

Hampton Roads Coastal Resources Technical Assistance Program

Fiscal Year 2011 - 2012



Virginia Coastal Zone
MANAGEMENT PROGRAM



JANUARY 2013

PEP13-03

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

**FISCAL YEAR 2011 - 2012
FINAL REPORT**

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Preparation of this report was included in the HRPDC Unified Planning Work Program for FY 2011 - 2012, approved by the Commission at its Executive Committee Meeting of June 16, 2011, and in the HRPDC Unified Planning Work Program for FY 2012 - 2013, approved by the Commission at its Quarterly Commission Meeting of April 19, 2012.

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



JANUARY 2013

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ABSTRACT

This report describes the environmental technical assistance program conducted by the Hampton Roads Planning District Commission during FY 2011 – 2012 through its Coastal Resources Management Program. This program encompasses environmental impact review, participation in state and federal programs, coordination of regional environmental programs addressing environmental issues, including the Chesapeake Bay, wetlands, and the Albemarle-Pamlico Estuaries in North Carolina, public information and education, and technical assistance to Hampton Roads localities. It contains representative examples of the reports, comment letters, newsletters, and associated materials generated and used in assisting the region's sixteen local governments, supporting the Virginia Coastal Zone Management Program, and working with the other Planning District Commissions in the Coastal Zone.

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TABLE OF CONTENTS

INTRODUCTION.....	1
PROGRAM OBJECTIVES	2
PROGRAM ACCOMPLISHMENTS.....	3
VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM SUPPORT	3
TECHNICAL STUDIES.....	8
LOCAL ASSISTANCE AND COORDINATION.....	8
PUBLIC INFORMATION, EDUCATION AND TRAINING	14
CONCLUSIONS	17
APPENDIX A: LISTING OF ENVIRONMENTAL IMPACT REVIEWS AND REPRESENTATIVE COMMENT LETTERS	
APPENDIX B: ANALYSIS OF AREAS ELIGIBLE FOR DESIGNATION AS TARGETED EMPLOYMENT AREAS IN HAMPTON ROADS	
APPENDIX C: REALITY CHECK HAMPTON ROADS	
APPENDIX D: ENVIRONMENTAL GEOGRAPHIC INFORMATION SYSTEM – SAMPLE MAPS	

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INTRODUCTION

In March 2011, the Hampton Roads Planning District Commission submitted a proposal to the Virginia Coastal Zone Management Program (VCZMP) for funding to continue the HRPDC's Technical Assistance Program. Through this program, the HRPDC provides technical assistance on a variety of environmental and coastal resources management issues to the sixteen cities and counties of the Hampton Roads region and to coordinate their response to those issues. It also provides assistance to the eleven incorporated towns in the region as well as to a wide variety of private entities. This Program has operated successfully with financial assistance from the Virginia Coastal Zone Management Program since the Program's inception in 1986. In October 2011, the HRPDC was awarded financial assistance to maintain its Technical Assistance Program through September 2012; this program was later extended to December 2012. This report provides an overview of the activities and accomplishments of the Hampton Roads Technical Assistance (Regional Coastal Resources Management) Program during that period.

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

Of particular significance, VCZMP funding for this program has provided seed money allowing the region to undertake new environmental initiatives, such as the Regional Water Supply, 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 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 through educating localities about state and federal initiatives and coordinating local government input to these efforts. Over the past twenty-six (26) years,

several hundred local government staff members from the region's sixteen local governments have received technical training in wetlands regulations and delineation, CBPA implementation, erosion and sediment control, stormwater management, low impact development and better site design, flood hazard management, geographic information systems, land conservation, sea level rise, and watershed management. Local government board members, staff from other PDCs, and representatives of the private sector have also participated. As a result, the effectiveness of local government implementation has increased.

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

The Technical Assistance Program allows the HRPDC to serve as a central source of environmental data and information, ranging from wetlands and soils mapping to aerial photographs, water and wastewater data and information about potential hazardous waste disposal activities for local governments and the private sector. 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 2011 – 2012 Hampton Roads Technical Assistance Program enabled the region's localities to continue to address, in a comprehensive and integrated fashion, all aspects of coastal resources management - the Chesapeake Bay Program, implementation of the Albemarle-Pamlico National Estuary Program with North Carolina, environmental impact review, local comprehensive planning, CBPA 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 2011 – 2012 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. On a monthly basis, the Hampton Roads Planning District Commission is apprised of all EIA/EIS projects that are under review. Generally, no formal action is taken by the Commission as a result of this notification; however, historically, the Commission has requested more extensive HRPDC staff and local government review of particular issues.

From October 1, 2011 through December 31, 2012, the HRPDC staff reviewed and commented on sixty-seven (67) environmental impact assessments and statements for both state and federal projects; fifty-seven (57) of these reviews occurred between January 1, 2012 and December 31, 2012. Projects reviewed in FY 2011- 2012 ranged widely in complexity. The HRPDC, in cooperation with the localities, worked to ensure that these projects were coordinated and met local government requirements. For most projects, it is not known what the ultimate impact of PDC and local government comments may have been.

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, 2011 through December 31, 2012, the HRPDC staff reviewed and commented on seventeen (17) grant proposals; fifteen (15) of these reviews occurred between January 1, 2012 and December 31, 2012.

Appendix A contains a listing of all projects reviewed through this program component during the period from October 1, 2011, through December 31, 2012, 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.

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 sixteen member localities with a mechanism to participate, at least indirectly, in the state or federal program(s). Also, data and information on Hampton Roads conditions are provided by the Hampton Roads representative (HRPDC or local government staff) to state and federal agencies on behalf of the localities, thus minimizing state and federal agency data collection and input costs. During FY 2011-2012, this program included regional participation on state regulatory panels addressing stormwater management, the Chesapeake Bay TMDL and Virginia Watershed Implementation Plans, expansion of nutrient credit exchange, groundwater, and water supply.

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

Virginia Coastal Zone Management Program

During the grant period, the HRPDC staff continued to participate in Coastal Zone PDC meetings, contributing to the ongoing refinement of the Virginia Coastal Zone Management Program. The HRPDC staff participated in the 2012 Coastal Partners Workshop and in Coastal Policy Team meetings on December 1, 2011 and September 17, 2012. HRPDC also attended two Coastal PDC meetings during the term of the grant in March and June, 2012.

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

Efforts to coordinate activities with the other Coastal PDCs in all facets of environmental planning continued throughout the year. Representative activities focused on exchanging information among the PDCs on the Chesapeake Bay Program, the Chesapeake Bay TMDL and Virginia Watershed Implementation Plans, Special Area Management Planning, Blue and Green Infrastructure, climate change and sea level rise, flooding, septic tanks, erosion and sediment control, stormwater management, financial issues, energy conservation, training for local government staff, and general planning issues.

These efforts also involved coordination with non-coastal PDCs on the Chesapeake Bay Agreement, the Chesapeake Bay TMDL, stormwater management and follow-up activities with the State of North Carolina Albemarle-Pamlico National Estuary Program (APNEP), which is funded through the EPA National Estuary Program.

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 participation in the development of the Tributary Strategies and the Chesapeake Bay Watershed Model. The importance of this area of emphasis was stressed by the Commission in its reaction to staff presentations on the Chesapeake Bay TMDL and related issues throughout 2011-2012.

Chesapeake Bay Program Committees

The HRPDC monitors the work of key Chesapeake Bay Program committees including the Water Quality Goal Implementation Team, BMP technical review and the Local Government Advisory Group. In addition, HRPDC staff serves on the Urban Stormwater Workgroup, Land Use Workgroup, and Illicit Discharge Elimination Expert Panel, and participates in regular conference calls and face to face meetings. Through the HRPDC Joint Environmental (Hampton Roads Chesapeake Bay and Regional Stormwater Management) Committees, the region's localities receive regular updates on the activities of these committees. In addition, three local government elected officials from Hampton Roads participate as

representatives on the Chesapeake Bay Program's Local Government Advisory Committee. HRPDC staff provides background information and data to the region's representatives on the committee. In FY 2011 – 2012, HRPDC staff continued to participate in conference calls of the Urban Stormwater workgroup and disseminated essential information to Joint Environmental Committee members.

Other State and Federal Advisory Committees

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

1. DEQ, Coastal Policy Team
2. DCR, BMP Clearinghouse Committee
3. DCR, Stormwater Local Government Stakeholder Advisory Group
4. DEQ, Water Supply Planning Advisory Committee
5. DEQ, Groundwater Reuse Committee
6. DCR, Chesapeake Bay TMDL Phase II WIP Stakeholder Advisory Group
7. DEQ, Pesticide General Permit 2013 Reissuance Technical Advisory Committee
8. DCR, Nutrient Trading Expansion Regulatory Advisory Panel

Involvement on these Committees includes participation in meetings, review of extensive draft materials, briefing and coordination with local government staff and the Commission, and provision of input reflecting the views of those groups to the Advisory Committee and state or federal agency staff.

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

TECHNICAL STUDIES

HRPDC staff worked with local and regional partners to identify appropriate technical studies that would benefit the region. HRPDC staff worked on three such studies and projects between October 1, 2011 and December 31, 2012.

HRPDC staff completed a GIS analysis of the region to identify areas that would be potentially eligible for designation as Targeted Employment Areas, which would allow for the use of various federal economic development programs. This study involved research into the requirements of the Targeted Employment Areas program, appropriate methodologies for estimating sub-local employment rates, acquisition of the appropriate data, and analysis. This analysis is included as Appendix B.

HRPDC staff completed a digital terrain model (bare earth) of the Hampton Roads Planning District. Several HRPDC projects have utilized elevation data for various purposes. Consistent, high-resolution elevation data was not available for the region as a whole; the only dataset available was from the National Elevation Dataset at a 1/3 arc-second (approximately 10 meters) resolution, which is not sufficient for most analyses. HRPDC staff identified the best available elevation data for the region, including LIDAR, and processed these datasets to create a single merged model. This new model has a horizontal resolution of approximately 5 feet, which will be far more useful for regional analyses.

