

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from October 1, 2008 - March 31, 2009

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>	Project Period Open
Open	Start: End: Closeout:		
	10/1/2008 3/31/2010		

Work performed during this period is described in the attached compilation of weekly reports.

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>	Project Period Open
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: 1.02 Virginia Commonwealth University  
Coastal GIS Support

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

The Coastal GIS Coordinator organized a meeting with VCU to discuss/facilitate workflow involved in maintaining, enhancing, and marketing Virginia CZM's Coastal Geospatial and Educational Mapping System.

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. The Coastal GIS Coordinator updated layer fact sheet info using the Coastal GEMS non-spatial data editor. Layers updated include: Conservation Lands, Essential Wildlife Habitat, Boating Access Sites, SAV Plantings, SAV Coverage and Constructed Oyster Reefs.

Instead of developing a separate Coastal GEMS Advisory Committee, it was decided that the Coastal GIS Coordinator would utilize the existing coastal policy team and other ad-hoc advisors to identify and prioritize geospatial projects. The coastal policy team was solicited for ideas during the February meeting. The Coastal GIS Coordinator took part in meetings with TNC and VCERC staff to review and compare existing offshore data layers and to discuss additional spatial data needs for offshore planning.

The development of MOUs and official data sharing agreements was explored, but ultimately deemed unnecessary due to existing willingness of partners to provide data and promote Coastal GEMS. Since it was included in the project summary but not as a specific deliverable, the production of GIS map products as needed by the CZM Program and partners will be included as an addition to this final product. 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. This includes maps produced for the VA CZM FY09 CELCP application. The Coastal GIS Coordinator produced maps as requested for CZM partners, including maps utilized at a green infrastructure workshop and maps of proposed oyster reef restoration sites.

The Coastal GIS Coordinator created/implemented a Coastal GEMS training program including: a presentation about Coastal GEMS and why/how it was created, a live demo of Coastal GEMS which is tailored to the specific needs of the audience, and a handout with info about Coastal GEMS and data layers available. Info regarding GEMS training was posted to GEMS website and publicized to CZM partners. Five formal presentations/trainings were conducted as outlined in the table below.

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

Final Products	% Completion	Anticipated Completion Date
Coastal GEMS Website	50	9/30/2009
Coastal GEMS Advisory Notes	50	9/30/2009
Coastal GEMS MOU's/Map Products	50	9/30/2009
Coastal GEMS Training Program/Open Houses	50	9/30/2009

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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>	Project Period Open
Open	Start:	End:	Closeout:		
	10/1/2008	9/30/2009	12/31/2009		

During this reporting period, the Outreach Coordinator:

Published and distributed the Summer/Fall 2008 issue of the Virginia Coastal Zone Management magazine in December. The magazine is available in HTML format and downloadable in PDF at <http://www.deq.virginia.gov/coastal/sf2008magindex.html>. Initiated production of Spring/Summer 2009 issue.

Completed the research phase of the Plant ES Natives campaign (see Task 10.07). This included an analysis of the qualitative survey (focus group and garden center/nursery interview data) and follow-up meetings with focus group participants for feedback on findings; and, development, distribution and analysis of a quantitative assessment (written survey through the Eastern Shore News). With these research findings, worked with a campaign planning team to design the new campaign and produce campaign multi-media components, including radio ads, exhibit, logo, "Community Leader" lapel pins, website, garden center banners and plant tags, campaign overview and native plant benefits facts sheets (radio ads and publications all downloadable at <http://www.deq.virginia.gov/coastal/plantesnativesmediaroom.html>). Met with garden centers and nurseries to establish partnership expectations. Prepared for April 24 campaign launch and media event. Submitted article and native plant information for special insert in Eastern Shore News published in November 08 – written survey distributed in conjunction with this educational insert.

Completed design of Virginia Seaside Heritage educational kiosk panels for Willis Wharf and Chincoteague (see FY 2006 Task 10.20) and coordinated order of the kiosk frames and panels with the sign production company, Pannier.

Other publications – drafted CSO funding fact sheet for FY2007, submitted articles for OCRM news.

Facilitated exhibits, including updates to exhibit panels and publications, at Dragon Run Day (October 08), Urbanna Oyster Festival (November 08 – 200+ visitors), Chincoteague Flower and Garden Show (April 09 – Plant ES Natives exhibit – 100+ visitors engaged), Virginia Aquarium (Coastal Trends – 2500 attended)

Maintained the Virginia CZM websites, including development of new campaign pages at <http://www.deq.virginia.gov/go-native.html>.

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

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

Task 2 originally had \$5,203. \$3,000 was awarded to the Back Bay Restoration Foundation for their annual conference (see Task 2.01 below). \$2,203 remains in this task for an additional Quick Response grant. The CZM Program has received several requests including one from the James River Association to assist with a televised PSA video competition called "The James & Me" that they are doing in conjunction with Fox News. We have also received a request for a post-construction living shoreline monitoring project at Hull Springs Farm. Longwood University already conducted extensive pre-construction monitoring and is looking for \$6,000 for post-construction monitoring. A project will be submitted within the next quarter for the final SAC release on this task.

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**

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**Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from January 1, 2009 - March 31, 2009**

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>	Project Period Open
Open	Start: End: Closeout:		
	1/1/2009 6/30/2009 9/30/2009		

The Back Bay Restoration Foundation and the VA CZM Program co-hosted the day-long Back Bay Forum 2009 on March 18, 2009 at the Tidewater Community College Advanced Technology Center for a group of 126 attendees. Topics included: Sustainable Landscapes and Water Quality, Fisheries Population Sampling in Back Bay, Wildlife Populations and Climate Change, Snow Goose Banding and Migration, Migratory Waterfowl Populations in Back Bay, Coastal GEMS (Geospatial and Educational Mapping System) and CZM, SAV Status in Back Bay, Climate Change Adaptation, Coastal Flooding and the Governor's Climate Change Commission.

To date, the following deliverables have been completed: Product 1 – Forum agenda/registration form and nametags, Product 2 – CD of the Back Bay Forum 2009 Presentations, Product 5 – Survey and comment form. The Project Manager continues to work on the remaining two deliverables.

Final Products	% Completion	Anticipated Completion Date
Product 1 – Forum agenda/registration form and nametags	100%	
Product 2 – CD of the Back Bay Forum 2009 Presentations	100%	
Product 3 – Action plan	20%	June 2009
Product 4 – Web site link for the Back Bay Forum 2009	0%	June 2009
Product 5 – Survey and Comment form	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>	Project Period Open
Open	Start: End: Closeout:		
	10/1/2008 9/30/2009 12/31/2009		

During the first half of FY 2008, the Office of Environmental Impact Review/Federal Consistency (OEIR) reviewed 132 development projects and management plans for consistency with the VCP. This represents 81.5% of the total amount of projects (162) reviewed during this period. Major state projects accounted for 48 projects, 54 were federal actions, and 30 were federally funded projects (predominantly local government projects). The 54 federal projects included 41 federal agency activities and 3 federal licenses, approvals and 10 HUD mortgage insurances. Reviews of consistency determinations and certifications were completed within established legal deadlines with the exception of one project involving the construction of Mid-Atlantic Joint Regional Correctional facilities in the City of Chesapeake proposed by the Department of the Navy where the Navy and DEQ mutually agreed to two 60-day extensions to allow the Navy sufficient time to address potential adverse impacts to the wetlands enforceable policy of the VCP. 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 determinations and certification responses	50	9/30/09

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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>	Project Period Open
Open	Start: End: Closeout:		
	10/1/2008 9/30/2009 12/31/2009		

1. Environmental Education Leadership Program: The VOEE Program Manager coordinated the following activities: annual meeting of Virginia Resource Use Education Council; quarterly meetings of Chesapeake Bay Education Workgroup; development of education program at Meadow Event Park, the new state fairgrounds; and implementation of regional EE teams. The Manager also began planning for the fall 2009 Virginia Environmental Education Conference to be held in partnership with the Hampton Roads Alliance (HRAEE). The Manager and VOEE staff focused on bi-monthly communications with the 25 enrolled members in the EE Leadership Program to build relationships and encourage their participation.

2. Virginia Naturally web site: Major updates include:

Creation of new Virginia No Child Left Inside page: [www.vanaturally.com/ncli](http://www.vanaturally.com/ncli)

2009 Professional Development page: [www.vanaturally.com/summer.html](http://www.vanaturally.com/summer.html)

Map of Regional EE teams: [www.vanaturally.com/regions](http://www.vanaturally.com/regions)

Map of Virginia Naturally Schools: [www.vanaturally.com/vanaturally/k12ed/schools.html](http://www.vanaturally.com/vanaturally/k12ed/schools.html) (a link under Virginia Naturally schools)

Map of Classroom Grants: <http://www.vanaturally.com/classroomgrants.html>

3. Meaningful Community Education Trainings/Workshops: Since October 2008, VOEE efforts have reached more than 1,300 people through outreach, training, and technical assistance. Highlights include trainings with the Virginia Association of Science Teachers; attendance by international participants in Places We Live Ecological Footprint training at Capital One's campus in Richmond; participation by Virginia Department of Transportation staff (two Environmental Engineers) in wetland identification and stewardship training; and facilitation of a new pilot program between Sweet Briar College and the Virginia Department of Conservation and Recreation to catalog and map vernal wetland pools. In addition, VOEE has coordinated ten meaningful education/stewardship trainings for educators that will be offered April 2009 through August 2009.

