

Hampton Roads Coastal Resources Technical Assistance Program Fiscal Year 2014-2015 Final Report



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**HAMPTON ROADS COASTAL RESOURCES
TECHNICAL ASSISTANCE PROGRAM**

**FISCAL YEAR 2014 – 2015
FINAL REPORT**

This report was produced, in part, through financial assistance from the Virginia Coastal Zone Management Program in the Virginia Department of Environmental Quality through Grant No. NA14NOS4190141 from the National Oceanic and Atmospheric Administration. The views expressed herein are those of the authors and do not necessarily reflect the views of NOAA or any of its sub-agencies. Federal financial assistance to this project amounted to \$60,000 or approximately fifty percent of the total project cost.

Preparation of this report was included in the HRPDC Unified Planning Work Program for FY 2014 – 2015, approved by the Commission at its Quarterly Commission Meeting of June 19, 2014, and in the HRPDC Unified Planning Work Program for FY 2015 – 2016, approved by the Commission at its Executive Committee Meeting of June 18, 2015.

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



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ABSTRACT

This report describes the environmental technical assistance program conducted by the Hampton Roads Planning District Commission during FY 2014 – 2015 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.

ACKNOWLEDGMENTS

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INTRODUCTION

In March 2014, 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.¹ 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 2014, the HRPDC was awarded financial assistance to maintain its Technical Assistance Program through September 2015. This report provides an overview of the activities and accomplishments of the Hampton Roads Technical Assistance (Regional Coastal Resources Management) Program during that period.

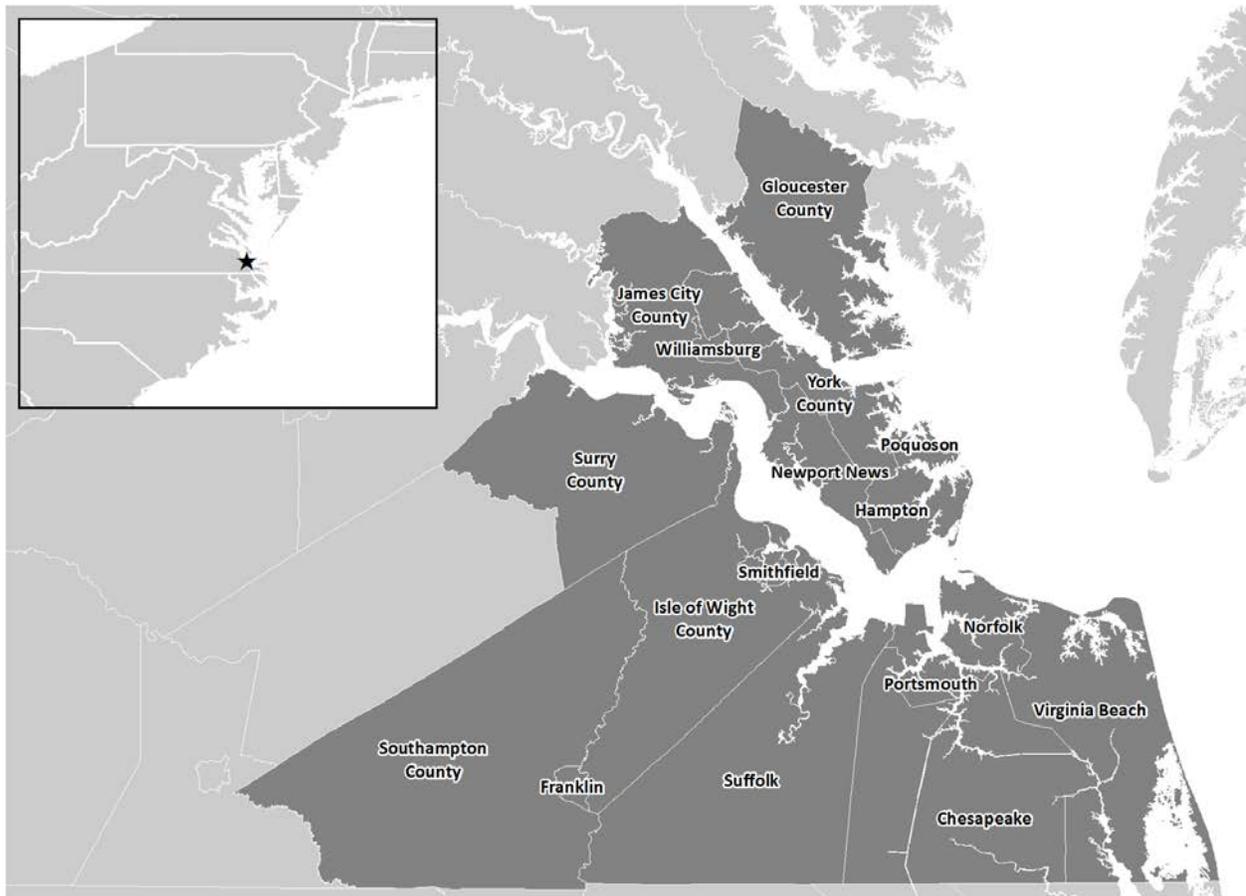
The Hampton Roads Technical Assistance Program is a comprehensive, interrelated initiative, providing on-call staff capability, a regional coordination mechanism, and related technical studies. It assists the region's localities on short-term local issues, ensures a collective response to regional, state and federal issues as they arise, and facilitates cooperation and coordination among the localities. The Technical Assistance Program provides the resources to begin many efforts which are later funded through specific grants or local assessments, while in other cases, the program allows for the continuation of efforts after initial funding. Examples of these programs include the HRPDC's work on the Chesapeake Bay Program, planning for green infrastructure, and planning for climate change.

