

Year: 2009

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA09NOS4190163
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> Attached
Open	Start:	End:	Closeout:	
	10/1/2009	6/30/2011	9/30/2011	

Work was completed in October 2010. About \$2,500 remains which will be reprogrammed to an open task under DEQ's 10% authority.

Task: 1.01 Virginia Institute of Marine Science - Chesapeake Bay National Estuarine Research Reserve System				
Coastal Program Management				
<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u> Attached
Closeout	Start:	End:	Closeout:	
	10/1/2009	9/30/2010	12/31/2010	

All work was completed. About \$4,300 remains unexpended due to overbudgeted fringe benefits. These funds will be reprogrammed to an open task. See Task 1 for Final Products.

Task: 1.02 Virginia Commonwealth University				
Coastal GIS Support				
<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u> Attached
Closeout	Start:	End:	Closeout:	
	10/1/2009	9/30/2010	12/31/2010	

Task: 1.03 Dept. of Environmental Quality - Virginia Coastal Zone Management Program				
Virginia CZM Program Outreach				
<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report
Closeout	Start:	End:	Closeout:	
	10/1/2009	3/31/2011	6/30/2011	

An extension was approved on this task through March 31, 2011. Funds were used to procure ink cartridges and paper for the Virginia CZM Program's plotter and color printer. Availability of this equipment enables the program to revise and print color materials, including publications and maps as needed. Funds also were used to buy Fall 2010 Plant ES Campaign radio ads; to print the Summer/Fall 2010 Virginia Coastal Zone Management magazine; and to reprint the publication "Native Plants of Accomack and Northampton." Printing of the MARCO highlights report will also be funded through this task, and printing will be completed during the grant close-out.

Final Products	% Completion	Anticipated Completion Date
Campaigns/Events/Training <input type="checkbox"/>	100%	
Virginia Coastal Zone Management Magazine and Other Publications <input type="checkbox"/>	90%	May 15, 2011
Website Development/Maintenance <input type="checkbox"/>	100%	
Exhibits <input type="checkbox"/>	100%	

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Task: 2 Dept. of Environmental Quality Subcontract
Quick Response Grants

Project status: Current approved Final deliverable(s) status: Funds Transferred Out of Task
Proposed Start: End: Closeout:
10/1/2009 3/31/2011

About \$416 still remains in this task and will be reprogrammed.

Task: 2.01 Back Bay Restoration Foundation
Back Bay Restoration Foundation State of the Bay Conference

Project status: Current approved Final deliverable(s) status: Previously Submitted
Closed Start: End: Closeout:
1/1/2010 6/30/2010 9/30/2010

Task: 3 Dept. of Environmental Quality - Environmental Impact Review
Environmental Impact Review & Federal Consistency

Project status: Current approved Final deliverable(s) status: Attached
Closeout Start: End: Closeout:
10/1/2009 9/30/2010 12/31/2010

Task: 4 Dept. of Environmental Quality - Environmental Education
Community Environmental Education

Project status: Current approved Final deliverable(s) status: Attached
Closeout Start: End: Closeout:
10/1/2009 9/30/2010 12/31/2010

Task: 5 Dept. of Environmental Quality - Chesapeake Bay Program
Phase 2 Tappahannock Wastewater Treatment Plant Upgrade (WQIF)

Project status: Current approved Final deliverable(s) status: Attached
Closeout Start: End: Closeout:
10/1/2009 9/30/2010 12/31/2010

Task: 6 Virginia Marine Resources Commission
Permit Review & Compliance

Project status: Current approved Final deliverable(s) status: Attached
Closeout Start: End: Closeout:
10/1/2009 9/30/2010 12/31/2010

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Task: 7 Dept. of Conservation & Recreation - Natural Heritage
Habitat Conservation/ Locality Liaison

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Attached
Closeout	Start:	End:	Closeout:		
	10/1/2009	9/30/2010	12/31/2010		

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

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Attached
Closeout	Start:	End:	Closeout:		
	10/1/2009	9/30/2010	12/31/2010		

Task: 9 Virginia Institute of Marine Science
2009 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>	Attached
Closeout	Start:	End:	Closeout:		
	10/1/2009	12/31/2010	3/31/2011		

Task: 10 Dept. of Environmental Quality Subcontract
Eastern Shore Land Acquisition

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Project Pending
Proposed	Start:	End:	Closeout:		
	10/1/2009	12/31/2011	3/31/2012		

FY 2009 E.Shore land acquisition funds will be reprogrammed due to the Virginia Secretary of Natural Resource's disapproval of fee simple land acquisition. Given the budget uncertainties and likely cuts in FY11 CZM funding, the chosen Focal Area of Seaside Restoration cannot be fully funded. Therefore a request for approval to reprogram these FY 2009 Task 10 funds to Seaside Restoration (eelgrass and bay scallops) will be submitted to NOAA for approval within the next few days.

