

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 1 Dept. of Environmental Quality - Virginia Coastal Zone Management Program  
Coastal Program Management

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Progress Reports Constitute Final Product
Open	Start: End: Closeout:		
	10/1/2008 3/31/2010		

During this period CZM staff focused on submission of Section A and B reports for the April 30 deadline and preparation of the draft and final grant applications for the April 15 and May 18 deadlines. CELCP proposals (FY 09 Crow's Nest and FY 10 Davis tract and Blackwater River) were also submitted and resubmitted as required by the new Omnibus Lands Act. A great deal of effort went into creation of the new Mid-Atlantic Regional Council on the Ocean (MARCO) and the June 4th Ocean Summit held in NY. During this period our Grants Coordinator Shannon Girouard quit, a new Grants Coordinator, April Bahen, was hired and a new Coastal Planner, Beth Polak was hired. Multiple meetings were held to work out how to establish a program structure and allocate grant funds for the Seaside Special Area Management Plan.

Two Coastal Policy Team meetings were held in September. Siting of offshore wind farms was a major focus of both meetings. CZM staff are assistine the Marine Resources Commissio with mapping areas suitable for offshore wind farms within Virginia waters and is also working with MARCO to do the same in federal waters offshore of Virginia.

Additional details are available in the attached Weekly reports written by CZM staff and submitted to the Secretary of Natural Resources.

About \$68,000 remains in Task 1 due to staff vacancies in the Coastal Planner and Grants Coordinator positions since October 1, 2008. Sveral new scopes of work will be submitted to NOAA soon for approval.

Task: 1.01 Virginia Institute of Marine Science - Chesapeake Bay National Estuarine Research Reserve System  
Coastal Program Management Support

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Progress Reports Constitute Final Product
Open	Start: End: Closeout:		
	10/1/2008 9/30/2009 12/31/2009		

This task funds half of one of our Coastal Planners through a contract with VIMS. See Task 1 for progress.

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Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 1.02 Virginia Commonwealth University  
Coastal GIS Support

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report
Open	Start:	End:	Closeout:	
	10/1/2008	9/30/2009	12/31/2009	

-The Coastal GIS Coordinator processed GIS data layers for effective display on Coastal GEMS and uploaded layers to VCU to be added to Coastal GEMS. Layers updated in this period include: SAV (Coverage), SAV Plantings, Conservation Lands. Layers added in this period include: 2006/2007 VBMP Imagery, Seaside Oyster Density The Coastal GIS Coordinator updated layer fact sheet info and links using the Coastal GEMS non-spatial data editor and worked with VCU CES staff to secure and implement the domain name COASTALGEMS.ORG.

- The Coastal GIS Coordinator met with the VCERC Mapping Specialist on to review VCERC's collection of GIS data layers relevant to offshore alternative energy siting and to discuss incorporating a subset of this data into the CZM Program's online mapping application Coastal GEMS. The Coastal GIS Coordinator met with VMRC and VCERC staff to pull together available data layers applicable to wind energy development within state waters. CZM is providing GIS support to VMRC as they work to create a report identifying subaqueous lands appropriate for renewable energy citing in response to SB 1350.

- The Coastal GIS Coordinator produced coastal resource maps and made GIS based calculations as needed for CZM staff to utilize in meetings, presentations, and publications. The GIS Coordinator created and delivered maps used by VMRC's Conservation and Replenishment Department to enforce oyster harvesting within rotational zones on the Rappahannock. The GIS Coordinator also assisted staff from VMRC's Conservation and Replenishment Department by creating maps of proposed oyster reef restoration sites for VMRC's application for funds from NOAA's ARRA Coastal and Marine Habitat Restoration Project grants.

-The CZM Coastal GIS Coordinator attended the National System of Marine Protected Areas Meeting on and gave a presentation on the seven Virginia sites accepted into the National System for FY09. The CZM Program coordinated the FY09 nominations of VA sites to the National System of MPA's and was invited to attend this meeting to share assessments, capabilities, and needs for FY10.

-The Coastal GIS Coordinator attended The Nature Conservancy's Mid-Atlantic Marine Spatial Planning Workshop. The Coastal GIS Coordinator reviewed the methods behind and products of TNC's Mid-Atlantic Ecoregional Marine Assessment and participated in discussions concerning marine spatial planning. These discussions revolved around identifying key ecological, socio-economic, and governance principles involved in the marine spatial planning process in the Mid-Atlantic.

Final Products	% Completion	Anticipated Completion Date
Coastal GEMS Website	100	
Coastal GEMS Advisory Notes	100	
Coastal GEMS MOU's/Map Products	100	
Coastal GEMS Training Program/Open Houses	100	

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**for the period from**

Task: 1.03 Dept. of Environmental Quality - Virginia Coastal Zone Management Program			
Outreach & Publications			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report
Open	Start:	End:	Closeout:
	10/1/2008	9/30/2009	12/31/2009

- "Plant ES Natives" Campaign Coordination - (FY 07 Task 10.07) including final preparations for the campaign kickoff on April 24; installation of native plant demos at Willis Wharf, Chincoteague and the Eastern Shore of Virginia National Wildlife Refuge (ESVANWR); follow-up communication with garden centers and campaign partners; production of fall radio ads; updates to campaign website and publications (radio ads and publications all downloadable at [www.deq.virginia.gov/coastal/plantesnativesmediaroom.html](http://www.deq.virginia.gov/coastal/plantesnativesmediaroom.html))
- Media - wrote and distributed media advisory for "Plant ES Natives" Campaign kick-off in April (event covered in Eastern Shore News); reviewed and provided comments on press release issued by Virginia Governor regarding MARCO in June; wrote and distributed press release in partnership with FWS highlighting native plant demo installation at ESVANWR in August;
- Virginia Seaside Heritage Program Kiosks - completed design of panels for Oyster and Wise Point (see FY 2006 Task 10.20) and coordinated order with the sign production company, Pannier.
- Magazine - initiated production of a Summer/Fall 2009 issue of Virginia Coastal Zone Management magazine, which is not expected to be published until early 2010 due to Virginia CZM staff turnover and workload issues.
- Publications - researched, edited and designed a new guide to Eastern Shore native plants – "Native Plants of Accomack and Northampton" - to distribute through the "Plant ES Natives" social marketing campaign (The guide will be ready to print by the end of October (funded under FY07 Task 10.20 and FY07 Task 1.03) - will be distributed to a waiting list of 300 Eastern Shore residents, through garden centers and other public venues and will be downloadable from [www.deq.virginia.gov/coastal/go-native.html](http://www.deq.virginia.gov/coastal/go-native.html)); reprinted Virginia Oyster Gardening Guide (5,400 of 7,500 copies distributed immediately due to high demand); produced Virginia CZM FY07 Funding Fact Sheet ([www.deq.virginia.gov/coastal/funding.html](http://www.deq.virginia.gov/coastal/funding.html)); produced 2009 Eastern Shore Birding and Wildlife Festival poster (1,500 copies distributed), ES HS student poster art contest award and designed new zipper pull (for distribution to children participating in festival passport program); assisted in designing MARCO posters for June Governor's Summit.
- Educational Tours - organized tour of Living Shoreline demonstration sites in Norfolk for community educators as part of the Virginia Environmental Education Conference (September 10, 2009); organized nature tour of new Chincoteague Island Nature Trail which includes an ES native Plant demo and VSHP kiosk (tour canceled due to Nor'easter).
- Exhibits - "Plant ES Natives" Kick-Off (April 09); Chincoteague Flower and Garden Show (April 09 – Plant ES Natives exhibit – 100+ visitors engaged), Virginia Aquarium coastal Trends Event (April 09 – 2500 attended), Barrier Island Center Art on the Farm Event (May 09 – Plant ES Natives exhibit – comments from visitors were very positive about campaign – one said radio ads was a "media blitz"), Virginia Beach Earth Day (May 2009), 2009 Eastern Shore Birding and Wildlife Festival (September 09 - worked with Program Manager to produce new exhibit highlighting Virginia CZM efforts on Seaside)
- Websites - maintained Virginia CZM websites, including development of new page for Ocean Management (MARCO). Served on DEQ Web 2.0 Committee to draft policy for agency's Web 2.0 use.

Final Products	% Completion	Anticipated Completion Date
Virginia Coastal Zone Management Magazine 1.03	Production Delayed	Early 2010-will be funded out of FY09 Task
Website Development and Maintenance	100%	September 30, 2009
Program Exhibits and Distribution of Material	100%	September 30, 2009
Program Campaigns and Events	100%	September 30, 2009

Task: 2 Dept. of Environmental Quality Subcontract			
Quick Response Grants			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u> Progress Reports Constitute Final Product
Pending	Start:	End:	Closeout:
	10/1/2008	12/31/2009	

During this period \$1,730 was transferred under our 10% authority to Task 41 Accomack-Northampton PDC Technical Assistance to cover additional costs associated with Seaside Heritage Program signage. Only \$473 remains in this task.

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Task: 2.01 Back Bay Restoration Foundation

Back Bay Restoration Foundation "State of the Bay" Conference

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Attached
Open	Start:	End:	Closeout:		
	1/1/2009	6/30/2009	9/30/2009		

The Back Bay Restoration Foundation and the VA Coastal Zone Management Program co-hosted the 2009 Back Bay Forum on March 18, 2009. The Project Manager completed progress on CD distribution, Action Plan and compilation of survey summary, discussion results and other feedback.

Final Products	% Completion	Anticipated Completion Date
Forum agenda/registration form and nametags	100%	
CD of the Back Bay Forum 2009 Presentations	100%	
Web site	100%	
Forum Survey and Comment Form	100%	
Action Plan	100%	

Task: 3 Dept. of Environmental Quality - Environmental Impact Review

Environmental Impact Review and Federal Consistency

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Progress Reports Constitute Final Product
Open	Start:	End:	Closeout:		
	10/1/2008	9/30/2009	12/31/2009		

During the second half of FY 2008, the Office of Environmental Impact Review/Federal Consistency (OEIR) reviewed 146 development projects and management plans for consistency with the VCP. This represents 78 % of the total amount of projects (187) reviewed during this period. Major state projects accounted for 33 projects, 65 were federal actions, and 48 were federally funded projects (predominantly local government projects). The 65 federal projects included 38 federal agency activities and 17 federal licenses, approvals and 10 HUD mortgage insurances. Reviews of consistency determinations and certifications were completed within established legal deadlines. The OEIR continues to maintain a website for Federal Consistency Reviews and can be accessed through DEQ's main webpage or found at <http://www.deq.virginia.gov/eir>. The webpage includes the Commonwealth's Federal Consistency information package, a project list with project descriptions, and links to the DEQ main webpage for public notices of Federal consistency reviews. The webpage is updated weekly.

