td>
</tr>
<tr>
<td>Henrico</td>
<td>107,655</td>
<td>$25,321,908,000</td>
<td>474</td>
<td>$139,889,000</td>
<td>0.6%</td>
<td>1,190</td>
<td>$207,245,000</td>
<td>0.8%</td>
</tr>
<tr>
<td>New Kent</td>
<td>16,698</td>
<td>$1,600,174,000</td>
<td>5,362</td>
<td>$237,614,000</td>
<td>14.8%</td>
<td>6,168</td>
<td>$314,945,000</td>
<td>19.7%</td>
</tr>
<tr>
<td>Richmond</td>
<td>69,823</td>
<td>$18,983,540,000</td>
<td>3,011</td>
<td>$3,101,850,000</td>
<td>16.3%</td>
<td>11,594</td>
<td>$6,470,222,000</td>
<td>34.1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>372,135</td>
<td><strong>$77,505,824,000</strong></td>
<td><strong>12,482</strong></td>
<td><strong>$4,273,352,000</strong></td>
<td><strong>5.5%</strong></td>
<td><strong>27,745</strong></td>
<td><strong>$8,866,009,000</strong></td>
<td><strong>11.4%</strong></td>
</tr>
</tbody>
</table>
James City County

James City County is located on the Virginia Peninsula between the James and York Rivers. The County’s estimated population as of July 2012 was 69,546. As of April 2011, the County’s total assessed value of improvements was approximately $9.2 billion. Nearly thirty percent of the County’s total land area is located within 2,500 feet of tidal waters.

# of parcels within 2,500 feet of tidal waters: 4,634*
Total assessed value: $1,520,647,000*

* As of April 2011
James City County is located on the Virginia Peninsula between the James and York Rivers. The County’s estimated population as of July 2012 was 69,546. As of April 2011, the County’s total assessed value of improvements was approximately $9.2 billion. Over forty-eight percent of the County’s total land area is located within one mile of tidal waters.

# of parcels within one mile of tidal waters: 9,449*
Total assessed value: $2,941,644,000*

* As of April 2011
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APPENDIX C:
GIS SAMPLE: ASKHRGREEN.ORG “TAPIT” MAPS
APPENDIX D:
UPDATE OF REGIONAL DIGITAL ELEVATION MODEL
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Update of Regional Digital Elevation Model (DEM) for Hampton Roads, Virginia

As part of the FY2011-2012 HRPDC Coastal Resources Technical Assistance Program, the HRPDC staff developed a seamless, high resolution regional digital elevation model for the Hampton Roads region. The need for this special project was driven by the lack of a regional scale high resolution model, which would render sea level rise vulnerability analyses less precise and accurate. The original regional DEM was compiled from eleven individual datasets, the vast majority of which were derived from LiDAR (Light Detection and Ranging) data. The resulting DEM was later used to help develop regional sea level rise inundation maps.

Partly as a result of the HRPDC’s focus on sea level rise and flooding, the HRPDC decided in late 2013 to contribute funds to a federal agency-led proposal to acquire new LiDAR data for several localities in eastern Hampton Roads. The contributions from the HRPDC and other partners resulted in the geographic expansion of the project and the decision to gather data around projected low tide. The HRPDC acquired the data from the Virginia Geographic Information Network (VGIN) in August 2014, and immediately began working to incorporate this new data into the regional DEM. The updated DEM includes data from three datasets, compared to eleven for the previous version. These are described in the table below.

<table>
<thead>
<tr>
<th>Coverage Area</th>
<th>Source or Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Hampton Roads (Chesapeake, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Virginia Beach, York County)</td>
<td>U.S. Geological Survey/National Geospatial-Intelligence Agency (with contributions from HRPDC, HRSD, and ODU)</td>
</tr>
<tr>
<td>Western Hampton Roads (Gloucester County, Isle of Wight County, James City County, Suffolk, Surry County, Williamsburg)</td>
<td>VGIN</td>
</tr>
<tr>
<td>Franklin and Southampton County</td>
<td>VGIN/FEMA</td>
</tr>
</tbody>
</table>

Similar standards used for the collection and processing of each of these datasets resulted in a much simpler process than in the first version. The final DEM has a horizontal resolution of five feet. The coordinate system is NAD 1983 HARN State Plane Virginia South. The vertical datum is the North American Vertical Datum of 1988. The final product is shown below.
Updated Regional Digital Elevation Model for Hampton Roads, Virginia
APPENDIX E:
PRESENTATION TO HIGH SCHOOL CLASS AT THE PRUDEN CENTER FOR INDUSTRY AND TECHNOLOGY, SUFFOLK, VIRGINIA
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Ben McFarlane, AICP
Regional Planner

Jenny Tribo
Senior Water Resources Planner

WHAT'S PLANNING GOT TO DO WITH ME?