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**Performance Report, Section A, for Cooperative Agreement No. NA09NOS4190163
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Task: 11 The Nature Conservancy				
Mid-Atlantic Regional Council on the Ocean (MARCO) GIS Portal				
<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u> Project Period Open
Open	Start:	End:	Closeout:	
	10/1/2009	9/30/2011	12/31/2011	

The Mid-Atlantic Regional Council on the Ocean (MARCO) Mapping and Planning Portal was launched and made accessible to the general public in February 2011. The portal provides users with a relatively simple and fast-loading data access service. Currently, the portal includes map data layers selected for their relevance and utility to support a Coastal and Marine Spatial Planning process to advance MARCO's priorities for offshore renewable energy development and habitat protection. The portal's data is grouped into five broad categories: Administrative (e.g. official boundaries); Biological (e.g. sea-floor habitats); Geophysical (e.g. water depth, sediments); Human Uses (e.g. fishing, shipping); and Decision Support (e.g. overlays of various uses and natural features).

While high quality data layers within each of these categories are present, additional data acquisition and analysis needs have been identified. Next steps for this project include continuing to add high priority data needed to enhance the portal's ability to support management needs. TNC staff in Virginia and Massachusetts worked to identify a prioritized and annotated list of data needs shared by both MARCO and the Northeast Regional Ocean Council. This document has been elevated to the National Ocean Council and additional assistance from federal agencies to address unmet data needs is anticipated.

Currently, the MARCO Mapping and Planning Portal functions include: choice of three base maps: topographic, streets, or satellite view; panning and zooming to areas of interest, or bookmarked selections; selection of any combination of layers to create customized maps; transparency adjustment for data layers to enhance overlay creation; saving and printing maps in Adobe PDF format; search and identify tools to obtain more detailed information on user selected map features; and drawing and measurement tools and concise fact sheets plus GIS metadata for each data layer. These features provide the ability for users to create customized spatial data overlay maps; TNC staff will produce overlay analysis example maps to demonstrate the ability of the Portal to highlight potential conflicts and compatibilities between various human uses of the ocean and ecosystem features.

Additional work to enhance Portal functionality through migration to ArcGIS Server version 10 and additional programming is ongoing.

Final Products	% Completion	Anticipated Completion Date
#1 Marine Habitat Data Layers in Web Format <input type="checkbox"/>	100%	n/a
#2 Collection and Formatting of Additional Layers <input type="checkbox"/>	100%	n/a
#3 Stakeholder's Review Report (web survey results) <input type="checkbox"/>	100%	n/a
#4 Overlay Analysis <input type="checkbox"/>	80%	May 31, 2011
#5 Regional MARCO GIS Portal (First Launch) <input type="checkbox"/>	100%	n/a
#6 Expanded deliverable -- Additional data and portal development <input type="checkbox"/>	50%	May 31, 2011

Task: 12.01 Accomack County				
Accomack County Blue & Green Infrastructure Project				
<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u> Previously Submitted
Closed	Start:	End:	Closeout:	
	10/1/2009	4/30/2010	9/30/2010	

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Task: 12.02 Northampton County

Northampton County Blue & Green Infrastructure Protection

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Project Period Open
Open	Start:	End:	Closeout:		
	10/1/2009	6/30/2011	9/30/2011		

This grant scope of work was revised as of January 2011.

Product # 1: Northampton County's Community Planning Academy commenced on September 20, 2010, and concluded on October 25, 2010, with nineteen (19) participants. The group represented a cross-section of county residents, and they were very engaged. The October 18, 2010, session focused on how environmental issues intersect with planning activities and goals. As part of that session, Dave Morton, of the VA Department of Game & Inland Fisheries, provided a presentation on the work done under another CZM project to identify Priority Conservation Areas in Northampton County. Sandra Benson, Director of Planning & Zoning, and Peter Stith, Long-Range Planner & GIS Administrator, participated in the Academy. Support staff members Nyoka Hall and Kay Downing assisted in preparing materials for the short course.

Product #2: Peter Stith has now completed twelve (12) hours of CommunityViz training provided by Placeways, LLC. Two (2) hours of training remain to be accomplished and had been expected to be finished prior to the end of this reporting period. However, completion was delayed due to the inability of Placeways to finalize a software "patch" so that CommunityViz would be compatible with ARCGIS 10, our current version of GIS software, followed by a software change so that Mr. Stith could work on redistricting for the county.