HRPDC staff also provided key support for Reality Check Hampton Roads, a regional visioning and planning exercise sponsored by the Urban Land Institute in partnership with HRPDC, the Hampton Roads Transportation Planning Organization (HRTPO), Old Dominion University, the Center for Real Estate and Economic Development, and the Hampton Roads Partnership. HRPDC's role was in the development of the GIS and map products used during the exercise as well as general planning assistance for the event. HRPDC developed the large map used by participants to create future growth scenarios for Hampton Roads in 2035. HRPDC collaborated with ODU on the GIS analysis of the game results. The map developed for this event is included as Appendix C. Reality Check Hampton Roads was held May 17, 2012 at Old Dominion University in Norfolk, Virginia. More information on Reality Check Hampton Roads can be found at <http://www.realitycheckhr.org>.

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.

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 regional land use and land cover data to be collected for use in various technical analyses.

The HRPDC staff continued to advise the region's sixteen localities on environmental issues in conjunction with development of and revisions to local comprehensive plans, development regulations and related issues. The primary issues addressed through this program continue to be state and federal Wetlands Regulatory Programs, Stormwater Management Programs, groundwater issues and all facets of the Chesapeake Bay Program. 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 2011 – 2012, the areas of emphasis included stormwater management, groundwater issues, and the Chesapeake Bay TMDL.

The HRPDC staff continued development and enhancement of the region's Geographic Information System, using ARCGIS software. 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 a series of regional maps developed for public outreach; three maps (political, transportation, and physical landscape) were developed and are included as Appendix D.

Regional Coordination Process

The Hampton Roads Technical Assistance Program enables the HRPDC to maintain the regional coordination process on environmental issues through the Hampton Roads Joint Environmental Committee, comprised of the Chesapeake Bay Committee and the Regional

Stormwater Management Committee, while also providing links to other ongoing regional environmental programs. This element supports local government implementation of the Chesapeake Bay Preservation Act, Chesapeake Bay TMDL, coastal resources management, and other state and federal environmental programs. Links to other HRPDC environmental committees, addressing stormwater, wastewater, water supply, and groundwater management, as well as the Chesapeake Bay Program and North Carolina environmental initiatives are maintained through HRPDC staff support and common Committee memberships from both the region's localities and state agencies.

Historically, a major emphasis of the regional coordination process has been on work with the local governments in responding to the Chesapeake Bay Preservation Act implementation process, while ensuring that local efforts may take advantage of other related initiatives. The Hampton Roads Chesapeake Bay Committee is the primary institutional mechanism for accomplishing this. The Chesapeake Bay Committee has worked to coordinate development, refinement, and implementation of local programs to comply with the Bay Act Regulations. During FY 2011 – 2012, the Committee primarily focused on the Chesapeake Bay TMDL.

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 Committees focused on them during the year. In addition to the Chesapeake Bay Committee, HRPDC staff coordinated local government and non-governmental responses to environmental issues through the Chesapeake Bay TMDL Steering Committee and the Hampton Roads Watershed Roundtable.

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

- October 6, 2011 – This was a meeting of the Joint Environmental Committee. Staff from James City County gave a presentation to the Committee on the status of the Chesapeake Bay Watershed Nutrient Credit Exchange Program. Staff from the Institute for Environmental Negotiation gave a presentation on a potential dialogue between EPA, the Navy, and the Cities of Chesapeake, Norfolk, Portsmouth, and Virginia Beach that would address stormwater issues in the Elizabeth River watershed. HRPDC staff updated the Committee on the Chesapeake Bay TMDL Phase II Watershed Implementation Plan.
- October 6, 2011 – This was a meeting of the Chesapeake Bay Steering Committee. The meeting included a presentation from Richmond city staff on efforts to

encourage private property owners to install BMPs, as well as a report on needed septic system legislation.

- November 3, 2011 – This was a meeting of the Joint Environmental Committee. Virginia Department of Forestry staff gave a presentation to the Committee on urban tree canopy analysis. HRPDC staff gave a presentation to the Committee on the Great American Cleanup and a kickoff event that will be hosted in Hampton Roads. HRPDC staff also updated the Committee on regional trails and the Chesapeake Bay TMDL Phase II Watershed Implementation Plan.
- November 3, 2011 – This was a meeting of the Chesapeake Bay Steering Committee. The meeting included presentations on the use of monitoring data to measure the effectiveness of management actions and the impact of reducing or eliminating sanitary sewer overflows on urban stormwater loads. HRPDC staff updated the Steering Committee on the status of the Phase II WIP.
- November 28, 2011 – This was a meeting of the Hampton Roads Watershed Roundtable. The meeting included presentations from Virginia Clean Cities, TFC Recycling, and Chesapeake city staff on their efforts to promote the use of and develop the capacity to use alternative fuels, specifically compressed natural gas.
- December 1, 2011 – This was a meeting of the Joint Environmental Committee. Staff from DCR gave a presentation to the Committee on new requirements for local stormwater management programs. HRPDC staff updated the Committee on regional climate change initiatives, working waterfronts work with VIMS, and the Chesapeake Bay TMDL Phase II Watershed Implementation Plan. HRPDC staff also led discussions with the Committee on the impact of new water quality regulations on local plans and policies and on the Commission's legislative agenda.
- December 1, 2011 – This was a meeting of the Chesapeake Bay Steering Committee. The meeting included a presentation from HRPDC staff on identifying cost effective BMPs and a draft BMP decision matrix developed by HRPDC staff. HRPDC staff also updated the Steering Committee on the federal/state lands GIS analysis and the status of the Phase II WIP.
- January 5, 2012 – This was a meeting of the Joint Environmental Committee. HRPDC staff updated the Committee on the Chesapeake Bay Phase II Watershed Implementation Plan. Ms. Peggy Sanner, from the Chesapeake Bay Foundation, gave a presentation on local government authority to enact ordinances to improve water quality. Mr. Clay Bernick, from the City of Virginia Beach, gave a presentation on various ordinances and policies Virginia Beach has enacted to protect and improve water quality. HRPDC staff also led a discussion of the various impacts of water quality regulations on local governments.

- January 5, 2012 – This was a meeting of the Chesapeake Bay Steering Committee. HRPDC staff updated the Committee on the process and status of the Phase II Watershed implementation Plan (WIP), including work on a regional appendix, consisting of a narrative and preferred scenarios, to be used by localities in their WIP submissions. The Committee reviewed and discussed the draft regional narrative and scenario data. Several Committee members updated the group on the status of local plans. DCR staff also provided an update on various Phase II WIP-related issues.
- February 2, 2012 – This was a meeting of the Joint Environmental Committee. HRPDC staff updated the Committee on the Chesapeake Bay Phase II Watershed Implementation Plan. HRPDC staff also informed the Committee about several Sustainable Communities grants from HUD and Hampton Roads’ selection as a kickoff location for the Great American Cleanup™ by Keep America Beautiful. HRPDC staff updated the Committee on various legislative items of interest, and CZM staff gave a presentation and workshop on Coastal GEMS.
- March 1, 2012 – This was a meeting of the Joint Environmental Committee. HRPDC staff briefed the Committee on the results of HRPDC’s application for a Sustainable Communities Regional Planning Grant. Ms. Janit Llewellyn, DCR, gave a presentation on the 2013 Virginia Outdoors Plan. HRPDC staff also presented on some initial findings regarding a Section 309 grant project focused on water quality protection.
- April 5, 2012 – This was a meeting of the Joint Environmental Committee. HRPDC staff updated the Committee on the Chesapeake Bay Phase II Watershed Implementation Plan. HRPDC staff also presented information on the activities of askHRgreen.org, the region’s environmental education resource, the Hampton Roads Watershed Roundtable, aquaculture, HRPDC applications for Coastal Zone Management Program grants, and the FY10-11 HRPDC Climate Change final report.
- April 5, 2012 – This was a meeting of the Chesapeake Bay Steering Committee. This meeting included updates from HRPDC staff on the Phase II WIP Regional Process and from DCR staff on the Virginia Final Phase II WIP. HRPDC staff also discussed draft comments with the Committee on Virginia’s Draft Phase II WIP and led a discussion on future direction of the Committee.
- May 3, 2012 – This was a meeting of the Joint Environmental Committee. HRPDC staff updated the Committee on the Chesapeake Bay Phase II Watershed Implementation Plan. The meeting featured a presentation from Shereen Hughes, Wetlands Watch, on a HRPDC study of “Opportunities and Constraints for Nutrient Reductions on Private Property”. HRPDC staff also briefed the Committee on the Great American Cleanup™, Reality Check Hampton Roads, Stormwater Regulations, and PDC competitive grants from the Coastal Zone Program.

- June 7, 2012 – This was a meeting of the Joint Environmental Committee. The meeting featured three presentations as well as several briefings. HRPDC staff gave presentations to the Committee on the results of Reality Check Hampton Roads and on the FY10-11 HRPDC Climate Change Final Report. Ms. Barbara Brumbaugh, from the City of Chesapeake, updated the Committee on state stormwater regulations and local programs. The Committee also received brief updates on CZM grants and the 2012 Hampton Roads Sustainable Living Expo.
- July 12, 2012 – This was a meeting of the Joint Environmental Committee. HRPDC staff gave a presentation to the Committee on the FY10-11 HRPDC Climate Change Final Report. HRPDC staff also updated the Committee on the possible acquisition of regional LIDAR elevation data and the HRPDC’s Section 309 grant project.
- September 6, 2012 – This was a meeting of the Joint Environmental Committee. HRPDC staff updated the Committee on stormwater regulations. The Committee received a presentation on a redevelopment study commissioned by the HRPDC that focused on the potential for redevelopment to be used in local Chesapeake Bay TMDL compliance efforts. HRPDC staff also updated the Committee on the Great American Cleanup™, and led a discussion with the Committee on the regional legislative agenda for the 2013 General Assembly session.
- October 4, 2012 – This was a meeting of the Joint Environmental Committee. HRPDC staff updated the Committee on state stormwater regulations and developments with the Chesapeake Bay Program. HRPDC staff also presented several reports for consideration and recommendations as well as the stormwater budget for the Committee’s approval. HRPDC staff also briefed the Committee on the Section 309 project as well as a Sea Level Rise and Extreme Event Workshop held at the College of William and Mary in Williamsburg, Virginia.
- November 1, 2012 – This was a meeting of the Joint Environmental Committee. This meeting featured a presentation from Dewberry on various modeling tools that can be used to assess the impacts of sea level rise on coastal communities. Mr. Clay Bernick, from the City of Virginia Beach, gave a presentation on the Virginia Beach Sustainability Plan. HRPDC staff updated the Committee on a Bacteria Study being conducted to study ways to identify the sources of bacteria in surface water. HRPDC staff also briefed the Committee on the development of a stormwater BMP decision matrix and comments on the MS4 Phase II General Permit.
- December 13, 2012 – This was a meeting of the Joint Environmental Committee. HRPDC staff updated the Committee on regional comments related to the Small MS4 General Permit. HRPDC staff also briefed the Committee on the Coastal Partners Workshop, MARCO Climate Change Adaptation Workshop, and the status of the Section 309 grant project.