Hometown: Seaford, VA
College: University of Virginia, Charlottesville, VA
  • Major – Economics
  • Minor – Urban and Environmental Planning
Graduate School: University of Virginia
  • Master’s of Urban and Environmental Planning
Employment
  • Hampton Roads Planning District Commission, Chesapeake, VA
  • University of Virginia School of Architecture
  • MMM Design Group
  • Virginia Institute of Marine Science

ABOUT BEN

Hometown: Little Rock, AR
College: Drury College in Springfield, MO
  • Majors – Biology, Chemistry, and Environmental Studies
  • Minor – Global Studies
Graduate School: Duke University
  • Master of Environmental Management
Employment
  • Hampton Roads Planning District Commission, Chesapeake, VA
  • Tetra Tech, Inc., Research Triangle Park, NC
  • Sonoma Ecology Center, Sonoma, CA
  • U.S. Environmental Protection Agency, Region 5, Chicago, IL

ABOUT JENNY

PLANNING AS A CAREER

What is planning?
  • “When government officials, business leaders, and citizens come together to build communities that enrich people’s lives, that’s planning.” ~ American Planning Association
Planning is the act of:
  • Assessing where we are (collecting data)
  • Deciding where we want to go (meeting and discussing goals)
  • Figuring out how we can get there (developing the plan)
  • Getting there (implementing the plan)

Who do planners work for?
  • Governments (local, state, federal)
  • Private companies (architectural, engineering, etc.)
  • Developers
  • Non-Profits (environmental, housing, community organizing), etc.

What kinds of planning are there?
  • Community
  • Land Use
  • Transportation
  • Environmental
  • Economic Development
  • Urban Design
  • Housing
  • Parks & Recreation
  • Historic Preservation
PLANNING AS A CAREER

What skills do planners use?
- Facilitation
- Engagement
- Public Speaking
- Data Analysis
- GIS
- Problem Solving
- Research and Writing

What knowledge do planners need?
- Urban structure and systems
- Plan-making processes
- Laws and regulations
- Economics

How are planners educated?
- Getting a job as a planner generally requires at least a Bachelor’s Degree, though not necessarily in planning
- The Planning Accreditation Board accredits both undergraduate and graduate (master’s) programs
- A master’s level graduate degree in planning is considered standard
- Planners can also, after obtaining a degree and several years of experience, become Certified Planners by taking and passing the AICP Exam
- There are many jobs related to planning that do not require a four-year degree or a planning degree
- Surveying
- Geographic Information Systems

FOR MORE INFORMATION

Organizations:
- www.planning.org
- www.apavirginia.org
- www.planetizen.com

Planning programs in Virginia:
- UVA: http://www.arch.virginia.edu/academics/disciplines/planning
- VCU: http://www.wilder.vcu.edu/academic/urban/index.html
- VT: http://www.uap.vt.edu/index.html

WHAT IS THE HRPDC?

1 of 21 Regional Planning Agencies in Virginia
- State enabled; locally created
- 16 Cities & Counties; several Towns; 1.7 million people; 3,000 square miles; 5,000 miles shoreline
- Commission – 45 local elected officials & CAO
- Staff – Executive Director & 45 staff
- Funding – Local contributions, grants, and contracts
- Functions – Economics, Housing, Transportation, Environmental, Emergency Management
- Budget $12,000,000 +
- Role – Policy & Technical Analysis, Planning & Engineering Studies, Cooperative Problem Solving, Coordination

WHAT DOES HRPDC DO?

