

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #  e?

Task: 1.01	Dept. of Environmental Quality - Virginia Coastal Zone Management Program	Federal Budget Total: \$310,600.00						
Coastal Program Management								
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u> Project Period Open						
Open	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Start:</td> <td style="width: 33%;">End:</td> <td style="width: 33%;">Closeout:</td> </tr> <tr> <td>10/1/2016</td> <td>3/31/2018</td> <td>6/30/2018</td> </tr> </table>	Start:	End:	Closeout:	10/1/2016	3/31/2018	6/30/2018	
Start:	End:	Closeout:						
10/1/2016	3/31/2018	6/30/2018						

Policy Team Products: A webinar for the Coastal Policy Team was held on August 3, 2017 to present results of competitive grant process. Meeting notes are available at <http://www.deq.virginia.gov/Portals/0/DEQ/CoastalZoneManagement/DescriptionBoundary/CPT-Meeting-Summary-August-3-2017.pdf?ver=2017-10-19-104225-193>.

RPCs and Amendments: Three advisory committee meetings were held by the W&M Coastal Policy Center. Narrative enforceable policies were drafted for tidal & non-tidal wetlands, submerged lands, beaches and dunes, and fisheries (policies administered by the Virginia Marine Resources Commission and DEQ – Wetlands Program)

Grants Management & Reporting: The Section A, Semiannual Grant Progress Report, Section B Agency Report, and Section C Success Story were compiled and submitted to NOAA on April 27, 2017 for the reporting period of Oct 1, 2016-March 31, 2017. The CZM Manager and Coastal Planner monitored grant activities through project specific phone calls and meetings. The Coastal Planners assisted with coordination and participated in the Quarterly Coastal PDC meeting on May 24, 2017 at Belle Isle State Park Lancaster County where program updates, announcements and answers to grant questions were provided. The Grants Coordinator and CZM Manager processed extension and budget amendment requests, 306A documentation submittals, SAC removals, and reprogrammed funds using Grants Online.

FY 2017 CZM Grant Application: The FY 2017 final application was submitted on June 9, 2017 via the CAMMP and Grants.gov systems. Six projects totalling \$364,533 were selected for funding through a competitive process. Two focal areas were addressed through these grants: 1) Promoting Sustainable Coastal Industries: Shellfish Aquaculture and Ecotourism, and 2) Building Natural and Community Climate Resiliency.

FY17 Section 309 PSM Grant Application: No further activity this period – application submitted was not selected for funding. However the concept of funding stakeholder engagement work and support for implementing the Ocean Action Plan’s action on identifying Ecologically Rich Areas was converted to an FY17 Section 309 task under “ocean resources.”

Performance Measures: Virginia CZM staff continued to track performance measures throughout the reporting period on Core Performance Measures Government Coordination & Decision Making, Public Access, Coastal Habitat, Coastal Hazards, and Coastal Dependent Uses & Community Development categories). CZM also logged training activities.

Ocean Planning: MARCO and RPB Planning Documents: The VA CZM Manager continued as Chair of MARCO through June 30, 2017 leading bi-monthly conference calls. She continued as State Co-Lead for the Mid-Atlantic Regional Planning Body overseeing implementation of the Mid-Atlantic Ocean Action Plan. She continued to lead or co-lead 5 of the OAP’s 7 Work Groups (see Section B report on 312 evaluation updates under ocean planning). See <http://www.boem.gov/MidA-New/> and for documents).

Outreach Materials: The CZM Program Manager and Coastal Planner wrote articles for the fall 2017 issue of the CZM Magazine. For the October 2017 Birding Festival, the CZM Program Manager and Outreach Specialist prepared the poster, an exhibit and the student artwork school award. The CZM Manager was filmed at the VA Aquarium on June 2 for a video on marine debris. The CZM Manager worked with grantees from George Mason to develop an infographic on the economics of land conservation. The fact sheet is due to be completed later this year.

Events Sponsorship: Funds were not spent for the Birding Festival due to the scaling down of the event nor for the Virginia Beach Watersheds Forum due to its cancellation. Virginia CZM did provide a \$2000 sponsorship to William & Mary’s Coastal Policy Center for its Annual Conference on Oct 27 which this year is entitled “Defending Our Coasts: Ensuring Military Readiness and Economic Viability as Waters Rise.” The remaining \$2,000 in this budget category will be reprogrammed under our 10% authority.