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.

Environmental Strategic Planning Process

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

Accomplishments of this ongoing strategic planning effort include:

- Preparation of several environmental education materials through askHRgreen.org.
- Review, analysis, and preparation of regional comments regarding water quality standards, nutrients, stormwater regulations, and the Chesapeake Bay restoration.
- Increased involvement of the Commission in addressing these issues.
- Examination of cross-cutting issues, such as watershed management planning, bacteria source tracking, sea level rise, and selection of BMPs to meet local planning objectives for green space, minimizing encroachment, and protecting drinking water reservoirs.

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 to NOAA Hydrographic Services Review Panel, "Regional Planning for Sea-Level Rise in Hampton Roads" – October 26, 2011
- APA Webinar Presentation on the Chesapeake Bay TMDL – November 1, 2011
- Presentation at ODU GIS Day, "Using GIS to Plan for Sea Level Rise in Hampton Roads" – November 11, 2011
- Presentation to Current Issues in Storm Water Regulation Seminar (Lorman Education Services) – December 8, 2011
- Presentation to Norfolk Flooding Advisory Group, "Regional Planning for Sea-Level Rise in Hampton Roads" – February 16, 2012

- Presentation to Norfolk Flooding Task Force Meeting, “Regional Planning for Sea-Level Rise in Hampton Roads” – February 29, 2012
- Presentation to Norfolk Flood Awareness Expert Advisory Group, “Regional Planning for Sea-Level Rise in Hampton Roads” – May 31, 2012
- Presentation to Hampton City Staff, “HRPDC FY2010-2011 Climate Change Final Report” – June 12, 2012
- Session Presentation at APA-Virginia Annual Conference, “Water Quality, the Chesapeake Bay TMDL, and Planning” – July 20, 2012
- Presentation at VIMS Blue-Green Infrastructure Workshop, “Green Infrastructure Planning in Hampton Roads” – September 27, 2012
- Presentation at Oceans ’12 MTS/IEEE Panel, “Regional Planning for Sea-Level Rise in Hampton Roads” – October 15, 2012

In 2011-2012, askHRgreen.org, the regional environmental education organization, continued to work together to address common issues and to enhance the effectiveness of their educational programs in the areas of water efficiency and awareness; stormwater pollution prevention; recycling and beautification; and fats, oils, and grease prevention. This is an ongoing effort, which requires consensus among a wide range of local government departments. To date, these efforts have focused on improving the cost-effectiveness of media contracts, distributing funding through an educational mini-grant program, the purchase of educational giveaways such as reusable shopping bags, and production of joint advertising in regional publications.

On a quarterly basis through July 2010, the HRPDC prepared and distributed a newsletter, Hampton Roads Review, to nearly 3,000 individuals and groups throughout Hampton Roads. In August 2010, HRPDC replaced the newsletter with an online publication (www.hrpdcva.gov/HamptonRoadsReview) and an e-mailed “HRPDC Weekly Update,” which is distributed to nearly 4,000 individuals. To enhance the effectiveness of all HRPDC public information materials, HRPDC Special Reports on specific topics may be developed and distributed to supplement the regular newsletter. All newsletters and special reports are now distributed electronically.

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 now contains an extensive section devoted to the HRPDC environmental planning program, including links to a number of other federal, state, local, and private sector sites. Efforts to further enhance the website remain ongoing. A Commission Action Summary is posted to the Hampton

Roads Review online publication after each meeting, and the meetings can be viewed on YouTube in their entirety.

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

- Virginia Coastal Geospatial and Educational Mapping System (GEMS)
- Stormwater Management Regulations
- VIMS Real-time Storm Tide Observation and Forecasting System

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 sixteen member local jurisdictions, eleven towns, 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.

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APPENDIX A
LISTING OF ENVIRONMENTAL IMPACT REVIEWS, PROPOSAL REVIEWS, AND
REPRESENTATIVE COMMENT LETTERS

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2011-2012 Environmental Impact Reviews

Received	DEQ #	Name	Sponsor	Affected Localities	Sent
9/8/2011	11-160F	Airfield Clear Zone Management Plan, Naval Auxiliary Landing Field Fentress	DOD/U.S. Navy	Chesapeake	10/6/2011
9/19/2011	11-163F	Oil, Gas, & Sulphur Operations in the Outer Continental Shelf - Revisions to Safety & Environmental	DOI/BOEMRE	HRPDC	10/14/2011
9/19/2011	11-162F	Force Structure Changes at Langley Air Force Base	DOD/U.S. Air Force	Hampton	10/4/2011
9/23/2011	11-165F	Princess Anne Nursing Home	U.S. Department of Housing and Urban Development	Virginia Beach	10/21/2011
10/11/2011	11-170F	Demolition of Aircraft Landing Dynamics Facility, NASA Langley Research Center	National Aeronautics and Space Administration	Hampton	10/27/2011
10/13/2011	11-171F	Streets of Greenbrier	U.S. Housing and Urban Development	Chesapeake	11/4/2011
11/4/2011	11-182F	Heron's Landing Apartments	U.S. Department of Housing and Urban Development	Chesapeake	11/15/2011
11/7/2011	11-184F	Force Structure Change, Langley Air Force Base	DOD/U.S. Air Force	Hampton	12/2/2011
11/14/2011	11-189F	Oceana Salvage Yard Access Road and Burial Unit, Naval Air Station Oceana	DOD/U.S. Navy	Virginia Beach	12/9/2011
12/5/2011	11-199F	Demolition and Installation of Transmitter Antennae	DHS/U.S. Coast Guard	Virginia Beach	12/29/2011
12/8/2011	11-204S	Demolition of the Aircraft Landing Dynamics Facility Complex, Langley Research Center	National Aeronautics and Space Administration	Hampton	1/9/2012
12/8/2012	11-200S	Community Solar Power Program and Certification of Proposed Distributed Solar Generation	State Corporation Commission	HRPDC	1/9/2012
12/14/2012	11-205F	Air Field Clear Zone Management Plan at Naval Air Station Oceana	DOD/Department of the Navy	Virginia Beach	1/11/2012
12/21/2012	11-210F	Multidisciplinary Biomedical Research Center II, Hampton University	DHHS/National Institutes of Health	Hampton	1/9/2012
12/30/2012	11-215F	Camp Peary Bulkhead Repair and Pilings Removal	DOD/Department of the Navy	York County	1/27/2012
1/19/2012	12-007F	Air Field Clear Zone Management Plan, Naval Station Norfolk	DOD/Department of the Navy	Norfolk	2/13/2012
1/19/2012	12-008F	Commercial Renewable Energy Transmission on the Outer Continental Shelf Offshore	DOI/BOEMRE	Virginia Beach	2/14/2012
2/9/2012	12-027F	Commercial Leasing for Wind Power Development on the Outer Continental Shelf Offshore	DOI/BOEMRE	Virginia Beach	3/2/2012
2/16/2012	12-030F	Revision and Reissuance of Regional Permit 20	DOD/U.S. Army Corps of Engineers	HRPDC	3/9/2012
2/28/2012	12-042S	Band Room Building	Christopher Newport University	Newport News	3/23/2012
2/28/2012	12-043S	New Warehouse & Rail Track Upgrade at Portsmouth Marine Terminal	Virginia Port Authority	Portsmouth	3/23/2012
3/5/2012	12-046F	Pierside Testing of Signal Analysis System	DOD/U.S. Navy	Newport News; Norfolk; Portsmouth	3/27/2012
3/5/2012	12-047F	Reissuance of Nationwide Permits & Virginia Regional Conditions	DOD/U.S. Army Corps of Engineers	HRPDC	4/2/2012

Received	DEQ #	Name	Sponsor	Affected Localities	Sent
3/6/2012	12-050F	Management of Vulture Damage in Virginia	USDA/Animal & Plant Health Inspection Service/WS	HRPDC	4/2/2012
3/26/2012	12-061S	University Entrance/Interior Roads	Christopher Newport University	Newport News	4/24/2012
4/4/2012	12-066F	The Grove at Arboretum	U.S. Department of Housing and Urban Development	Chesapeake	4/30/2012
4/5/2012	12-065F	Star-Spangled Banner National Historic Trail and Scenic Byway	Department of the Interior: National Park Service	HRPDC	4/24/2012
4/6/2012	12-069S	Integrated Science Center, Phase 3	College of William and Mary	Williamsburg	5/4/2012
4/6/2012	12-075F	Dam Neck Main Entry Control Point	DOD/U.S. Navy	Virginia Beach	5/2/2012
4/9/2012	12-073F	Geologic & Geophysical Exploration on the Atlantic Outer Continental Shelf	DOI/BOEMRE	HRPDC	4/30/2012
4/11/2012	12-077F	Tactical Vehicle Training Course, Fort Story	DOD/U.S. Navy	Virginia Beach	5/11/2012
4/23/2012	12-080F	Downtown Tunnel/Midtown Tunnel/MLK Extension Project	USDOT/Federal Highway Administration	Norfolk; Portsmouth	5/18/2012
4/25/2012	12-081S	New Education Building	Old Dominion University	Norfolk	5/18/2012
4/25/2012	12-082F	Ironbound Square Redevelopment Project	U.S. Department of Housing and Urban Development	James City County	5/18/2012
5/7/2012	12-095F	Reissuance of State Programmatic General Permit	DOD/Army/U.S. Army Corps of Engineers	HRPDC	5/23/2012
5/8/2012	12-094F	Anti-Terrorism/Force Protection Upgrades to Naval Special Warfare Development Group	DOD/Department of the Navy	Virginia Beach	6/1/2012
5/8/2012	12-093F	Shoreline Restoration and Protection Project at Joint Expeditionary Base Little Creek/Fort Story	DOD/Department of the Navy	Virginia Beach	6/1/2012
5/8/2012	12-092F	Repairs to the Shoreline Protection System at Naval Air Station Oceana, Dam Neck Annex	DOD/Department of the Navy	Virginia Beach	6/1/2012
5/14/2012	12-099F	Atlantic Fleet Training and Testing	DOD/Department of the Navy	HRPDC	6/8/2012
5/22/2012	12-105F	Power Distribution Upgrades at Joint Expeditionary Base Little Creek/Fort Story	DOD/Department of the Navy	Virginia Beach	6/14/2012
5/29/2012	12-111F	Expansion of Sector Engineer Facility, Coast Guard Base Support Unit, Portsmouth	DHS/U.S. Coast Guard	Chesapeake	6/29/2012
6/5/2012	12-115F	Bravo Concourse Security Checkpoint Expansion	USDOT/Federal Aviation Administration	Norfolk	6/29/2012
6/15/2012	12-119F	Princess Anne WMA - Canal Maintenance Dredge and Wave Screen - Virginia Beach	U.S. Fish and Wildlife Service	Virginia Beach	7/13/2012
6/28/2012	12-125S	Modified EIR for Master Plan Parking Lots and Acquisition	Christopher Newport University	Newport News	7/27/2012
6/29/2012	12-120F	Project CH12 POD-005, Columbia Gas Transmission	DOE/Federal Energy Regulatory Commission	Isle of Wight County	7/13/2012
7/9/2012	12-128S	Surry-Skiffes Creek 500 kV Transmission Line, Skiffes Creek-Wheaton 230 kV Transmission Line	State Corporation Commission	Surry County; James City County; York County; Hampton; Newport News	8/2/2012