Final Products	% Completion	Anticipated Completion Date
Federal Consistency Semi-annual Reports	100	

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**for the period from**

Task: 4 Dept. of Environmental Quality - Environmental Education			
Community Environmental Education			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report
Open	Start:	End:	Closeout:
	10/1/2008	9/30/2009	12/31/2009

1. Environmental Education Leadership Program: Program manager, Ann Regn, coordinated VOOE office activities including spring meeting of Virginia Resource Use Education Council held in conjunction with the VA Science Education Leadership Association where the annual report to the Governor on the status of environmental education and meaningful watershed education is delivered; also convened quarterly meetings of Chesapeake Bay Education Workgroup, including development of the biennial Bay Education Summit; participation in national BWET conference to learn from other regional programs; development of education program at Meadow Event Park; and implementation of 10 regional EE teams. The EE teams and leadership group convened in September to discuss state priorities and hear presentations about issues based education and "water words that work," a social marketing tool for communicators. The 2009 annual conference, "Spreading Our Environmental Message," brought together several new partners including Hampton University and NASA.(HRAEE) to deliver high quality professional development to 150 educators by offering 20 various programs (a session on TMDL and a Living Shores tour among the topics of diversity, technology and innovative programs).

2. Virginia Naturally web site. Major updates by Jennifer Underwood include:  
 •Creation of new registration, program and evaluation pages for annual conference.  
 •Evaluation pages for Stewardship workshop, and other professional development pages.  
 •Wiki pages for the collaboration of Shades of Green and other lesson plans related to sustainability.  
 From April to September, Virginia Naturally received 172,032 web hits. The most popular pages continue to be K12 education, Virginia's Natural Resource Education Guide (all pages), the monthly newsletters, professional development opportunities and grants and funding.

3. Meaningful Community Education Trainings/Workshops: Since April education efforts by staff have reached more than 1,000 people through outreach, training, and technical assistance. Highlights have included Virginia Chesapeake Bay Academy; Caroline-Hanover SWCD professional development, and two wetlands institutes.

Final Products	% Completion	Anticipated Completion Date
1.EE Leadership and Capacity Building	100	September 09
2. Virginia Naturally website	100	September 09
3. Meaningful Community Education Trainings and Workshops	100	September 09

Task: 5 Dept. of Environmental Quality - Chesapeake Bay Program			
Water Quality Improvement Fund Match (Tappahannock Wastewater Treatment Plant Upgrade for Nutrient Removal)			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u> Attached
Open	Start:	End:	Closeout:
	10/1/2008	9/30/2009	12/31/2009

Retrofitting the Tappahannock wastewater treatment plant with enhanced nutrient removal technology continues, under WQIF Grant #440-S-08-10. Construction began in April 2008 and is scheduled for completion in November 2009. To-date, \$3,565,568 of the \$4,710,623 grant has been paid to the Town, indicating that construction is about 76% complete.

In the period since October 2008, reimbursements totaling almost \$2.97 million have been made to the Town for this project, far exceeding the \$768,311 in State General Funds needed to provide a match for the Coastal Zone Management Program.

Final Products	% Completion	Anticipated Completion Date
Install enhanced nutrient reduction technology at Tappahannock WWTP	76%	Nov. 2009

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**Year: 2008**

**Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from**

Task: 6 Virginia Marine Resources Commission			
Permit Review and Compliance			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report
Open	Start:	End:	Closeout:
	10/1/2008	9/30/2009	12/31/2009

During the reporting period, VMRC received a total of 1001 joint permit applications. Actions were completed on 953 projects, some of which were received prior to the reporting period. During the reporting period 148 compliance inspections were conducted for previously issued permits. Also 79 compliance inspections for the random sample of 130 projects permitted by local wetland boards were completed.

Final Products	% Completion	Anticipated Completion Date
Collect permit compliance data for projects permitted by VMRC	Ongoing	
Collect permit compliance data for wetland projects permitted in 2007	100%	
Compile data for entry into data base	100%	September 2009

Task: 7 Dept. of Conservation & Recreation - Natural Heritage			
Habitat Conservation/ Locality Liason			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report
Open	Start:	End:	Closeout:
	10/1/2008	9/30/2009	12/31/2009

- Multiple presentations have been given to localities and conservation partners, including the National Audubon Society, King George County, Friends of the Rappahannock, Northern Shenandoah Valley Regional Commission, NOAA, City of Newport News, Crater PDC, Northern Virginia Regional Commission and more. Presentations included an overview of DCR's Natural Heritage Program, the Locality Assistance Program, the Natural Heritage Data Explorer (NHDE) website, the Wetland Restoration Catalog, the Virginia Conservation Lands Needs Assessment (VCLNA), and the Land Conservation Data Explorer (LCDE).
- Currently, 64% of the Coastal Zone localities have Natural Heritage data.
- The Locality Liason has joined the DCR – Locality Assistance Network to better coordinate outreach efforts throughout the Department. The Liason has continued to participate in the DCR-Locality Assistance Network by attending meetings at least every other month.
- The Coastal Locality Liason, with assistance from DCR-NH staff, updated the Wetland Restoration Catalog [www.dcr.virginia.gov/natural\\_heritage/wetrestcat.shtml](http://www.dcr.virginia.gov/natural_heritage/wetrestcat.shtml). The Locality Liason has incorporated the updated Wetland Restoration Catalog in presentations during training. Many localities and conservation partners have received shapefiles of the Catalog to use in environmental planning. The Locality Liason is working to make this data available on the DEQ-CZM Coastal GEMS website.
- 485 projects were reviewed for impacts to NH resources in the coastal zone (38% of the projects reviewed state-wide). One project of note was a development project in Spotsylvania County; DCR-NH recommended a Small whorled pogonia survey in 2006. The survey identified Small whorled pogonia on site and DCR-NH worked with the consultant along with other agencies to identify a 4.5 acre conservation buffer and develop easement language for the protection of this rare plant. According to Jim Hall, reporter for the Free Lance Star, the new medical building currently under construction is named after the listed species <http://fredericksburg.com/News/FLS/2009/082009/08042009/08042009/483681>.
- Locality Assistance examples: The Project Review Manager presented the Locality Liason Program, Wetland Restoration catalog, NHDE, and LCDE to the Virginia Association for Planning District Commissions Environmental Committee (07/14/09). The Locality Liason has provided individualized Heritage information to the Henrico County and the City of Virginia Beach for incorporation into local Comprehensive Plans that are still under revision. The Liason met with representatives from the Northern Neck Planning District Commission to discuss DCR-DNH tools such as the Wetland Restoration Catalog, NHDE, and VCLNA.
- NHDE-User manuals and online help documents continue to be updated, such as including new error messages in the Troubleshooting section. Recent updates include NH resource information in the screening layer and conservation lands.

Final Products	% Completion	Anticipated Completion Date
Project Review	100%	September 30, 2009
Locality Assistance Program Presentations	100%	September 30, 2009
Natural Heritage Data for Coastal Partners	100%	September 30, 2009
Improvements to Natural Heritage Data Tools	100%	September 30, 2009
Final Report	100%	September 30, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 8 Virginia Institute of Marine Science  
Tidal Wetlands Management Support

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Attached
Open	Start:	End:	Closeout:		
	10/1/2008	9/30/2009	12/31/2009		

CCRM Advisory Activity:

Month	Info Requests	Field Visits	Meetings	Publications	Website Hits
Apr	292	7	29	27	247
May	206	1	20	35	197
Jun	181	5	14	54	236
Jul	173	1	16	47	205
Aug	243	0	10	31	175
Sep	171	5	20	45	240

Wetlands Reports:

The Center for Coastal Resources Management continues to populate the permit database and to make Joint Permit Applications with VRMC assigned numbers available online in a searchable format. To view the original shoreline permit applications, as well as the associated VIMS report and incomplete form, additional information, photos, and public hearing notifications for every application reviewed by the Wetlands Program staff please see: <http://ccrm.vims.edu/perms/newpermits.html> Applications that don't meet the minimum criteria necessary to assess for a VIMS report are now considered incomplete and are identified in red, while applications considered complete show up in green, on the search page of the permit website.

Publications:

Rivers and Coast, Fall 2009, Vol. 4, No. 2. Evolving Guidance for Tidal Wetlands Management  
[http://ccrm.vims.edu/publications/pubs/rivers&coast/vol4\\_no2\\_evolving\\_guidance.pdf](http://ccrm.vims.edu/publications/pubs/rivers&coast/vol4_no2_evolving_guidance.pdf)  
Virginia Wetlands Report, Fall 2009, Volume 24, Issue 2. Shallow Water Habitat and Dredging  
[http://ccrm.vims.edu/publications/publications\\_topics/vwr/VWR\\_2009\\_fall.pdf](http://ccrm.vims.edu/publications/publications_topics/vwr/VWR_2009_fall.pdf)

Training:

Westmoreland County Wetlands Board Training - held in Westmoreland for 8 people on August 17th, 2009.  
Current Issues in Coastal Resources Workshop - 70 people attended this workshop at VIMS on September 17th. The workshop presentations and handouts may be viewed online at: <http://ccrm.vims.edu/education/seminarpresentations/fall2009/>

Final Products	% Completion	Anticipated Completion Date
Permit Report	100	September 30, 2009
Outreach Publications	100	September 30, 2009
Database	100	September 30, 2009

Task: 9 Virginia Institute of Marine Science

2008 Submerged Aquatic Vegetation Distribution and Abundance Survey of Virginia's Chesapeake Bay and its Tributaries

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start:	End:	Closeout:		
	10/1/2008	12/31/2009	3/31/2010		

Upon successfully completing the photo-interpretation of SAV on all quadrangles for the Chesapeake Bay and the Coastal Bays and distributing the baywide 2008 SAV numbers to all participants by the beginning of March, VIMS commenced upon the task of preparing the draft final report (<http://web.vims.edu/bio/sav/sav08/index.html>). This was completed and submitted to the VA CZM Program for review.

VIMS also developed a new interactive map using Google Earth where the 2008 SAV distribution data for the Chesapeake Bay and coastal bays (<http://web.vims.edu/bio/sav/maps.html?svr=www>) was placed.

Final Products	% Completion	Anticipated Completion Date
Draft Final Report	100	June, 2009
Final Report	80	December, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 10 Dept. of Conservation & Recreation  
Eastern Shore Land Acquisition Morgan Tract 8 acres

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start: 2/1/2009	End: 12/31/2009	Closeout: 3/31/2010

The VA CZM Program received a signed contract from the grantee on 8-10-2009. The VA CZM Program is awaiting clearance from the Attorney General's Office. Once received, a closing date will be set.

Task: 11.01 Dept. of Conservation & Recreation  
NEMO Support for Sustainable Community Planning

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start: 10/1/2008	End: 9/30/2009	Closeout: 12/31/2009

For the grant reporting period, the Environmental Analyst at the Virginia Commonwealth University continued to serve as the Coastal NPS Program Manager and implement the Coastal NPS Program at the Virginia Department of Conservation and Recreation. The focus of the Coastal NPS Program is the continued expansion of the role and services of the Virginia Network for Education of Municipal Officials (VNEMO) in the Coastal Zone.

The Coastal NPS Program Manager continued to implement the VNEMO Program to support the Sustainable Community Planning Focal Area Projects. VNEMO, in coordination with Chesapeake NEMO, supported the Northern Virginia Regional Commission (NVRC) in their efforts to plan for sustainable shoreline and near-shore community development, restoration, protection, and revitalization along Northern Virginia's tidal waters. Planning specifically for a rise in sea level supports the development of a regional climate change adaptation toolbox for Northern Virginia.