312 Metrics: 312 Metrics information for the report due Oct. 30, 2017 on Seaside Habitat Restoration (Eelgrass Planted and Bay Scallops Released) and Shoreline Management Plans was collected from the Virginia Institute of Marine Science (VIMS).

Coastal Partners Workshop: The Biennial Coastal Partners Workshop was held November 16-17, 2016. See: <http://www.deq.virginia.gov/Programs/CoastalZoneManagement/ReportsPublications/2016VirginiaCoastalPartnersWorkshopPresentations.aspx>.

Program Representation: The CZM Manager presented ocean planning info at the May 9 Blue Vision Summit in D.C. and along with RPB Co-leads accepted the Peter Benchley Award on May 11 for “solutions” for development of the Mid-Atlantic Ocean Action Plan. She continued participation in meetings of the Southern Tip Partnership to acquire, restore and protect migratory bird habitat on the E. Shore. The Birding Festival Art Award was presented by the Outreach Specialist at the Outdoor Exploration Day at Kiptopeke State Park on Oct 7, 2017 and she developed and conducted a kids’ activity for the Outdoor Exploration Day. The Coastal Planner helped launch the GW Native Plant Campaign at Earth Day Fredericksburg.

Final Products	% Completion	Anticipated Completion Date
Policy Team Products	100%	
RPCs and Amendments	100%	
Grant Management & Reporting	95%	September 30, 2018
FY 2017 CZM Grant Application	100%	
Section 309 PSM Grant Application	100%	

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Final Products	% Completion	Anticipated Completion Date
Performance Measures	100%	
Ocean Planning Documents	100%	
Outreach Materials	75%	February 15, 2018
Events Sponsorship	50%	February 1, 2018
312 Metrics	100%	
Coastal Partners Workshop	100%	
Program Representation	100%	

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Task: 1.02 Dept. of Environmental Quality - Virginia Coastal Zone Management Program Federal Budget Total: \$97,000.00
Virginia CZM Program Outreach & Social Marketing

<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Project Period Open
Open	Start: End: Closeout: 10/1/2016 9/30/2018 12/31/2018		

General Outreach Coordination – Publication work included working with CZM staff to begin production and design of Fall 2017 issue of Virginia Coastal Zone Management magazine. Worked with DEQ PR staff on VACZM facebook posts, including posts on launch of Plant Central Rapp campaign and availability of new guide, Laura McKay's acceptance of Peter Benchley award, and Botany Society of America review of Southeast Virginia guide.

Exhibits included: Back to the Bay event in June at Mason Neck State Park with DEQ and Clean Virginia Waterways (CVW) (public action); Garden Club of Virginia Symposium in Sept with CVW (marine debris); annual VNLA Field Day in Smithfield in July and at Virginia State Fair Sept-Oct (native plants). Provided CZM handouts for the annual Environmental Education Conference attendee bags – metal straws and joyful Send-off info sheet and calling card. Partnered with CVW staff to coordinate Community-Based Social Marketing Workshop led by Doug McKenzie-Mohr in June to build capacity of partners engaged in future marine debris reduction campaigns – 38 partners from across the Mid-A region attended the workshop, and another 40 participated in a CBSM overview provided by McKenzie-Mohr. Submitted final report for FY14 Task 1.03 – CZM Outreach and Social Marketing.

Balloon debris reduction – Partnered with Clean Virginia Waterways (CVW) to launch the Joyful Send-off campaign on Aug 9, including:

- Design of printed pieces and assembly of Venue Kits for in person delivery by partner primarily in Virginia Beach and Norfolk area (Sept).
- Design of new pop-up display panels – one highlighting Joyful Send-off campaign and another balloon debris.
- Wrote article on Joyful Send-off campaign for Virginia Beach Hotel Association Fall 2017 newsletter - <http://files.constantcontact.com/511b18e6301/e5c084c9-1cc7-44d6-b9e2-9adc36e2df1a.pdf?ver=1506710518000>.
- Redesign of campaign website and updates, including enhancing the site's SEO (search engine optimization) and tracking of visits, a pop-up survey to help gauge influence of website and campaign message on visitor - www.JoyfulSendoff.org. Also published new balloon debris issue webpage on Virginia CZM website.
- Daily posts to campaign Facebook page.
- Scripting, photo/video shoots (May and June) with Dragon Team and review/editing of a series of videos for the campaign, which can be viewed on the campaign website.
- Designed ad and wrote article for Fall/Winter issue of Virginia Coastal Bride magazine - <http://www.coastalvirginiamag.com/Bride-Virtual-Magazine/> and CVW staff were interviewed for an article in the Sept 2017 issue of Chesapeake Bay magazine - <https://www.chesapeakebaymagazine.com/columns/2017/9/15/a-ballooning-problem?rq=balloons>

Prepared first draft of final report for the FY14 NOAA MD grant for the Joyful Send-off campaign due in October. Drafted abstract to present on the Joyful Send-off campaign at the International Marine Debris Conference in March 2018. Drafted, and then finalized with a subteam of the Mid-Atlantic Marine Debris Workgroup, a LOI to the NOAA Marine Debris Program for FY18 funding to expand the Joyful Send-off campaign in the region. LOI was approved by MARCO Board and submitted. Worked with CVW to complete final report for FY14 Task 95.03 on balloon campaign.

Native plant marketing – In follow-up to Jan. Virginia Native Plants Marketing Partnership (VNPMP) meeting with state agencies, at the request of the DEQ Environmental Enhancement Division Director, worked with staff from the Dept. of Game and Inland Fisheries and Dept. Conservation and Recreation, to write recommendations for the Secretary of Natural Resources to increase native plant use on state owned and managed properties through development of shared protocols or guidelines to provide. This language has been used to draft an Executive Order which is currently circulating among state agencies for review. Participated on the State Pollinator Protection Strategy Plan Committee and shared through a presentation and discussion Virginia CZM native plant marketing efforts and opportunities for collaboration on recommendations as laid out in the plan which is due to the Virginia General Assembly in July 2018. The interim report submitted on July 1, 2017 did include mention of Virginia CZM. Designed new www.PlantVirginiaNatives.org website as home for the VNPMP, a central hub for VA native plant information and host to the Plant ES Natives and Plant Central Rapp Natives campaign pages. An issues page is still on the CZM website and links to the new website. A post on the DEQ Facebook page to highlight the availability of the new website was “performing better than 95% of other posts on the page” according to DEQ PR staff. Distributed Summer Edition of Virginia Native Plant Marketing E-News, highlighting launch of the Central Rapp campaign and guide, and revision and reprinting of the ES, SEVA, and NOVA guides. Scheduled meeting with regional campaign team leaders and members in Oct – each campaign will share an overview of their efforts, with a focus on what is working and what remains a challenge.

- New guide, Natives Plants for Central Rappahannock, published in April; worked with partners on distribution plan. Designed exhibit for the April 22 launch of the campaign, at which time the guide was released. Consulted with the campaign team regarding selection of a site for a new demonstration garden. Team will submit a proposal for CZM funds to install the garden. Drafted guidelines on design, installation and maintenance.

- Completed revisions to Northern Virginia native plant guide (published in May). Appeared with Corey Miles, on the cable TV program “Virginia Report” (September), which is hosted by VA Delegate Ken Plum. The interview centered in the Plant NOVA Natives campaign. An article in the Northern Virginia Community Foundation newsletter about the campaign, which is now a recipient of private donations through the foundation, mentions CZM funding support for the campaign.

- Coordinated a reprint of the Southeast Virginia native plant guide, entirely funded through contributions from regional partners, so that this edition could be sold to support future reprints.

- Recruited team of partners to begin production of a new regional guide for the Virginia Capital Region. The intent is to use remaining FY15 Task 1.02 funds to leverage contributions from these partners to print a guide. Partners were also very enthusiastic about laying the foundation for development of a regional marketing strategy parallel to development of the guide. They believe there is more interest in a regional campaign due to visibility of other regional efforts, and that availability of the new guide will incentivize other partners and the localities.