Received	DEQ #	Name	Sponsor	Affected Localities	Sent
7/19/2012	12-138F	Kenley Commons Habitat for Humanity Housing	U.S. Department of Housing and Urban Development	Virginia Beach	8/13/2012
7/30/2012	12-140	Control of Common Reed (Phragmites australis) at Joint Base Langley-Fort Eustis, Virginia	DOD/Department of the Air Force	Newport News	8/16/2012
7/30/2012	12-141F	Maintenance Dredging of the Skiffes Creek Federal Navigation Channel at Joint Base Langley-Fort Eustis, Virginia	DOD/Department of the Air Force	Newport News	8/16/2012
8/2/2012	12-144F	Camp Peary Range 37 Shoreline Stabilization	DOD/Department of the Navy	York County	8/27/2012
8/13/2012	12-150F	Repair and Stabilize the York River Shoreline to Protect the Colonial Parkway, Colonial NHP	DOI/National Park Service	York County	9/7/2012
8/15/2012	12-151F	The Pointe at Pickett Farms Phase I	U.S. Department of Housing and Urban Development	Norfolk	9/13/2012
9/1/2012	12-155F	Tier 1 FEIS for the Richmond/Hampton Roads Passenger Rail Project	DRPT/Federal Railroad Administration	HRPDC; Norfolk; Suffolk	
9/14/2012	12-162F	E-2/C-2 Field Carrier Landing Practice Operations	DOD/Department of the Navy	HRPDC	10/10/2012
9/20/2012	12-164S	Development at Existing Norfolk Community Hospital	Norfolk State University	Norfolk	10/17/2012
9/25/2012	12-166S	Sadler Center Dining Hall Addition	College of William and Mary	Williamsburg	10/23/2012
9/27/2012	12-172F	Proposed Replacement/Repair of Bldg. V52 at NAS Norfolk	DOD/U.S. Navy	Norfolk	10/23/2012
9/28/2012	12-168F	Construction and Operation of U.S. Army Reserve Center in Suffolk	DOD/U.S. Army	Suffolk	10/23/2012
10/12/2012	12-183F	Witchduck Road and Mac Street Roadway Improvements	USDOT/Federal Highway Administration	Virginia Beach	11/13/2012
10/15/2012	12-182F	Lesner Bridge Replacement Project	USDOT/Federal Highway Administration	Virginia Beach	11/13/2012
10/16/2012	12-085F	Fendering System Upgrade at USCG Station Little Creek	DHS/U.S. Coast Guard	Virginia Beach	11/14/2012
10/18/2012	12-186F	Installation & Operation of the Z-312 Cogeneration-Retrofit Facility, Naval Station Norfolk	DOD/Department of the Navy	Norfolk	11/14/2012
11/2/2012	12-191F	Merdian Parkside	DOD/U.S. Army Corps of Engineers	Newport News	11/21/2012
11/9/2012	12-193F	Dam Neck Car Care Center Expansion	DOD/Army/U.S. Army Corps of Engineers	Virginia Beach	12/3/2012
11/13/2012	12-194F	Airfield Electrical Improvements, Norfolk International Airport	USDOT/Federal Aviation Administration	Norfolk	12/4/2012
11/13/2012	12-196F	Transfer of Interest in Real Property of the U.S. to the Commonwealth for Highway Construction	DOD/Department of the Navy	Norfolk	12/4/2012
11/20/2012	12-204F	Woodlake Drive Extension, City of Chesapeake	DOD/U.S. Army Corps of Engineers	Chesapeake	12/20/2012
12/7/2012	12-212F	PER Properties, Inc.	DOD/Army/U.S. Army Corps of Engineers	Portsmouth	12/28/2012

2011-2012 Proposal Reviews

Date	Number	Title	Applicant	Program	Impact
10/27/2011	VA121014-0923760	Franciscan Brethren of St. Philip Application for Federal Assistance	Franciscan Brethren of St. Philip	United States Department of Agriculture Rural Development	York County
12/2/2011	VA121130-1023760	Assistance Proposal for Abex Corporation (RIFS OU-2)	Virginia Department of Environmental Quality	Hazardous Substance Response Trust Fund	Portsmouth
1/4/2012	VA121222-1123xxx	Chesapeake Media Service - Bay Journal	Chesapeake Media Service, Inc.	Chesapeake Bay Program	Statewide
2/1/2012	VA120125-1223740	Empowering Low Income Students to Restore the Elizabeth River	The Elizabeth River Project	Environmental Protection Agency	Elizabeth River watershed
2/29/2012	VA120209-1323760	Virginia's NO2 Near-Road Monitoring Program	Virginia Department of Environmental Quality	Air Pollution Control Program Support (EPA)	Hampton Roads
4/5/2012	VA120312-1423760	Section 103 PM 2.5 Air Monitoring Program	Virginia Department of Environmental Quality	Air Pollution Control Program Support (EPA)	Statewide
4/5/2012	VA120404-1523095	Neighbors Drive/Richmond Road Neighborhood Improvements Grant Application	James City County	Virginia Community Development Block Grant	James City County
5/11/2012	VA120419-1723760	FY2013 Chesapeake Bay Monitoring Program (CWA 117d)	Virginia Department of Environmental Quality	Chesapeake Bay Program (CBP) - Environmental Protection Agency (EPA)	Chesapeake Bay watershed
5/11/2012	VA120419-1623760	FY2013 Chesapeake Bay Monitoring Program - CWA 117 (e)(1)(B)	Virginia Department of Environmental Quality	Chesapeake Bay Program (CBP) - Environmental Protection Agency (EPA)	Chesapeake Bay watershed
5/15/2012	VA120425-1823760	Safe Drinking Water Act - FY 2013 Public Water System Supervision Grant	Virginia Department of Health - Office of Drinking Water	Environmental Protection Agency	Statewide
6/1/2012	VA120507-1923760	FY12-14 VADEQ Technical Review and Services for Defense Environmental Restoration Program (DERP) Activities at Active DOD Facilities and Environmental Restoration at Base Closure Sites	Virginia Department of Environmental Quality	US Department of Defense	Statewide

Date	Number	Title	Applicant	Program	Impact
6/5/2012	VA120510-2123760	FY2012 State Revolving Loan Funds Capitalization Application	Virginia Department of Environmental Quality	Capitalization Grants for Clean Water State Revolving Funds	Statewide
6/5/2012	VA120510-2023760	27th Year VA CZM Implementation Application	Virginia Department of Environmental Quality	NOAA - Coastal Management Programs	Coastal Zone
6/7/2012	VA120529-2223760	Virginia DEQ DERA2 Project	Virginia Department of Environmental Quality	EPA - State Clean Diesel Grant Program	Coastal Zone
7/5/2012	VA120621-2423760	FY 2012 Drinking Water State Revolving Fund Program - Safe Drinking Water Act	Virginia Department of Health	EPA - Safe Drinking Water Revolving Fund	Statewide
7/30/2012	VA120730-2523710	Marine Engine Repower of the Tug Boat G.M. McAllister	Virginia Maritime Association (VMA)	Environmental Protection Agency	Newport News, Hampton, Portsmouth
8/29/2012	VA120802-2623760	VA DEQ Pollution Prevention Enhancements	Virginia Department of Environmental Quality	EPA/Pollution Prevention Grant Program	Statewide

MEMBER JURISDICTIONS

August 2, 2012

CHESAPEAKE

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

FRANKLIN

GLOUCESTER

Re: DEQ #12-128S, Surry-Skiffes Creek 500kV Transmission Line, Skiffes Creek-Wheaton 230 kV Transmission Line, & Skiffes Creek 500 kV-230 kV-115 kV Switching Station, PUE 2012-00029 (ENV: GEN)

HAMPTON

ISLE OF WIGHT

Dear Mr. Fisher:

JAMES CITY

NEWPORT NEWS

Pursuant to your request, the staff of the Hampton Roads Planning District Commission has reviewed State Corporation Commission Application No. 257, submitted by Virginia Electric and Power Company (Dominion Virginia Power), for the following project, Surry-Skiffes Creek 500kV Transmission Line, Skiffes Creek-Wheaton 230 kV Transmission Line, & Skiffes Creek 500 kV-230 kV-115 kV Switching Station, PUE 2012-00029, which would potentially affect the Cities of Hampton and Newport News and the Counties of James City, Surry, and York. We have consulted with staff from all five localities regarding this application.

NORFOLK

POQUOSON

PORTSMOUTH

The proposed project has the potential to result in several adverse impacts to Hampton Roads localities and residents. The proposed transmission line could result in negative impacts to important natural, cultural, historic, recreational, and economic resources of local, state, and national importance. The preferred proposal of an overhead transmission line could cause severe visual impacts to areas and properties along the James River, which is designated as a Virginia Scenic River and is listed on the Nationwide Rivers Inventory. The river is also part of the Captain John Smith Chesapeake National Historic Trail. The proposed alternative route beginning in Charles City County would cause significant environmental impacts, as well as impacts to numerous properties along the route.