The VNEMO Program worked closely with the NVRC to plan and outline the process of working with the northern Virginia communities. The VNEMO program assisted in the development of the outline that guided the facilitation process for the meetings. VNEMO directly assisted in the facilitation of the meetings. The VNEMO Program has continued a strong role with the implementation of the project in coordinating specific roles and responsibilities within the program delivery and context of the Shoreline Project, under the guidance of the NVRC, the VNEMO client. VNEMO provided technical analysis of documents and products developed as part of the NVRC project and will integrate a VNEMO partner to assist in the economic analysis portion of the project.

In addition, the NEMO Program was able to secure Light Detection and Ranging (LiDAR) data, at no cost, for many parts of the Coastal Zone including for the NVRC, Middle Peninsula Planning District Commission and the Hampton Roads Planning District Commission to assist in the analysis of vulnerable areas subject to sea level rise and storm surge.

Final Products	% Completion	Anticipated Completion Date
Product #1	100%	

Year: 2008

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Task: 11.02 Dept. of Game & Inland Fisheries/VCU/DCR			
Assessment of Priority Green Infrastructure			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report
Open	Start:	End:	Closeout:
	10/1/2008	9/30/2009	12/31/2009

During this project period, the Virginia Department of Game and Inland Fisheries (DGIF) compiled and finalized the Priority Wildlife Diversity Conservation Areas (PWDCAs) dataset. This was created from existing GIS datasets, identified from conservation actions in the Wildlife Action Plan, and prioritized based on input from all 13 Wildlife Diversity biologists. The final result is a raster GIS dataset with priorities ranging from 1 to 5, with 5 being the highest priority. The final PWDCAs version was presented to Wildlife Diversity Division leadership on July 13th. The PWDCAs and this Sustainable Communities Project in general were also presented to Bureau of Wildlife Resources staff in each of the DGIF regional offices within Virginia's Coastal Zone.

Virginia Commonwealth University – Center for Environmental Studies (VCU-CES) used stream health scores from sampled reaches and watershed integrity scores to create the Aquatic Resource Integrity Layer. This dataset has raster cell values from 2 to 5 indicating relative stream health, with 5 representing the healthiest waters. The PWDCAs, the Aquatic Resource Integrity Layer, and Virginia Department of Conservation and Recreation's (DCR) Conservation Sites and Natural Landscape Network datasets were combined to create the Priority Conservation Areas (PCA) dataset. VCU-CES compiled these priorities from all 3 entities using the maximum value at any given location. The final PCA is a dataset with cell values from 1-5 representing moderate conservation opportunities (1) up through imperative conservation opportunities (5). The PCA is available in both raster and polygon versions. The VCU-CES used DCR's Composite Vulnerability Model, finalized in the previous reporting period of this project, to tag the PCA with a threat value. The threat value was averaged for each polygon within the PCA to create a threat attribute in the PCA. The final PCA raster was e-mailed to all coastal PDCs. The PCA shapefile, including the threat attribute, is available for download, along with the PWDCAs raster, at: <http://www.dgif.virginia.gov/gis/gis-data.asp> The PCA shapefile was also sent to the Virginia Coastal Zone Management Program for inclusion in Coastal GEMS.

The VCU-CES developed a sample Community Viz scenario using data and input from Northampton County. The DGIF and VCU-CES staffs met with a Northampton County planner on May 8th to review the use of county information and sample applications of Community Viz. Using the feedback from this meeting, VCU-CES created a final Community Viz scenario using the PCA and Northampton County information. Data and results of this application of Community Viz were sent to Northampton in September. This pilot project showed that both the PCA dataset and Community Viz software are valuable tools for local and regional planners.

The VCU-CES hosted a workshop on the PCA dataset and Community Viz software on August 18th 2009 in Richmond, Virginia. All 3 project partners (DGIF, DCR, and VCU-CES) presented their contributions to the PCA. Compilation and assessment of the PCA was discussed. The second half of the workshop provided hands-on examples of using Community Viz with the PCA dataset to assess various hypothetical county regulatory scenarios for conservation planning. The Northampton Pilot project (reported above) formed the basis of the presentation and the exercises. Workshop attendees included: Richmond Regional PDC (2), Middle Peninsula PDC, Northern Virginia PDC (2), George Washington PDC, Accomack-Norfolk PDC, Hampton Roads PDC, Northampton County, DCR, VCU-CES (3), DGIF (5), and Virginia Coastal Zone Management Program (3). PowerPoint presentations from the August workshop, GIS datasets created as part of this project, and the final project report will be put on a CD to be distributed to all project partners and Coastal Zone PDCs. DGIF, DCR, and VCU-CES each presented separate topics, including the PWDCAs, components and compilation of the PCA, and the Community Viz pilot project, at the 2009 Virginia GIS Conference in Richmond, VA on the 22nd of September 2009.

Final Products	% Completion	Anticipated Completion Date
Updated Vulnerability Model	100	12/01/08
Priority Wildlife Conservation Areas	100	7/08/09
Priority Conservation Areas	100	8/01/09
CommunityViz project for locality	100	9/19/09
Workshop on spatial data and CommunityViz application	100	8/18/09

Task: 11.03 Virginia Institute of Marine Science			
Estuarine Blue Infrastructure: Final Priority Conservation Areas for Chesapeake Bay and its Tidal Tributaries and Back Bay			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u> Project Period Open
Open	Start:	End:	Closeout:
	10/1/2009	3/31/2010	6/30/2010

This project was recently approved by NOAA. The VA CZM Program received a signed contract on 10-8-2009. Work on the project has begun.

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 12      TBD

Sustainable Community Planning

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Project Canceled
Cancelled	Start:	End:	Closeout:		
	10/1/2008	9/30/2009	12/31/2009		

Funds for Task 12 have all been allocated to Tasks 12.01 - 12.08.

Task: 12.01      Accomack County

Accomack County Blue-Green Infrastructure Planning

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start:	End:	Closeout:		
	5/1/2009	9/30/2009	2/15/2010		

Task 1. Technical Literature Review and Data Assessment Report

Accomack County staff and Green Infrastructure Center staff have collected and reviewed existing county data and have evaluated its adequacy and accuracy for blue and green infrastructure planning. A report has been prepared that details what studies are available and how they might be applied to the project assessment. The existing studies report includes: a data evaluation matrix based on available data; how the data can be used to map the county's green infrastructure assets and priorities; and what the data tell us about the condition/priority of the resource.

Task 2. Accomack County Blue and Green Infrastructure Asset Maps

Accomack County staff has completed updated base maps using existing data. The Coastal GEMS data has been incorporated into the project. The themed layers will be completed by the end of November 2009. The data assessment report lists all of the data sources that have been compiled to complete the asset maps, which are approximately 60 percent complete. The asset maps will serve as the basis for the opportunity mapping that will be conducted as Task 3 during Phase II of the project. A presentation outlining progress to date and examples of the maps is available at: <http://gicinc.org/accomack.htm>

Final Products	% Completion	Anticipated Completion Date
Technical Literature Review and Data Assessment Report	100 %	
Accomack County Blue and Green Infrastructure Asset Maps	60 %	November 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 12.02 George Washington Regional Commission

Blue-Green Infrastructure Protection- Developing a Conservation Corridor Plan for the GW Region, Phase 1

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start:	End:	Closeout:		
	10/1/2008	9/30/2009	12/31/2009		

#1: GW Region State Natural Resource Data Evaluation Report ( 5%): GWRC staff organized data orientation and training session for local government staff to better understand environmental spatial data available from DEQ and DCR through the Coastal GEMS GIS, the VCLNA data set and the Natural Heritage program. An evaluation survey instrument was developed, circulated and results tabulated and discussed in project report. Report submitted with mid-year progress report.

#2: Draft Regional Conservation Corridor (45%): GWRC conducted ecological core update (post 2000) by applying the same technique (used by RRPDC & Crater PDC approved by DCR Natural Heritage staff) of mapping building footprints and building 100 meter buffer around buildings located within ecological cores where human settlement patterns have disrupted natural habitat systems. GWRC staff integrated data layers from DCR coastal conservation forum project and met with local planning and development review staff to collect local viewpoints on the eco-core ranking and routing of corridors and to re-rank, as appropriate areas to reflect local perspectives. An interim report was created to describe the project and illustrate regional and local ecological cores, the effect of post-2000 development activity on the reduction of natural ecological core areas and resulting routing changes in potential eco-corridors.

#3: Community Viz Demonstration Project Report (40%): GWRC staff worked with Alex Long, Chair of Port Royal Town Planning Commission, and King George Co Planning Dept staff to develop data layers and working understanding of Community Viz (CV) model for application to update of Town and King George Co comprehensive plans. At the request of Mr. Long, the Town's project study area was expanded to include the County's Port Royal Secondary Growth Area. Different Build-out and Suitability Analyses were developed for the Town and Co to illustrate alternative scenarios. Work will continue using Community Viz through regional planning scenario project (funded through Fredericksburg Area MPO) which will help resolve technical problems experienced with Community Viz and extend Community Viz usage throughout the region, building CV models

#4:Ches Bay NEMO Program Support for Local Outreach (10%): A public engagement workshop to support regional scenario planning was developed to integrate smart growth land use modeling tool ("RiversideQuest") and the use of wireless audience response equipment to help develop an audience consensus around community growth options and land conservation goals..

Final Products	% Completion	Anticipated Completion Date
#1: GW Region State Natural Resource Data Evaluation Report	100%	March 31, 2009
#2: Draft Regional Conservation Corridor	100%	Sept. 30, 2009
#3: Community Viz Demonstration Project Report	100%	Sept. 30, 2009
#4:Ches Bay NEMO Program Support for Local Outreach	100%	Sept. 30, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 12.03 Hampton Roads Planning District Commission  
Hampton Roads Climate Change Adaptation

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start: 10/1/2008	End: 12/31/2009	Closeout: 3/31/2010

**Collection and Analysis of Available Information on Climate Change**

HRPDC staff is continuing the process of researching the potential impacts of climate change on the Hampton Roads region and possible adaptation measures. A broad range of technical documents and studies have been reviewed. The consolidation of this research into technical and general information documents on the impacts of climate change is nearing completion. Research is currently focused on finalizing impact analysis and identifying adaptation and mitigation measures that would be feasible in Hampton Roads localities. Case studies of other regions similarly affected by climate change are also being reviewed for lessons that could be applied to Hampton Roads. An initial analysis of the impacts of climate change on infrastructure and populations in Hampton Roads is also being conducted. A synoptic report of this research is under development.

HRPDC staff is in the process of holding discussions with a broad range of organizations that are involved in research and projects related to climate change impacts in Hampton Roads. A meeting was held with faculty and staff from the Virginia Institute of Marine Science in April 2009 to discuss related research on the effects of sea-level rise on storm surge flooding as well as other impacts of climate change. Other agencies, including the Army Corps of Engineers, Noblis, the Renaissance Computing Institute, and NASA are currently involved in efforts to compile and rectify elevation data, and to model and assess the impact of sea level rise and associated storm surge flooding on the region. HRPDC staff has also participated in workshops with other localities and third parties to discuss climate change research and adaptation possibilities. A workshop with a broad range of stakeholders on sea level rise in Hampton Roads is scheduled for October 29, 2009.

**Facilitation of Presentations and Discussion of Climate Change Issues**

The process of meeting with stakeholders in the Hampton Roads region is underway. Four meetings were held in April and May 2009 with groups of localities from across Hampton Roads; two meetings were held on the Peninsula, one was held in Western Tidewater, and the last was held in Southside. Staff invited to these meetings included representatives from planning, parks and recreation, utilities, public works and emergency management. A series of energy efficiency meetings, including discussion of climate change, has also been held between the larger Hampton Roads localities. HRPDC staff is in the process of putting together meetings with additional stakeholders.