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Final Products	% Completion	Anticipated Completion Date
Outreach and Social Marketing Strategies	100%	
Printed Media	50%	Magazine release in Nov
Events and Training	100%	
Electronic Media	100%	

Task: 1.03 Virginia Institute of Marine Science - Chesapeake Bay National Estuarine Research Re Federal Budget Total: \$114,277.00
Coastal Management Support

Project status: Current approved Final deliverable(s) status: Submit w/next Semiannual Report

Closeout Start: End: Closeout:
10/1/2016 9/30/2017 12/31/2017

Policy Team Products: The Coastal Planner made presentations on the four coastal resilience focal area proposals during the August 3, 2017 Coastal Policy Team webinar.

RPCs and Amendments: The Coastal Planner managed the grant to the Coastal Policy Center and participated in the process of drafting narrative policies for the Virginia Marine Resources Commission and the Department of Environmental Quality's Wetlands Program. He also worked with the Center to develop scopes of work for other grants to continue drafting narrative policies.

Grants Management and Reporting: The Coastal Planner monitored grant activities through phone calls and visits and reviewed extension and budget amendment requests, 306 A documentation and proposals to reprogram funds.

FY 2017 CZM Grant Application: The Coastal Planner helped develop the FY 2017 Final application, which was submitted to NOAA on June 9, 2017. He helped facilitate the process of developing and selecting focal area projects for FY 17, especially those related to the "Building Natural and Community Resiliency" focal area.

Section 309 PSM Grant Application: No Coastal Hazard Strategy projects were submitted by Virginia CZM Program partners for submission. **Performance Measures:** The Coastal Planner reported on CZM performance measures #1, 2 and 8.

MARCO Climate Change Action Team: The Coastal Planner participated in calls and reviewed MARCO grant products. He also participated in the mid-Atlantic ocean acidification network (MACAN) and helped facilitate a session during their Ocean Acidification Workshop in Annapolis on May 9, 2017.

Outreach Materials: The Coastal Planner wrote articles on coastal resiliency and public access for the fall 2017 issue of the Coastal Zone Management magazine.

Event Sponsorship: The Virginia Beach Watersheds Forum was not held this year. Work supporting the MACAN workshop (see MARCO above) is being substituted.

312 Metrics: The Coastal Planner collected 312 Metrics information on Shoreline Management Plans from the Virginia Institute of Marine Science. The information will be submitted through the Section B report to NOAA on October 30, 2017.

Coastal Partners Workshop: The workshop was held in November, 2016. Work on this task was completed at that time and no further work was undertaken during this reporting period.

Program Representation: The Coastal Planner participated in periodic calls for the Chesapeake Sentinel Site Cooperative, the Chesapeake Bay Climate Resiliency Workgroup, and in meetings and calls related to development of the Virginia Hazard Mitigation Plan.

Final Products	% Completion	Anticipated Completion Date
Policy Team Products	100%	Sep 30, 2017
RPCs & Amendments	100%	Sep 30, 2017
Grants Management & Reporting	100%	Sep 30, 2017
FY 17 Grant Application	100%	May 5, 2017
Section 309 PSM Grant Application	100%	Dec 31, 2016
Performance Measures	100%	Sep 30, 2017
MARCO CCAT	100%	Sep 30, 2017
Outreach Materials	100%	Sep 30, 2017
Events Sponsorship	100%	Sep 30, 2017
312 Metrics	100%	Sep 30, 2017
Coastal Partners' Workshop	100%	Nov 30, 2016
Program Representation	100%	Sep 30, 2017

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Task: 1.04	Virginia Commonwealth University	Federal Budget Total:	\$99,086.00
Coastal Management GIS Support and Coastal GEMS Maintenance			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Closeout	Start: End: Closeout:		
	10/1/2016 9/30/2017 12/31/2017		

-VCU continued to host the Coastal GEMS online mapping application throughout this grant period, and VCU staff performed routine maintenance and updates on Coastal GEMS during this time. Tasks included refreshing map services, updating data and cartography in the map file, as per CZM staff request, and installing software and security upgrades. From April 1, 2017 to September 30, 2017, Coastal GEMS received 568 visits from 383 unique visitors resulting in 648 pageviews and an average session duration of 44 seconds. Coastal GEMS can be accessed online at: www.coastalgems.org.

-Data management tasks performed by the Coastal GIS Coordinator during the grant period included working with VMRC habitat management staff and VIMS CCRM staff to create an updated map of shellfish aquaculture sites and updating Coastal GEMS fact sheets.