SOUTHAMPTON

SUFFOLK

SURRY

VIRGINIA BEACH

WILLIAMSBURG

YORK

Based on this review, staff recommends that Dominion Virginia Power reconsider an underground crossing of the James River. In addition, staff recommends that Dominion Virginia Power work with affected localities to eliminate or mitigate any unavoidable impacts to properties and resources affected by the project.

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

Sincerely,

A handwritten signature in black ink that reads "John M. Carlock". The signature is written in a cursive style with a large, prominent "J" and "C".

John M. Carlock, AICP
Deputy Executive Director

BJM/fh

Copy: Keith Cannady, HA
Michael King, NN
Rhonda Mack, SY
Albert Maddalena, YK
Allen Murphy, JC

MEMBER JURISDICTIONS

August 27, 2012

CHESAPEAKE

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

FRANKLIN

GLOUCESTER

HAMPTON

Re: DEQ #12-144F, Camp Peary Range 37 Shoreline Stabilization (ENV: GEN)

ISLE OF WIGHT

Dear Mr. Fisher:

JAMES CITY

Pursuant to your request, the staff of the Hampton Roads Planning District Commission has reviewed the Environmental Assessment and Federal Consistency Determination for the following project, Camp Peary Range 37 Shoreline Stabilization, in York County. We have consulted with county staff regarding this project.

NEWPORT NEWS

NORFOLK

Based on this review, the proposal appears to be consistent with local and regional plans and policies, as long as all necessary permits and permissions are acquired, including a wetlands permit from the York County Wetlands Board.

POQUOSON

PORTSMOUTH

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

SOUTHAMPTON

Sincerely,

SUFFOLK



SURRY

John M. Carlock, AICP
Deputy Executive Director

VIRGINIA BEACH

BJM/kg

WILLIAMSBURG

Cc: Al Maddalena, YK

YORK

MEMBER JURISDICTIONS

October 10, 2012

CHESAPEAKE

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

FRANKLIN

GLOUCESTER

HAMPTON

Re: DEQ #12-162F, E-2/C-2 Field Carrier Landing Practice Operations (ENV: GEN)

ISLE OF WIGHT

Dear Mr. Fisher:

JAMES CITY

NEWPORT NEWS

Pursuant to your request, the staff of the Hampton Roads Planning District Commission has reviewed the Federal Environmental Assessment for the following project, E-2/C-2 Field Carrier Landing Practice Operations, at Emporia-Greenville Regional Airport in Greenville County, Virginia. The proposed project would have potentially significant impacts on Southampton County. We have consulted with County staff regarding this project.

NORFOLK

POQUOSON

Based on this review, the proposal appears to be consistent with local and regional plans and policies. However, HRPDC staff recognizes that the Southampton County Board of Supervisors has expressed concerns with the environmental, safety, and environmental justice consequences of the proposed project, and recommends that the Department of the Navy work with the localities affected by the proposed project to mitigate any adverse impacts as feasible.

PORTSMOUTH

SOUTHAMPTON

SUFFOLK

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

SURRY

VIRGINIA BEACH

Sincerely,

WILLIAMSBURG



John M. Carlock, AICP
Deputy Executive Director

YORK

BJM/kg

Copy: Beth Lewis, SO

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APPENDIX B
ANALYSIS OF AREAS ELIGIBLE FOR DESIGNATION AS TARGETED EMPLOYMENT
AREAS IN HAMPTON ROADS

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Targeted Employment Areas in Hampton Roads

Contact:

For more information, please contact:

Benjamin McFarlane
Regional Planner
Hampton Roads Planning District Commission
bmcfarlane@hrpdcva.gov
(757)420-8300

Summary:

This document summarizes the methodology used to identify areas eligible to be designated as Targeted Employment Areas in Hampton Roads. Thirteen (13) Census tracts in six (6) different localities were identified as eligible. A list and map of the eligible tracts is included.

Project Background:

On March 12, 2012, Ms. Kathy Owens, a developer contacted HRPDC Chief Economist Greg Grootendorst for some assistance in identifying areas eligible for designation as Targeted Employment Areas (TEAs). Ms. Owens stated in her email that she was working with the City of Virginia Beach Department of Economic Development to help a client wishing to expand his business in Virginia Beach using the Immigrant Investor Program, also known as “EB-5”. Ms. Owens requested HRPDC’s assistance in locating TEAs in Hampton Roads through the use of American Community Survey (ACS) data, since the Virginia Employment Commission (VEC) would not conduct the analysis.

Upon receiving the request, Mr. Grootendorst discussed the proposal with HRPDC Deputy Executive Director John Carlock, Senior Regional Planner Sara Kidd, and Regional Planner Benjamin McFarlane. Mr. McFarlane agreed to look into the feasibility of identifying TEAs in Virginia Beach and Hampton Roads.

Feasibility Analysis

The EB-5 program allows for aliens to immigrate to the United States through substantial investments that will create jobs. In general, the minimum investment required is \$1,000,000; however, in Targeted Unemployment Areas, the minimum investment required is \$500,000. 8CFR§204.6 categorizes TEAs as either rural areas or areas of high unemployment.

- “Rural area” is defined as any area not within an MSA or any city or town with a population of 20,000 or more.
- “High unemployment area” is defined as any county, city, town, or geographic or political subdivision which has experienced unemployment of at least 150 percent of the national average rate.

8CFR§204.6 states that state governments or their delegated agencies, boards, or other governmental bodies may designate areas of high unemployment.

National unemployment data is available from the Bureau of Labor Statistics (BLS), a division of the U.S. Department of Labor. This data is updated monthly, with the most recent data being for April 2012. BLS also provides yearly labor force averages for counties, with the most recent data being for 2011. Unemployment data for areas at the sub-county level is available through the American Community Survey, provided by the U.S. Census Bureau. This data is updated on an annual basis, with the most recent data being for the period from 2006 – 2010.

Based on the existence of the necessary data and research into the methodologies used by other states, HRPDC staff determined that the analysis was feasible and would not require an exceptional amount of time to complete.

Analysis

Although the original request was focused on the City of Virginia Beach, HRPDC staff analyzed the entire Hampton Roads Planning District. There are two categories of areas that qualify to be designated as Targeted Employment Areas: rural areas and areas of high unemployment. Rural areas are those not located within an MSA or cities or towns with a population of 20,000 or more. Several HRPDC member localities qualify as rural localities:

- Franklin, VA
- Southampton County, VA
- Surry County, VA

The statutory requirements for designating TEAs present some difficulties for analysis based on the data sources available. While national unemployment information is provided each month for the preceding month, similar data for localities is not as recent. BLS data is available as yearly averages for counties. For areas smaller than counties such as census tracts, the only source of data is the American Community Survey. This data is collected on a rolling schedule and added over a larger time period (one to five years). In addition, the data is provided at least one year after the collection date ends. Given these circumstances, effort must be made to reconcile the time periods of the data.

Business Oregon (Oregon Business Development Department) is the designated authority within the state of Oregon to certify targeted unemployment areas. Recognizing the difficulties in analyzing Census/ACS data with BLS data, they have developed a methodology which can be used in Hampton Roads. The term for this methodology is Census-sharing. In general, this methodology uses the ratio of employment and unemployment within sub-county geographies compared to the county as a whole, then multiplies that ratio by current (or more recent) county level employment and unemployment averages to estimate the current average for the sub-county geographies.

$$\text{Step 1: } T_EMP_1 / C_EMP_1 = T_EMPSHARE$$
$$T_UNEMP_1 / C_UNEMP_1 = T_UNEMPSHARE$$

Where:

T_EMP_1 is total employment in a tract in time period 1

C_EMP_1 is total employment in a county in time period 1

$T_EMPSHARE$ is the tract's share of total county employment in time period 1

T_UNEMP_1 is total unemployment in a tract in time period 1

C_UNEMP_1 is total unemployment in a county in time period 1

$T_UNEMPSHARE$ is the tract's share of total county unemployment in time period 1

Step 2: $T_EMPSHARE * C_EMP_2 = T_EMP_2$
 $T_UNEMPSHARE * C_UNEMP_2 = T_UNEMP_2$

Where:

- T_EMP_2 is total employment in a tract in time period 2
- C_EMP_2 is total employment in a county in time period 2
- T_UNEMP_2 is total unemployment in a tract in time period 2
- C_UNEMP_2 is total unemployment in a county in time period 2

Step 3: $T_UNEMP_2 / T_EMP_2 + T_UNEMP_2 =$ unemployment rate in time period 2

Oregon's methodology uses data from the long form 2000 Census. HRPDC staff adapted it for Hampton Roads using data from the 2006-2010 American Community Survey. The data used in the analysis were:

2011 National Unemployment Rate Annual Average: 8.9%¹

ACS Data:

- HC01 (Total population 16 and older)
- HC02 (in labor force – given as the % of total population 16 and older in labor force)
- HC03 (employed – given as the % of total population 16 and older that is employed)
- HC04 (unemployment rate – given as the percent of the labor force that is unemployed)

Example: American Community Survey Employment Data, 2006-2010

Census Tract	HC01 Total Population	HC02 In Labor Force	HC03 Employed	HC04 Unemployment Rate
51073100100	5645	68.3	66.4	2.0

BLS 2011 annual estimates of labor force, total employment, and unemployment estimates for each county and city.

The inputs required for the analysis are total employment and unemployment for each tract and county.