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 Program, such as the environmental impact review and federal consistency determination process, wetlands and dune regulations, the Chesapeake Bay Preservation Act (CBPA) regulations, air quality regulations, and several state water quality programs. This

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.

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-nine (29) years, several hundred local government staff members from the region's seventeen 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 mitigation, 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.



Local Government Members of the Hampton Roads Planning District Commission

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 2014 – 2015 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 2014 – 2015 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 Hampton Roads localities in implementing 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 and 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 the Hampton Roads region to continue to play an active role in the development, implementation and refinement of the Virginia Coastal Zone Management Program, the Chesapeake Bay Agreement, the 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 or federal consistency determinations. 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, 2014 through September 30, 2015, the HRPDC staff reviewed and commented on forty-five (45) environmental impact assessments and statements for both state and federal projects. Projects reviewed in FY 2014 – 2015 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.

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, 2014 through September 30, 2015, the HRPDC staff reviewed and commented on seven (7) grant proposals.

Appendix A contains a listing of all projects and proposals reviewed through this program component during the period from October 1, 2014, through September 30, 2015, as well as sample comment letters on notable and 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#15-001F – Freeman Drive Apartments
- 2) DEQ#15-035F – Bellwood Cay
- 3) DEQ#15-038F – Todd Lied Pier
- 4) DEQ#15-041S – Franklin AHQ Office Building
- 5) DEQ#15-044S – Virginia International Gateway Construction – Container and Intermodal Yard Expansion
- 6) DEQ#15-046F – Tranquility at the Lakes Senior Housing 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.

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 (including the Regional Environmental Committee, Directors of Utilities Committee, and Sea Level Rise Advisory Committee) 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 2014-2015, this program included regional participation on state panels addressing stormwater management, the Chesapeake Bay Program, and climate change.

The HRPDC staff works closely with state and federal agencies on coordination of programs as they affect the Hampton Roads region. This work involves 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. In the past year, HRPDC staff served on several advisory groups, including the Stakeholder Advisory Group addressing stormwater management laws and the Governor's Climate Change and Resiliency Update Commission.

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 February 3, 2015 and September 29, 2015. HRPDC also attended two Coastal PDC meetings during the term of the grant in March 2015 (hosted by the Crater PDC) and August 2015 (hosted by the Accomack-Northampton PDC). HRPDC staff also participated in the 2014 Virginia Coastal Zone Management Program Coastal Partners Workshop on December 10 and 11, 2014, in the VCZMP's Section 312 Evaluation on May 13, 2015, and in discussions to plan the VCZMP's Section 309 strategies for 2016-2020.

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 and 2015 focused on exchanging information among the PDCs on issues such as promoting native plants, planning for sea level rise, and the Chesapeake Bay TMDL.