**Development of a Framework for the Response to Climate Change in Hampton Roads**

Preliminary discussions are underway on the development of a framework for the response to climate change in Hampton Roads.

Final Products	% Completion	Anticipated Completion Date
Collection and Analysis of Available Information on Climate Change	75%	November 2009
Facilitation of Presentations and Discussion of Climate Change Issues	80%	October 2009
Development of a Framework for the Response to Climate Change	50%	December 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
**Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466**  
**for the period from**

Task: 12.04 Middle Peninsula Planning District Commission

Middle Peninsula Climate Change Adaptation- An Assessment of Potential Anthropogenic and Ecological Impacts of Climate Change on the

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start:	End:	Closeout:		
	10/1/2008	9/30/2009	12/31/2009		

Task 1: Spatial Assessment of Potential Climate Change Impacts within the Middle Peninsula Planning District: From the matrix of public policy issues that were identified by the Climate Change Advisory Committee, MPPDC staff used the best available data to map and assess these anthropogenic and ecological concerns. Since LIDAR data for the Middle Peninsula is not currently available, GIS provided a format for assessing sea level rise impacts using elevation/topographic data. MPPDC assessed economic and ecological impacts of a 1ft sea level rise by 2050 and a 1.5ft rise by 2100. The number of structures (eg. homes, business, onsite disposal systems, roads and shoreline hardening) and the acres of wetlands impacted by sea level rise were counted for select areas and associated cost estimates of impacted infrastructure and wetlands were calculated. On a regional scale long term costs of impacts due to sea level rise range from \$187,005,132.10 to \$249,451,074.50.

The maps along with cost estimates provide local governments an opportunity to consider their role and responsibility regards adapting to climate change/sea level rise impacts. These maps will also supplement presentations and discussions of climate change issues in year 2 of this project.

Task 2: Summary of Stakeholder Findings and Workgroup Meetings and Outcomes: The Climate Change Advisory Workgroup had a third meeting on July 1, 2009, where they were presented with an update on mapping activities that focused on anthropogenic and ecological impacts of sea level rise in the Middle Peninsula. Workgroup members were asked to comment about the methodology of the spatial assessment. With the feedback, MPPDC staff continued to assess the anthropogenic impacts, and made sure that the ecological aspects were equally represented, in order to provide a comprehensive overview of all the potential impacts of sea level rise within the Middle Peninsula.

Final Products	% Completion	Anticipated Completion Date
Spatial Assessment of Potential Climate Change Impacts within the Middle Peninsula Planning District	100%	9-2009
Summary of Stakeholder Findings and Workgroup Meetings and Outcomes	100%	9-2009

Task: 12.05 Northern Neck Planning District Commission

Northern Neck Blue-Green Infrastructure Protection

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start:	End:	Closeout:		
	10/1/2008	12/31/2009	3/31/2010		

NNPDC staff met with Richmond and Westmoreland County staff regarding Green Infrastructure Planning. Prior to that meeting NNPDC staff obtained the Virginia Conservation Needs Land Assessment (VCLNA) GIS data set as well as the Virginia Coastal Program's Coastal and Estuarine Land Conservation Program (CELCP) Priority Areas data set. All data was clipped to the respective County Boundaries, and maps were created for each county. The maps created included, Natural Area Cores, Natural Corridors, Vulnerable Cores, Natural Landscape Blocks, Conservation Sites, Conservation Lands, Agricultural Model, Forest Model, Cultural Model, Recreation Model, Watershed Integrity Model, Urban Growth Model, Suburban Growth Model, and the VACZM CELP Priority Map. NNPDC staff set up a laptop with a custom ArcView mapping project that had the above mentioned layers included, and projected it on the screen for county staff to view. After meeting with Richmond County, staff noted that it would be helpful to have the GIS data layers from the existing Comprehensive Plan's Future Land Use Map to have to overlay to see where conflicts might occur, as well as where opportunities to co-locate Green Infrastructure Areas next to other appropriate areas (such as future reservoir sites). A second meeting with Richmond County staff was set up for October. NNPDC staff met with Westmoreland County staff with a laptop with their counties' GIS green infrastructure data on it to give them a sneak preview and start narrowing the focus of the areas to be examined. Westmoreland County staff requested to have the county's GIS zoning layer added to the project, and stated that they did not want to "throw out" any of the data, because it might be important later on.

NNPDC staff presented an introduction to Green Infrastructure Planning to the Richmond County Planning Commission on 9-8-09, that went well. NNPDC staff had been scheduled for the October Planning Commission meeting, but issues came up that needed addressing, and the NNPDC was postponed to the November meeting. Also, NNPDC staff have been assisting the county, along with the Chesapeake Bay Network for Education of Municipal Officials (CBNEMO) in their Comprehensive Planning Process by helping to organize speakers or giving presentations themselves. On 9-15-09, NNPDC staff presented an introductory presentation to the public on Green Infrastructure at the Richmond County Comprehensive Plan Education Series Meeting that was well received, but generated a lot of comments about private property rights.

NNPDC staff presented another introduction to Green Infrastructure Planning to the Westmoreland County Comprehensive Plan Commission on 8-30-09. The Committee agreed to have a Green Infrastructure Map in the new comprehensive plan, but was not sure what form it would take. Some members of the Committee wanted to include all of DCR's VCLNA maps, while others thought that those maps should be distilled down into a single map for simplicity's sake.

Final Products	% Completion	Anticipated Completion Date
Draft Richmond and Westmoreland Blue Green Infrastructure Plan	75%	December 30, 2009
Planning Commission/Consensus Building Report	60%	December 30, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
**Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466**  
**for the period from**

Task: 12.06 Northern Virginia Regional Commission

Northern Virginia Climate Change Adaptation- Sustainable Shoreline Community Management, Phase I

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start:	End:	Closeout:		
	10/1/2008	9/30/2009	12/31/2009		

Between April and September 2009, the workgroup met three times (May, July, and September), to review and provide feedback on vulnerability maps as well as draft content for the Policy Inventory and Local Consistency Report. NVRC staff with assistance from the Chesapeake/Virginia NEMO programs conducted a broad vulnerability assessment, mapping various scenarios on LiDAR topographic data acquired from the Department of Defense for the upper Potomac River project area. The effort included a region-wide assessment of the number of parcels and extent of tidal wetlands affected based on a one and three foot rise in sea level and an additional 10 foot rise due to storm surge. Results include:

	Sea Level Rise Only		Sea Level Rise + 10 feet of Storm Surge	
	1 foot	3 feet	11 feet	13 feet
Total Number of Parcels Affected	1,869	2,678	7,083	8,135
Acres Tidal Freshwater Marsh* Inundated (2,168 acres total)	1,959	2,031	2,121	2,129

During the May meeting the workgroup identified additional areas of concern, due to low-lying topography, historic flooding and/or planned development. For these areas, NVRC conducted a more detailed assessment to understand impacts to land use, structures, cultural resources, and natural resources, among other features. These maps along with the Policy Inventory and Local Consistency Report provide a foundation for localities to begin considering adaptation strategies. The Report includes a compilation of adaptive approaches in cities and regions similar to Northern Virginia, as well as Northern Virginia's existing local policies that the jurisdictions may build off of or integrate strategies into. Initial research and the first draft were prepared by a summer intern between June and August. At the September workgroup meeting, a discussion on the final draft report revealed additional interest by the workgroup members in understanding what authority Virginia's local governments have and what may prohibit the integration of adaptation strategies into their policies and ordinances. This effort will occur in Phase II. The workgroup and planning team continued to utilize the Chesapeake Watershed Network as a clearinghouse for files specifically for workgroup meetings and other resources for project management and facilitation planning.

A secondary outcome of the workgroup is opportunities for the members to learn from each other's experiences. For example, after hearing a presentation by CH2M Hill at one of the workgroup meetings, Arlington County is riding a City of Alexandria's contract to develop new regional stormwater curves for the county, based on projected climate change impacts.

Final Products	% Completion	Anticipated Completion Date
Summary of Workgroup Formation, Meetings and Outcomes	100	September 30, 2009
Report on Northern Virginia Shoreline Inventory and Data Gaps	100	September 30, 2009
Report on Local and Regional Policy Consistency	100	September 30, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
**Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466**  
**for the period from**

Task: 12.07 Richmond Regional Planning District Commission  
 Central Virginia Blue-Green Infrastructure Protection

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start: End: Closeout:		
	10/1/2008 9/30/2009 12/31/2009		

The Blue-Green Infrastructure project was a partnership project among the Richmond Regional Planning District Commission (RRPDC), the Crater Planning District Commission (CPDC), and the Green Infrastructure Center (GIC). It entailed an extensive regional mapping effort for green infrastructure assets and development of associated conservation strategies. A major part of the Phase I mapping effort was an update to the Virginia Department of Conservation and Recreation Division of Natural Heritage's Virginia Conservation Lands Needs Assessment (VCLNA) natural landscape assessment data model. The VCLNA natural landscape assessment model uses geospatial analysis to identify, prioritize, and link patches of natural land. PDC staffs, in conjunction with GIC staff and DCR staff, developed a data model update methodology. The update methodology took the original data model that was current as of year 2000 and updated it to be current as of year 2007. Phase I of the project has revealed a striking change from 2000 to 2007 in lost natural land cover and wildlife habitat in the two PDCs. Links to maps depicting this drastic change as well as other project materials are available on the project website: <http://www.richmondregional.org/Planning/green%20infrastructure.htm>.

A review committee was created to inform the project as work progressed; the committee consisted of local government representatives, land conservation groups, and other organizations. Using feedback gathered from the project review committee at numerous committee meetings, PDC staff and GIC staff worked to finalize a regional green infrastructure map that includes critically important habitat and corridor resources across the Richmond and Crater Planning Districts. As well, PDC staff and GIC staff identified regional opportunities for blue-green infrastructure within and across the two Planning districts. The green infrastructure map and regional opportunities are presented in a bi-regional report that also includes discussions on defining green infrastructure, describing the role of green infrastructure in the natural environment and the built environment, and the economic benefits of green infrastructure. The report can be found on the project website listed above.

The GIS data layers used in the regional green infrastructure map and other maps produced during Phase I have been consolidated into a geodatabase that has been provided to the review committee members, PDC staff, and GIC staff. In addition, PDC staffs worked with the GIC to finalize a canned presentation for use by the PDCs or their constituent localities that explains the green infrastructure concept and work accomplished to date, and to write a report to include model comprehensive plan and ordinance text that can be used to implement green infrastructure planning practices.

Final Products	% Completion	Anticipated Completion Date
Presentation – Blue-Green Infrastructure & Conservation Corridors	100%	September 30, 2009
Green Infrastructure Asset GIS data layers and mapping	100%	September 30, 2009
Blue-Green Infrastructure Implementation Methods and Model Text Report	100%	September 30, 2009

Task: 12.08 Northampton County  
 Northampton Co. Blue & Green Infrastructure Protection, Phase I

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start: End: Closeout:		
	6/1/2009 12/31/2009 3/31/2010		

Task/Product #1: interim stormwater management ordinance – Sandra Benson, Planning Director, and Melissa Kellam, Zoning Administrator, reviewed the Virginia model stormwater ordinance as well as the draft ordinance prepared by Accomack County in 2008 and scheduled a meeting with engineer John Salm to begin discussion on October 15, 2009.