The Commission:
- “serves as a forum for local and elected officials and chief administrators to deliberate and decide issues of regional importance”
- The Staff:
- “provides the local governments and citizens of Hampton Roads credible and timely planning, research, and analysis on matters of mutual concern, and”
- “provides leadership and offers strategies and support services to other public and private, local, and regional agencies, in their efforts to improve the region’s quality of life.”
### Regional Planner
- Work with all sixteen Hampton Roads localities on both region-wide and locality specific projects
- Work with state agencies on issues that involve regional programs
- Many different types of plans, projects, and programs

### Coastal Zone Management
- Regular meetings with local government staff and state agencies
- Technical Assistance to localities on various issues
  - Environmental
  - Regulatory
  - Mapping/GIS
  - Environmental Impact Review

### Green Infrastructure
- SWAMP (Southern Watershed Area Management Plan)
- Hampton Roads Conservation Corridor Study
- Green Infrastructure Plan for Hampton Roads

### Goal: Identify and prioritize a network of valuable conservation lands to achieve multiple benefits
- Identify areas of high ecological value and high water quality protection value
- Opportunities for connectivity

### Climate Change and Sea Level Rise
- Grant from VCZMP starting in 2008
- 4 reports completed
- Research and GIS analysis
- Coordination
- Public Outreach
- What are the projected impacts of climate change and sea level rise on the region?
- What can we do to adapt to higher sea levels?
BEN’S PROJECTS

- Comprehensive Plans
  - Williamsburg
  - Gloucester County
  - Franklin
- Other Plans
  - Northwest River Watershed Plan (Chesapeake)

JENNY’S ROLE AT HRPDC
Senior Water Resources Planner

- Water Resources Planner
  - Work with all sixteen Hampton Roads localities on both region-wide and locality specific projects.
  - Work with state agencies on issues that involve regional programs.
  - Focus on water quality and stormwater management.

JENNY’S PROJECTS

- Regional Stormwater Indicators
  - Annual summary of stormwater related activities throughout the Region.

JENNY’S PROJECTS

- Regional Bacterial Source Tracking Study
  - Goal: Identify methodologies for determining if the source of bacteria in waterbodies is human.
  - Case studies: Shingle Creek, Suffolk Moores Creek, York County Mill Dam Creek, Virginia Beach

  - Conclusions:
    - Identified testing procedures that work in Hampton Roads.
    - Developed a protocol to apply study to other watersheds.
Chesapeake Bay Watershed Implementation for Hampton Roads

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Nitrogen (lbs)</th>
<th>Phosphorus (lbs)</th>
<th>Sediment (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase I BMP reductions</td>
<td>541,016</td>
<td>78,181</td>
<td>14,792,723</td>
</tr>
<tr>
<td>Regional Scenario</td>
<td>741,079</td>
<td>72,432</td>
<td>39,614,362</td>
</tr>
<tr>
<td>Percent of Target</td>
<td>&gt;100%</td>
<td>93%</td>
<td>&gt;100%</td>
</tr>
</tbody>
</table>

Low Impact Development Checklist

WHAT IS A WATERSHED

WATERSHED PLANNING

WATERSHED SCALES

<table>
<thead>
<tr>
<th>ORDER</th>
<th>DIGITS</th>
<th>NAME</th>
<th>UNIT SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>Region</td>
<td>200,000 mi²</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Subregion</td>
<td>20,000 mi²</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>Basin</td>
<td>10,000 mi²</td>
</tr>
<tr>
<td>4</td>
<td>8</td>
<td>Subbasin</td>
<td>1,000 mi²</td>
</tr>
<tr>
<td>5</td>
<td>10</td>
<td>Watershed</td>
<td>60 mi² - 400 mi²</td>
</tr>
<tr>
<td>6</td>
<td>12</td>
<td>Subwatershed</td>
<td>15 mi² - 59 mi²</td>
</tr>
</tbody>
</table>
MAJOR WATERSHEDS IN HAMPTON ROADS

WHAT WATERSHED DO YOU LIVE IN?

WATERSHED PROTECTION

WATER QUALITY ASSESSMENT PROCESS

1. Identify Uses for Waterbodies
2. Establish Water Quality Standards
3. Monitor Water Quality
4. Identify Impaired Waters (303dlist)
5. Develop Pollutant Reduction Plan (TMDL)
6. Develop Plan to Reduce Pollutants (TMDL Implementation Plan)

IMPROVING WATER QUALITY THROUGH PLANNING

Development can function more like forest
• More trees & plants
• Less lawn & pavement
• Keep runoff on the site
• Remove the nutrients & sediments
In many if not most localities, responsibility for maintaining or improving water quality has been decoupled from planning. Planning decisions can have a major impact on water quality due to the location and intensity of development. Certain areas are more sensitive than others (e.g., riparian buffers). More impervious cover = lower water quality.