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) Assessment of Research Options for Analyzing the Economic Impacts of Sea Level Rise and Flooding on Hampton Roads Communities
- 2) Survey of Local Floodplain Management Programs

Since 2008, the HRPDC staff has completed several studies related to climate change and sea level rise. GIS analyses that identify which areas are likely to be affected by sea level rise and flooding and estimate the quantity and value of resources at risk are important tools for decision makers. Understanding the potential economic impacts of sea level rise can help decision makers determine the relative costs and benefits of various adaptation strategies. However, the utility economic analyses can vary greatly depending on data availability and quality, assumptions, and methods. The HRPDC staff, which includes two staff economists, undertook an assessment of different analysis options to begin developing a strategic plan for future research on these impacts. This assessment covers four different types of analysis:

- 1) Direct Damage Estimation
- 2) Property Value Analysis
- 3) Economic Impacts from Adaptation
- 4) Economic Drag Created by Sea Level Rise

Each section includes a description of the analysis, a list of data requirements, potential uses, an assessment of the quality of the results, an estimate of the time and effort required to conduct the analysis, and a summary of the positive and negative arguments for conducting the analysis. The assessment recommends that the HRPDC staff continue with the direct damage estimation analysis and assess the availability of data for the property value analysis. The assessment is included in Appendix B.

In 2005 and 2006, the HRPDC published pamphlets summarizing local government efforts to develop and adopt new ordinances in accordance with the Chesapeake Bay Preservation Act. These pamphlets provided basic information and a table summarizing several key ordinance components (such as definitions of Resources Protection Areas and Resource Management Areas and how appeals are handled), which made it simple for local planners to compare each community's choices. In recent years, local floodplain management ordinances have been the subject of much discussion as a result of new federal regulations and the development of new Flood Insurance Rate Maps for much of the region. To provide a baseline summary for regional discussions, the HRPDC staff developed a pamphlet summarizing these ordinances and some key terms within them, with a focus on those ordinance elements that are to some extent left to the discretion each locality. The summary table in this pamphlet includes information such as the location of each community's ordinance, the program administrator, freeboard requirements, whether or not the locality includes the Limit of Moderate Wave Action (LiMWA) in the ordinance, and whether or not the locality participates in the Community Rating System. The pamphlet is included in Appendix C.

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 or issues 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 or non-profit entities, such as the Back Bay Restoration Foundation, Elizabeth River Project, Friends of Powhatan Creek, Hoffer Creek Wildlife Foundation, Lynnhaven River NOW, and others in their environmental planning and restoration initiatives. Aerial photographs and additional technical information on wetlands, hazardous waste sites, and soils are provided to private consultants upon request. A specific example of local technical assistance is the support the HRPDC staff provided for the Dutch Dialogues workshop held in Norfolk from June 19-23. Prior to the workshop the HRPDC staff collected and organized GIS data that would be of use to workshop participants, and during the workshop the HRPDC produced over a dozen thematic maps illustrating elevation, land cover, soil data, and other information. A list of these maps and representative samples are included in Appendix D.

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, the Chesapeake Bay Program, and sea level rise/recurrent flooding. 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 2014 – 2015, the areas of emphasis included stormwater management, groundwater issues, the Chesapeake Bay TMDL, and sea level rise.

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, such as sea level rise inundation layers, 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 an 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 by HRPDC staff, local committee members, or state agency representatives 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 2, 2014 –The major focus of this meeting was a presentation by the HRPDC staff on a VCZMP-funded Section 309 project, “Land and Water Quality Preservation in Hampton Roads.” The presentation included discussions on the project’s policy and GIS analysis components. The meeting also included updates and briefings from

the HRPDC staff on the regional legislative agenda, sea level rise planning, VCZM program matters, and the regional stormwater program.