Total employment = $HC03 * HC01 / 100$
 Total unemployment = $((HC01 * HC02 / 100) * HC04) / 100$

Example: Employment Derived from ACS Data, 2006-2010

Census Tract	Total Employment	Total Unemployment
51073100100	3748.3	77.1

Results

Using the Census-share method, this analysis was performed for each Census tract in the Hampton Roads Planning District to estimate each tract's 2011 unemployment rate. The analysis does not take into account tracts that may have large group quarters populations which affect the area's

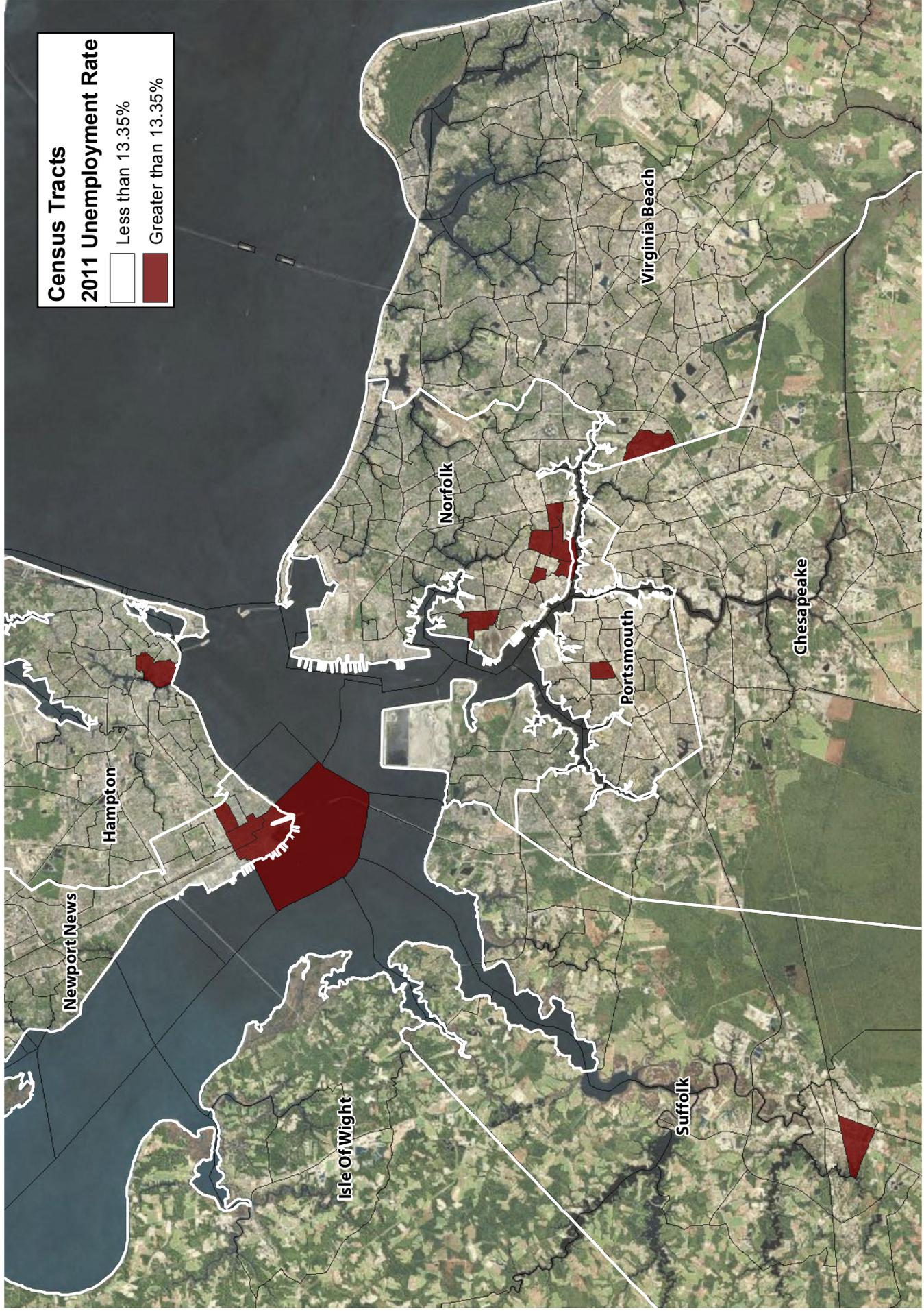
¹ http://www.bls.gov/cps/prev_yrs.htm

unemployment rate (such as colleges, prisons, etc.). Across Hampton Roads, thirteen (13) tracts were identified with 2011 unemployment rates that exceeded 13.35% (8.9% * 1.5). No entire localities were eligible. Eligible tracts were identified in Hampton (1), Newport News (3), Norfolk (6), Portsmouth (1), Suffolk (1), and Virginia Beach (1). The eligible tracts are listed below. A map showing the tracts is attached.

Census Tracts in Hampton Roads Eligible for Designation as High Unemployment Areas

Locality	Tract	2011 Estimated Unemployment Rate
Hampton	114	23.2%
Newport News	301	17.8%
Newport News	304	14.2%
Newport News	306	14.7%
Norfolk	25	15.0%
Norfolk	41	21.7%
Norfolk	43	14.6%
Norfolk	45	19.8%
Norfolk	47	23.9%
Norfolk	48	13.4%
Portsmouth	2114	17.1%
Suffolk	654	13.7%
Virginia Beach	462.20	13.4%

Areas in Hampton Roads Eligible to be Designated as Areas of High Unemployment



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APPENDIX C
REALITY CHECK HAMPTON ROADS

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Reality Check Hampton Roads

Reality Check Hampton Roads was a regional land use visioning and planning exercise sponsored by the Urban Land Institute in partnership with Old Dominion University (ODU), the Center for Real Estate and Economic Development (CREED), the Hampton Roads Planning District Commission (HRPDC), the Hampton Roads Transportation Planning Organization (HRTPO), and the Hampton Roads Partnership (HRP). HRPDC staff actively participated in the planning and preparation for the exercise, which took place on May 17, 2012 at ODU's campus in Norfolk, Virginia. Nearly 300 stakeholders from around the region with a variety of backgrounds participated in the event. In addition to helping organize the event, several HRPDC staff members participated in the exercise as stakeholders.

HRPDC staff produced the game map, which was used by the participants to designate where future growth in employment and population in Hampton Roads, Virginia should go, using LEGO® blocks. The map featured an index grid as well as several layers of data: land use, military and federal lands, other lands protected from development, and several base layers (hydrology/wetlands, transportation, and points of interest). A special feature of this map, and of the Reality Check game, is that there are no political boundaries shown within the sixteen-locality Hampton Roads region, which encouraged participants to think and plan regionally. Also of note is that the land use layer is actually derived from U.S. Census population data and land cover from NOAA's Coastal Change Analysis Program. This combination resulted in a regionally consistent layer showing both intensity of development and population density. The map was also presented as part of a poster on the event at the 2012 International Esri User Conference in San Diego, California, where it earned 2nd place for Best Data Integration in the Map Gallery competition.

HRPDC staff was also heavily involved in planning the technical GIS requirements for the day of the game, in cooperation with staff from ODU. The HRPDC also assisted ODU in developing the methodology to analyze the LEGO® block placement for each of the 30 tables at the event.

As part of this effort, HRPDC staff made several presentations on the exercise and the geographic analysis involved. This appendix includes two of those presentations: one given to the Hampton Roads Joint Environmental Committee as a summary of the Reality Check exercise, and another given at ODU's GIS Day, which focused on the analysis. Also included is a scaled-down version of the poster and map presented at the Esri conference.



Reality Check Hampton Roads participants allocate future growth around the region (Credit: Sara J. Kidd, HRPDC)



What is Reality Check?

- * Day long regional visioning exercise to develop land use principles and alternative growth scenarios through 2035
- * Gathering of 300 stakeholders from across region representing sectors like housing, business, transportation, environmental, etc.
- * Produces a document to guide current and future regional leaders

How should we grow? Where should we grow?



Projected Growth

- * By 2035
 - * 350,000 new residents
 - * 140,000 housing units (2.5 people/unit)
 - * 28,000 workforce housing units
 - * 112,000 other housing units
 - * 175,000 new jobs (1 job/2 people)



Reality Check Game

- * Each table developed Guiding Principles to follow
- * Using LEGOs and string on the map, each group created a future growth scenario for Hampton Roads



Reality Check Game

- * LEGOs represent density:
 - * Blue = 1,000 jobs
 - * Yellow = 500 housing units
 - * Tan = 500 workforce housing units
- * 455 LEGOs total per table



Top Guiding Principles

- Develop Multi-Modal, Connected Transportation Systems
- Foster Diversity in Business and Housing and Maintain Local Character
- Promote Mixed Use Development with Diversity of Housing Types
- Preserve Natural Areas, Open Space, Agricultural and Historic Resources



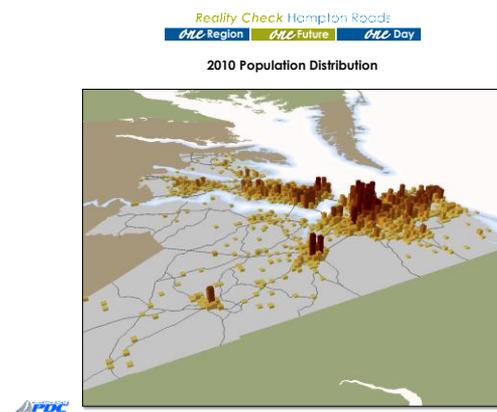
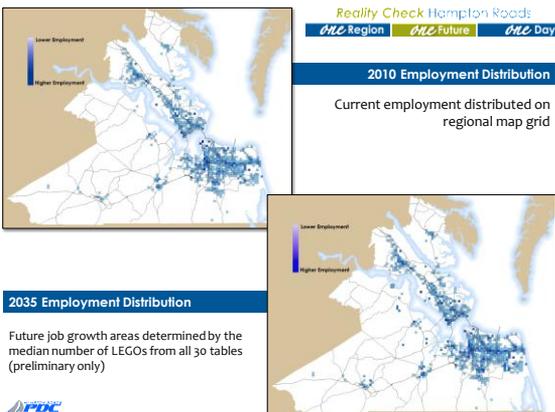
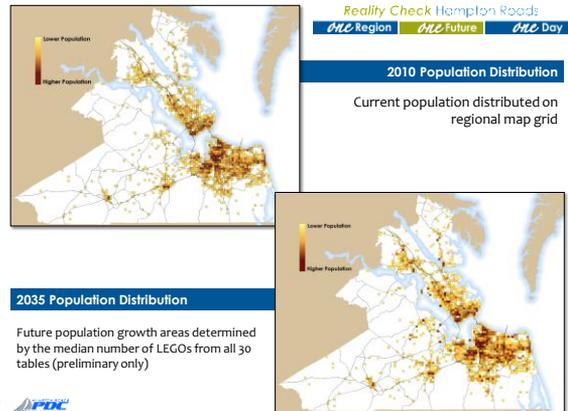
Top Guiding Principles

- * Redevelop and Infill Areas with Existing Infrastructure
- * Maintain Compatibility and Collaboration with Military
- * Regional Approach to Environmental Stewardship and Transportation