Impervious surfaces – parking lots, road, rooftops – have a direct, negative impact on watershed health. Runoff moves faster over impervious surfaces, causing shoreline erosion when it reaches waterways. Runoff does not infiltrate into the ground, resulting in more water.

**PLANNING AND WATER QUALITY**

- **One-acre, single-family lots**
  - Typical low-density suburban development
  - Impervious Cover: 20%
  - Total Runoff: 149,600 ft²/yr
  - Runoff/house: 18,700 ft²/yr

- **One quarter acre, single-family lots**
  - Medium-density suburban development
  - Impervious Cover: 38%
  - Total Runoff: 49,600 ft²/yr
  - Runoff/house: 6,200 ft²/yr

- **1/8-acre, single-family lots**
  - Medium-density urban development
  - Impervious Cover: 65%
  - Total Runoff: 39,600 ft²/yr
  - Runoff/house: 4,950 ft²/yr
Concentrating development in a small portion of a watershed can result in better overall water quality.

**ENVIRONMENTAL SITE DESIGN**

**12 STEPS OF ENVIRONMENTAL SITE DESIGN**

1. Conduct environmental mapping of site prior to layout.
2. Conserve natural areas (forest, wetlands, steep slopes, and floodplains).
3. Preserve streams, wetland, and erosion controls.
5. Maintain natural flow paths across site.
6. Layout buildings to reduce clearing and grading of site.
7. Grade site to promote sheet flow from impervious areas to pervious areas.
8. Reduce impervious area.
   - Use minimum required width for roads.
   - Utilize pervious pavements for parking and pedestrian areas.
9. Maximize connection of impervious areas.
10. Identify potential connections for impervious cover.
11. Integrate erosion and sediment control practices into stormwater management practices into a comprehensive site plan.
12. Use tree planting to connect turf areas into forest.

**CREATING A PLAN**

**The Scenario**

- A property owner wants to develop a 15-acre property into a single-family home subdivision.
- The property consists of 10 acres of farmland and 5 acres of forests and wetlands bordering a creek.
- The underlying zoning designation for the property allows for 2 dwelling units per acre, for a total of 30 homes allowed overall.
1. What is a neighborhood?

2. What do you like or dislike about your neighborhood?
   - Homes
   - Yards
   - Sidewalks
   - Parks
   - Amenities

3. What sort of neighborhood would you like to live in?

PLANNING DISCUSSION

Break into groups (~5-7 students each)
Select a note-taker
Select a reporter

PLANNING AND MAPPING EXERCISE

Discuss and select your three major neighborhood principles
- Living with Nature
- Waterfront Living
- Walkable Community
- Rural Living

PLANNING AND MAPPING EXERCISE

Map!
- Name your subdivision
- Houses (30)
- Driveways (at least 10’ wide)
- Roads (at least 25’ wide)
- Parks and Open Space

Think about how you can incorporate environmental site design into your plan.
- Calculate the area of impervious surface (houses, driveways, roads) as you go.

PLANNING AND MAPPING EXERCISE

Discuss and identify any barriers and challenges, real or perceived, to implementing your plan.

PLANNING AND MAPPING EXERCISE

Do you think people would like to live in your subdivision?
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APPENDIX F:
SAMPLE NEWS ARTICLES POSTED TO HRPDC WEBSITE
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Sinking Land Increases Impacts of Sea Level Rise in Hampton Roads

Added on December 11, 2013 by Whitney Katchmark, Principal Water Resources Planner to Water Resources News

For the past five years, the HRPD's work plan has focused on quantifying and evaluating the impacts of sea level rise in Hampton Roads. Since land subsidence - the compaction and settling of ground surface area - can increase flooding, alter coastal ecosystems and damage infrastructure, it is important for regional planners to understand why, where and how fast land subsidence is occurring. In Hampton Roads, land subsidence is estimated at 1.1 to 4.8 mm/year, which is over half of the measured relative sea level rise for the region.

HRPD's staff recently collaborated with the U.S. Geological Survey (USGS) to evaluate all types of land subsidence measurements in the region and determine why the region is sinking. This effort culminated in a USGS Circular, *Land Subsidence and Relative Sea-Level Rise in the Southern Chesapeake Bay Region*, released to the public December 9, 2013. Table 3 of that circular, "Observed sea-level rise and subsidence in the southern Chesapeake Bay region," summarizes the measured rates of land subsidence from the 22 monitoring stations that have recorded data beginning in 1940. The report concludes that land subsidence in Hampton Roads is primarily a result of groundwater pumping and glacial isostatic adjustment, the flexing of the Earth's crust in response to glacier formation and melting.