Product #3: The Comprehensive Plan Update to incorporate identified Priority Conservation Areas (PCAs) will be undertaken after Mr. Stith completes the CommunityViz training, which will enable him to present the PCAs to the Northampton County Planning Commission, Northampton County Board of Supervisors, and the public.

Product #4: After conducting the appropriate procurement process, the County has signed a contract with the Virginia Institute of Marine Science (VIMS) for the King's Creek/Cherrystone Inlet water sampling and analysis project. VIMS faculty is coordinating a site visit with local volunteers who will be assisting with the sampling effort. These county residents were involved in a prior sampling effort undertaken to help inform the King's Creek TMDL implementation plan effort.

Final Products <input type="checkbox"/>	% Completion	Anticipated Completion Date
Community Planning Academy <input type="checkbox"/>	100	10/25/10
CommunityViz Training <input type="checkbox"/>	86	5/1/11
Comprehensive Plan Update-Environmental & Natural Resources Element <input type="checkbox"/>	0	6/30/11
King's Creek/Cherrystone Inlet water sampling	1	6/30/11

Task: 12.03 George Washington Regional Commission
Developing a Blue-Green Infrastructure Plan for the GW Region

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Attached
Closeout	Start:	End:	Closeout:		
	10/1/2009	9/30/2010	12/31/2010		

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**Performance Report, Section A, for Cooperative Agreement No. NA09NOS4190163
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Task: 12.04 Hampton Roads Planning District Commission			
Sustainable Communities Focal Area: Climate Change in Hampton Roads			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report
Open	Start:	End:	Closeout:
	1/1/2010	3/31/2011	6/30/2011

Assessment of Economic Impacts

HRPDC staff has conducted a preliminary assessment of economic impacts of climate change, focusing on employment and infrastructure in areas vulnerable to sea level rise. This assessment has utilized GIS analysis to quantify the impacts of sea level rise and flooding.

Tool Development: Sea Level Rise Impacts

HRPDC staff has developed a tool, including the identification of appropriate data, to estimate the impacts of sea level rise on the region and its localities. This tool has been used to estimate population and infrastructure vulnerable to sea level rise in Hampton Roads and for each HRPDC member locality. HRPDC staff has worked with VIMS on developing analysis tools to model the impacts of sea level rise on storm surge vulnerability on the built and natural environments.

Policy Recommendations: Built Environment

HRPDC staff has developed a set of policy recommendations for the built environment to be considered by representatives of regional local governments for more detailed analysis.

Policy Recommendations: Natural Environment

HRPDC staff has developed a set of policy recommendations for the natural environment to be considered by representatives of regional local governments for more detailed analysis.

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

HRPDC staff worked with other regional stakeholders and initiatives to promote awareness of climate change and sea level rise in the region. This includes several individual presentations to various groups and coordination with other interested stakeholders and organizations. In addition, HRPDC staff worked with the University of Virginia's Institute for Environmental Negotiation, Wetlands Watch, and the City of Virginia Beach to organize, promote, and run four listening sessions in Virginia Beach that engaged the public on the issues of sea level rise and flooding.

Final Products	% Completion	Anticipated Completion Date
Assessment of Economic Impacts <input type="checkbox"/>	100	March 31, 2011
Tool Development: Sea Level Rise Impacts <input type="checkbox"/>	100	March 31, 2011
Policy Recommendations: Built Environment <input type="checkbox"/>	100	March 31, 2011
Policy Recommendations: Natural Environment <input type="checkbox"/>	100	March 31, 2011
Development of a Framework for the Response to Climate Change in Hampton Roads <input type="checkbox"/>	100	March 31, 2011

Task: 12.05 Middle Peninsula Planning District Commission			
Middle Peninsula Climate Change Adaptation Phase 2- Facilitation of Presentations and Discussions of Climate Change Issues with Local			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u> Attached
Closeout	Start:	End:	Closeout:
	10/1/2009	9/30/2010	12/31/2010

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Task: 12.06 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:	
	10/1/2009	3/31/2011	6/30/2011	