Final Products	% Completion	Anticipated Completion Date
EE Leadership and Capacity Building	50	September 09
Virginia Naturally website	50	September 09
Meaningful Community Education Trainings and Workshops	50	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>	Project Period Open
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. Construction began in April 2008 and is scheduled for completion in November 2009. To-date, \$2,525,915 of the \$4,710,623 grant has been paid to the Town, indicating that construction is about 55% complete.

In the period since October 2008, reimbursements totaling almost \$1.93 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	55%	November 2009

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

During the reporting period, VMRC received a total of 821 joint permit applications. Actions were completed on 966 projects, some of which were received prior to the reporting period. During the reporting period 123 compliance inspections were conducted for previously issued permits. Also 51 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	39%	
Compile data for entry into data base	50%	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> Project Period Open
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 USDA – Natural Resources Conservation Service, USDA – Farm Service Agency, Northern Neck Land Conservancy, City of Fredericksburg, Accomack-Northampton PDC, The Nature Conservancy, the Department of Environmental Quality (DEQ) and Gloucester, Mathews, and Richmond Counties. Presentations included an overview of DCR's Natural Heritage Program, the Locality Assistance Program, the Natural Heritage Data Explorer (NHDE) website, the Virginia Conservation Lands Needs Assessment (VCLNA), and the Land Conservation Data Explorer (LCDE). Currently, 61% of the Coastal Zone localities have Natural Heritage data.

The Locality Liaison has joined the DCR – Locality Assistance Network to better coordinate outreach efforts throughout the Department. The Liaison presented information pertaining to the Locality Liaison program to this group (12/09/08) and continues to attend scheduled meetings. The Coastal Locality Liaison, with assistance from DCR-NH staff, updated the Wetland Restoration Catalog in December 2008 – 55 of the original sites were modified, 32 new sites were added, and there are currently 92 sites within the coastal zone. Please see [www.dcr.virginia.gov/natural\\_heritage/wetrestcat.shtml](http://www.dcr.virginia.gov/natural_heritage/wetrestcat.shtml) for the updated Catalog. The Locality Liaison presented the updated Catalog to DCR-Natural Heritage staff (02/02/09) and will incorporate this in upcoming presentations. The Locality Liaison is working to make this data available on the Virginia CZM Coastal GEMS website. 453 projects were reviewed for impacts to NH resources in the coastal zone (41% of the projects reviewed state-wide). One project of note was a proposal for a private road and pier on the Eastern Shore. After NH review, it was found that the property was within a TNC easement. TNC was informed and the private landowner withdrew the permit due to conflicts with the easement agreement.

Locality Assistance examples: The Liaison presented the Locality Liaison Program at “The York River and Small Coastal Basins Roundtable” at the University of Richmond (11/06/08). The Locality Liaison has provided individualized Heritage information to the Town of Chincoteague and James City County for incorporation into local Comprehensive Plans that are still under revision. The Liaison met with representatives from the George Washington Regional Commission and Hampton Roads Planning District Commission to discuss DCR-DNH tools such as the Wetland Restoration Catalog, NHDE, and VCLNA. NHDE updates went live with a revised workflow for assurance of shapefile generation. User manuals and online help documents continue to be updated, such as including new error messages in the Troubleshooting section. Also, data updates are done quarterly. Recent updates include NH resource information in the screening layer, 6th order watersheds, and conservation lands.

Final Products	% Completion	Anticipated Completion Date
Project Review	50%	September 30, 2009
Locality Assistance Program Presentations	50%	September 30, 2009
Natural Heritage Data for Coastal Partners	50%	September 30, 2009
Improvements to the Natural Heritage Data Tools	50%	Pending budget allocations

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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>	Project Period Open
Open	Start: End: Closeout: 10/1/2008 9/30/2009 12/31/2009		

**Wetlands Reports:**

The Center for Coastal Resources Management continues to post Joint Permit Applications with VRMC assigned numbers in a searchable database on our website. To view the original shoreline permit applications, as well as the associated VIMS report, additional information, photos, and public hearing information for every application reviewed by the Wetlands Program staff, please see: <http://ccrm.vims.edu/perms/newpermits.html> In addition, incomplete permit applications are now identified in red while applications considered complete show up in green on the front page.

**Publications:**

Rivers and Coast, Winter 2009, Vol. 4, No. 1, "Ecosystem Services of Tidal Shorelines"  
<http://ccrm.vims.edu/publications/pubs/rivers&coast/Jan09rivers&coastfinal.pdf>  
Virginia Wetlands Report, Spring 2009, Volume 24, Issue 1, "VIMS Advisory Support: Updates for 2009"  
[http://ccrm.vims.edu/publications/publications\\_topics/vwr/VWR\\_2009\\_Spring.pdf](http://ccrm.vims.edu/publications/publications_topics/vwr/VWR_2009_Spring.pdf)

**Workshops:**

Putting Nature to Work: How to Design and Build Living Shoreline Projects" for 161 people on October 24th, 2008 at VIMS. The workshop presentations and handouts can be viewed online at: <http://ccrm.vims.edu/education/seminarpresentations/fall2008/index.html>  
Regional Integrated Shoreline Management Workshops for Local Government Staff on October 9, 2008 for the Eastern Shore PDC (15 participants) and on November 20, 2008 for the Northern Neck PDC (10 participants).  
Shifting Sands: Beaches and Dunes in Virginia 113 people attended on February 12, 2009. The workshop presentations and handouts can be viewed online at: [http://ccrm.vims.edu/education/seminarpresentations/spring\\_2009/index.html](http://ccrm.vims.edu/education/seminarpresentations/spring_2009/index.html)

Final Products	% Completion	Anticipated Completion Date
Permit Report	50%	September 30, 2009
Outreach Publications	50%	September 30, 2009
Wetlands Program Database	50%	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>	Project Period Open
Open	Start: End: Closeout: 10/1/2008 12/31/2009 3/31/2010		

VIMS successfully completed the acquisition of aerial photographs of the entire bay and tributaries and coastal bays for the 2008 SAV annual survey.

VIMS also successfully completed ortho-rectifying all flightlines, mosaicing all the quadrangles, and photo-interpreted SAV on all quadrangles for the Chesapeake Bay and the Coastal Bays. They distributed the baywide 2008 SAV numbers to all participants by the beginning of March. 2008 SAV data can now be viewed at: <http://web.vims.edu/bio/sav/maps>

Final Products	% Completion	Anticipated Completion Date
Draft Final Report	50%	June, 2008
Final Report	0	December, 2008

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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
Pending	Start: End: Closeout:		
	10/1/2008 9/30/2009 12/31/2009		

The Southern Tip partners met on October 14, 2008 and again on January 13, 2009. It was agreed that the Eastern Shore Land Trust would become a signatory to the formal Southern Tip Partnership agreement originally signed in 2006. This local land trust has been a wonderful source of match for CZM and CELCP grants because they often co-hold easements with a public entity, the local Soil & Water Conservation District. At the January 13 meeting the FY 07 and FY 08 CZM Section 306A available funds were discussed and it was agreed among the partners that the 26 acre in-holding at Kiptopeke State Park would be an excellent fit for these funds along with the \$200,000 in proceeds from the May 2008 James Taylor benefit concert held in Virginia Beach. 306A documentation for this parcel will be submitted through Grantsonline as soon as the title opinion is received. All other 306A documentation is ready. The CZM grant will be awarded to The Nature Conservancy with a contractual requirement that the property be donated to the Department of Conservation and Recreation within a specified time and the appropriate CZM/NOAA grant acknowledgement and conditions regarding future disposition of the property be recorded on the final deed to be held by DCR. This will allow for a fairly quick closing process.

Final Products	% Completion	Anticipated Completion Date
306A Documentation	85	May 20, 2009
Final Report with photos of site with appropriate acknowledgement signage and copy of recorded deed showing TNC ownership and requirement to donate to DCR.	15	November 15, 2009

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>	Project Period Open
Open	Start: End: Closeout:		
	10/1/2008 9/30/2009 12/31/2009		

For the grant reporting period, the Coastal NPS Program Manager began to implement the Virginia Network of Education for Municipal Officials (VNEMO) Support for 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 would guide the facilitation process for the meetings. VNEMO directly assisted in the facilitation of the meetings and accessed the NEMO network to obtain a speaker for the initial Shoreline meeting. 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.