- November 6, 2014 –This meeting featured a presentation from Gary Foley of the U.S. Environmental Protection Agency’s Office of Research and Development. The presentation highlighted the office’s tools that can be used to better inform decision makers of system dynamics. The meeting also included a presentation from Shereen Hughes of Wetlands Watch on an effort to create a Chesapeake Bay Landscape Professional Certification. The meeting also included updates on the Chesapeake Bay Program, Phase III Watershed Implementation Plan, land water quality protection project, legislative agenda, native plants project, and coastal program.
- December 4, 2014 –This meeting featured a presentation from Chris Burkett of the Virginia Department of Game and Inland Fisheries on the next Virginia Wildlife Action Plan, which was currently in development. The meeting also included presentation and updates on impaired waters in Virginia, Chesapeake Bay TMDL implementation progress, the state of recycling in Hampton Roads, land subsidence, sea level rise, and the coastal program.
- January 8, 2015 –This meeting featured a presentation from Chris Moore of the Chesapeake Bay Foundation on an analysis calculating the economic benefits of cleaning up the Chesapeake Bay. The meeting also included a briefing from James Davis-Martin of the Department of Environmental Quality on a funding opportunity for collecting data on historic stormwater management BMPs. The meeting also included updates and briefings on sea level rise, the coastal program, nutrient trading regulations, and land subsidence.
- February 5, 2015 – This meeting featured a presentation from Russell Lotspeich of the U.S. Geological Survey on efforts by the USGS to improve the state’s coastal tide gauge network through Hurricane Sandy supplemental funding. The meeting also included a presentation from Shannon Jarbeau and Mary-Carson Stiff of Wetlands Watch on a report describing Community Rating System credit localities can review for existing programs. The meeting also included briefings, updates, and discussions on nutrient trading regulations, environmental legislation, and the coastal program.
- March 5, 2015 – This meeting featured a presentation from Mark Bennett of the U.S. Geological Survey on the Chesapeake Bay Program’s new Climate Change Workgroup. The meeting also included a presentation from Chris Thompson of the Virginia Department of Housing and Community Development on the National Disaster Resilience Competition, through which Virginia would be applying for funding to improve the resilience of qualifying communities in Hampton Roads. The meeting also included updates, briefings, and discussions on landscape professional certification, federal flood risk standards, the coastal program, nutrient trading regulations, and the status of state legislation.

- May 7, 2015 – This meeting featured a presentation on the Chesapeake Bay Program’s expert panel on oyster practices. The meeting also included updates on the regional source water protection plan, the native plants project, the coastal program, sea level rise, and state legislation.
- June 4, 2015 – This meeting featured a presentation from Fran Geissler, Stormwater Director for James City County, on the county’s use of regenerative stormwater conveyance projects to address water quality and flood mitigation needs. The meeting also included a presentation from Jeremy Sharp, Senior Planner for the City of Norfolk, on the city’s zoning ordinance revision. The meeting also included updates, briefings, and discussions of proprietary stormwater management BMPs, the coastal program, and sea level rise.
- July 2, 2015 – This meeting featured a presentation from Ron Williams, Deputy City Manager for the City of Norfolk, on the city’s RE:Invest project with the Rockefeller Foundation, which included developing strategies to address flooding and stormwater management in two areas of the city. The meeting also included a presentation from Dave Mergen from the Chesapeake Public Works Department on the final Waters of the U.S. rule from the U.S. EPA. Mr. Mergen also briefed the Committee on the potential fallout from the recent listing of the Northern Long-eared Bat as a threatened species. The meeting also included discussion of coastal resiliency grant proposals from ODU and VIMS and an update on the coastal program.
- August 6, 2015 – This meeting featured a presentation from Clay Bernick, Environment and Sustainability Administrator for the City of Virginia Beach on the city’s Green Sea Blueway and Greenway Management Plan. The meeting also included a presentation from Ed Heide, City of Suffolk Public Works, on a stormwater BMP retrofit project. The meeting also included a briefing on a green infrastructure planning grant proposal from the HRPDC staff, a briefing on the outcomes from the Dutch Dialogues workshop held in Norfolk, and discussion of the regional stormwater program budget.
- September 3, 2015 – This meeting featured updates and briefings from the HRPDC staff on the askHRgreen program’s annual report, the native plants project, state land cover data development, and sea level rise.

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, the HRPDC staff 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, groundwater regulations, stormwater regulations, land subsidence, floodplain management regulations, sea level rise, solid waste management, and environmental education.