With improvements to the existing groundwater model for the Virginia Coastal Plain aquifer system, future subsidence could be evaluated; however, additional monitoring data would be needed to calibrate the model and better understand how land subsidence varies within the region.
Regional Committee to Plan for Flooding and Sea Level Rise

Added on March 26, 2014 by Benjamin McFarlane, Regional Planner to Planning News

Flooding can be caused by high tides, heavy rainfall, or coastal storms. Regardless of the cause, flooding causes major impacts to our communities. Many studies have analyzed the region’s vulnerability to flooding and possible adaptation strategies, but these studies have focused on informing the debate rather than changing local policy.

The next step will be to use this information to decide which policies need to be changed and projects need to be built.

Last Thursday, the region took this step when the HRPDC voted to establish a Special Committee to help the region plan for both recurrent flooding and sea level rise. This Committee will be responsible for developing policy and other recommendations for local governments, advocating for state and federal support, and serving as the primary regional contact for coordinating efforts with academic institutions and federal and state agencies. Initially, the members of the Committee will be local government staff from across Hampton Roads representing various departments (such as planning, public works, and economic development). Other stakeholders, such as the military, will be invited and encouraged to participate.
HRPDC Assists DCR with Virginia Outdoors Plan

The Virginia Department of Conservation and Recreation (DCR) recently updated the Virginia Outdoors Plan (VOP), Virginia’s official guide for the planning of public outdoor recreation and land conservation. DCR called upon the HRPDC to help with updating the Hampton Roads portion of the plan. HRPDC Planning staff provided content review for the Hampton Roads chapter, verifying existing resources or planned projects across the region, as well as identifying high priority regional projects. The included maps were reviewed for accuracy and where appropriate, updated geographic information systems (GIS) data was provided. In addition, the HRPDC provided photos and also hosted two of the 42 meetings held across the state in 2012 to collect public comments for the plan’s update.

The document highlights the natural resources and historical attractions Virginia has to offer and is updated every five years. This is the 10th such plan produced since 1965, and is the first to be completely paperless. It also debuts VOP Mapper, a user-friendly online tool for mapping outdoor recreation resources and conserved lands.

This plan promotes expanding tourism opportunities and the economy through outdoor recreation and land conservation. The VOP is required for Virginia to participate in the federal Land and Water Conservation Fund program. Virginia has received more than $76 million in grants through the National Park Service. DCR disperses these grant funds statewide for public outdoor recreation. More than 400 projects across the state have been made possible through this funding. Projects range from improvements at existing parks to land acquisitions for developing new parks.
HRPDC Facilitates New Special Committee on Recurrent Flooding & Sea Level Rise

Added on June 25, 2014 by Whitney Katchmark to Water Resources News

The newly formed HRPDC Hampton Roads Special Committee on Recurrent Flooding and Sea Level Rise met for the first time on Friday, June 20th. The committee was established with three objectives:

1. Develop recommendations for local governments
2. Advocate for federal and state support
3. Serve as primary regional contact for coordinating efforts with federal agencies and academic institutions.

The committee developed a list of issues to tackle in support of the first objective including:

- Revise wetland mitigation policies to account for potential inundation of wetland banks including coordination with U.S. Army Corps of Engineers.
- Identify a tool to measure the resiliency of hard infrastructure assets.
- Integrate sea level rise into the Regional Hazard Mitigation Plan under revision.
- Assess the potential financial impact of sea level rise on local government revenues.
- Investigate the impact of sea level rise on economic development strategies especially the state’s priorities.
- Integrate sea level rise into the planning and design of VDOT and HRTPO transportation projects.

The committee discussed HRPDC’s plans to hold Dutch Dialogues in the region. The Dutch Dialogues have been held in New Orleans and St. Louis and consist of work sessions between local stakeholders and Dutch experts on water management. The sessions focus on developing actions specific to a neighborhood scale problem that take a broad approach to managing sea level rise, stormwater, and groundwater to address both flooding and water quality problems. Reports from these efforts are available at http://dutchdialogues.com/.