The VNEMO Program attended the initial meeting of the Middle Peninsula Planning District Commission Climate Change - An Assessment of the Middle Peninsula Focal area Project to obtain a perspective to be used for the NVRC Shoreline Management Project.

Final Products	% Completion	Anticipated Completion Date
Product #1-Final Report	50%	September 30, 2009

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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>	Project Period Open
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) executed contracts with Virginia Commonwealth University Center for Environmental Studies (VCU CES) and with the Department of Conservation and Recreation Division of Natural Heritage (DCR-NH) to perform specific functions identified in the grant proposal. The DCR-NH completed revisions to the VCLNA Vulnerability Model, which completes the first task of this project. These data were recently submitted to GEMS.

Project staff met almost monthly to develop a course of action of the project scope of work and to review project developments with the team. The primary focus of these initial discussions has been the definition, scope, and development of the Priority Conservation Areas (PCAs) dataset. PCAs are "... lands and surface waters identified as important for conservation of Virginia's wildlife (includes fish, insects, and invertebrates), plants, and natural communities. The identified lands can be used to prioritize areas for preservation or to encourage special land management practices to conserve or enhance critical natural resources. Surface waters identify exemplary aquatic communities (high biotic integrity, rare biota, and/or unique communities) that may require specific protection or conservation action." The team decided that each organization would be responsible for its contribution to the PCA based on organizational priorities. All conservation priorities will be combined on 1- 5 scale, with 5 being the most important. The initial method to combine priorities from all 3 entities will use the maximum value at any given location (e.g., if, for a particular location, DCR has a value of 4, DGIF, a value of 2, and VCU, a value of 0, the resulting site value would be a 4). This method may be revised once all of the data are available and compared. DCR-NH completed the VCLNA Ecological Model and the Virginia Biodiversity Assessment for use in the model. The Virginia Biodiversity Assessment version 1 was completed in March 2009. DGIF is developing the Priority Wildlife Diversity Conservation Areas (PWDCA) dataset as its component of the PCA. This was originally called the Priority Wildlife Conservation Areas dataset. The word "Diversity" was added to reflect the biodiversity conservation focus of the PCA and reduce confusion with other wildlife activities traditionally associated with DGIF. DGIF conducted internal meetings on the PWDCA and developed a survey to gather input from agency biologists. This survey was sent to 13 Wildlife Diversity biologists with results expected shortly. Datasets representing the expected features within the PWDCA have been compiled and evaluated. The final features and priorities, determined through the internal survey, will be used to map and rank PWDCA's. The VCU CES team identified pertinent blue infrastructure datasets and the subsequent data development and methodological needs. VCU CES updated the INSTAR database and exported healthy stream point locations for use in the PCA. VCU CES has also generated healthy stream segments for use in the PCA. A third layer of information is being generated at a 6th-order hydrologic unit layer ranked for aquatic integrity based on the INSTAR VSA scores, the MIBI (modified index of biological integrity) and the BIBI (benthic index of biological integrity). The project team coordinated with the VA Coastal Zone Management Program on the development of consistent PCA-like spatial data in estuarine/open-water portion of the Chesapeake Bay and in Atlantic Ocean waters around Virginia, since these areas are outside the expertise of the project team. VCZMP has projects, or is developing projects, with Virginia Institute of Marine Science (VIMS) to compile data for the Chesapeake Bay and with The Nature Conservancy (TNC) for the same in the Atlantic Ocean. The project team has been communicating with both VIMS and TNC to insure CZM gets a consistent PCA-like dataset for all areas.

The project team has selected Northampton County as the partner for the locality pilot project using CommunityViz. Northampton was chosen because of the abundance of important conservation areas (e.g., southern tip migratory bird stopover, barrier islands, high marsh, etc.), growing development pressure, and proximity to related projects. The Green Infrastructure Center is planning a similar project in Accomack County, which may offer some synergies within a single Planning District Commission (PDC). Northampton has agreed to be a partner with the project team and is excited about the opportunity to further develop its CommunityViz applications. The project team met with the Northampton Planning Director and the GIS Coordinator in January. Since this time, Northampton has provided GIS data and previous CommunityViz scenario information. VCU has begun data compilation for integration into CommunityViz. This effort includes checking GIS layers for data integrity and working with the county to refine zoning code definitions per the County's current and proposed zoning ordinances. VCU has begun to associate the county zoning data with the parcel data through a series of GIS processes and visual assessments; there is not a 1:1 relationship due to multi-zoned parcels.

The project team has participated in several PDC meetings. A project update was given at the quarterly CZM PDC meeting in Fredericksburg in January. The project team also contributed to the CZM Focal Areas planning meeting in March at the Richmond PDC office.

Final Products	% Completion	Anticipated Completion Date
Updated Vulnerability Model	100%	12/1/08
Priority Wildlife Conservation Areas	35%	5/30/09
Priority Conservation Areas	40%	7/15/09
CommunityViz project for locality	25%	8/30/09
Workshop on spatial data and CommunityViz application	0	9/15/09
Final Report	0	9/30/09

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**

**Year: 2008**

**Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from October 1, 2008 - March 31, 2009**

Task: 12      TBD			
Sustainable Community Planning			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u>
Proposed	Start:	End:	Closeout:
	10/1/2008	9/30/2009	12/31/2009

\$80,752 remains in this task to be reallocated. Within the next few weeks three scopes of work will be submitted through Grantsonline to release the current SAC on this task. One will be for a Task 11.03 to VIMS for Phase 2 of development of Priority Estuarine Infrastructure for \$40,752 (FY 07 funds will also be reallocated for Phase 1 of that project - this will be called Task 93.04); a second will be for a Task 12.01 to Accomack County for a Blue-Green Infrastructure Project for \$30,000; and the third will be for a Task 12.08 to Northampton County for a Blue-Green Infrastructure Project for \$10,000.

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> Project Period Open
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 a 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 the project report. The report was submitted with the mid-year progress report.

#2: Draft Regional Conservation Corridor (45%): GWRC staff spent some time studying blue & green infrastructure planning procedures and attending a BGI training workshop in Ashland, Virginia. GWRC staff met with RRPDC staff to discuss coordination efforts between regional blue & green infrastructure planning efforts. GWRC is conducting an ecological core update (post 2000) by applying the same technique (approved by DCR Natural Heritage staff) of mapping building footprints and building a 100 meter buffer around buildings located within ecological cores where human settlement patterns have disrupted natural habitat systems. The resulting "before and after" map of remaining natural habitat/ecological areas will be used in development of a composite regional blue & green infrastructure (BGI) protection map and individual local BGI maps. The project has been discussed with the regional "Green Earth" subcommittee of GWRC Green Government Commission, with involvement from several environmental activist groups (e.g. Sierra Club, Friends of Stafford Creeks, Spotsylvania Greenway Initiative).

#3: Community Viz Demonstration Project Report (40%): GWRC staff participated in 2 training webinars on Community Viz modeling techniques (i.e. "build out" and "suitability" analyses) and spent time with tutorial/demonstration software to prepare to work with communities on the project. GWRC staff have been working with Alex Long, Chair of Port Royal Town Planning Commission to develop data layers and a working understanding of a Community Viz model for application to update the Town's comprehensive plan. Mr. Long has requested a expansion of the project study area to include the County's Port Royal Secondary Growth Area, including an area generally west of the Town, between the Rappahannock River & Fort A.P. Hill. Supplemental data development includes overlay polygons for Town and County future land use plans, existing zoning, and geo-rectifying 3rd-party parcel layer and updating & enhancing the building footprint layer.

#4:Ches Bay NEMO Program Support for Local Outreach (10%): No activity.

Final Products	% Completion	Anticipated Completion Date
GW Region State Natural Resource Data Evaluation Report	100%	March 31, 2009
Draft Regional Conservation Corridor	25%	September 15, 2009
Community Viz Demonstration Project Report	25%	September 15, 2009
Ches Bay NEMO Program Support for Local Outreach	0%	September 15, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from October 1, 2008 - March 31, 2009

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>	Project Period Open
Open	Start:	End:	Closeout:		
	10/1/2008	9/30/2009	12/31/2009		

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. Work is underway to distill and consolidate this information into a synopsis of the topic that can be used for both technical committee processes and public information. 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. The U.S Army Corps of Engineers, the Virginia Institute of Marine Science, Noblis, the Renaissance Computing Institute, NASA and other agencies 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.

Facilitation of Presentations and Discussion of Climate Change Issues: The process of meeting with stakeholders in the Hampton Roads region is underway. Thus far discussions have taken place with local government planners that are involved in comprehensive and environmental planning issues. Meetings with a broader range of local government staff, including representatives from planning, parks and recreation, utilities, public works and emergency management are scheduled in April of 2009. HRPDC staff made presentations on climate change issues at the Back Bay Forum on March 18, 2009 and at the Virginia Chapter of the American Planning Association conference on March 25, 2009.

