

APPENDIX A: OUTREACH AND COORDINATION

During the third year of HRPDC's climate change work, HRPDC staff continued efforts to reach out to the general public as well as local governments and other organizations. Most of these efforts consisted of presentations given to various groups and organizations, as well as some coordination meetings with other government actors. During this grant period, from October 2010 to December 2011, HRPDC staff participated in twenty-two (22) events and meetings. In addition to these efforts, HRPDC staff continued to work with several partners on related projects that promoted climate change education and adaptation. These related projects included:

- Collaborating with faculty from Old Dominion University to analyze the economic impacts of flooding on Hampton Roads localities and businesses
- Partnering with the Institute for Environmental Negotiation, Old Dominion University, Wetlands Watch, and the City of Virginia Beach to plan and implement a series of four public listening sessions in Virginia Beach that allowed the public to hear about and discuss the issues of sea level rise and flooding (described in the FY2009-2010 report¹²);
- Partnering with the Institute for Environmental Negotiation, Old Dominion University, Wetlands Watch, and the City of Virginia Beach to develop climate change and sea level rise material to be discussed by a focus group comprised of selected stakeholders in Virginia Beach;
- Collaborating with the Virginia Department of Transportation and faculty from the University of Virginia's School of Engineering and Applied Science on a pilot study funded by the Federal Highway Administration to assess the vulnerability of transportation infrastructure to climate change.

Two sample presentations are included in Appendix B. Attendance numbers are approximate. Presentations and meetings marked with an asterisk (*) overlapped with the previous year's grant; full descriptions are available in the FY2009-2010 report. HRPDC staff that participated in these outreach and coordination efforts included:

¹² *Climate Change in Hampton Roads Phase II: Storm Surge Vulnerability and Public Outreach*, available online at http://www.hrpdcva.gov/Documents/Phys%20Planning/2011/HRPDC_ClimateChange2010_FINAL.PDF.

- John Carlock, AICP, Deputy Executive Director
- Lisa Hardy, Physical and Environmental Planner
- Julia Hillegass, Public Information and Community Affairs Administrator
- Whitney Katchmark, P.E., Principal Water Resources Engineer
- J. Rax-McBride, Principal Regional Planner
- Benjamin McFarlane, AICP, Regional Planner

PRESENTATIONS & OUTREACH

Many of the events that HRPDC staff participated in during this grant year involved presentations to government staff or the public. Nine (9) of the events during this grant period are included in this category.

Table 24: Presentations and Outreach Events

DATE	DESCRIPTION
November 15, 2010*	Mr. McFarlane gave a presentation at a workshop organized by the Cabell Brand Center for Global Poverty and Resource Sustainability Studies. <i>Attendance: 15</i>
February 2, 2011*	Mr. McFarlane gave a presentation on climate change planning and HRPDC's climate change work to an online class taught by a professor at Old Dominion University. <i>Attendance: 5</i>
March 1, 2011*	Mr. Carlock and Mr. McFarlane gave a presentation to the Hampton Waterway Management Plan Steering Committee. <i>Attendance: 50</i>
April, 20, 2011	Mr. McFarlane gave a presentation to the York River Group Sierra Club on sea level rise planning in Hampton Roads. The presentation included an overview of HRPDC's climate change efforts, including an assessment of the region's vulnerability to storm surge. The presentation also included some discussion of the challenges involved in planning for climate change. <i>Attendance: 25</i>
April 25, 2011	Mr. McFarlane gave a presentation to a graduate class at Old Dominion University. ¹³ The presentation covered HRPDC's climate change efforts and included an assessment of the region's vulnerability to storm surge. <i>Attendance: 15</i>