-During the grant period, the Coastal GIS Coordinator continued to serve as CZM project manager for FY14 and FY16 VA CZM grants to VA DCR, VA DGIF and VCU CES to update the Coastal VEVA data synthesis and its component datasets, as well as add several enhancements to Coastal GEMS. Other Coastal GIS coordination tasks performed by the Coastal GIS Coordinator during the grant period included participating in South Atlantic LCC Blueprint workshop and responding in a timely manner to data requests from USFWS, USCG, MPPDC, Antares Group, Dominion Energy, Angler Environmental, and Pilot Environmental, Inc.

-No official Coastal GEMS trainings were requested during the grant period and the Coastal GEMS training program was not formally promoted due to updates to Coastal GEMS. During this grant period, the GIS Coordinator contributed to survey and training initiatives associated with ocean use planning in the Mid-Atlantic. These included working with the Mid-Atlantic Ocean Plan Non-Consumptive Recreation Action workgroup to design and disseminate a survey on non-consumptive recreational use and organize a Non-Consumptive Recreation Workshop in VA Beach, and working with MARCO Portal staff to organize a MARCO Portal training for professionals working on coastal issues in VA.

-The Coastal GIS Coordinator produced GIS map products and performed GIS based calculations and services as needed by the CZM Program and its partners during the grant period, including creating a travel time map for the Eastern Shore Birding Festival, assisted the VA CZM Outreach Coordinator with research and acreage calculations pertaining to state owned properties for native plant outreach materials, made improvements to the Mid-Atlantic Marine Debris Project Database spreadsheet and solicited additional project information records, and worked with MARCO and MACAN staff on a long term project to create a geodatabase (and subsequently a set of data layers on the MARCO Portal) of monitoring sites for ocean, coastal, and estuarine acidification in the Mid-Atlantic.

Final Products	% Completion	Anticipated Completion Date
Coastal GEMS Application Maintenance	100%	
Coastal GEMS Data Management	100%	
Coastal GIS Coordination	100%	
Coastal GEMS Training and Outreach	100%	
GIS Map Products and Services	100%	

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Task: 2	Dept. of Environmental Quality	Federal Budget Total: \$207,800.00	
EIR and Federal Consistency			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report	
Closeout	Start:	End:	Closeout:
	10/1/2016	9/30/2017	12/31/2017

During the period of April 1, 2017 and September 30, 2017, the Office of Environmental Impact Review/Federal Consistency (OEIR) reviewed 104 development projects and management plans for consistency with the Virginia Coastal Zone Management Program (CZMP). This represents 71% of the total amount of projects reviewed (147) during this period. Major state projects accounted for 31 projects, 1 was a State Corporation Commission review, 10 were National Environmental Policy Act (NEPA) documents without a federal consistency component, 49 were federal actions, and 54 were federally funded projects. The 49 federal actions included 11 federal agency activities, 20 federal licenses and approvals, and 0 outer continental shelf projects. The 49 federal agency activities included 19 projects submitted under the residual category pursuant to the federal consistency regulation (15 CFR 930.31c), which consisted of U. S. Department of Housing and Urban Development (HUD) mortgage insurance and United States Department of Agriculture (USDA) funding projects. All federal consistency determinations and federal consistency certifications were completed within the established legal deadlines.

The Fiscal Year 2016 grant included a contractual amount of \$2,250 to allow the electronic scanning of historic federal consistency review files. It has been determined that the use of a contract to complete the scanning project is not the most efficient means and scanning of files will be completed internally.

The OEIR continues to provide informal training on federal consistency requirements to consultants who prepare consistency documents for federal agencies and applicants for federal permits and maintains a website for Federal Consistency Reviews which can be accessed through DEQ's main webpage or found at <http://www.deq.virginia.gov/Programs/EnvironmentalImpactReview.aspx>. The OEIR webpage is updated weekly.