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	20%	November 2009
Facilitation of Presentations and Discussion of Climate Change Issues	15%	October 2009
Development of a Framework for the Response to Climate Change	5%	December 2009

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>	Project Period Open
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: Through the Climate Change Advisory Committee, anthropogenic and ecologic impacts, including flooding of infrastructure, storm water management, insect control, coastal erosion, water pollution, cultural and historical sites, coastal access points, and property loss, were identified as well as associated public policy issues. Currently, MPPDC staff is gathering data relevant to mapping the public policy issues.

Task 2: Summary of Stakeholder Findings and Workgroup Meetings and Outcomes: In January 2009, MPPDC staff created a Climate Change Advisory Committee for the six counties and three towns encompassing the Middle Peninsula. The Committee is comprised of appointed members representing each locality and major stakeholder groups within the Middle Peninsula including representatives from the Hampton Roads sanitation district, agriculture, transportation, the health department and resource conservation and development. The first meeting of this committee was held on February 12, 2009. The committee was introduced to the project by MPPDC staff, while guest speaker Skip Stiles (Executive Director of Wetlands Watch) focused his presentation on the regional impacts of climate change. Committee members were asked to identify anthropogenic (human) and ecologic impacts most important to them through a take-home worksheet. After a two week period, MPPDC staff collected the worksheets. Committee responses were assembled in a table which identified specific climate change impact concerns and the associated public policy issue. Also, with the intention of mapping the committee's concerns, MPPDC staff generated a mapping strategy. The second committee meeting was held on March 12, 2009. The public policy matrix of anthropogenic and ecological impacts of climate change that was generated from the first meeting was presented at the second meeting. MPPDC staff asked the committee for suggestions and/or comments about the matrix before proceeding with the mapping of the public policy issues. Moreover, the committee was provided information in regards to how other communities, domestically and internationally, are responding to climate change impacts (ie. sea level rise, agriculture). MPPDC staff intends to map the identified public policy issues through June and will schedule the next Climate Change Advisory Committee meeting in July.

Final Products	% Completion	Anticipated Completion Date
Spatial Assessment of Potential Climate Change Impacts within the Middle Peninsula Planning District	50%	September 2009
Summary of Stakeholder Findings and Workgroup Meetings and Outcomes	50%	September 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from October 1, 2008 - March 31, 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>	Project Period Open
Open	Start:	End:	Closeout:		
	10/1/2008	9/30/2009	12/31/2009		

NNPDC staff contacted Virginia Department of Conservation and Recreation, Division of Natural Heritage Staff to get the latest Virginia Conservation Needs Land Assessment Data. NNPDC staff then clipped the data to each of the Northern Neck county's boundaries. Other GIS layers were added including conventional septic system soil suitability, national wetlands inventory wetlands and steep sloped soils. NNPDC staff met with Richmond County staff on February 26th to decide which areas in the county could be considered to be added into a blue-green infrastructure plan. After displaying all the GIS data layers that showed high value natural areas as well as development constraints, the County Administrator remarked that the areas of high habitat values seemed to follow the two natural corridors that are already present in the County's Future Land Use Map. Those two natural corridors are along Cat Point Creek and Upper Totuskey Creek. Unfortunately, the county's comprehensive plan GIS data was not available on the laptop to overlay, but it was decided that overlaying that data would be the next step. Also, the approach formulated for the first meeting of the planning commission/comprehensive plan subcommittee meeting was discussed. The approach centered on applauding the county for already having a great start on the natural areas (green infrastructure) planning, but to inquire how we can integrate other important areas in the county and blue infrastructure into the comprehensive plan.

NNPDC staff met with Northumberland County staff on March 4th to discuss areas within their jurisdiction to be included in the blue-green infrastructure plan. Staff commented that they were overwhelmed with the amount of data, and that combining some of the data layers or reducing the number of areas might be helpful in allowing them to digest the data sets. Also, it was clear that overlaying the county's digital tax maps was important to be able to understand where the high value natural areas are located, and on whose property. The timing for work on blue-green infrastructure planning in Northumberland County is not good, as the county tried to increase lot size in the Agricultural Zoning district, and the public turned out en masse to defeat it, saying they would not allow the county to "take their land". Therefore, after discussing the outcome of the public hearing, all present decided that it would be best to keep this at the staff level for now. NNPDC staff are gathering additional data for its upcoming meeting with Westmoreland County staff. Work has begun on power point presentations that be will given at comprehensive plan committees/planning commission meetings for both Richmond and Westmoreland County. Meetings with comprehensive plan subcommittees and/or planning commissions will be scheduled for next month. This start of this project was delayed, however very little project funding has been spent. Efforts will be multiplied in the second half of the grant year to make up lost time and complete all deliverables.

Final Products	% Completion	Anticipated Completion Date
Draft Northern Neck Regional Conservation Corridors Map	30%	September 30, 2009
Planning Commission Education/Consensus Building Report	0%	September 30, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from October 1, 2008 - March 31, 2009

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>	Project Period Open
Open	Start:	End:	Closeout:		
	10/1/2008	9/30/2009	12/31/2009		

NVRC and the Virginia/Chesapeake NEMO programs coordinated the first workgroup meeting of staff representatives from affected localities, military installations, universities, major landholders, including the National Park Service, DCR – Mason Neck State Park, and the Fish and Wildlife Service – Mason Neck Wildlife Refuge, and others major stakeholders. Tom Smith, Director of Natural Heritage with Virginia DCR, presented an overview of climate change and its impact in Virginia. His presentation included a summary of the Governor’s Commission on Climate Change report and recommendations as they relate specifically to preparing adaptation strategies for Virginia’s shorelines. Laura Grape, Senior Environmental Planner with NVRC, provided an introduction to the project, its purpose, and the overall schedule for the project. Virginia/Chesapeake NEMO facilitated a discussion and work session for the workgroup members to identify areas of concern within their respective jurisdictions on maps of the Potomac shoreline, which NVRC prepared.

NVRC created two groups on the Chesapeake Watershed Network specifically for this project. One is for planning purposes containing draft agendas and background information. The other is for the workgroup and contains presentations, discussion forums, and other materials for their consideration.

Since the February 10th workgroup meeting, NVRC has been refining the vulnerability map and collecting the GIS information suggested at the February 10th workgroup meeting. Chesapeake NEMO was successful in acquiring LiDAR data from a Department of Defense contact for the upper Potomac River project area. Also, NVRC prepared and released an announcement for a competitive summer internship with the Sustainable Shorelines and Community Management Project. The closing date for applications is Friday, April 24, 2009 and the intern may begin on Monday, May 18, 2009.

Final Products	% Completion	Anticipated Completion Date
Summary of Workgroup Formation, Meetings and Outcomes	20%	September 30, 2009
Report on Northern Virginia Shoreline Inventory and Data Gaps	30%	September 30, 2009
Report on Local and Regional Policy Consistency	5%	September 30, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from October 1, 2008 - March 31, 2009

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>	Project Period Open
Open	Start: 10/1/2008	End: 9/30/2009	Closeout: 12/31/2009

Phase I of the Blue-Green Infrastructure project is a partnership project among the Richmond Regional Planning District Commission (RRPDC), the Crater Planning District Commission (CPDC), and the Green Infrastructure Center (GIC). Phase I has 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 has been an update to 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 takes the original data model that was current as of year 2000 and updates 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 has been created to inform the project as work progresses; the committee consists of local government representatives, land conservation groups, and other organizations. The regional green infrastructure map includes critically important habitat and corridor resources across the Richmond and Crater Planning Districts. In September 2008, a preliminary meeting of the review committee was jointly hosted by the RRPDC, the CPDC and the GIC at the RRPDC offices; the goal of the meeting was to increase knowledge and interest in green infrastructure. A presentation explaining the green infrastructure concept was given by GIC staff. Some early draft maps of basic green infrastructure assets were also displayed at the meetings. Feedback about green infrastructure assets in the region was requested of committee members. Using the updated landscape assessment data model, PDC staff, with GIC staff, created a regional green infrastructure assessment and map for the Richmond-Crater Region. In February 2009, the review committee met to review the draft regional green infrastructure maps including that of the updated VCLNA data. In March 2009, review committee members were invited to a green infrastructure workshop in Richmond that was conducted by the Green Infrastructure Center and the Capital Region Land Conservancy through a grant from the Altria Corporation.