¹³ PADM 632 Environmental Planning, taught by Mr. Al Riutort

DATE	DESCRIPTION
June 16, 2011	Mr. McFarlane briefed the Hampton Roads Planning District Commission on the findings from the 2009-2010 grant year of climate change work. The report was approved for publication and distribution. <i>Attendance: 50</i>
September 28, 2011	Mr. McFarlane gave a presentation on planning for sea level rise and climate change from a regional perspective at a NASA Langley workshop, "Adapting to a Changing Climate". The workshop was attended by a wide range of NASA Langley researchers and facility staff. <i>Attendance: 40</i>
October 26, 2011	Mr. McFarlane gave a presentation as part of a stakeholder panel to the NOAA Hydrographic Services Review Panel at a meeting held in Norfolk, Virginia. The presentation described how HRPDC utilizes NOAA's Hydrographic Services, with an emphasis on tide gauge data used to plan for sea level rise. <i>Attendance: 40</i>
November 11, 2011	Mr. McFarlane gave a presentation, titled "Using GIS to Plan for Sea Level Rise in Hampton Roads", at Old Dominion University's GIS Day. The presentation included an overview of climate change science and its projected impacts on Hampton Roads and described how HRPDC staff was using GIS to identify and study those impacts. <i>Attendance: 30</i>

COORDINATION & WORKSHOPS

HRPDC staff also participated in several coordination meetings and workshops with other representatives from local, state, and federal agencies and governments. 13 (13) of the events during this grant period are included in this category. On occasion, these events also included HRPDC staff presentations.

Table 25: Coordination and Workshops

DATE	DESCRIPTION
February 1, 2011	HRPDC staff met with Drs. James Koch and Vinod Agarwal from Old Dominion University to discuss the need for a study of the economic impacts of sea level rise and flooding on Hampton Roads localities.
February 14, 2011	HRPDC staff met with Drs. Koch and Agarwal to discuss the particulars of a proposed joint project studying the economic impacts of flooding on Hampton Roads localities.

DATE	DESCRIPTION
March 22, 2011*	HRPDC staff met with staff from the U.S. Geological Survey and VIMS to discuss subsidence and sea level rise in Hampton Roads. <i>Attendance: 8</i>
April 9, 2011	Mr. McFarlane attended and participated in the American Planning Association's (APA) Delegate Assembly at the APA's National Conference in Boston, Massachusetts. The main focus of the assembly was a list of proposed changes to APA's Climate Change Policy Guide.
May 3, 2011	HRPDC staff met with Drs. Koch and Agarwal to discuss the particulars of a proposed joint project studying the economic impacts of flooding on Hampton Roads localities.
May 10, 2011	Mr. McFarlane participated in a storm surge prediction workshop at the Virginia Institute of Marine Science (VIMS). VIMS faculty described a Real-Time Storm Tide Observation and Forecast System they developed to deliver regularly updated predictions of tides for the Lower Chesapeake Bay.
August 10, 2011	Mr. McFarlane attended a sea level rise technical forum organized by Old Dominion University. The focus of the forum was to identify research and academic needs related to the impacts of sea level rise on regional infrastructure.
September 19, 2011	Mr. McFarlane met with faculty from the University of Virginia's School of Engineering and Applied Science to work on a decision support tool to help with transportation planning in the context of climate change.
September 22, 2011	Mr. McFarlane met with staff from Old Dominion University and Virginia Sea Grant to discuss a joint proposal for a Hampton Roads Climate Change Adaptation Forum that would be funded by the national Sea Grant program. <i>Attendance: 4</i>
September 26-27, 2011	Mr. McFarlane attended and participated in the FHWA Partner Exchange in Seattle, Washington. The exchange included presentations and status updates from each of the pilot studies, including a section by Mr. McFarlane on how the Virginia pilot study complemented HRPDC's climate change work.
October 25, 2011	Ms. Hillegass and Mr. McFarlane attended a Coastal Zone Program-sponsored workshop in Richmond on Civil Public Participation, designed to offer tips and techniques to planners and others working on climate change and other contentious issues to promote effective public participation.
December 6, 2011	HRPDC staff attended a meeting with representatives from the Federal Emergency Management Agency (FEMA), the U.S. Army Corps of Engineers, and their consultants to hear an update on the status and initial results of FEMA's Region III Storm Surge Study.