The committee was also asked to review the draft charter for ODU’s "Intergovernmental Planning Pilot Project" to address Hampton Roads Sea Level Rise Preparedness and Resilience. The committee will provide input on the local government role in this effort. Diane Kaufman from Senator Tim Kaine’s office encouraged the committee members to attend the congressional workshop, “Hampton Roads Sea-Level Rise and Preparedness Action Items at the Federal Level”, on June 30th where our congressmen and state and local elected officials will be discussing the needs of the region.
HRPDC Hosts Climate Adaptation Training for Local Staff

Added on August 11, 2014 by Ben McFarlane, Senior Regional Planner to Water Resources News

This past July local planners, engineers, and other staff from across Hampton Roads took advantage of a long month to participate in a workshop on Climate Adaptation for Coastal Communities. The training was provided by staff from the National Oceanic and Atmospheric Administration's Coastal Services Center, and hosted by the Hampton Roads PDC at Newport News Waterworks. In addition to NOAA and HRPDC, several other partners took part in planning and coordinating the training, including Wetlands Watch, the Virginia Coastal Zone Management Program, and the Chesapeake Bay National Estuarine Research Reserve. Over forty people attended the three-day training, including thirty-seven who attended for all three days. The training was provided through NOAA program funds and the HRPDC's existing Coastal Zone Management grants, so there was no cost to attendees. The training also provided continuing education credits to certified planners and floodplain managers.

Climate Adaptation for Coastal Communities was designed by NOAA to teach local practitioners about climate change impacts and tools and techniques they could use to address those impacts in their communities. The course featured a mix of presentations (including some from Hampton Roads communities) and hands-on activities that put concepts into use. Day 1 focused on climate change science; Day 2 focused on vulnerability and adaptation, and Day 3 focused on communications and implementation. The sessions highlighted local communities, with presentations including existing and projected climate conditions for Hampton Roads and local activities and programs Hampton Roads cities and counties already have in place. Activities included identifying climate stressors, scoping out and conducting qualitative vulnerability assessments, and identifying adaptation options.

Overall, the training was well received. The lessons learned should be carried over into local plans addressing climate change impacts on Hampton Roads communities, with several localities' efforts already underway or soon to begin.
Regional Trails Taking Shape in Hampton Roads
Added on August 12, 2014 by Sara Kidd, Senior Regional Planner to Planning News

Hampton Roads is home to a variety of trails for hikers, bikers, and boaters. Several of these trails have been completed while others are still under construction or in the planning phase. Recently, some exciting progress has been made on a few of the trails, bringing them a few steps closer to completion.

The South Hampton Roads Trail (SHRT) is a 41-mile proposed multi-use/bicycle route between Suffolk and Virginia Beach. Two sections of this trail are now on their way to construction. The planned section between the Driver and Pughsville neighborhoods in Suffolk has been funded and will begin construction later this year (see map). This portion of the SHRT is a rails-to-trails project and is known as the Suffolk Seaboard Coastline Trail locally. Also, a 1.8-mile rails-to-trail segment of the SHRT in the City of Portsmouth was recently approved for funding for both planning and construction phases for a multi-use path. Both HRPDC and HRPTO staff have been involved on the steering committee for this project.

The Beaches to Bluegrass Trail (B2B) is a statewide trail being planned by the Virginia Department of Conservation and Recreation (DCR) which traverses the entire state from the Cumberland Gap to the Virginia Beach oceanfront and Eastern Shore. The B2B seeks to connect existing multi-use trails where possible but for the interim (where there are gaps), on-road bike routes will be designated. The HRDCP approved a letter of support for the B2B in March 2014. The letter also expressed support for the B2B and SHRT sharing the same route through Hampton Roads where there is overlap. The final plan for the B2B will be available in the Fall of 2014.

The Captain John Smith National Historic Trail (CAJO) traces the historic routes of John Smith as he explored the Chesapeake Bay and its tributaries. The James River segment plan of the CAJO has recently been completed. In May 2014, the Nansemond segment in Suffolk was opened and dedicated along with a new informational kiosk at Bennett's Creek Park. Other kiosks will be installed in Suffolk at Sleepy Hole Park and Constant’s Wharf. A new public kayak launch at Constant’s Wharf is also slated for construction, which was funded through the Virginia Coastal Zone Management Program via the HRPDC. Other informational kiosks for the CAJO will be installed around the region in the future at Windsor Castle Park in Smithfield, Fort Monroe, Jamestown, Chippokes State Park, and York River State Park.

For a comprehensive list of all existing, planned, and proposed regional trails in Hampton Roads, please visit our regional trails page.