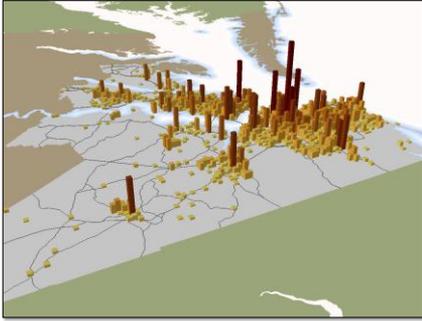
Barriers and Challenges

- Lack of multi-jurisdictional collaboration
- Potential loss of military presence
- Cultural inertia, suburban mentality
- Environmental regulations and changes
- Light Rail
- Resistance to raising new revenue
- Retention and attraction of talent



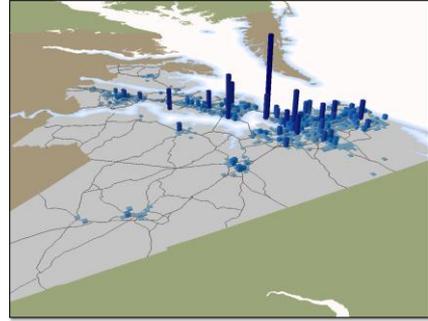
Reality Check Hampton Roads
OHO Region OHO Future OHO Day

2035 Population Distribution (Preliminary)



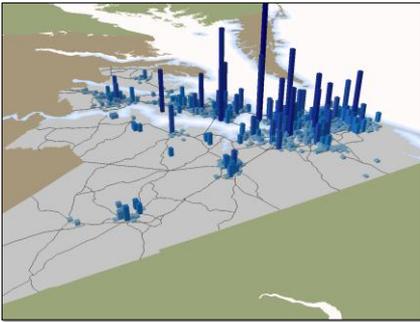
Reality Check Hampton Roads
OHO Region OHO Future OHO Day

2010 Employment Distribution



Reality Check Hampton Roads
OHO Region OHO Future OHO Day

2035 Employment Distribution (Preliminary)



Growth Scenario A: Compact Infill



Growth Scenario B: Horizontal Expansion



Growth Scenario C: Polycentric Centers



Transportation



Final Results

- * GIS will analyze LEGO placement and prepare various maps
- * Analyze Guiding Principles
- * Summarize scenarios the tables developed
- * CREED will prepare the final report to fully analyze the results



Reality Check Presenters



<http://www.realitycheckhr.org>

Reality Check Hampton Roads
one Region one Future one Day

Produced and Conducted by:
 Urban Land Institute Hampton Roads

In Partnership with:
 Old Dominion University and the E.V. Williams Center for Real Estate and Economic Development (CREED), Hampton Roads Partnership, Hampton Roads Planning District Commission, Hampton Roads Transportation Planning Organization

Sara J. Kidd, GISP
 Hampton Roads Planning District Commission

George M. McLeod, GISP
 Old Dominion University

2012 ODU GIS Day

What is Reality Check?

- Gathering of 300 stakeholders from across region representing sectors like housing, business, real estate, transportation, environmental, etc.
- Day long regional visioning exercise to develop land use principles and alternative growth scenarios through 2035
- Produces a document to guide current and future regional leaders

How should we grow?

Where should we grow?

Previous Reality Check Regions

Urban Land Institute Hampton Roads

Projected Growth in Hampton Roads

- 350,000 new residents
 - 140,000 total housing units
 - 28,000 workforce housing units
 - 112,000 regular housing units
- 175,000 new jobs



Reality Check Game Day

- Each table (30) developed Guiding Principles to follow
- Using LEGOs and string on the map, each table created a future growth scenario for Hampton Roads



Reality Check Game Day

- LEGOs represent density
 - Blue = 1,000 jobs
 - Yellow = 500 housing units
 - Tan = 500 workforce housing units
- 455 LEGOs total per table



How Was GIS Used?

- Creating the base map for “game board”
- Developing land use data for base map
- Game Day mapping of the results
- Post-game analysis of the results

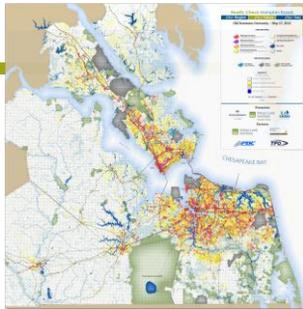


Developing the Game Map



Game Map

- Index Grid
- Land Use
- Military/Federal
- Other Protected Lands
- Base Layers
 - Hydrology/Wetlands
 - Transportation
 - Points of Interest
- No Boundaries



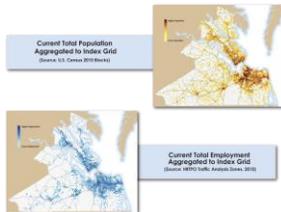
Regional Land Use



Hampton, S. (2011, April). Spatial Analysis for Smart Growth. Paper presented at the 2011 National Planning Conference of the American Planning Association, Austin, TX.

Index Grid Preparation

- Each square is the same size as a standard LEGO
- Aggregated population and employment data to grid for ease of analysis



Reality Check Hampton Roads

Old Dominion University
May 17, 2012

Reality Check Game Play

- Participants allocate population, jobs, transportation improvements, and preservation areas based on group consensus

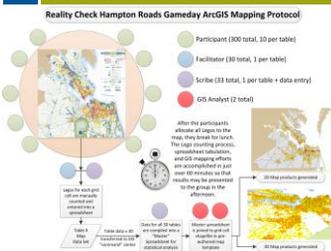


Reality Check Game Play

- LEGOs:**
 - yellow=housing
 - tan= workforce housing
 - blue=jobs
- String:**
 - orange = roads
 - green = mass transit
- Green marker** was used to draw "preservation" areas



Reality Check Game Day Analysis



- Participants "do lunch"
- LEGOs are counted into spreadsheets
- All spreadsheet data are merged
- GIS analysis is performed
- Graphical outputs are shown to the group ...in only about 60 minutes

Reality Check Game Day Analysis

- Facilitators manually count the LEGOs on each grid cell
- Scribes enter these counts into simple spreadsheets



Reality Check Game Day Analysis

- Scribes transfer spreadsheet data via USB keys to the GIS data center
- Spreadsheets from all 30 tables are merged into a "Master" Spreadsheet



Dylan Coalbaugh, ODU incident and GIS Technician

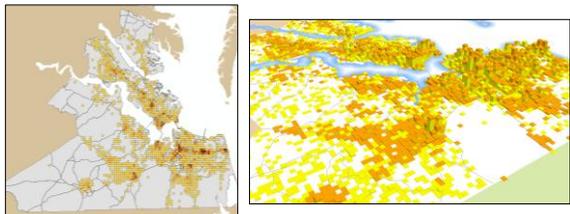
Reality Check Game Day Analysis

- Simple statistics are calculated to find the average number of LEGOs allocated to each grid cell for all tables
- The master spreadsheet is then joined to a preexisting polygon grid cell shapefile using a common field ("GIS_OID")
- 2D and 3D Symbology are used to show the results

PageName	GIS_OID
A64	64
A65	65
B64	192
B65	193
B66	194
B67	195



Reality Check Game Day Analysis



Reality Check Game Day



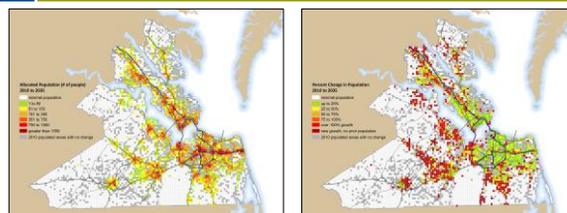
- Results are presented to the Participants on the day of the event

...and then the real GIS work begins.

Analyzing Reality Check Results

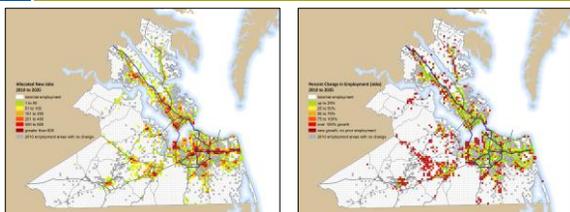
- ODU's GIS Team, working closely with the HRPDC, is performing a more in-depth analysis of the data recorded for each table
- Our GOAL was to assist the UII in answering a few basic questions:
 - What is the **consensus** among ALL participants regarding future the location of housing and job growth?
 - Which transportation improvements are favored by the **majority**?
 - Is there **consensus** regarding which areas should be preserved as "green" space? If so, where?

Reality Check Post-game Analysis



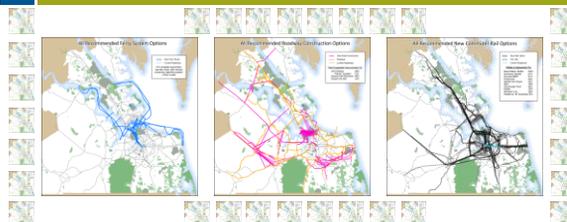
Numerical change (counts) vs. Percent Change

Reality Check Post-game Analysis



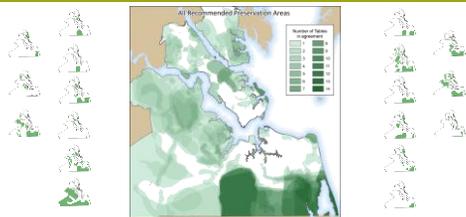
Numerical change (counts) vs. Percent Change

Reality Check Post-game Analysis



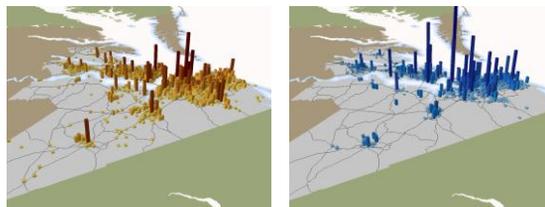
Transportation "Averaging" is more challenging

Reality Check Post-game Analysis



Green Space "Averaging" is another challenge (Raster Math)

Reality Check Final Results



What will Hampton Roads look like in 2035?

Reality Check FINAL RESULTS are...



The ULI Hampton Roads will announce the full results of Reality Check at an event to be scheduled for late Fall of this year (2012).