In the concluding months of this phase of the project, PDC staffs will work with the GIC to complete the regional green infrastructure maps, 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	45%	September 30, 2009
Green Infrastructure Asset GIS data layers and mapping	85%	September 30, 2009
Blue-Green Infrastructure Implementation Methods and Model Text Report	25%	September 30, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from October 1, 2008 - March 31, 2009

Task: 41      Accomack-Northampton Planning District Commission  
Technical Assistance Program

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

The A-NPDC has held five Groundwater Committee meetings, one Agriculture Advisory Group meeting and one Groundwater Management plan sub-committee meeting. The committee has reviewed two groundwater withdrawal permits and one VPDES permit. The Agriculture Advisory Group met to decide how the committee can assist with future funding issues to help local farmers change which groundwater aquifers they use. The committee is working to identify potential funding sources. The Groundwater Committee's establishment of the Groundwater Management plan sub-committee to re-address and re-write the Groundwater Management Plan for the Eastern Shore of Virginia has met twice. The sub-committee has identified specific stakeholder groups that it plans to meet with through the updating process. Stakeholder groups that have been identified included industrial, residential, aquaculture and agriculture and others will be added throughout the update. A survey was placed in the paper for public response about the groundwater plan. The fourth Annual Groundwater Award was presented to Tankard Farms for promoting water conservation measures by increasing his surface water aquifer and installing high-efficiency irrigation systems in production farming.

**Coastal Management Committee Meetings**

There have been two coastal management committee meetings. The committee reviewed the EIS Review for the Oyster restoration project in the Chesapeake bay, the plan included possibilities of introducing native and non-native oysters in the Chesapeake Bay. The Committee reviewed and decided not to comment as a group but encouraged members to comment individually. The committee also reviewed Oil and Gas Exploration Environmental reviews that included the off-shore coast of Virginia. The committee did not comment on the Oil and Gas Exploration review, but noted that they need to identify what resources may exist off shore.

Final Products	% Completion	Anticipated Completion Date
Coastal Management Committee Report	50%	9/30/2009
Coastal Management Training Report	75%	9/30/2009
Technical Assistance Report	50%	9/30/2009
Groundwater Committee Report	50%	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>	Project Period Open
Open	Start:	End:	Closeout:		
	10/1/2008	9/30/2009	12/31/2009		

During the reporting period, Crater PDC staff:

- (1) Processed nine environmental impact reviews in regard to local, state and federal projects,
- (2) Held two coastal educational meetings (10/10/08 and 2/6/09) dealing with green infrastructure, climate change, land-use and transportation impacts and 2009 General Assembly proposed legislation,
- (3) Commenced development of the Town of Dendron Comprehensive Plan Update to incorporate natural hazard mitigation into the Town's planning process,
- (4) Held four coastal training meetings (10/13/08, 10/18/08, 1/13/09, and 3/25/09) dealing with Chesapeake Bay Gateways network, Chesapeake Bay Phase III requirements, VIMS Integrated Shoreline Management requirements and East Coast Greenway,
- (5) Held three public meetings (10/27/08, 12/8/08, and 2/1/09) in regard to the Crater/Richmond PDC Green Infrastructure Pilot Project. These meetings were introductory meetings in regard to the project.
- (6) Assisted with the fall Appomattox River Clean-Up was held on 11/8/08 at three separate sites located in Hopewell, Petersburg and Prince George County, and
- (7) Continued to support FOLAR and the Friends of Chesterfield's Riverfront concerning the Appomattox River tour for elected and appointed officials held on 10/1/08 and the "River Days on the Appomattox" held on 10/3&4/08.

Final Products	% Completion	Anticipated Completion Date
Environmental Impact Review Comments	50%	9/30/09
Coastal Meetings	50%	9/30/09
Coastal Training	50%	9/30/09
Town of Dendron Comprehensive Plan	50%	9/30/09

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from October 1, 2008 - March 31, 2009

Task: 43 Hampton Roads Planning District Commission  
Technical Assistance Program

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Project Period Open
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 participates as members of these Committees. The Joint Environmental Committees received presentations on CBPA Implementation Activities and the evolving Phase III program, Fecal Bacteria Studies, the Urban Forestry Program, the Governor's Commission on Climate Change, the Extreme BMP Makeover project, invasive species management, proposed tree canopy legislation, and various regulatory updates.
- Approximately 28 EIR and Federal Consistency reviews were undertaken.
- HRPDC staff participated in Coastal PDC meetings on October 8, 2008 and January 12, 2009, and in the VAPDC Environmental Committee meeting on January 29, 2009. HRPDC staff also participated in a Coastal Policy Team meeting on February 18, 2009 and a Coastal Zone Program Focal Area Grant meeting on March 3, 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 October 2008 and January 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), Chesapeake Bay Preservation Act Phase III, VAPDC Environment Committee, and BMP Clearinghouse.
- Assisted multiple localities with information on stimulus funding for water, sewer, stormwater, and other capital projects.

Final Products	% Completion	Anticipated Completion Date
Final Report: FY 2008-2009 Technical Assistance Program	0%	October 2009
EIA/EIS and Coastal Consistency Review	50%	October 2009
Public Information & Training	50%	October 2009
Regional Coordination	50%	October 2009
Special Regional Studies	0%	October 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from October 1, 2008 - March 31, 2009

Task: 44 Middle Peninsula Planning District Commission  
Technical Assistance Program

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Project Period Open
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. MPPDC staff provided GIS analysis of development proposals, land conversion, land use plans, and local land use ordinance implementation over the first six months of the project. Project highlights included a GIS transportation system, aerial imagery and parcel analyses for the Virginia State Police planning for improved transportation and safety issues for the 2009 Urbanna Oyster festival.

Local Planning Coordination- MPPDC staff convened several meeting 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. The item of most interest was the tracking and discussion of Virginia General Assembly Bills and Resolutions under consideration during the 2009 session and the relations to coastal zone management and local land use and policy implications. Considerable staff time was devoted to the tracking of legislation pertaining to the management of on-site secondary treatment systems. Training topics included groundwater management areas, waters supply plan regulations, and implications of new legislation regarding septic systems.

Special Project- Partial Implementation of the Middle Peninsula Chesapeake Bay Public Access Authority (PAA) Annual Work Plan. PAA staff guided enabling legislation through the General Assembly intended to amend the enabling authority of the PAA to permit the PAA to become a wetland mitigation bank. The legislation was signed by the Governor on March 27, 2009 and becomes effective July 1, 2009. The enabling legislation can be found at <http://leg1.state.va.us/cgi-bin/legp504.exe?091+ful+CHAP0429> PAA staff also has partnered with Virginia Sea Grant to develop a public access web portal to promote awareness of public access and ecosystem restoration and the compatibility of public access on restored sites.

Final Products	% Completion	Anticipated Completion Date
Coastal Management Support	50%	September 30, 2009
Local Planning Coordination	50%	September 30, 2009
Partial Implementation of MPCBPAA Work Plan	50%	September 30, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
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Task: 45 Northern Neck Planning District Commission  
Technical Assistance Program

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

NNPDC staff has finished digitizing land cover for another watershed in Richmond County. Combining with previous grant year's work, the county now has a digital land cover GIS layer for the area from Totuskey Creek northward to the county line with Westmoreland County. This is approximately 2/3 of the county's area. This data will be used for the NNPDC's National Fish and Wildlife Foundation Grant to help target areas for additional agriculture and urban best management practices to reduce the nutrient load from Richmond County to tributary nutrient reduction goal levels.

Work has begun on two of five digital Northumberland County tax maps slated for revision this grant year. NNPDC staff are continuing work on updating Northumberland County tax maps, which will be used in the county GIS for planning purposes.

NNPDC staff has contacted Virginia Department of Health (VDH) staff to begin the process of gathering information on alternative septic systems in Lancaster County. The data has been received from VDH staff and mapping has begun. NNPDC staff met with Westmoreland County staff to begin the process of updating the zoning layer in the county digital tax map layer. Even though many revisions and subdivisions of the digital map layer has occurred in the last year or two, the zoning layer has not been updated in over five years. NNPDC staff held a Northern Neck Chesapeake Bay Public Access Authority (NNCBPAA) meeting on December 17th in conjunction with the Middle Peninsula Chesapeake Bay Public Access Authority. The main topic discussed was working waterfronts, presented by MPPDC staff. NNCBPAA members directed NNPDC staff to write in a working waterfront inventory into the upcoming 2009 NNPDC T/A Grant. NNPDC staff also met with VDOT and VDGIF staff regarding transferring a road ending to the authority, with no progress being made toward resolution.

NNPDC held a training session attended by county staff and wetland board members on Nov. 20th, conducted by VIMS staff on Integrated Shoreline Management. County staff voiced concern over the reduction of VIMS staff on-site project visits. NNPDC staff continues to attend the Potomac Watershed Roundtable (PWR) meetings. A NNPDC staff person is a voting member of the PWR and is also on the legislative sub-committee. NNPDC staff recommended in this year's letter to state legislators an initiative to require nitrogen reducing technology on newly constructed septic systems. NNPDC staff testified before the Virginia Senate Committee on Agriculture and Natural Resources of the importance of nitrogen reduction of septic systems, and the bill was passed with the amendment that it only apply to alternative septic systems. However, progress was made, and legislators were educated and informed on this important coastal issue. NNPDC staff has also been attending Rappahannock River Basin Commission Non-Point Source Working Group Meetings (RRBC-NPSWG). As a result of last year's work on educating lawmakers on No Discharge Zones, a Virginia House of Delegates member introduced a bill to require that all Virginia tidal creeks be applied for No Discharge Zone status. This bill passed as a direct result of the RRBC's educational efforts, with NNPDC staff providing input.