George Washington Regional Commission (GWRC) staff graciously offered the NNPDC a City Green software analysis for the Northern Neck for the years 1996, 2001, and 2006. The City Green software was used to approximate the economic value of ecosystem services that forested areas in the counties provide to citizens. NNPDC staff used the data and analysis by the GWRC to craft presentations for Lancaster and Northumberland Counties. NNPDC staff presented on Blue Green Infrastructure Planning at the October 21 meeting of the Lancaster Planning Commission (LPC) and displayed the City Green Data. Members of the LPC questioned the data, as the calculated benefits were in the millions of dollars. NNPDC staff explained that the City Green software analysis basic premise calculates the value as if all the vegetation in the county were removed and engineered solutions were put in place to clean the water and air. On November 18, NNPDC staff presented a similar presentation to the Northumberland Planning Commission (NPC). Similar questions regarding the City Green software analysis were raised and answered by NNPDC staff. In both Northumberland and Lancaster County, Planning Commissions' members expressed concern over delineating lands in the county for natural area protection. Planning Commission members related that due to past experiences, landowners do not want to have their land delineated in the Comprehensive Plan or other planning documents. NNPDC staff decided to focus on areas that were already delineated in their Comprehensive Plan, namely, areas delineated for potential future reservoirs. NNPDC staff returned to the LPC Meeting on January 20, focusing the Blue Green Infrastructure Planning on the five potential reservoir sites in the Comprehensive Plan. The flood pool elevations of the reservoirs were digitized. Then the county E911 building outlines were overlain to see if any structures would be impacted by the reservoirs. Four structures (two residential and two commercial) were impacted by one of the five possible future reservoir sites. NNPDC staff showed the natural areas in the County from the Virginia Conservation Land Needs Assessment (VCLNA) and they matched the areas for the reservoirs rather well. NNPDC staff also showed a steep slope map and compared those areas to the VCLNA, and the areas again showed correlation. NNPDC staff presented at the February 24 meeting of the NPC and presented similar information. While noting that the VCLNA aligned well with the reservoirs, Planning Commission members felt that without knowing more about which reservoirs might be more suitable than others that designating them as natural areas might be premature. Also, the thought of landowners wanting to subdivide the land (that would be waterfront if the reservoir was built) would be hindered if the area was designated as a natural area. NNPDC staff presented a final time at the March 17th meeting of the Lancaster Planning Commission and, as requested, noted how many property owners had land in each of the five reservoirs in the Comprehensive Plan. NNPDC staff also overlaid the 100 ft Chesapeake Bay Resource Protection Area buffer to show that most of the reservoirs were within the 100 ft buffer. In Richmond County, the Comprehensive Plan Committee voted to not include the Cat Point Creek natural area to the future Land Use Map that the NNPDC has recommended for inclusion.

Final Products	% Completion	Anticipated Completion Date
Draft two County Conservation Corridors Map	100%	March 31, 2011
Planning Commission Education/Consensus Building Report	100%	March 31, 2011
Richmond and Westmoreland County Conservation Corridor Cont'd	100%	March 31, 2011

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Task: 12.07 Northern Virginia Regional Commission

Climate Change Adaptation: Sustainable Shoreline Community Management in Northern Virginia; Phase II

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Project Period Open
Open	Start: End: Closeout:		
	10/1/2009 6/30/2011 9/30/2011		

NVRC staff acquired the services of the University of Virginia's Institute for Environmental Negotiation (IEN) to provide planning and facilitation services in support of climate change listening sessions in Northern Virginia. Additionally, NVRC and Virginia NEMO staff participated in the sea level rise listening sessions that IEN coordinated in the Hampton Roads region. Attending these sessions, provided a wealth of lessons-learned and perspective for implementing a similar approach in Northern Virginia.

However, when NVRC staff and their partners introduced the Hampton Roads approach with the Sustainable Shorelines and Community Management workgroup, responses were lukewarm as localities in Northern Virginia do not see sea level rise as an immediate issue, in the same way that Virginia Beach perceives this issue to be since Virginia Beach residents experience frequent periods of inundation.

Therefore, the NVRC planning team, including IEN and Virginia NEMO may have to take a different approach to engaging the Northern Virginia communities. Currently, Prince William County and the City of Alexandria have expressed interest in pursuing listening sessions. Based on the lessons-learned, the NVRC planning team will develop a program that best fits the needs of Northern Virginia's localities, allowing them to get the information that is most relevant for local planning needs.

Final Products	% Completion	Anticipated Completion Date
Workgroup Outcome Report	100	September 30, 2010
Vulnerability Maps and Report <input type="checkbox"/>	100	September 30, 2010
Survey of NoVA Waterfront Property Owners <input type="checkbox"/>	100	November 15, 2011
Draft Adaptation Strategy Report <input type="checkbox"/>	75	August 15, 2011

Task: 12.08 Richmond Regional Planning District Commission

Central Virginia Blue and Green Infrastructure Protection Planning Project

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Attached
Closeout	Start: End: Closeout:		
	10/1/2009 9/30/2010 12/31/2010		

Task: 41 Accomack-Northampton Planning District Commission

Technical Assistance Program

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Attached
Closeout	Start: End: Closeout:		
	10/1/2009 9/30/2010 12/31/2010		