Final Products	% Completion	Anticipated Completion Date
Federal consistency, Sections A and B Semiannual Reports	100	September 30, 2017
Consistency Information/Outreach Efforts	100	September 30, 2017

Task: 3	Dept. of Environmental Quality	Federal Budget Total: \$0.00	
Water Quality Improvement Fund (WQIF) Match- City of Hopewell Wastewater Treatment Plant Nutrient Removal Upgrade			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report	
Closeout	Start:	End:	Closeout:
	10/1/2016	9/30/2017	12/31/2017

Construction of the City of Hopewell's wastewater treatment plant upgrade with nutrient removal technology is now complete. The project began in July 2014 and to-date, \$46,960,872 of the \$49,129,657 state grant has been paid to the City.

In the period since April 2017, reimbursements totaling \$1,838,808 have been made to the City for this project, which exceeds the \$908,825 in State General Funds needed to provide a match for the Coastal Zone Management Program.

Final Products	% Completion	Anticipated Completion Date
Certificate to Operate – City of Hopewell nutrient reduction upgrade	100%	

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Task: 4	Virginia Marine Resources Commission	Federal Budget Total:	\$160,000.00
Permit Review & Compliance			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Closeout	Start: End: Closeout:		
	10/1/2016 9/30/2017 12/31/2017		

During the reporting period, VMRC received a total of 1138 joint permit applications. Actions were completed on 1070 projects, some of which were received prior to the reporting period. During the reporting period, 143 compliance inspections were conducted for previously issued permits. Also 99 compliance inspections for the random sample of 130 projects permitted by local wetland boards were completed.

During the reporting period, local wetland boards throughout Tidewater Virginia acted on 252 projects involving tidal wetlands. Of this total, 178 were approved as proposed, 64 were approved as modified, 1 was denied, 6 are pending, 1 was inactivated, 2 no permit was required, and 40 required compensation either on or off site (20), or through payment of an in lieu fee (20) accounting for 83,077 square feet of tidal wetland impacts.

Final Products	% Completion	Anticipated Completion Date
Permit Program	100 %	
Compliance Evaluation	100 %	

Task: 5	Dept. of Conservation & Recreation - Natural Heritage	Federal Budget Total:	\$50,000.00
Habitat Conservation/Locality Liaison			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Closeout	Start: End: Closeout:		
	10/1/2016 9/30/2017 12/31/2017		

-The Locality Liaison held Natural Heritage Data Explorer (NHDE) training sessions on April 25, June 6, July 11, August 15 and August 23 to one locality, seven consultants and thirty agency staff. A July 19 NHDE training session for the Department of General Services was provided to coordinate DCR's review of state surplus properties for determining conservation interest. The presentations included an overview of DCR's Natural Heritage Program, the Locality Assistance Program, the Virginia ConservationVision, Landscape, the Virginia Wetlands Catalog, Virginia Ecological Value Assessment (VEVA) and hands-on training on the Natural Heritage Data Explorer (NHDE), which includes the Species and Community Database Search, conservation lands information and project review preliminary screening functions.

-From April 1, 2017 to September 30, 2017, 459 projects were reviewed for impacts to natural heritage resources in the coastal zone (42% of all projects reviewed statewide). 234 projects were submitted through the NHDE representing 51% of the coastal projects submitted. Residential subdivisions and, apartment developments continue to increase (53 projects this report period versus 46 last report period), solar projects continue pace with 8 projects submitted and 27 cell tower projects.

-93% of the localities, 100% of the Planning District Commissions and 73% of the Land Trusts have Natural Heritage data. The website map (<http://www.dcr.virginia.gov/natural-heritage/localitiesmap>) on the local Assistance webpage, displaying localities with natural heritage data was updated reflecting the current status. There were 38 new or renewed licenses for Natural Heritage data in the coastal zone signed during this time. With the assistance of the Natural Heritage Database Manager, the Locality Liaison also posted two new coastal species highlights on the Local Assistance webpage (<http://www.dcr.virginia.gov/natural-heritage/localityliaison>).

-As part of the upgrade to NHDE Version 2.0, the Locality Liaison has worked with staff to test the functionality of the new version of the website. Testing has included the project submissions, map making functions and the creation and management of subscriptions.