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 at LIDAR Training Workshop at Old Dominion University, “Regional Efforts to Map Sea Level Rise Inundation” – December 12, 2014
- Presentation to Pruden Center Class (Suffolk), “What’s Planning Got To Do With Me?” – February 11, 2015

- Presentation at NOAA Roundtable for Virginia Congressional Staff on Supporting Virginia’s Maritime Commerce , “Regional Planning for Sea Level Rise in Hampton Roads” – February 12, 2015
- Presentation to Hampton Roads GIS User Group, “Regional Efforts to Map Sea Level Rise Inundation” – February 13, 2015
- Presentation at NOAA Coastal GeoTools Conference 2015, “Planning for Sea Level Rise at the Local Level” – April 1, 2015
- Presentation at MATS UTC Blue and Green Infrastructure Workshop (with Sam Belfield, HRTPO), “Climate Change Impacts and Resiliency of Regional Roadway Infrastructure” – May 6, 2015
- Presentation to Joint Subcommittee to Formulate Recommendations to Address Recurrent Flooding, “Regional Planning for Sea Level Rise in Hampton Roads” – September 21, 2015

A copy of the presentation given at the Coastal GeoTools Conference on April 1, 2015 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 thirteen (13) 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.²

² <https://www.youtube.com/user/HRPDC>

Through the Regional Environmental Committee, HRPDC staff has provided, facilitated, or hosted training on a variety of topics to localities. HRPDC also subscribes to and hosts a series a 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. The HRPDC also has continued to partner with Old Dominion University and Virginia Sea Grant to hold meetings of the Hampton Roads Sea Level Rise/Recurrent Flooding Adaptation Forum. These meetings often provide Continuing Education Credits (CECs) to Certified Floodplain Managers. HRPDC staff publicizes and coordinates these training webinars and opportunities. In total, these training opportunities provided local staff with up to 26.5 AICP Certification Maintenance credits and 28.0 CFM Continuing Education Credits. The specific training opportunities are listed below.

Educational and Training Opportunities Provided in FY14-15

Program Title	Content Provider	Date	Host	Credits
'You Said That?'	AICP	October 8, 2014	HRPDC	1.0 CM
Health Equity and Planning Ethics	AICP	November 5, 2014	HRPDC	1.5 CM Ethics
The Pro Forma	AICP	December 3, 2014	HRPDC	1.0 CM
LIDAR Training Workshop	VGIN/ODU/ Dewberry	December 12, 2014	Old Dominion University	
Safe Mobility Planning	AICP	January 21, 2015	HRPDC	1.5 CM
Storm Surge Modeling Tools for Planning and Response	HRPDC/ODU/ Virginia Sea Grant	January 23, 2015	Old Dominion University	4.0 CEC
Sustaining Places Through the Comprehensive Plan	AICP	February 18, 2015	HRPDC	1.5 CM
Big Chance Lecture	AICP	May 13, 2015	HRPDC	1.0 CM
Coastal Inundation Mapping	NOAA	May 13-14, 2015	Old Dominion University	16.0 CM 16.0 CEC
Megaprojects - Protective Structures for Hampton Roads	HRPDC/ODU/ Virginia Sea Grant	May 22, 2015	Old Dominion University	4.0 CEC
The Planning Office of the Future	AICP	June 3, 2015	HRPDC	1.5 CM
2015 Planning Law Review	AICP	July 1, 2015	HRPDC	1.5 CM Law
Communicating Frequent Flooding	HRPDC/ODU/ Virginia Sea Grant	July 24, 2015	Old Dominion University	4.0 CEC

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 published version of these maps was included in the HRPDC's July 2013 Coastal Resiliency Final Report, and new maps are currently in development. These new maps are based on LiDAR data that was acquired in a partnership between the HRPDC, the U.S. Geological Survey, the National Geospatial-Intelligence Agency, the Hampton Roads Sanitation District, Old Dominion University, and the Virginia Geographic Information Network.

Building on this work, the HRPDC has in the last year begun establishing a regional program to address sea level rise on a continual basis. The primary activity to date has been discussions on a work program and prioritization of tasks. In addition, the HRPDC has continued to partner with the U.S. Geological Survey to better understand the scale and extent of subsidence in the region, particularly as it relates to groundwater withdrawals and sea level rise. The USGS is currently developing recommendations on monitoring for the HRPDC and other stakeholders to consider.

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.