Task: 42 Crater Planning District Commission

Technical Assistance Program

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Attached
Closeout	Start: End: Closeout:		
	10/1/2009 9/30/2010 12/31/2010		

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Task: 43 Hampton Roads Planning District Commission
Technical Assistance Program

Project status: Current approved Final deliverable(s) status: Attached
Closeout Start: End: Closeout:
10/1/2009 12/31/2010 3/31/2011

Task: 44 Middle Peninsula Planning District Commission
Technical Assistance Program

Project status: Current approved Final deliverable(s) status: Attached
Closeout Start: End: Closeout:
10/1/2009 9/30/2010 12/31/2010

Task: 45 Northern Neck Planning District Commission
Technical Assistance Program

Project status: Current approved Final deliverable(s) status: Attached
Closeout Start: End: Closeout:
10/1/2009 9/30/2010 12/31/2010

Task: 46 Northern Virginia Regional Commission
Technical Assistance Program

Project status: Current approved Final deliverable(s) status: Attached
Closeout Start: End: Closeout:
10/1/2009 9/30/2010 12/31/2010

Task: 47 George Washington Regional Commission
Technical Assistance Program

Project status: Current approved Final deliverable(s) status: Attached
Closeout Start: End: Closeout:
10/1/2009 9/30/2010 12/31/2010

Task: 48 Richmond Regional Planning District Commission
Technical Assistance Program

Project status: Current approved Final deliverable(s) status: Attached
Closeout Start: End: Closeout:
10/1/2009 9/30/2010 3/31/2011

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

Project status: Current approved Final deliverable(s) status: Attached

Closeout	Start:	End:	Closeout:
	1/1/2010	12/31/2010	3/31/2011

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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:
	10/1/2009	3/31/2011	6/30/2011

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, integrate the Chesapeake Bay TMDL Watershed Implementation Plan for local government process, implement the National Fish and Wildlife Foundation Grant at the Science Museum of Virginia

VNEMO, in coordination with Chesapeake NEMO, 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 access the NOAA Coastal Services Center to provide survey development and data analysis for the residential survey portion of the project. The NVRC collected the relevant data utilizing a web based approach and the NOAA CSC developed a data cataloging form and is assisting in the analysis of the data. The VNEMO Program Manager also began to work with the NVRC to conduct public listening sessions around Climate Change and Sea Level Rise in Northern Virginia and assisted as a process facilitator in the sea level rise public listening sessions in the Virginia Beach Area.

The Coastal NPS Program Manager was requested by VDCR to implement a training program to improve the capacity of the field staff in implementing outcome based technical assistance for local governments, following the model of the VNEMO Program. This initiative is intended to prepare the VDCR staff for the likely increases in requests for technical assistance from local government when the CBTMDL and VA SWM Regulations are implemented. The VNEMO Program Manager ascertained the NOAA Coastal Services Center to conduct a two day workshop on Public Issues and Conflict Management This was held in October, 2010. Participants included the VDCR field staff from the Divisions of Soil and Water, Chesapeake Bay Local Assistance, and Natural Heritage; VDEQ Education and Outreach Program; VIMS Coastal Resources Center and the Coastal Planning District Commissions.

The Coastal NPS Program Manager continued the management of the \$1.7M, NFWF funded, project at the Virginia Science Museum. The Manager continues to share the Project Management role with the Director of Science at the Museum. Project leadership outlined the overall project and identified teams to began the preparation of engineering designs, monitoring program design and educational and outreach materials. During the period, the CNP Manager over saw commencement of the Combined Sewer Overflow study to articulate the affects of LID on CSO management.

The VNEMO Program directly assisted the Division of Natural Heritage in the development of an outreach and engagement strategy around the Priority Conservation Areas data, later to be named the VA Ecological Value Assessment (VEVA). This database effectively integrates the INSTAR stream database at VCU.

The CNP Program Manager partnered with the VA DCR Public Communications Office in the development of the new Chesapeake Club campaign, "Plant More Plants".

The Virginia Urban Tree Canopy Project has been implemented to support the needs of Virginia's localities to establish and attain canopy cover goals. The first step in this project is to estimate the baseline tree canopy cover for each jurisdiction. The next step is to summarize the baseline estimate by property parcels and zoning categories provided by the localities. Finally a report is generated. This report summarizes the results of the UTC analysis. The locality is provided with all new and used spatial data layers. The summary report is published to the Virginia Urban Tree Canopy Analysis website (http://www.gep.frec.vt.edu/VA_utc.html). These assessments were conducted in the communities of Newport News, Ashland, and Fredericksburg.