Reality Check Presenters



<http://www.realitycheckhr.org>

LEGO Ninjas



Sara Kidd
Hampton Roads Planning
District Commission
skidd@hrpdcva.gov

George McLeod
ODU
gmcLeod@odu.edu

Special Thanks to "GIS Ninja" Christopher Contreras, Senior GIS Technician at ODU, for creating well over 100 maps (and counting) for this project

Reality Check Hampton Roads
CRLE Region *CRLE* Future *CRLE* Day
 Old Dominion University • May 17, 2012

LAND USE TYPES

- High Density Residential
- Medium Density Residential
- Low Density Residential
- High Density Commercial
- Medium Density Commercial
- Low Density Commercial
- High Density Industrial
- Medium Density Industrial
- Low Density Industrial
- High Density Office
- Medium Density Office
- Low Density Office
- High Density Retail
- Medium Density Retail
- Low Density Retail
- High Density Entertainment
- Medium Density Entertainment
- Low Density Entertainment
- High Density Recreation
- Medium Density Recreation
- Low Density Recreation
- High Density Agriculture
- Medium Density Agriculture
- Low Density Agriculture
- High Density Forest
- Medium Density Forest
- Low Density Forest
- High Density Water
- Medium Density Water
- Low Density Water

PROTECTED LANDS

- State Park
- Local Park
- Local Open Space
- Local Wetland
- Local Water
- Local Forest
- Local Agriculture
- Local Recreation
- Local Forest
- Local Agriculture
- Local Recreation

GAME PLAN

- High Density Residential
- Medium Density Residential
- Low Density Residential
- High Density Commercial
- Medium Density Commercial
- Low Density Commercial
- High Density Industrial
- Medium Density Industrial
- Low Density Industrial
- High Density Office
- Medium Density Office
- Low Density Office
- High Density Retail
- Medium Density Retail
- Low Density Retail
- High Density Entertainment
- Medium Density Entertainment
- Low Density Entertainment
- High Density Recreation
- Medium Density Recreation
- Low Density Recreation
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- Medium Density Forest
- Low Density Forest
- High Density Water
- Medium Density Water
- Low Density Water

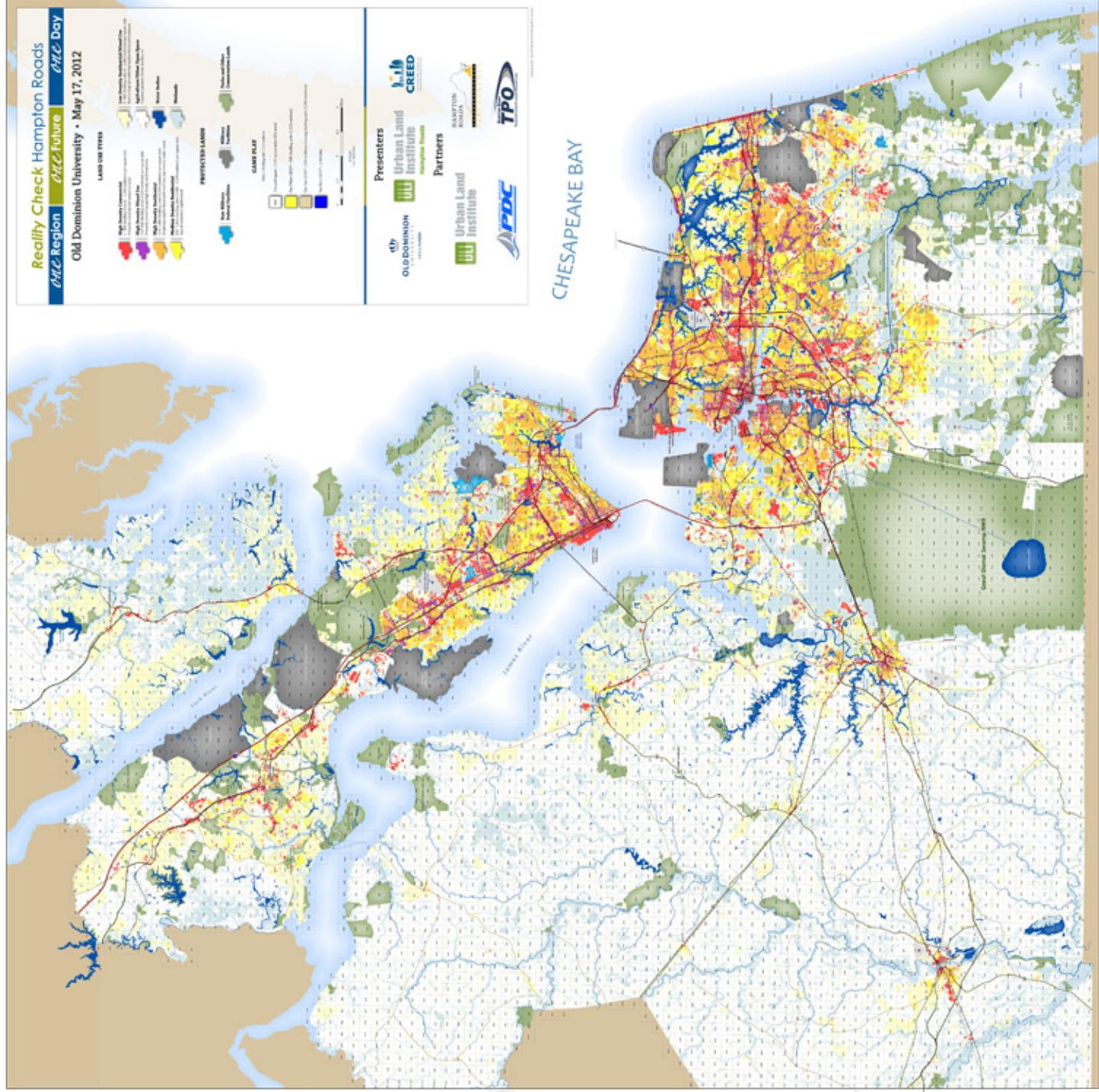
Presenters

- Old Dominion University
- Urban Land Institute
- CREED

Partners

- Urban Land Institute
- AFDC
- TPO

CHESAPEAKE BAY



APPENDIX D
ENVIRONMENTAL GEOGRAPHIC INFORMATION SYSTEM – SAMPLE MAPS

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HAMPTON ROADS PLANNING DISTRICT COMMISSION

Member Localities



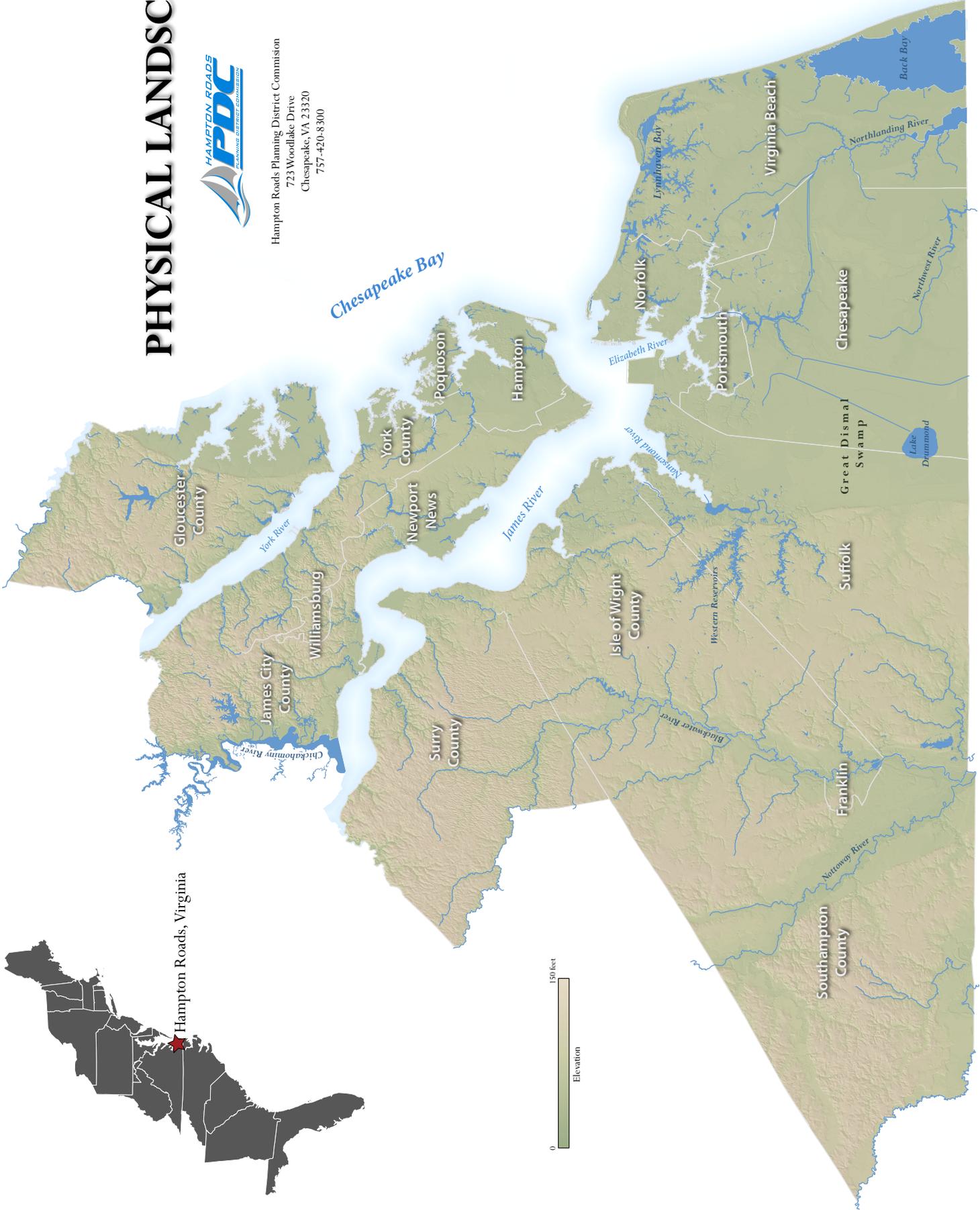
Hampton Roads Planning District Commission
723 Woodlake Drive
Chesapeake, VA 23320
757-420-8300



PHYSICAL LANDSCAPE



Hampton Roads Planning District Commission
723 Woodlake Drive
Chesapeake, VA 23320
757-420-8300



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