Task/Product #2: Planning Symposium sponsorship - Northampton County provided \$500.00 sponsorship for the American Planning Association-Virginia Chapter planning symposium entitled ECO3 – Planning-Development-Tourism @ Eastern Shore of Virginia held on Chincoteague October 16-17, 2009. The funds were made available through this grant. The group of approximately 90 attendees from Virginia, Maryland, Delaware, and Washington, D.C. were given two choices for six sessions on Friday, plus a speaker for the plenary lunch session. On Saturday attendees had a choice of participating in either a Chincoteague Town Master Plan Bicycle Tour or a Chincoteague Town Master Plan Walking Tour.

The conference sessions included presentations on water and wastewater issues associated with development in coastal areas, planning and economic development in coastal areas, eco-tourism, mapping and protecting blue and green infrastructure, assessing natural assets, and the relationship between federal initiatives and local planning.

Final Products	% Completion	Anticipated Completion Date
Product #1 (draft ordinance)	<1%	12/31/09
Product #2 (symposium sponsorship)	100%	

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
**Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466**  
**for the period from**

Task: 41      Accomack-Northampton Planning District Commission				
Technical Assistance Program				
<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report
Open	Start:	End:	Closeout:	
	10/1/2008	9/30/2009	12/31/2009	

A-NPDC has held four Groundwater Committee meetings and held one Ground Water Plan Update Kickoff Meeting. The committee has reviewed one groundwater withdrawal permit, two VWP permits, and nine VPDES permits.

The Ground Water Pan Update Kickoff Meeting was open to the public and well attended. Four presentations were given regarding ground water management (Malcolm Pirnie), the Farm Bill and ground water resources (NRCS), storm water and irrigation (Northampton Extension Service), and the Plant ES Natives program (DCR). Following the presentations, a ground water management plan input session was held to open discussion amongst the Ground Water Committee, presenters, and the general public.

A-NPDC held a Wastewater Summit for the Eastern Shore to inform citizens of the impact of wastewater issues and to open discussion between town officials, citizens, private engineering consultants, and local, state, and federal agencies. The summit was open to the public and very well attended. The Virginia Departments of Health and Environmental Quality gave status reports on current issues and impacts of wastewater on the Eastern Shore. Localities and organizations that have collection and treatment systems reported on their experience, costs, and challenges. An engineering company presented information on wastewater technologies, costs, options, and benefits. A private wastewater management company provided information on economies of scale, management of municipal wastewater collection and treatment systems, and how they can be self-sustaining. Funding agencies also attended to inform the public of available grant and loan programs. The public was asked to input by responding to wastewater-related questions. The responses were collected, organized, and made publicly available shortly following the summit.

Coastal Management Committee Meetings-  
 There has been one Coastal Management Committee meetings. The committee reviewed offshore of Virginia oil and gas leasing programs. Committee members stated that Accomack County, NASA, and the US Navy would not support the leasing of the offshore areas.

Final Products	% Completion	Anticipated Completion Date
Coastal Management Committee Report	100	9/30/2009
Coastal Management Training Report	100	9/30/2009
Technical Assistance Report	100	9/30/2009
Groundwater Committee Report	100	9/30/2009

Task: 42      Crater Planning District Commission				
Technical Assistance Program				
<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report
Open	Start:	End:	Closeout:	
	10/1/2008	9/30/2009	12/31/2009	

(1) Crater PDC staff processed 13 environmental impact reviews in regard to local, state and federal projects. (2) Two coastal educational meetings were held during the reporting period (6/5/09 and 8/21/09) dealing with green infrastructure, climate change, Virginia Scenic River Program, land-use and transportation impacts and Chesapeake Bay Act Regulations Phase III requirements. (3) Completed the Town of Dendron Comprehensive Plan Update to incorporate natural hazard mitigation into the Town's planning process. (4) Two coastal training meetings were held during the reporting period dealing with Secondary Road Access Requirements and NEMO (Network for Education of Municipal Officials). (5) Three meetings were held (6/23/09, 8/18/09, 9/17/09) to discuss the Crater/Richmond PDCs Green Infrastructure Pilot Project. (6) The Spring Appomattox River cleanup was held on April 18, 2009 at three sites along the Appomattox in Hopewell, Petersburg, and Prince George. (7) Crater staff participated in the Chowan River Watershed roundtable meetings. (8) Crater PDC staff continued to support FOLAR activities and assisted in raising over \$32,000.

Final Products	% Completion	Anticipated Completion Date
Environmental Impact Review Comments	100%	9/30/09
Coastal Meetings	100%	9/30/09
Coastal Training	100%	9/30/09
Town of Dendron Comprehensive Plan	100%	9/30/09

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 43 Hampton Roads Planning District Commission  
Technical Assistance Program

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start: 10/1/2008	End: 9/30/2009	Closeout: 12/31/2009

- The HRPDC Joint Environmental Committee (Chesapeake Bay and Stormwater) met six times. Approximately 100 local, state and federal staff participate as members of these Committees. The Joint Environmental Committees received presentations on CBPA implementation activities and the evolving Phase III program, stormwater regulations, fecal bacteria studies, ARRA Stimulus funding, the Energy Efficiency and Conservation Block Grant program, invasive species management, and various regulatory updates.
- Approximately 43 EIR and Federal Consistency reviews were undertaken.
- HRPDC staff participated in a Coastal PDC meeting on June 11, 2009.
- Through the Committee process, recommendations were made to state agencies on regulations dealing with stormwater management.
- HRPDC staff continues to work with DEQ and several of the region's localities on TMDL studies. The HRPDC staff, in cooperation with DEQ, has developed a long-term project to facilitate the outreach and Implementation Plan development process for all TMDLs in the Hampton Roads region.
- HRPDC staff continues to participate in the Chesapeake Bay Program Committees dealing with land use and with stormwater management. The localities are briefed on the CBP activities and local views are provided to the CBP Committees.
- The HRPDC Newsletter was published in April and July 2009.
- HRPDC staff is representing the region on several state Technical Advisory Committees: PCB sampling to support TMDL development (DEQ), state stormwater management regulations, Stormwater Phase I regulations, Construction General Permit (DCR), VAPDC Environment Committee, and BMP Clearinghouse.
- Assisted multiple localities with information on EECBG and stimulus funding for lighting, HVAC, water, sewer, stormwater, and other capital projects.
- A special regional study of the use of Bacterial Source Tracking (BST) to identify the sources of bacteria in non-point source runoff has been completed. Based on a series of meetings and work sessions with scientists, engineers, and staff from several governmental agencies the Hampton Roads region will be moving forward with the use of BST to assess bacterial loading in stormwater runoff in several pilot watersheds.

Final Products	% Completion	Anticipated Completion Date
Final Report: FY 2008-2009 Technical Assistance Program	60%	November 2009
EIA/EIS and Coastal Consistency Review	100%	October 2009
Public Information & Training	100%	October 2009
Regional Coordination	100%	October 2009
Special Regional Studies	100%	October 2009

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**

**Year: 2008**

**Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from**

Task: 44 Middle Peninsula Planning District Commission			
Technical Assistance Program			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report
Open	Start:	End:	Closeout:
	10/1/2008	9/30/2009	12/31/2009

Coastal Management Support – MPPDC staff continues to provide coastal management support to member Local governments, local planning commissions and local planning staff. For the final six months of the project, MPPDC staff provided numerous GIS maps to local elected officials to assist with spatial understanding of community development issue. For example, provided Gloucester County elected official with a series of aerial images from 2002 and 2007. The elected official was able to determine the validity of the constituents claim as to historical use of the property and change in land use over a 5 year period. By providing the elected official with the imagery, MPPDC staff was able to improve the level of decision making confidence.

Local Planning Coordination MPPDC staff convened several meetings with local government level planners and administrators as well as the Middle Peninsula Chesapeake Bay Public Access Authority (MPCBPAA) related to current coastal zone management issues. 5 training and education session were convened during the second half of the grant period. Of note was the joint day of learning: The Middle Peninsula Planning District Commission, Chesapeake Bay National Estuarine Research Reserve in Virginia and the Marine Advisory Services at Virginia Institute of Marine Science all partnered to offer the MPPDC Commissioners, local elected officials and locality staff a day long learning forum on issues related to managing impacts of near, off and shore uses.

Special Project- Partial Implementation of the Middle Peninsula Chesapeake Bay Public Access Authority (PAA) Annual Work Plan. Upon the signing of legislation enabling the PAA to construct and build wetlands, the PAA contracted with VHB Consulting to produce a technical white paper focusing on the business structure of creating a publicly owned wetlands mitigation bank. VHB is assessing the technical, financial, and regulatory framework to create public wetlands.

Dragon Run Day Support Dragon Run Day Outcome Report- The Dragon Run Day Event, an outgrowth of the Dragon Run Special Area Management Plan was held Saturday, October 10 at Thousand Trails Campground in Gloucester County on the shores of the Piankatank River just downstream from the Dragon Run. Fourteen exhibitors were in attendance The Dragon Run Stewardship Award was also presented at the event. It is estimated that approximately 1,100 people were in attendance.

Final Products	% Completion	Anticipated Completion Date
Coastal Management Support	100	Sept 30 2009
Local Planning Coordination	100	Sept 30 2009
Special Project- Partial Implementation of the Middle Peninsula Chesapeake Bay Public Access Authority 2009	99%	By November 15,
	(assembling final report from project partners)	
Dragon Run Day Support	100	Sept 30 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 45 Northern Neck Planning District Commission  
Technical Assistance Program

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start:	End:	Closeout:		
	10/1/2008	9/30/2009	12/31/2009		

NNPDC staff held three Local Planning Coordination Meetings on July 8th, August 19th, and September 23rd. (As noted by our VACZM staff contact, we will spread these throughout the next grant year.) On July 9th, Robert Bennett, Regional Manager from the Tappahannock Department of Conservation and Recreation office trained the localities on the upcoming revisions and procedural changes regarding stormwater regulation. Most of the counties stated that they may not implement their own local stormwater program, and defer that authority to DCR. On August 19th, Chip Rice from DCR presented on the Richmond County Tributary Nutrient Reduction Grant that is ongoing. Difficulties obtaining data on BMP implementation highlighted the presentation, as well as challenges to the grant brought about by partner delays. Lessons learned were passed on, with the understanding that the Baywide TMDL is a few months away, and all counties are going to have to start looking at ways to reduce nutrients within their borders. On September 23rd, V'lent Lassiter, from the Department of Conservation, Division of Chesapeake Bay Local Assistance (DCR-DCBLA) trained those present on the upcoming Phase III implementation of the Chesapeake Bay Act. DCR-DCBLA will review county ordinances within the next couple of years to determine what changes need to be made to meet the Phase III criteria's intent. Those changes will be suggested in a letter to the county, and after a compliancy hearing, those changes may be required. County attendees stated they would work with DCR-DCBLA to help expedite the reviews.

NNPDC staff have completed the five digital Northumberland County tax maps slated for revision this grant year. The maps that were completed were tax map numbers 3, 4, 9, 10 and 34.