Final Products	% Completion	Anticipated Completion Date
Product #1 <input type="checkbox"/>	100	Mar 2011
Product 2 <input type="checkbox"/>	100	Mar 2011
Product 3 <input type="checkbox"/>	100	Mar 2011
Product 4 <input type="checkbox"/>	100	Mar 2011

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Task: 91.01 University of Virginia - Institute for Environmental Negotiation
309 Assessment & Strategy

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Attached
Closeout	Start:	End:	Closeout:		
	10/1/2009	9/30/2010	12/31/2010		

Task: 91.02 Environmental Law Institute
Analysis of State Threatened and Endangered Species Policy Incorporation and Inventory of Enforceable Policies

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start:	End:	Closeout:		
	12/1/2010	3/31/2011	6/30/2011		

ELI conducted analysis and review of the history of Virginia-listed threatened and endangered species under the Virginia Coastal Zone Management Program and under Virginia laws. ELI interviewed state agency personnel at DGIF, VDOT and DEQ. ELI examined Virginia's coastal executive order, the final Environmental Impact Statement on the 1986 program approval, and subsequent amendments to the Virginia code sections affecting threatened and endangered species. Analysis included the new sections enacted by the Virginia General Assembly in 2011 and signed into law by the Governor. ELI prepared an analytic document presenting the options for including Virginia-listed species in the Coastal Zone Management Program Enforceable Policies. The key choices are whether to: incorporate DGIF T&E wildlife (including the new amendments passed this session), incorporate DAC T&E plants and invertebrates, or do neither.

ELI conducted analysis and review of all of the Enforceable Policies articulated in Virginia's approved Coastal Zone Management Program, and inventoried the current location and support for these Enforceable Policies in the Virginia Code. ELI prepared a three-part document conveying the results as follows:

1. The cover and explanation of the approach
2. The spreadsheet identifying each and every legal provision approved by NOAA over the course of the program and where it currently resides in the Virginia Code
3. A brief appendix looking at how the enforceable policies are summarized on the DEQ website, with notes about how a restated approach might work or build upon this organization

Final Products	% Completion	Anticipated Completion Date
Analysis of Virginia TES Enforceable Policies <input type="checkbox"/>	100	March 31, 2011
Inventory of Virginia Enforceable Policies <input type="checkbox"/>	100	March 31, 2011

Task: 92 Middle Peninsula Planning District Commission
Shellfish Aquaculture and Working Waterfront Infrastructure: Mathews County Phase 2

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Attached
Closeout	Start:	End:	Closeout:		
	10/1/2009	9/30/2010	12/31/2010		

Task: 93.01 Virginia Commonwealth University
Coastal GEMS Maintenance

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Attached
Closeout	Start:	End:	Closeout:		
	10/1/2009	9/30/2010	12/31/2010		

Year: 2009

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Task: 93.02 TBD

CSI: Intergovernmental Decision-making: GEMS Improvements

Project status: Current approved Final deliverable(s) status: Project Pending
Proposed Start: End: Closeout:

The CZM Manager and GIS Coordinator met on March 11 with VCU staff to discuss conversion of Coastal GEMS to ARC 10. The estimated cost is about \$50,000. Funds from this task as well as from FY 2010 Task 93.02 may be used toward that conversion pending receipt of a scope of work from Virginia Commonwealth University.

Task: 94.01 Virginia Institute of Marine Science

Design and Construction of Living Shorelines Course Development and Implementation

Project status: Current approved Final deliverable(s) status: Attached
Closeout Start: End: Closeout:
10/1/2009 9/30/2010 12/31/2010

Task: 94.02 Virginia Institute of Marine Science

Shoreline Inventory Reports for Tidewater Localities Phase 3-Fairfax and Prince William Counties

Project status: Current approved Final deliverable(s) status: Attached
Closeout Start: End: Closeout:
10/1/2009 9/30/2010 12/31/2010

Task: 94.03 Virginia Institute of Marine Science

Shore Evolution in Four Virginia Localities

Project status: Current approved Final deliverable(s) status: Attached
Closeout Start: End: Closeout:
10/1/2009 12/31/2010 3/31/2011

Task: 94.04 Virginia Institute of Marine Science

Living Shorelines Website for Property Owners, Industry and Managers

Project status: Current approved Final deliverable(s) status: Attached
Closeout Start: End: Closeout:
10/1/2009 9/30/2010 12/31/2010

Task: 95 Middle Peninsula Planning District Commission

Special Area Management Plan for Dragon Run

Project status: Current approved Final deliverable(s) status: Attached
Closeout Start: End: Closeout:
4/1/2010 9/30/2010 12/31/2010