DATE	DESCRIPTION
December 12, 2011	HRPDC staff met with the Planning Directors, Public Works Directors, and their representatives from most Hampton Roads localities to discuss regional and local efforts and possible coordination between localities to address flooding and sea level rise. <i>Attendance: 22</i>

OLD DOMINION UNIVERSITY/HRPDC COLLABORATION

At the July 21, 2010 Quarterly Commission Meeting, Dr. James Koch from Old Dominion University (ODU) gave a presentation to the Commission on the issue of sea level rise and proposed an analysis of the financial and economic implications on the region and the need for LIDAR elevation data. Following this presentation, Dr. Koch worked with HRPDC staff to develop the proposed study into a detailed proposal, which was then presented and approved at the Commission's September 15, 2010 Executive Committee Meeting. HRPDC staff worked with Dr. Koch and Dr. Vinod Agarwal, a Professor of Economics at ODU, to identify needed data for the study and to divide tasks between ODU and HRPDC. Data collected for this study included population and housing unit numbers from the U.S. Census, employment and business data, and property assessments from the region's localities. This study is ongoing.

FHWA PILOT STUDY

In July 2010 staff from the Virginia Department of Transportation contacted the Hampton Roads Transportation Planning Organization (HRTPO) and HRPDC to discuss the possibility of a joint application for a pilot study funded by the Federal Highway Administration (FHWA) studying the vulnerability of transportation infrastructure to climate change. FHWA established this program to fund metropolitan planning organizations (MPOs) and state departments of transportation (DOTs) to pilot a conceptual model FHWA developed to conduct vulnerability and risk assessments of transportation infrastructure to climate change impacts.¹⁴ This conceptual model consists of three main steps: inventorying (transportation) assets, gathering relevant climate information, and assessing the risk to the identified assets from climate change impacts.¹⁵ Five agencies and agency partnerships were funded: the Metropolitan Transportation Commission (San Francisco, California); New Jersey DOT/North Jersey Transportation Planning Authority (Coastal and Central New Jersey); VDOT (Hampton Roads, Virginia); Washington Department of Transportation (Washington State); and Oahu MPO (Island of Oahu, Hawaii). The pilot studies were completed in November 2011. HRPDC and HRTPO staff worked with representatives from VDOT and researchers from the University of Virginia to develop and implement the proposal, which was to develop an analysis framework for incorporating climate change impacts into the region's transportation planning processes. HRPDC staff contributed information on the general impacts of climate change on the Hampton Roads region and on transportation infrastructure. In addition, HRPDC staff helped

¹⁴ <http://www.fhwa.dot.gov/hep/climate/pilots.htm>

¹⁵ http://www.fhwa.dot.gov/hep/climate/conceptual_model62410.htm

the research team devise scenarios for reassessing the region's transportation priorities, based on climate change and other factors. The project included briefings by the UVA research team to both the HRPDC's Joint Environmental Committee (comprised mainly of planners, public works staff, and stormwater management) and the HRTPO's Transportation Technical Advisory Committee. These briefings included opportunities for the region's local governments to provide direct feedback to the research team. HRPDC staff also worked directly with the research team in Charlottesville, Virginia, and attended a Partner Exchange Workshop in September 2011 in Olympia, Washington along with the project teams from each of the other pilot studies. During this meeting, the Virginia research team, including HRPDC staff, presented a project status report and described how the project complemented the region's other climate change planning efforts. After this workshop HRPDC and HRTPO staff continued to work with the research team to refine the tool and discuss how it could be utilized in the HRTPO's upcoming 2040 long-range transportation plan. These discussions are ongoing. More information about the Hampton Road FHWA pilot study is available on the project's website: http://www.virginia.edu/crmes/fhwa_climate/.

UVA INSTITUTE FOR ENVIRONMENTAL NEGOTIATION

HRPDC staff continued to work with the Institute for Environmental Negotiation (IEN) in 2011 and 2012 to build upon the four listening sessions conducted in Virginia Beach in March 2011. The focus of the second year of work was on developing material for a workshop with a small group of participants. HRPDC staff worked with IEN, Wetlands Watch, and the City of Virginia Beach to develop an agenda and informational material for participants. IEN and graduate planning students at the University of Virginia produced two reports that documented the results of the listening sessions and case study research; the findings were presented to the Virginia Beach City Council on May 17, 2011.