NNPDC staff completed digitizing the land cover in Richmond County watershed, Cat Point Creek. More than 2/3 of the county has completed digital land cover data for use in planning.

NNPDC staff updated the Westmoreland County Zoning map attribute layer in the county's revised digital tax maps. NNPDC staff printed working zoning maps, met with Westmoreland County staff and checked each individual tax maps against the official zoning tax map in the Westmoreland County Land Use Office. After noting changes to be made on the hard copy maps, NNPDC staff made the corrections. NNPDC staff suggested that the PDF map of the countywide zoning might be good to place on the county's webpage so as to reduce the number of calls requesting zoning classifications.

NNPDC staff received data from the Virginia Department of Health (VDH) to map alternative septic systems in Lancaster County. Mapping the sites consisted of locating the tax parcel, bringing up the 2007 VBMP aerial photos and using best judgment heads-up digitizing the point in a likely cleared area next to the structure with wastewater needs. The data included parcels with installed alternative septic systems, as well as those with permitted alternative septic systems. Therefore, two maps were created, one with installed sites and one map showing permitted (ready to be installed) sites. Some permit data lacked sufficient information to map (no tax parcel ID or 911 address), so those sites were not mapped.

Final Products	% Completion	Anticipated Completion Date
Coastal Management Support	100%	September 30, 2009
Local Planning Coordination	100%	September 30, 2009
Northumberland 5 Revised Digital County Tax Maps	100%	September 30, 2009
Richmond County Watershed Land Cover Data Creation	100%	March 31, 2009
Westmoreland County Zoning Update	100%	September 30, 2009
Lancaster County Alternative Septic System Inventory	100%	September 30, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 46 Northern Virginia Regional Commission  
Technical Assistance Program

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start:	End:	Closeout:		
	10/1/2008	9/30/2009	12/31/2009		

Technical Workshops & NVironment Newsletter: NVRC hosted two workshops focused on Chesapeake Bay Preservation Act and shoreline management opportunities in Northern Virginia. Staff from the Department of Conservation and Recreation – Division of Chesapeake Bay Local Assistance presented an overview of their revised process for determining local compliance with the Phase III Program of the Chesapeake Bay Preservation Act. The audiences of Bay Act Program Managers and related-staff participating in the discussion have a better understanding of the timeline and process for compliance reviews, as a result of this workshop. NVRC requested that CBLA staff return in January 2010 to provide an update on the preliminary reviews of three NoVA localities conducted over fall 2009. Following the Integrated Shoreline Management workshop held in February 2009, a workshop introducing the nuances of developing a shoreline management plan for Northern Virginia was co-sponsored with Scott Hardaway of the Virginia Institute of Marine Sciences. As a result of this presentation along with the data that will be collected through VIMS' shoreline inventory scheduled for fall 2009, the localities would like to move forward with a shoreline management plan for the region. VIMS and NVRC are currently identifying funding sources.

The Fall 2009 NVironment Newsletter highlights several initiatives including: Community Energy Planning in Loudoun County, the Sustainable Shorelines and Community Management Project, NoVA Clean Water Partner's Pilot Study, and Coastal GEMS, among others. [www.novaregion.org/coastal](http://www.novaregion.org/coastal)

Special Project (Northern Virginia Clean Water Partners – Regional Stormwater Education Campaign): Stormwater pollution-related radio ads aired on six radio stations, 651 times, reaching approximately 355,446 individuals, over a six week period spanning May and June 2009. A first-of-its-kind pilot study examining the use of online advertising for social marketing campaigns focused on changing stormwater pollution-causing behaviors occurred during summer 2009. Below is a preliminary comparison of reach and cost per medium:

Advertising Medium	Weeks Airing	Total Impressions	Website Visits	Total Cost
Radio	5/11 – 6/15	355,446	676	\$80,000
Online	5/25 – 9/28	26,563,582	7,996	\$7,633

E-newsletter recipients will participate in a post-campaign survey in fall 2009. The Partners met twice between April and September 2008 and held weekly hour-long conference calls. [www.onlyrain.org](http://www.onlyrain.org)

EA/EIS/EIR Reviews: Since April, NVRC reviewed and responded to 33 EA/EIS/EIR reviews across the region. NVRC has not received notice of significant changes in projects due to comments provided by NVRC staff.

Final Products	% Completion	Anticipated Completion Date
Report on Local and Regional Implementation of Technical Assistance Program	100	September 30, 2009
Northern Virginia Clean Water Partners – Regional Stormwater Education Campaign Annual Summary Report	100	September 30, 2009
NVironment Newsletter	100	September 30, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
**Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466**  
**for the period from**

Task: 47 George Washington Regional Commission Technical Assistance Program			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report
Open	Start:	End:	Closeout:
	10/1/2008	9/30/2009	12/31/2009

#1: Local Government Coordination & Training Program (30%): Coordination activities included regular quarterly meeting with local government planning directors to share information on State environmental initiatives and policy issues. GWRC hosted VA-DCR, VA-DEQ staff training on the use of web-based (Coastal GEMS) and GIS user workshop on the VACLNA and Natural Heritage data sets for the analysis of local and regional eco-systems and the application of these data sets to local comprehensive plan updates. GWRC sponsored a field workshop on LID stormwater management techniques visiting several completed LID projects in Stafford County.

#2: Regional Land Development Review (Chesapeake Bay Phase III Review) (40%): GWRC, local govt planning staff and local environmental planning stakeholders convened a project team that met four times to review and discuss local development regulations and compare local ordinances using the regionally-developed interactive catalog of local code references. CBLAD personnel participated in all these meetings to discuss with local representatives possible options for modifying the direction of the Phase III regulations and the use of the Phase III checklist in local CBLAD compliance review program. A final report and development code review process was developed by the project committee which was recognized by CBLAD staff as a valuable contribution to the Commonwealth's approach to implementing Phase III review program to protect the Chesapeake Bay.

#3: Virginia Green Promotion (10%): GWRC staff met with several local tourism agency staff to outline program objectives and identify key target prospects for direct promotional contact. Virginia Green promotional brochure was finalized. A program information and promotion packet, including the Virginia Green self-assessment and application form was packaged and mailed to 45+ hotels and motels in the Greater Fredericksburg area to provide hotel managers information on the program and to identify those with interest in regional facilitation of their application. GWRC is currently working with the new Marriott Courtyard in Old Town Fredericksburg in the development of their Virginia Green application

#4: Feasibility Report on Children & Nature Network (20%): Work on this project suspended and budget re-programmed at mid-year to supplement work on the Community Viz demonstration project funded under the CZM focal area grant, Blue & Green Infrastructure Protection initiative. Demonstration project report for Port Royal and King George completed.

Final Products	% Completion	Anticipated Completion Date
#1: Local Government Coordination & Training Program	100	Sept 30, 2009
#2: Regional Land Development Review (Ches Bay Phase III Review)	100	Sept. 30, 2009
#3: Virginia Green Promotion	100	Sept. 30, 2009
#4: Community Viz Demonstration Project Support	100	Sept. 30, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 48 Richmond Regional Planning District Commission  
Technical Assistance Program

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start:	End:	Closeout:		
	10/1/2008	9/30/2009	12/31/2009		

Research: Impervious Surface Forecast – RRPDC staff has been working to complete the Phase III update to the regional impervious surface GIS coverage. RRPDC staff used 2007 aerial photography to identify and digitize impervious cover. Using this new 2007 impervious cover GIS data, analysis of impervious cover trends can be undertaken by the RRPDC of development in urban, suburban and rural areas in the Richmond Region. In addition, GIS data models can be developed using the impervious cover GIS data that analyze scenarios involving water quality, stormwater runoff, etc. A final report has been produced with accompanying maps that detail the change in impervious cover that has occurred in the region over the past several years. A link to the report can be found at the RRPDC website at [www.richmondregional.org](http://www.richmondregional.org).

Training & Education: Environmental Technical Advisory Committee Support - This committee is organized by RRPDC staff and generally meets once every two months to bring together local and state environmental staff for training opportunities and discussion of environmental issues. On June 9, 2009 Virginia Department of Conservation and Recreation staff provided training for Environmental Technical Advisory Committee members on the then proposed updates to the Virginia stormwater management regulations, the stormwater management handbook, and the BMP clearinghouse. On August 18, 2009, the RRPDC Environmental Technical Advisory Committee held a joint meeting with the Richmond Regional GIS User's Group in Henrico County. The focus of the meeting was to provide updates and training to committee members on the regional green infrastructure project and using the GIS data produced in planning projects. On September 29, 2009 Division of Chesapeake Bay Local Assistance staff provided training to Environmental Technical Advisory Committee staff on upcoming local compliance evaluations and Phase III implementation of the Chesapeake Bay Preservation Act.

Local Government Technical Assistance: Environmental Review and Mapping – RRPDC staff has completed 22 environmental reviews of federal, state and local projects during this period.

Project Maintenance – RRPDC staff continues to maintain and update data obtained through previous CZM-funded projects in order to keep these projects current and viable. As interest in the James River Interpretive maps and the Chickahominy River Recreation Access Study has increased with the arrival of new members to the RRPDC board, RRPDC staff worked to verify and update the current accuracy of these documents. In addition, funds were used to reprint 5,000 sets of the James River Interpretive maps for distribution around the Richmond Region. The maps have been distributed to locality Planning and Parks and Recreation departments, various non-profit organizations, the Metropolitan Richmond Convention Center and Visitors Bureau and numerous other tourism and visitor locations in the Richmond area.

Final Products	% Completion	Anticipated Completion Date
Impervious Surface Forecast Report	100%	September 30, 2009
Environmental Technical Advisory Committee Support	100%	September 30, 2009
Reprinting of James River Interpretive maps	100%	September 30, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 49 Virginia Beach/Virginia Aquarium and Marine Science Center  
Marine Mammal & Sea Turtle Stranding Response

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start:	End:	Closeout:		
	1/1/2009	12/31/2009	3/31/2010		

This grant officially started on January 1, 2009. During the period from April through September 2009, the Virginia Aquarium Stranding Response Program (VAQS) recorded 276 strandings in Virginia. There were 245 strandings during the same period in 2008.

The VAQS Stranding Team responded to 90 marine mammal strandings in Virginia during this reporting period, compared with 66 strandings during the same period in 2008. Marine mammal strandings included 85 cetaceans and five pinnipeds. Of the Strandings, 43 (48%) were located in Virginia Beach and south side, 38 (42%) on Virginia's eastern shore, and the remainder (9,=10%) along the western shores of Chesapeake Bay north of the James River. The cetacean species included 76 bottlenose dolphin (*Tursiops truncatus*), one Risso's dolphin (*Grampus griseus*), one Gervais beaked whale (*Mesoplodon europaeus*), four harbor porpoise (*Phocoena phocoena*), one humpback whale (*Megaptera novaeangliae*), and two unidentified cetaceans. Pinniped species included one harbor seal (*Phoca vitulina*), two gray seal (*Halichoerus grypus*), and two unidentified seals. The Team attempted to disentangle a bottlenose dolphin in Accomack County near the Chincoteague National Wildlife Refuge. The dolphin later died as a result of the entanglement in braided microfilament fishing line. Bottlenose dolphin strandings continue to reach new levels. Through September, 2009 already has the highest number of strandings recorded since the 1987 bottlenose dolphin epizootic. These strandings will continue to be investigated.