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Task: 96	TBD
Seaside Special Area Management Plan	
<u>Project status:</u>	<u>Current approved</u> <u>Final deliverable(s) status:</u> Funds Transferred Out of Task
Proposed	Start: End: Closeout:

Task: 96.01	The Nature Conservancy
Seaside Special Area Management Plan: Project Team Administration and Habitat Distribution and Suitability Evaluation	
<u>Project status:</u>	<u>Current approved</u> <u>Final deliverable(s) status:</u> Project Period Open
Open	Start: End: Closeout: 5/1/2010 6/30/2011 9/30/2011

Two full SAMP Team meetings were held this period. On February 2, 2011, the SAMP Team discussed public outreach needs for future SAMP efforts. It was concluded that the Virginia Marine Resources Commission (VMRC) probably already has the authority to administer a spatial allocation system with more flexibility and could incorporate more timely GIS data if the proper tools could be developed. Such a system could take into account the role that shellfish and eelgrass restoration can play in improving public grounds and a revised system could enhance transparency of the permitting process and provide balance and equity for stakeholders as MRC uses the system to assess the productivity and habitat suitability of specific sites. It was agreed that the SAMP approaches and suggestions would likely not require any legislative actions but would complement and refine the current permitting system.

The SAMP Team also evaluated Senate Resolution 330 introduced by State Senator Ralph Northam. The resolution reflected many priorities of the Project Team: "That the Virginia Institute of Marine Science and the Virginia Marine Resources Commission be requested to jointly study ways the subaqueous bottomland on the seaside of Virginia's Eastern Shore might be better utilized. The joint study shall examine how these bottomlands can be utilized to (i) support the management and fishery of wild shellfish populations, (ii) promote sustainable shellfish aquaculture, (iii) enhance habitat restoration, and (iv) protect natural resources." The Resolution, as proposed, also requires participation by many of the core stakeholders on the SAMP Team: "The joint study shall include the participation of a commercial waterman, a commercial shellfish aquaculturist, a representative of the Virginia Seafood Council, and any private person or entity that owns more than 50 percent of the privately owned land area of the Eastern Shore barrier islands. All agencies of the Commonwealth shall provide assistance to the Virginia Institute of Marine Science and the Virginia Marine Resources Commission for this joint study, upon request."

It was noted that implementation of this resolution can utilize the mapping and other habitat suitability data that has been compiled and evaluated by the SAMP Team during the past months, which should prove very valuable to VMRC and VIMS as they complete the Study.

On March 9, 2011 a second SAMP Team meeting was held. It was reported that SJR 330 had passed both the Senate and House. The SAMP Team agreed that this approval was a major step forward toward utilizing the results of the SAMP Project that establishes a pathway and guidelines leading to recommendations for regulatory change. Discussions followed as to how the SAMP could assist the work of VMRC and VIMS on SJR330. Mark Luckenback of VIMS updated the Team regarding his studies of habitat suitability in the northern and southern coastal bays and is in the process of preparing his final report. The SAMP Team also agreed to revise the scope of work and extend the completion date of TNC's efforts with VMRC to include the mapping and formal designation of all state oyster restoration sanctuaries on the seaside. There is no change in the budget and the completion date is June 30, 2011.

The rest of the meeting discussed public outreach and plans for SAMP3- FY10 projects. It was agreed that the SAMP Team would continue to pull together mapping data for oysters, clams, eelgrass, avian resources, recreational and other uses that clearly show the spatial distributions and demonstrate to the public the suitability, and value of these ecosystem functions and benefits. With this goal in mind, under SAMP3, the group determined to: 1) prepare a printed report and a power point presentation; 2) prepare a list of stakeholders, audiences, places and formats for public outreach efforts; 3) prepare a list of recommendations and guidelines for the SJR 330 Study; 4) evaluate appropriate approaches for facilitating public meetings; and 5) Accomack-Northampton Planning District Commission, TNC and VIMS would prepare grant applications to VA-CZM for FY10 funding.

Final Products	% Completion	Anticipated Completion Date
Administration, Coordination and Communication	75%	6/30/2011
Updated spatial data analysis and interpretation of waterbirds	75%	6/30/2011
Oyster sanctuary mapping & designation	15%	6/30/2011
FY10 SAMP Recommendations and Final Report	75%	6/30/2011

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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> Submit w/next Semiannual Report
Open	Start:	End:	Closeout:
	5/1/2010	3/31/2011	6/30/2011

Table 1. Examples of summary data by region for current habitat suitability assessment*

Region	Area (km2)			Within Baylor Only		Potential Aquaculture
	Private Lease	Baylor	Non-suitable Baylor	Existing SAV	Potential SAV	
Magothy Bay	10	8	37%	0%	47%	23%
Gull Marsh Vicinity□	15	69	45%	3%	33%	13%
Chincoteague South	7	14	37%	0%	0%	34%
South Bay □	8	18	39%	5%	13%	na
Hog Island Bay□	28	42	37%	0%	47%	na

*Habitat suitability designations have been a work in progress. Values represent current area assessments and may be slightly different from previous reports.