The NNPDC recently received some funding from DEQ to help complete the Northern Neck Regional Water Supply Plan. A consultant is completing the plan, and the major point of the plan is that the level of water supply (groundwater) in the Northern Neck is influenced by factors outside of the region (Maryland uptake to the North, and Middle Peninsula uptake to the south). The amount the Northern Neck uses pales in comparison to users next to us. Therefore, cooperation with other regions is essential in maintaining an adequate water supply in the Northern Neck.

NNPDC staff has been involved with a feasibility study for creation of an oyster hatchery in the Northern Neck. EDA money was used to hire a consultant to first, assess whether an oyster hatchery was economically feasible (make a profit) and second, where would be the best place for the hatchery to be located. The study was completed and the results were that it is feasible and that a site on the Coan River was the best suited for the hatchery, due to better water quality and higher site elevation than the other site on the Yeocomico River that was examined .

Final Products	% Completion	Anticipated Completion Date
Coastal Management Support	50%	September 30, 2009
Local Planning Coordination	25%	September 30, 2009
Northumberland 5 Revised Digital County Tax Maps	40%	September 30, 2009
Richmond County Watershed Land Cover Data Creation	100%	March 31, 2009
Westmoreland County Zoning Update	10%	September 30, 2009
Lancaster County Alternative Septic System Inventory	50%	September 30, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
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Task: 46 Northern Virginia Regional Commission  
Technical Assistance Program

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

Technical Workshops & NVironment Newsletter: On February 24, 2009, NVRC, with the Virginia Institute of Marine Science (VIMS), hosted a workshop on Integrated Shoreline Management to eight Wetland board and Chesapeake Bay Preservation board staff liaisons in the Northern Virginia region. Julie Bradshaw reviewed tidal processes and shoreline regulations and shared VIMS new approach to conducting limited site analyses, their interest in getting involved at the pre-application process, and their intent to build the knowledge capacity of the local planners. The liaisons expressed an interest in continuing the conversation and working with NVRC and VIMS in the preparation of guidance materials and plans, and educational efforts to waterfront property owners. On February 28, 2009, NVRC hosted a workshop on Rain Gardens to 39 residents across the Northern Virginia region. Feedback from participants revealed a strong interest in constructing a rain garden on their property, at a school, or another location. A draft list of proposed topics to include in the Fall 2009 NVironment Newsletter was distributed internally to NVRC staff. In April, NVRC staff will solicit additional article suggestions from local staff.

Special Project (Northern Virginia Clean Water Partners – Regional Stormwater Education Campaign): NVRC received financial contributions from 13 of our 14 partners again this year, for a total budget of \$124,000. NVRC and Arlington County secured the services of Eric Eckl of Water Words That Work, LLC to conduct pre-campaign marketing research and coordinate a pilot study on the use of online advertising through well-know search engines (Google & Yahoo) and social networking websites (MySpace & Facebook). The Partners met twice to support the development of the pre-campaign market research survey and improvements to the campaign's website are underway. Also, NVRC secured Media Vision, Inc for media buying services and placement of the complimenting radio ads which will air in late-May through early-June.

Chesapeake Bay Implementation: NVRC staff met three times with local and state staff as part of the Technical Advisory Committees and Citizen Advisory Groups for TMDL development and watershed planning initiatives in the Cameron Run and Four Mile Run watersheds. NVRC staff attended three Potomac Watershed Roundtable meetings and two Northern Virginia Urban Forestry Roundtable discussions.

EA/EIS Reviews: Since October, NVRC staff reviewed and responded to 14 environmental assessments or environmental impact statements across the region. To date, 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	50%	September 30, 2009
Northern Virginia Clean Water Partners – Regional Stormwater Education Campaign Annual Summary Report	20%	September 30, 2009
NVironment Newsletter	10%	September 30, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from October 1, 2008 - March 31, 2009

Task: 47 George Washington Regional Commission  
Technical Assistance Program

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

#1: Local Government Coordination & Training Program (30%): Coordination activities included quarterly meeting with local government planning directors and representatives of DCR-CBLAD to discuss the Chesapeake Bay Phase III development review process and CZM-funded projects. GWRC staff attended & hosted coastal zone PDC meetings (Richmond & Fredericksburg), and attended Coastal Policy team meeting and VAPDC Environmental Committee (1/30/09) where Dept of Forestry staff presented research on ecosystem service benefits study. GWRC hosted VIMS' Integrated Shoreline Management Planning Workshop attended by GWRC and local government environmental planning and development review staff.

#2: Regional Land Development Review (Chesapeake Bay Phase III Review) (40%): GWRC and local government planning staff met with CBLAD personnel to plan how to proceed with the CZM-funded project in spite of delay in adoption of Chesapeake Bay Phase III regulations. GWRC is collecting electronic copies of local ordinances to catalog and build cross-reference matrix with Phase III checklist. Significant work is scheduled for this summer.

#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. A draft Virginia Green promotional brochure was developed for review by DEQ/Tourism Council staff and local distribution upon review approval.

#4: Feasibility Report on Children & Nature Network (20%): Work on this project was suspended. A substitute project has been submitted to the Virginia CZM Program that would supplement work on the Community Viz demonstration project funded under the CZM-funded GWRC Blue & Green Infrastructure Protection initiative. At the request of Port Royal town officials, the Community Viz project would be expanded to cover the secondary growth area as defined in the Caroline County Comprehensive Plan. This substitute product would involve additional data development and coordination with Town and County staff.

Final Products	% Completion	Anticipated Completion Date
#1: Local Government Coordination & Training Program	50	September 30, 2009
#2: Regional Land Development Review (Ches Bay Phase III Review)	10	September 15, 2009
#3: Virginia Green Promotion	15	September 15, 2009
#4: Feasibility Report on Children & Nature Network	0	September 15, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from October 1, 2008 - March 31, 2009

Task: 48 Richmond Regional Planning District Commission  
Technical Assistance Program

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Project Period Open
Open	Start: 10/1/2008	End: 9/30/2009	Closeout: 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 is using 2007 aerial photography to identify and digitize impervious cover. To date, staff has completed review of three of the seven coastal localities in the PDC: Richmond City, Henrico County, and New Kent County. After the completion of the Phase III update to the regional impervious surface GIS coverage, a report with complementary maps will be produced. The report will detail the change in impervious cover that has occurred in the region and use trends to forecast future impervious surface growth.

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. In January 2009, the RRPDC hosted a workshop on Integrated Shoreline Management conducted by Virginia Institute of Marine Science staff for the Environmental Technical Advisory Committee. RRPDC advised Environmental Technical Advisory Committee members of the Virginia Water Monitoring Council annual conference that occurred in March of 2009 in Henrico, VA; RRPDC staff and several members of the Environmental Technical Advisory Committee were able to attend the conference.

Local Government Technical Assistance: Environmental Review and Mapping – RRPDC staff has completed 24 environmental reviews of federal, state and local projects during this period. RRPDC staff attended the VAPDC environmental meeting in January 2009. As additional support for the regional blue-green infrastructure project currently underway by the RRPDC and the Crater PDC, RRPDC staff has helped to staff several green infrastructure public workshops in RRPDC localities. The green infrastructure workshops were created by the Green Infrastructure Center and the Capital Region Land Conservancy through a grant from Altria Corporation. Environmental Technical Advisory Committee members have been advised of the workshops and have been invited to attend or invite others who might be interested in attending.

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, staff has begun work to verify and update the current accuracy of these documents. Additional printing of these documents for distribution is likely.

Final Products	% Completion	Anticipated Completion Date
Impervious Surface Forecast Report	45%	September 30, 2009
Environmental Technical Advisory Committee Support	50%	September 30, 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from January 1, 2009 - March 31, 2009

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>	Project Period Open
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 January through March 2009, the Virginia Aquarium Stranding Response Program (VAQS) recorded 13 strandings in Virginia. There were 39 strandings recorded during the same period in 2008. The VAQS Stranding Team responded to 13 marine mammal strandings in Virginia during this reporting period, eight cetaceans and five pinnipeds. Four (31%) of the strandings were located in Virginia Beach, seven (54%) on Virginia's eastern shore, and the remainder along the western shores of Chesapeake Bay. The cetacean species included two common dolphins (*Delphinus delphis*), one bottlenose dolphin (*Tursiops truncatus*), three harbor porpoises (*Phocoena phocoena*), one Sowerby's beaked whale (*Mesoplodon bidens*), and one humpback whale (*Megaptera novaeangliae*). Pinniped species included two harp seals (*Pagophilus groenlandica*) and three harbor seals (*Phoca vitulina*). Two harp seals and one harbor seal stranded alive.