The VAQS Stranding Team and our cooperators responded to 186 sea turtle strandings during this reporting period, compared with 179 strandings during this same period in 2008. Sea turtle strandings included 137 loggerhead (*Caretta caretta*), 38 Kemp's ridley (*Lepidochelys kempii*), seven green (*Chelonia mydas*), four leatherback (*Dermochelys coriacea*), and two unidentified to species. There were nine live sea turtle strandings: one Kemp's ridley; seven loggerheads; and one green. The Kemp's ridley was successfully recovered and rehabilitated after being hooked from a fishing pier. Of the loggerheads, four died, one was disentangled and released, one was rehabilitated and released, and one remains in rehab. The green sea turtle did not survive.

VAQS Staff attended ten professional meetings and made many formal presentations during this reporting period. There were many educational and/or training presentations by Stranding Team members to groups in the Hampton Roads area. Grant funded VAQS staff worked more than 900 hours and Stranding Team volunteers contributed more than 8,000 hours to the stranding response program during this reporting period. A detailed list of all trainings, presentations and publications will be included in the final report.

Final Products	% Completion	Anticipated Completion Date
VA Sea Turtle & Marine Mammal Stranding Response & Reporting	75%	December 31, 2009
Personnel Training Activities	85%	December 31, 2009
Public Education Activities	90%	December 31, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 81 Dept. of Conservation & Recreation			
Coastal NPS Program Management			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report
Open	Start:	End:	Closeout:
	10/1/2008	12/31/2009	3/31/2010

For the grant reporting period, the Environmental Analyst at the Virginia Commonwealth University continued to serve as the Coastal NPS Program Manager and implement the Coastal NPS Program at the Virginia Department of Conservation and Recreation. The focus of the Coastal NPS Program is the continued expansion of the role and services of the Virginia Network for Education of Municipal Officials (VNEMO) in the Coastal Zone.

Currently, the demand for VNEMO assistance is growing at an ever increasing rate. To meet this increased demand the VNEMO Program has been actively recruiting and marketing to possible new partners including the Resource Conservation and Development Program, Virginia Tech Cooperative Extension Agricultural Extension Agents, various State agencies, Local Government Advisory Committee of the Chesapeake Bay Program and directly to the Crater Planning District Commission Regional Locality Planning Director Quarterly meeting. Through these efforts the VNEMO Program has been able to expand to include the services of the Center for Watershed Protection through the Circuit Rider project, of the Local Government Advisory Committee of the Chesapeake Bay Program, funded by EPA. The VNEMO Program conducted two web based trainings to expand the program: 1. An Introduction to VNEMO and 2. Delivering a VNEMO Presentation. Other workshops included: assisting in the development of the Chesapeake Watershed Forum, Pre-Forum Workshop on Climate Change Adaptation Planning.

The CNP Program Manager was a successful applicant to the National Fish and Wildlife Foundation for \$700,000 to develop a low impact development research, testing, certification and training facility at the Virginia Science Museum. The project will include a significant climate change adaptation component evaluating the cost benefit of utilizing LID as a strategy to address CSOs. This piece will evaluate the potential changes in hydrology that may affect the Richmond region and demonstrate how a proactive approach can reduce the costs to the City in their CSO program. The Program Manager partnered with the Science Museum and Foundation to develop the proposal and included such partners as: Virginia Commonwealth University, Virginia Tech, University of New Hampshire, VA Dept of Conservation, Alliance for the Chesapeake Bay, and the City of Richmond. The total budget will exceed \$1.6M.

The current level of request is exceeding the available resources. Fortunately, the VNEMO Program is a networked program with significant resources beyond the limited coastal zone funding and can access various partners to meet the requests. The project locations in the coastal zone include:

- Charles City County—Buildout analysis to support the policy development process in the County Comprehensive Planning revision.
- Mathews County/Middle Peninsula Planning District Commission—Aquaculture Policy Development and Presentation Development
- N. Potomac Shoreline/Northern Virginia Regional Commission—Climate Change Adaptation Strategy for Local Officials (services: outreach and communication strategy development, provision of speakers, and process assistance)
- Richmond County—Comprehensive Planning assistance and Integration of Bay Model Data; (Services: outreach strategy development, public process facilitation, internal process facilitation)

The CNP Program Manager continued to serve as the Chair to the Virginia Stream Alliance.

Final Products	% Completion	Anticipated Completion Date
Product #1	95%	February 15, 2009

Task: 91.01 Virginia Institute of Marine Science			
Program Implementation: Coordinator Position			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u> Progress Reports Constitute Final Product
Open	Start:	End:	Closeout:
	10/1/2008	9/30/2009	12/31/2009

This task funds half of one of our Coastal Planners through a contract with VIMS. See Task 1 for progress.

Task: 91.02 Environmental Law Institute			
RPCs & Amendments			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u> Project Pending
Pending	Start:	End:	Closeout:

This project is still TBD. \$20,967 remains unexpended.

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**

**Year: 2008**

**Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from**

Task: 92 Middle Peninsula Planning District Commission				
Aquaculture: Local Policy Development				
<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report
Open	Start:	End:	Closeout:	
	10/1/2008	9/30/2009	12/31/2009	

Task 1 - Local public policy perspective on the economic engine of aquaculture- working waterfront infrastructure: MPPDC staff continued to research communities who have developed public policies to enhance and protect significant facets of their working waterfront and support operations. A document has been compiled that included a summary of various approaches (ie. statutory and non-statutory) localities have taken to address the enhancement and protection of working waterfronts as well as local economic impacts of aquaculture. Also MPPDC staff contracted with Bev McMillan to develop an educational DVD that focused on the economic and cultural tradeoffs of community scenarios and public policy options that may enhance working waterfronts in Mathews County. This DVD was presented to the Mathews County Board of Supervisors on August 25, 2009.

Task 2 - Assessing the Economic Impact of the Aquaculture and related Commercial Seafood industry and working waterfront infrastructure in the Middle Peninsula Planning District: The MPPDC staff continued to hold monthly meeting with the Aquaculture-Working Waterfront Steering Committee to gain an understanding of the economic webbing within Mathews County in regards to aquaculture and working waterfronts. Also MPPDC staff collected available information through a literature review. Consequently due to declining economic trends in commercial fishing dockside values, aquaculture, specifically shellfish aquaculture, presents an opportunity to the Middle Peninsula as well as Mathews County to sustain and preserve a declining seafood industry. For instance in 2003, oyster aquaculture production in Virginia increased by 179% from 1997, and accounted for over \$212,000 in gross sales (NASS, 2003). Specifically within Mathews County aquaculturists focus on the propagation of the eastern oyster and the hard clam and supply diverse markets with their products.

Task 3 - Enforceable Policy Alternatives: MPPDC Staff continued to work closely with Mathews County Planning Department and their consultants to develop Comprehensive Plan language which helps to reaffirm the county's position on working waterfront. Also with the help of the Aquaculture Working Waterfronts Steering Committee eight public policy options were establish that could sustain and enhance aquaculture and associated working waterfronts within Mathews County.

Final Products	% Completion	Anticipated Completion Date
Local public policy perspective on the economic engine of aquaculture- working waterfront infrastructure	100%	9-2009
Assessing the Economic Impact of the Aquaculture and related Commercial Seafood industry and working waterfront infrastructure in the Middle Peninsula Planning District	100%	9-2009
Enforceable Policy Alternatives	100%	9-2009

Task: 93.01 Virginia Commonwealth University				
Coastal GEMS Maintenance				
<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report
Open	Start:	End:	Closeout:	
	10/1/2008	9/30/2009	12/31/2009	

Coastal Gems maintenance was performed during this grant project period. Tasks were to refresh map services and update cartography in the map file and to update symbology in the application on 4 currently in production Gems layers. Coastal Gems remained operational during these updates and was only offline to install software/security updates or to refresh map services. Google Analytics remains operational and sends an email PDF report to CZM staff weekly to show access and web statistics for the Gems application. From March 1, 2009 to September 30, 2009, Coastal GEMS received 1,534 visits from 689 unique visitors resulting in 2,069 pageviews and an average site visit time of over two minutes.

CES also secured the www.coastalgems.org domain and that domain is live now and is being stealth forwarded to the application launch page at VCU. CES Staff also secured an email address for this domain with: info@coastalgems.org. CES staff will be completing the install of that email address for the use in the application.

Access Coastal GEMS at <http://www.deq.state.va.us/coastal/coastalgems.html>

Final Products	% Completion	Anticipated Completion Date
Coastal GEMS Maintenance Final Report	75	November 15, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 93.02 TBD

Coastal GEMS Data Layer

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Project Pending
Pending	Start:      End:      Closeout:		

Only \$5,050 remains in this task. These funds will be reallocated under our 10% authority or a new scope of work will be submitted to NOAA for approval.

Task: 93.03 College of William & Mary - Center for Conservation Biology

An investigation of a hemispherically important migratory staging area for whimbrel along the seaside of the Delmarva Peninsula

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Project Pending
Pending	Start:      End:      Closeout:		
	8/15/2009    3/31/2010    6/30/2010		

This project was recently approved by NOAA. The contract was mailed to the grantee on 9-29-09. The VA CZM Program is awaiting receipt of the signed contract.

Task: 93.04 Virginia Eastern Shorekeeper

Seaside Special Area Management Plan: Recreational Use Survey & GIS Layer

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Project Period Open
Open	Start:      End:      Closeout:		
	9/1/2009    3/31/2010    6/30/2010		

This project was recently approved by NOAA. The VA CZM Program received a signed contract on 10-5-09. The Shorekeeper flew aerial surveys to collect recreational use data over Labor Day weekend. Data collection will continue through the fall boating season.

Task: 94.01 Virginia Institute of Marine Science

Living Shoreline Design and Construction Guidance Manual

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Project Period Open
Open	Start:      End:      Closeout:		
	10/1/2008    3/31/2010    6/30/2010		

Living Shoreline Design and Construction Guidance Manual: Work is progressing on the manual. VIMS has asked and been granted an extension to complete the manual so that its development overlaps with the development of the living shoreline course curriculum (FY '09 Task 94.01) currently under development at VIMS. This way the two items will complement one another. The chapters will be modified as necessary to include examples and additional information from the course curriculum.

Final Products	% Completion	Anticipated Completion Date
Living Shoreline Design and Construction Guidance Manual	65	February 2010

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 94.02 Virginia Institute of Marine Science - Center for Coastal Resources Management  
Shoreline Inventory Reports for York & Newport News: Phase 2

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start:	End:	Closeout:		
	10/1/2008	9/30/2009	12/31/2009		

This project develops and publishes two Shoreline Inventory Reports; York County and the City of Newport News. Data collection for the majority of both these localities was completed in prior years. During this reporting period several days of field work was necessary to complete the data collection for York County. All data for this locality has now been processed. In preparation for the final report, the final QA/QC which includes map publication is underway. For the City of Newport News Shoreline Inventory, all data has now been processed and the QA/QC is complete. Map production is also complete and a draft final report has been prepared. Tables and summary statistics for both localities is complete, pending final review of York County. The framework for the website has already been developed and the PI anticipates no delay in posting critical information to the site.