VIMS staff substantially refined the habitat suitability maps for SAV and shellfish developed during earlier phases of this project. An additional region (Gull Marsh Vicinity) was added to the three reported during the last project period (SouthBay/Magothy Bay, Central Hog Island and Chincoteague South). Additionally, due to its size and complexity, South Bay and Magothy Bay were divided into separate regions for analysis. All five of these resulting regions were analyzed with respect to public shellfish (Baylor) grounds, shellfish restoration potential and suitability for SAV. For Chincoteague, Magothy and Gull Marsh regions, VIMS staff solicited and incorporated detailed finer-scale shellfish suitability characterizations from local aquaculture experts. After meetings with these experts, their input was digitized in GIS. Approximately 150 bathymetry and sediment samples were collected, processed and digitized by VIMS staff to help further inform assessments. All other pertinent GIS data from external sources referenced in the previous progress reports were integrated into this GIS project as well. Table 1 provides a summary analysis of the amount of area in private leases, Baylor grounds and habitat suitability within the Baylor grounds.

All data have been organized and summarized. These summary and detailed statistics from these high resolution “working GIS maps” will serve as a starting point for creating a consensus-building approach towards developing recommendations for management policies in Phase 3 of this project.

Final Products	% Completion	Anticipated Completion Date
Geo-spatial environmental data for habitat suitability	100	4/15/11
Spatial analysis of current use versus suitability□	100	4/15/11
Final report□	50	5/15/11

Task: 97.01 Middle Peninsula Planning District Commission			
Middle Peninsula Conservation Corridors Plan			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u> Attached
Closeout	Start:	End:	Closeout:
	10/1/2009	9/30/2010	12/31/2010

Year: 2009

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Task: 97.02 Northern Virginia Regional Commission
Northern Virginia Conservation Corridor Planning

<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Open	Start:	End:	Closeout:		
	10/1/2009	3/31/2011	6/30/2011		

NVRC staff completed the base map of conservation corridors in Northern Virginia and incorporated it, with draft thematic overlays in the NoVA Conservation Corridor Maps and Report. The report includes an analysis of ecosystem services that select cross-jurisdictional cores provide for carbon sequestration, removal of air pollutants and stormwater retention, using American Forest's CityGreen. The Conservation Corridor project has already resulted in a policy change, as Prince William County's policy language that was incorporated into the Environmental Chapter of their Comprehensive Plan. This could serve as model language for other localities in the region. Specifically, EN Policy 1, AS 6 states, "Upon completion of the Northern Virginia Regional Commission's conservation corridor project, update the Environment Chapter to include the priorities identified in the report." Other policies included by Prince William County reflect the efforts and process designed by NVRC and its partners to identify, map, and characterize the benefits of conservation corridors in the region.

Throughout the project, the NoVA Conservation Corridor presentation evolved from simply explaining background information on Green Infrastructure planning and the goals of the Conservation Corridor project to revealing the results from the first year's analysis. NVRC staff presented this PowerPoint presentation before several organizations and boards, including the Chief Administrative Officers (CAOs) of Northern Virginia representing the City and County Managers of all NVRC member governments; the Fairfax County Environmental Quality Advisory Council, who provide recommendations and advice to the Fairfax County Board of Supervisors; the Prince William County Trails and Blueways Council, who provide recommendations to the Prince William County Parks Department; and at the Virginia CZM Partners' Workshop.

Additionally, since October, NVRC staff acquired the services of the Green Infrastructure Center, Inc (GIC) to develop a strategy for reaching out to various stakeholders through a public summit. Advisory Group members provided input to GIC on possible meeting locations and case studies to share at the summit. Additionally, with input from local staff, NVRC and GIC prepared a list of possible stakeholders, meeting locations, and began to draft an agenda for incorporation in the public summit strategy, which will serve as an appendix to the NoVA Conservation Corridor Maps and Report.

Advisory group members are supportive of this effort and believe that it provides not only an opportunity for feedback from the public on the areas that they value and it relays information about voluntary conservation opportunities, but it continues to broaden the awareness of ways to balance the region's future growth with its natural spaces.

Final Products	% Completion	Anticipated Completion Date
NoVA Conservation Corridor Maps and Report <input type="checkbox"/>	95	May 15, 2011
NoVA Conservation Corridor Presentation <input type="checkbox"/>	100	May 15, 2011