The big event during the reporting period was the first ever recovery of a Sowerby's beaked whale in the Virginia stranding record. The beaked whale was dead when discovered on the beach in Northampton County. The specimen was 322 cm (10.5 ft) in length and a male. Samples from the specimen were sent to the Smithsonian's National Museum of Natural History for examination. One of the harp seals (VAQS20091008) stranded alive with a broken jaw and was rehabilitated at the VAQS marine animal care center. The seal, "Snuffy", was released on March 31 with a satellite transmitter tag. Snuffy's post-release movements can be monitored on the WhaleNet website. A harbor seal was also successfully recovered, rehabilitated and released.

There were no confirmed sea turtle strandings recorded by the VAQS Stranding Team or our cooperators during this reporting period. There were several rehabilitated sea turtles released into warm ocean waters off Cape Hatteras North Carolina during the reporting period. The VAQS Stranding Team continues to provide medical and rehabilitation care for a green turtle that stranded during 2008.

VAQS Staff attended two professional meetings and made six formal presentations during this reporting period. There were 14 educational and/or training presentations by Stranding Team members to groups in the Hampton Roads area. Grant funded VAQS staff worked more than 520 hours and Stranding Team volunteers contributed more than 4,000 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	25%	December 31, 2009
Personnel Training Activities	15%	December 31, 2009
Public Education Activities	20%	December 31, 2009

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**

**Year: 2008**

**Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from October 1, 2008 - March 31, 2009**

Task: 81 Dept. of Conservation & Recreation				
Coastal NPS Program Management				
<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u> Project Period Open
Open	Start:	End:	Closeout:	
	10/1/2008	9/30/2009	12/31/2009	

For the grant reporting period, the Coastal NPS Program Manager continued to implement the Coastal NPS Program. Due to limited funding the program support is directed towards expanding the role and services of the Virginia Network of Education for Municipal Officials (VNEMO).

Currently, the VNEMO Program resources include a number of "canned" presentations that may be modified to suit specific needs of a locality as well as a subcontracted service provider pool that is supported by the National Fish and Wildlife Foundation. The presentations currently available include:

- 1) Linking Land, Water and Growth presentation
- 2) Planning the Direction of your Community presentation
- 3) Forest Resources presentation

The VNEMO Program is partnering with the CNEMO Program in the development of additional presentations. These are:

- 1) Economics of LID presentation
- 2) Climate Change Adaptation presentation

Currently, the demand for VNEMO assistance is growing at an ever increasing rate. 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. These project locations, in the coastal zone, include:

- City of Hampton—Bay Act assistance
- Fredericksburg—LID Education
- Hopewell—Public Open Space Planning and Strategic Planning assistance
- Mathews County/Middle Peninsula Planning District Commission—Aquaculture Policy Development
- N. Potomac Shoreline/Northern Virginia Regional Commission—Climate Change Adaptation Strategy for Local Officials
- Richmond County—Comprehensive Planning assistance and Integration of Bay Model Data

Final Products	% Completion	Anticipated Completion Date
Product #1-Final Report	50%	September 30, 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> Project Period Open
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.

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**

**Year: 2008**

**Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from October 1, 2008 - March 31, 2009**

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> Project Period Open
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 conducted research from October through January in regards to 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 includes 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.

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, with the help of the Mathews County Administrator and Planning Staff, identified appropriate candidates to serve on an Aquaculture-Working Waterfront Steering Committee. Committee members include, but are not limited to, Mathews County aquaculturists, seafood processors, the Mathews County Maritime Foundation, hobby oyster growers, and academic representation from VIMS.

The first meeting of this committee was held on March 4, 2009 at the Mathews County Public Library. MPPDC staff, in partnership with Chesapeake NEMO, developed a series of questions to guide the committee through the first meeting. All committee members were provided an opportunity to share information about their business construct, including their markets, where they purchased their equipment, how they entered the business, and some of the challenges they are currently encountering (ie. use conflicts, pollution). Ultimately, however the questions were focused on trying to understand the economic webbing of the aquaculture, commercial seafood and associated working waterfront industries within Mathews County. The second meeting for the Aquaculture-Working Waterfront Steering Committee is scheduled for April 8, 2009 at the Mathews County Public Library.

Task 3 - Enforceable Policy Alternatives: Through the Aquaculture-Working Waterfront Steering Committee, MPPDC staff are beginning to understand the challenges and limitations that are currently hindering the enhancement of aquaculture. Once these challenges are identified MPPDC staff will be able to recommend new or modified public policy options, through model comprehensive plan language, model ordinances and land use tools that could be utilized to strengthen the sustainability of aquaculture and working waterfronts within Mathews County.

Final Products	% Completion	Anticipated Completion Date
Local public policy perspective on the economic engine of aquaculture	95%	June 2009
Assessing the Economic Impact of the Aquaculture and related Commercial Seafood industry and working waterfront infrastructure	50%	September 2009
Enforceable Policy Alternatives	25%	September 2009

Task: 93.01 Virginia Commonwealth University			
Coastal GEMS Maintenance			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u> Project Period Open
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 3 currently in production Gems layers. Coastal Gems remained operational during these updates and was only offline to install windows updates or to refresh map services. CES Staff also assisted CZM staff with filling out information for ICAN Survey for Coastal Gems. Google Analytics was installed on Coastal Gems and allows for CZM Staff to track access and web statistics for the Gems application.

Both spatial and non-spatial information related to the Coastal GEMS application are stored on a server at VCU CES in a Microsoft SQL server database running Windows 2003 server. The server running the GEMS application is also running Windows 2003 server as well as ESRI's ArcIMS 9.2. During the grant period, VCU CES staff performed necessary maintenance on these servers to keep Coastal GEMS functional and online. This maintenance included installing all required security and software updates from Microsoft and ESRI and whenever required, resolving unanticipated server hardware issues in a timely manner.

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

Final Products	%Completion	Anticipated Completion Date
Coastal GEMS Maintenance Final Report	50	9-30-2009

## VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM

Year: 2008

Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from October 1, 2008 - March 31, 2009

Task: 93.02 TBD

Coastal GEMS Data Layer

Project status:

Current approved

Final deliverable(s) status: Project Pending

Pending

Start:

End:

Closeout:

To be determined. No real progress has yet been made in determining what data layer to create. The Program Manager and the GIS Coordinator will consult with the Coastal Policy Team during the month of May to try to finalize a scope of work.

Task: 94.01 Virginia Institute of Marine Science

Living Shoreline Design and Construction Guidance Manual

Project status:

Current approved

Final deliverable(s) status: Project Period Open

Open

Start:

End:

Closeout:

10/1/2008

9/30/2009

12/31/2009

Work is progressing on the manual. An outline for the manual has been conceived. Generally, the manual will consist of four sections: 1) introduction to shoreline/physical processes and reach considerations; 2) ecosystem functions, 3) shoreline management strategies and goals; and 4) system design, construction considerations and standards, and the permitting process. These sections will not be inclusive of all information available on the subject. Instead, the data and examples will be limited to information pertinent to living shoreline design in Chesapeake Bay. Each section will have questions to answer and "for further information" links. Additionally, the fourth section will have design examples to walk through the process. The web-based Living Shoreline Instruction Modules are being modified and enhanced so that they can be included in the manual. In addition, a detailed literature search was conducted for the previous year's project. Pertinent research results will be summarized in the manual where appropriate. New graphics have been created to illustrate the process of site design.

Final Products

% Completion

Anticipated Completion Date

Living Shoreline Design and Construction Guidance Manual

40%

September 2009

Task: 94.02 Virginia Institute of Marine Science - Center for Coastal Resources Management

Shoreline Inventory Reports for York & Newport News: Phase 2

Project status:

Current approved

Final deliverable(s) status: Project Period Open

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. Small sections of Newport News along the industrialized shoreline of Hampton Roads was coded using remote sensing techniques to complete the data capture. Approximately 2-3 days of field work is anticipated for York County. This will occur in the next quarter.

Under this grant, previously collected data will be processed and published. This includes GIS processing, QA/QC, and map production. This quarter, all data previously collected for York County has been processed, and the QA/QC is complete. No maps have been developed other than draft maps for review.

For the City of Newport News, nearly three-fourths of the data has been processed. No QA/QC has begun. The remaining processing, QA/QC and map production will occur in the next quarter.