Final Products	% Completion	Anticipated Completion Date
Project Review	100%	
Local Assistance Program Presentations	100%	
Improvements to Natural Heritage Tools	100%	
Final Report	0%	November 15, 2017

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Task: 6	Virginia Institute of Marine Science - Center for Coastal Resources Management	Federal Budget Total:	\$42,000.00
Tidal Wetlands Management Technical Support			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Closeout	Start: End: Closeout:		
	10/1/2016 9/30/2017 12/31/2017		

Product #1, General Technical Guidance:

The Wetlands Program continues to provide general technical guidance to both the general public and regulatory and non-regulatory authorities and other VIMS offices with regard to tidal shorelines. CCRM routinely reviews all Joint Permit Applications involving shoreline erosion control activities advertised on local wetlands board agendas for the preferred shoreline best management practice derived from the CCRMP's (<http://ccrm.vims.edu/ccrmp/index.html>) and/or the applicable CCRM Decision Trees (<http://ccrm.vims.edu/decisiontree/index.html>); and compares the proposed project and approved decision with the recommended preferred management approach. Results are tracked in a database. In addition, other advisory information requests were responded to (via phone and email) covering a variety of coastal management issues. All technical advice continues to be tracked in a database maintained under this grant.

JPA Fidelity Reviews 65

Living Shoreline Advice = 15 (6 site visits)

Other Advisory Information Requests (climate change, mitigation, etc.) = 33

Technical Guidance Total = 48

Product #2, Outreach Education:

CCRM e-News June 2017 (Tidal Wetlands Workshop, Living Shorelines Workshop, Landscape Professional Certification, Group 2 General Permit, New Boat Wake Study Report, What makes a wetland a wetland? Video) <http://conta.cc/2fq2e7>

CCRM e-News Sept 2017 (New Rivers & Coast Newsletter, SAGE Webinars, National Estuaries Week, Algal Blooms, VCPC Conference, King Tide and PlantVirginiaNatives.org.) <http://conta.cc/2xdD9db>

Rivers & Coast, Vol. 12 – Adapt Virginia: A New Web Portal about Climate Change Adaptations (www.adaptva.org)

<http://publish.wm.edu/cgi/viewcontent.cgi?article=1700&context=reports>

Tidal Wetlands Workshop, May 2, 2017, at College of W&M - "Sustainable Shorelines in Action: Successful Applications & Incentives". The program included presentations by CCRM, VMRC, Army Corps of Engineers, DEQ, SWCD, Middle Peninsula PDC, and Wetlands Watch all related to permitting, financial, and regional scale incentives for sustainable shoreline best practices. There were 129 participants at the event. http://www.vims.edu/ccrm/workshops/tidal_wetlands_workshop_2017/index.php

Although not included in the grant task, additional outreach education training was completed for CCRMP orientation & Shoreline Best Management Practices. Ten CCRM training sessions were held for a total of 99 participants.

Final Products	% Completion	Anticipated Completion Date
Product #1 – General Technical Guidance <input type="checkbox"/>	100%	
Product #2 – Outreach Education <input type="checkbox"/>	100%	

Task: 7	Virginia Institute of Marine Science	Federal Budget Total:	\$60,000.00
2016 Submerged Aquatic Vegetation Distribution and Abundance Survey			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Project Period Open
Open	Start: End: Closeout:		
	10/1/2016 12/31/2017 3/31/2018		

VIMS had submitted the baywide 2016 SAV numbers on April 7. Since that delivery, VIMS has been entering all the ground data and began preparations for delivering the final report. The 2016 SAV data can now be viewed at: <http://web.vims.edu/bio/sav/sav16/index.html> and also on the interactive map: <http://web.vims.edu/bio/sav/maps.html>.

Final Products	% Completion	Anticipated Completion Date
Final Report	0%	December, 2017

Year: 2016

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Task: 8	Dept. of Conservation & Recreation - Natural Heritage	Federal Budget Total: \$27,000.00
Healthy Waters Program in the Coastal Zone		
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report
Closeout	Start: End: Closeout:	
	10/1/2016 9/30/2017 12/31/2017	

For the grant reporting period, the Environmental Scientist/Analyst with the Virginia Commonwealth University, Center for Environmental Studies in the Department of Life Sciences continued to serve as the Program Manager of the Virginia Healthy Waters Program at the Virginia Department of Conservation and Recreation, Division of Natural Heritage. Programmatically, the assessment of program resources and needs has continued to determine gaps and areas of improvement. Data integration, geographic expansion and data re-sampling continue to be the top focal areas of the analysis with immediate attention addressed to integrate existing INSTAR data into the NHD data explorer and the creation of new Element Occurrences (EOs) and Stream Conservation Units (SCUs).