Final Products	% Completion	Anticipated Completion Date
Shoreline Inventory City of Newport News	90%	11/1/2009
Shoreline Inventory York County	85%	11/1/2009

Task: 94.03 Virginia Institute of Marine Science  
Shore Evolution in Four Virginia Localities

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start:	End:	Closeout:		
	10/1/2008	12/31/2009	3/31/2010		

Shore Evolution Inventories for four localities: The four localities are Gloucester, York, Poquoson, and Newport News. Photo dates mosaicked for Gloucester are 1937, 1953, 1960, 1968, 1978, 1994, 2002, and 2007. York, Poquoson and Newport News photo mosaics are dated 1937, 1953, 1963, 1994, 2002, and 2007. The 1953 images of York are not complete because the military blacked out the images due to the presence of a military base during the Korean War. The shorelines for all the years have been digitized and most have undergone QA/QC. These are the first reports to include the photos and shorelines off the main Bay/River shoreline up the smaller creeks. In the smaller creeks, we have had difficulty digitizing the shoreline accurately because of photo quality and frequently, the shoreline is covered by tree canopy. In many of these areas, the error associated with the orthorectification and digitization process exceeds the change in the position of the shoreline, which is minimal. For that reason, VIMS has chosen to include only the long-term end point shorelines (1937-2007). The main watershed shorelines and larger river and creek tributaries will include digitized shoreline for all the dates. The final draft reports for the localities have been written. However, the GIS technician is on leave for surgery. The technician will return in mid-November, and VIMS will then be able to finalize the shoreline maps and insert them into the reports. This project has been extended by three months.

Final Products	% Completion	Anticipated Completion Date
Shore Evolution GIS data	90	November 2009
Final Reports	75	December 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 94.04 Virginia Institute of Marine Science

Shoreline Management- Draft Management Plan MOA and Guidance Document for Local Governments

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start:	End:	Closeout:		
	10/1/2008	9/30/2009	12/31/2009		

Shoreline Management Plan Guidance Document for Local Governments: The final draft of the document has been submitted to several local and state agencies for comment. VIMS is waiting for comments before finalizing and printing. A final draft of the document was handed out to the members of the Virginia House of Delegate's Agriculture, Chesapeake, and Natural Resource committee when they visited VIMS in August 2009. Scott Hardaway made a presentation to the committee regarding the value of shoreline management planning that emphasizes Living Shorelines as a way for governments to influence the choices made by local landowners before they decide on a hard shoreline erosion control solution.

Shoreline Management Plan MOA: A draft Memorandum of Agreement was developed by VIMS. This document outlines the overall Shoreline Management process and addresses the concerns and/or comments that were made by personnel from various state agencies that we anticipate will sign the document. A summary document from the interagency MOA meeting held at VIMS is being completed.

Shoreline Management Plan PowerPoint: The PowerPoint presentation is being finalized. Versions of it have been presented to the Northern Virginia Regional Commission as well as the Tidewater Resource and Development Council and the Westmoreland County Wetlands Board. All of these entities were very supportive of our Shoreline Management Planning process and have agreed to work with us should funding become available for their locality. A public meeting was held to demonstrate the nearly completed Mathews County Shoreline Management Plan (not funded by this grant). A more site-specific version of the Powerpoint talk was presented to nearly 70 citizens including several Mathews and Gloucester County personnel including Board of Supervisors and Wetlands Boards members. VIMS is expecting an invitation to present to the Gloucester County Board of Supervisors.

Final Products	% Completion	Anticipated Completion Date
Guidance Document	90	November 15,2009
Draft MOA	100	
PowerPoint	90	November 15, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 95 Middle Peninsula Planning District Commission  
SAMP: Dragon Run

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Project Period Open
Open	Start:	End:	Closeout:		
	10/1/2008	3/31/2010	4/30/2010		

Task 1: Land-use planning – MPPDC staff: consulted with Dave Whitlow, Essex County Administrator regarding the Dragon Run land-use planning recommendations and discussed a timeline for incorporating and implementing these changes within the comprehensive plan and zoning ordinance; consulted with Matt Walker, Middlesex County Planning Director, regarding Dragon Run in draft of the Comprehensive Plan update; and consulted with Anne Ducey-Ortiz, Gloucester County Planning Director regarding the status of the adoption of the comprehensive plan (which includes new language on the Dragon Run).

Task 2 : Watershed Management Plan Implementation and SAMP TA – MPPDC staff: coordinated two Dragon Run Steering Committee meetings and subcommittee meetings; coordinated the Dragon Run Day 2009 Planning Committee monthly planning meetings; distributed approximately 200 Dragon Run DVDs between April and September; reviewed legislation that may impact the SAMP efforts. Some of these include: SB1276 (Alternative on-site sewage systems; no locality shall prohibit use thereof), HB 1699 (Biofuels; broadens Right to Farm Act to allow farmers to engage in small-scale production, and HB 1891 (Land preservation tax credit; reduces amount that may be claimed for taxable years 2009 and 2010) among others.; provided input on the Middle Peninsula Chesapeake Bay Public Access Authority federal stimulus proposal related to management of conservation holdings in the Dragon Run; responded to survey from the Community Action Agency division of Bay Aging identifying enhancement of local farmers markets as a need for the Middle Peninsula; provided technical assistance to two individuals regarding inquiries about the Dragon Run; provided information to the press about the Dragon Run, Dragon Run Steering Committee, SAMP and its partnerships; updated Dragon Run website (www.mppdc.com/dragon); coordinated Dragon Run paddle trip to provide first hand experience-based education to local decision makers and interested parties.

Task 3: Conservation Estate Planning Initiative: MPPDC staff: provided article for Essex County Countryside Alliance; facilitated a dialog about the tax base implications of conservation easements between Thomas Blackwell, Essex County Commissioner of the Revenue, and the Dragon Run Steering Committee; initiated the review of the number of conservation easements and conservation fee simple acquisitions that have been recorded in the Dragon Run since the Conservation Estate Planning Initiative began.

Final Products	% Completion	Anticipated Completion Date
Task 1: Landuse planning	50%	March 31, 2010
Task 2: Watershed Management Plan Implementation and SAMP TA	60%	March 31, 2010
Task 3: Conservation Estate Planning Initiative	45%	March 31, 2010

Task: 96 TBD  
SAMP: Seaside Eastern Shore

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Project Canceled
Pending	Start:	End:	Closeout:		

Task 96 funds were all allocated to subtasks 96.01 and 96.02. \$0 remain in this task.

Task: 96.01 The Nature Conservancy  
Seaside Special Area Management Plan: Project Team Administration and Avian Distribution Evaluation

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Project Period Open
Open	Start:	End:	Closeout:		
	10/1/2009	3/31/2010	6/30/2010		

This project was recently approved by NOAA. The VA CZM Program received a signed contract on 10-7-09. Progress on this project will be forthcoming.

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 96.02 Virginia Institute of Marine Science

Seaside Special Area Management Plan: Spatial Information Analysis and Interpretation for Shellfish Grounds and SAV Beds

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Project Period Open
Open	Start:	End:	Closeout:		
	10/1/2009	3/31/2010	6/30/2010		

This project was recently approved by NOAA. The VA CZM Program received a signed contract on 10-8-09. Progress on this project will be forthcoming.

Task: 97.01 Middle Peninsula Planning District Commission

MPPDC Inventory of Non-traditional OSDS and Impacts on Land Use Patterns

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start:	End:	Closeout:		
	10/1/2008	9/30/2009	12/31/2009		

Task 1: Comprehensive inventory of non-traditional OSDS: In April 2009, MPPDC staff continued to collect, sort and edit OSDS data from the Virginia Department of Health. However, once editing was complete MPPDC staff developed one regional map depicting OSDS proliferation in the Middle Peninsula, as well as county specific maps. A final assessment revealed that within the Middle Peninsula [between 2000-2008] there were a total of 3,214 systems installed and/or permitted which equates to approximately \$57,852,000.00 of infrastructure. Maps were generate and presented to the Planning District Commission in May of 2009.

Task 2: Engineered OSDS Public Policy Discussion: In the General Assembly Session 2009, House Bill 1788 passed through the House and Senate. The bill would deny localities the ability to prohibit alterative onsite sewage systems that have been approved by VDH and would further deny localities the ability to require maintenance of such systems. Furthermore in September 2009, VDH passed emergency regulations that focused on the maintenance of engineered systems. Ultimately however, local governments are still responsible for land-use decisions within their jurisdiction. The Commission was specifically asked to review the maps of engineered OSDS within the Middle Peninsula and begin to address questions regarding the implications of the proliferation of these systems in the region.

Final Products	% Completion	Anticipated Completion Date
Comprehensive inventory of non-traditional OSDS	100%	9-2009
Engineered OSDS Public Policy Discussion	100%	9-2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from

Task: 97.02 Hampton Roads Planning District Commission  
Hampton Roads Conservation Corridor Update and Implementation

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start:	End:	Closeout:		
	10/1/2008	12/31/2009	3/31/2010		

**State and Federal Agency Discussion of the use of Green Infrastructure to Meet Program Goals**

HRPDC staff held a meeting with VIMS staff on April 15, 2009. Topics discussed at this meeting included VIMS projects that have potential to add value to the Conservation Corridor project. VIMS staff also contributed ideas and suggestions on how to modify the corridor network. HRPDC staff has also had continuing communication with staff from DCR regarding the Priority Conservations Areas (PCA) data layer, which is a joint effort of DCR and VDGIF. The data was released in August 2009. Product 1 and Product 2 were delayed so that HRPDC staff had a chance to evaluate the usefulness of PCA in the network update. HRPDC staff will be meeting with DCR and DGIF staff on October 16 to discuss integration of the PCA. Also, a meeting is scheduled for October 8, 2009 with the Multiple Benefits Conservation Plan committee to discuss the possibility of updating the Memorandum of Agreement currently in place as part of the Southern Watershed Area Management Plan (SWAMP) program.

**Local Government Review and Update of Conservation Corridor Network**

HRPDC staff conducted four stakeholder meetings this period. These meetings were attended by planning and emergency management staff from the local jurisdictions. There were two meetings held on the Peninsula on April 17, 2009 – one for the upper Peninsula localities and one for the lower Peninsula localities. Western Tidewater localities met on April 28, 2009 while the Southside localities met on May 8, 2009. HRPDC staff gave a presentation on the background and goals for this project. The meeting participants then discussed several topics including updates to their comprehensive plans and other ongoing projects related to sustainability and green infrastructure. There were also discussions regarding potential linkages of recreational amenities at jurisdictional boundaries.

**Update of Hampton Roads Conservation Corridor Network**

HRPDC staff updated the previous network by running the same GIS model as used in the original project but substituted more current data layers. Updated layers included the cores from the VaNLA project and land use data. Differences between the results of the two models are being analyzed. HRPDC staff also developed a new GIS model to predict areas vulnerable to development in Hampton Roads. This model isolates high value ecological areas (identified in the conservation corridor network) that are at risk to development.

HRPDC staff is also in the process of collecting parks and recreation GIS data to build an inventory of recreational amenities in Hampton Roads to supplement the corridor network.

Final Products	% Completion	Anticipated Completion Date
State and Federal Agency Process and Associated Report	90%	December 2009
Local Government Stakeholder Process and Associated Report	90%	December 2009
Update of Hampton Roads Conservation Corridor Network	75%	December 2009