Final Products

% Completion

Anticipated Completion Date

Shoreline Inventory City of Newport News

50%

9/30/2009

Shoreline Inventory York County

65%

9/30/2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from October 1, 2008 - March 31, 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>	Project Period Open
Open	Start: End: Closeout:		
	10/1/2008 9/30/2009 12/31/2009		

Shore Evolution Inventories are being developed for Gloucester, York, Poquoson, and Newport News. Photo dates mosaicked for Gloucester are 1937, 1953, 1960, 1968, 1978, 1994, 2002, 2007. York photo dates are 1937, 1963, 1994, 2002, 2007. Poquoson and Newport News photo mosaics are dated 1937, 1953, 1963, 1994, 2002, 2007. The 1953 photos for York County are missing from our archive. VIMS staff are attempting to locate them at another source so that all localities will have the same dates. VIMS staff are in the process of digitizing the shorelines for these images. About half of the shorelines have been digitized and most of these still need to undergo QA/QC. The outline of the final reports for the localities has been drafted.

Final Products	% Completion	Anticipated Completion Date
Shore Evolution GIS data	70%	September 2009
Final Reports	20%	September 2009

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>	Project Period Open
Open	Start: End: Closeout:		
	10/1/2008 9/30/2009 12/31/2009		

Shoreline Management Plan Synthesis for Local Governments

The outline for this document has been created, text is being revised, and images to illustrate points are being selected.

Shoreline Management Plan Strategy Consensus

A meeting was held on March 12, 2009 with representatives from the Virginia Institute of Marine Science, the Virginia Coastal Zone Management Program, Virginia Marine Resources Commission, and Virginia's Department of Conservation and Recreation. DCR's representatives included the Chesapeake Bay Local Assistance Program and the Shoreline Erosion Advisory Service. The goal of this meeting was to discuss the recommendations made by VIMS personnel in the "Occohannock Creek Shoreline Erosion Assessment and Living Shoreline Options Report." Generally, everyone at the table agreed in concept to the types of recommendations made in the report.

Shoreline Management Plan PowerPoint

The PowerPoint presentation is in development. An early version was presented to the Tidewater Resource, Conservation, and Development Council. In addition, we have met with the County Administrators from Accomack and Northampton Counties in hopes of meeting with their Board of Supervisors.

Final Products	% Completion	Anticipated Completion Date
Synthesis Document	50%	September 2009
Strategy Consensus	40%	September 2009
PowerPoint	50%	September 2009

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**

**Year: 2008**

**Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from October 1, 2008 - March 31, 2009**

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: 10/1/2008	End: 3/31/2010	Closeout: 4/30/2010

Task 1: Land-use planning – MPPDC staff consulted with Dave Whitlow, new 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 status 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 assisted the Dragon Run Day Planning Committee with last minute coordination and facilitation for Dragon Run Day 2009; manned a table representing the Dragon Run Steering Committee and SAMP at the event; provided overview of Dragon Run Day 2008 to the Middle Peninsula Planning District Commission; distributed approximately 400 Dragon Run DVDs between October and March; updated Dragon Run SAMP website (www.mppdc.com/dragon); participated in Down on the Farm planning; represented the Dragon Run SAMP at a Middle Peninsula Public Access Authority Meeting; manned a table at the Urbanna Oyster Festival Education Day; coordinated two Dragon Run Steering Committee meetings and subcommittee meetings; submitted a letter on behalf of the Dragon Run Steering Committee to Virginia Department of Transportation on low impact development practices versus the current ditching practices; reviewed legislation that may impact the SAMP efforts; provided information to landowner interested in creating biodiesel from algae; and participated in a meeting of the 1st Congressional District Environmental Advisory Committee.

Task 3: Conservation Estate Planning Initiative: MPPDC staff provided an article for Essex County Countryside Alliance; facilitated and chaired a meeting of the Dragon Run Conservation Estate Planning Initiative Stakeholder group.

Final Products	% Completion	Anticipated Completion Date
Task 1: Land use planning	33%	March 31, 2010
Task 2: Watershed Management Plan Implementation and SAMP TA	40%	March 31, 2010
Task 3: Conservation Estate Planning Initiative	15%	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 Pending
Pending	Start:	End:	Closeout:

The Seaside SAMP project has not yet been contracted. However, The Nature Conservancy held a workshop February 11-12 in Virginia Beach that pulled scientific experts (most members of the Seaside Heritage Program) together to determine potential impacts of climate change on the Seaside of the Eastern Shore. A follow-up conference is to be held in June to determine possible policy options to better prepare the seaside for climate change. These results will be very helpful in shaping the next steps for a Seaside SAMP. In addition, we need to complete the Priority Estuarine Conservation Areas assessment incorporating all Seaside Heritage Program data layers to be conducted by VIMS on the Seaside. It may be necessary to use some of the \$75k available in FY 09 Seaside SAMP funds to accomplish that. Hopefully a scope of work for this task will be created and submitted to NOAA for approval by early summer.

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from October 1, 2008 - March 31, 2009

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>	Project Period Open
Open	Start:	End:	Closeout:		
	10/1/2008	9/30/2009	12/31/2009		

Task 1: Comprehensive inventory of non-traditional OSDS: In November 2008, MPPDC staff met with David Fridley (Virginia Department of Health (VDH) Environmental Health Manager) and Pat Duttry (VDH Environmental Health Supervisor) to discuss how MPPDC staff should proceed with gathering data in regards to onsite sewage disposal systems (OSDS). VDH explained that a database has been created that records the location, the date of operation, and the type of OSDS.

MPPDC staff received a comprehensive OSDS database inventory from VDH in February for Gloucester, Essex, Mathews, Middlesex, King and Queen, and King William Counties. Once data was sorted by county, and during the remaining month of February and through March, database duplications were deleted and missing tax map numbers were added to VDH data. All data for OSDS with operational permits as well as potential OSDS systems (ie. systems with certification letters, single lot permits, construction permits) are currently ready to be mapped except for data from Essex county. To date a digital copy of Essex County's tax map numbers does not exist, which poses an obstacle when trying to generate a map. However, MPPDC staff has requested address information of OSDS in Essex County from VDH. This information will allow the PDC to plot the location of the OSDS in Essex County. Mapping is anticipated to be complete by the end of May.

Task 2: Engineered OSDS Public Policy Discussion: In the 2009 General Assembly Session, House Bill 1788 passed through the House and Senate. The bill would deny localities the ability to prohibit alternative onsite sewage systems that have been approved by VDH and would further deny localities the ability to require maintenance of such systems. This means that the original scope of public policy discussion will need to be refocused toward better and stronger land use planning and zoning tools, rather than policy specific to OSDS management.

Final Products	% Completion	Anticipated Completion Date
Comprehensive inventory of non-traditional OSDS	85%	May 2009
Engineered OSDS Public Policy Discussion	35%	September 2009

Year: 2008

**VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM**  
Performance Report, Section A, for Cooperative Agreement No. NAO8NOS4190466  
for the period from October 1, 2008 - March 31, 2009

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> Project Period Open
Open	Start:	End:	Closeout:
	10/1/2008	9/30/2009	12/31/2009

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

Meetings have been held with state agency staff to discuss green infrastructure related topics including the development of new models and associated GIS data and the use of green infrastructure in meeting program goals. Based on these discussions it appears that the work of DCR and DGIF staff to produce a priority conservation area data layer for the State will be of value in setting conservation priorities across multiple programs. In a continuation of this process HRPDC staff will meet with Virginia Institute of Marine Science staff in April. Given the broad range of stakeholders involved in this process the production of the report referenced in Product 1 has been delayed.

Local Government Review and Update of Conservation Corridor Network:

The process of meeting with stakeholders in the Hampton Roads region is underway. Thus far discussions have take place with local government planners that are involved in comprehensive and environmental planning issues. Meetings with a broader range of local government staff, including representatives from planning, parks and recreation, utilities, public works and emergency management are scheduled in April of 2009.

Update of Hampton Roads Conservation Corridor Network:

HRPDC staff is in the process of reviewing and analyzing green infrastructure related models, reports and programs that will inform the update of the regional green infrastructure network. HRPDC staff is also engaged in analysis of local land use plans and parks and recreation plans. The priority conservation area data layer under development by DCR and DGIF staff is projected to be available in August of 2009 and will be utilized in the Hampton Roads network update.

Development of Better Models for Conservation Article:

HRPDC staff is working with the Conservation Fund to develop an article on the Hampton Roads green infrastructure program for a new publication titled Better Models for Conservation.

Development of Green Infrastructure Video for Statewide Use:

HRPDC staff is working with DCR and an associated stakeholder group to develop an educational video on green infrastructure that is appropriate for a statewide audience. The script and some of the footage from the video Make the Connection: Green Infrastructure for Hampton Roads will be used as a basis for this effort.

Project Budget:

Expenses associated with this project have exceeded initial projections given the broad range of green infrastructure efforts that HRPDC staff is involved in. The balance of the work associated with the project will be completed with HRPDC funds.

Final Products	% Completion	Anticipated Completion Date
State and Federal Agency Process and Associated Report	40%	June 2009
Local Government Stakeholder Process and Associated Report	50%	August 2009
Update of Hampton Roads Conservation Corridor Network	20%	September 2009