The Watershed Integrity Model, used and developed by the Natural Heritage Division and VCU, has been updated and streamlined to improve the utility and integrate new data from the latest sampling. The new model is referred to as the ConservationVision Watershed Model. This new tool includes four primary components: Watershed Integrity, Landscape Position, Soil Sensitivity, and Land Cover. A survey was distributed to stakeholders and potential users of the new model to obtain feedback on the changes and proposed weighting of various parameters. The components of the model were informed by the integration of factors and weighting of parameters that included hydrological zones, topography, and pollution potential. Presentations have been made at several venues to vet the new model.

The Program Manager continued to participate in the Chesapeake Bay Program Healthy Watershed Goal Implementation Team to coordinate the involvement of VA Departments of Conservation and Recreation, Environmental Quality and Forestry. To continue the progress being made by the Commonwealth, the HW Program Manager coordinated with the Heritage Division staff to begin the process of conducting a threat assessment to the 2014 HW sites in the Chesapeake Bay. The outcome is an identified list of HW sites that are most vulnerable to changes and most likely to be lost to future changes.

Additionally, during the reporting period, the Program Manager worked with Heritage data manager staff to begin the prioritization of ecologically healthy SCUs in the Commonwealth. This prioritization process would directly inform the identification of the most valuable SCUs to focus conservation and protection actions ensuring ecologically healthy aquatic conditions are maintained. This activity bridges the DNH Sections of Healthy Waters, Protection and Stewardship. The HWP also met with USEPA Region 3 Office to discuss better integrating HWP data into the Watershed Resources Registry (<http://watershedresourcesregistry.com/>).

The Program Manager also continued to implement the Healthy Estuarine Waters via the VA Oyster Shell Recycling Program and constructed and installed a new oyster bin in Woodbridge at the Mason Neck State Park as part of Back to the Bay Day. The Program also hosted the DEQ, Alumni of Emory and Henry College and the Williamsburg Cub Scout Pack 1607 at the VCU Rice Rivers Center for a shell bagging. The Program returned 750,000 oysters to the Piankatank through a spat on shell and dedicated a reef in the Carter's Creek both in partnership with the seafood industry.

Final Products	% Completion	Anticipated Completion Date
Healthy Waters Program Growth and Admin	100%	
Healthy Waters Capacity Development	100%	
Healthy Waters Data Analysis and Evaluation	100%	
Estuarine Healthy Waters, Oyster replenishment in the Coastal Zone	100%	

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM

Year: 2016

**Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #Name?**

Task: 9	Dept. of Environmental Quality - Virginia Coastal Zone Management Program			Federal Budget Total:	\$300,000.00
Eastern Shore Land Acquisition					
<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Project Pending
Proposed	Start:	End:	Closeout:		
	10/1/2016	9/30/2018	12/31/2018		

An appraisal was received on the targeted tract last June however, multiple errors were found and another appraisal had to be ordered. That appraisal came in a few weeks ago and unfortunately came in well below the seller's desired price and VA Department of General Services and Department of Conservation and Recreation staff believe it also was not a well done appraisal. An appraisal on a different but nearby parcel was ordered recently (from a better known and respected appraiser) and is due on Dec 4. It is hoped that appraisal, done according to federal standards, will result in a value acceptable to the seller.

It is hoped 306A documentation can be submitted sometime in January 2018. This 2nd tract is slightly smaller than the previously targeted tract but would still likely require all of the \$213,000 available in the FY 15 task as well as some portion of this FY16 land acquisition task.

In the meantime, the state is contracting for a 3rd appraisal on the originally targeted tract to be done after this 2nd tract is purchased so that there will be a reliable "comp" on the books which should settle the fair value of that tract and efforts could proceed again on the original tract using the remainder of FY16 funds as well as the FY17 land acquisition funds.

DCR has also secured funds from the Virginia Land Conservation Fund which can be used as match on either or both of these tracts. These tracts are very close to both DCR's Magothy Bay Natural Area Preserve and DCR's Kiptopeke State Park. They are primarily vacant farmland that is extremely well-suited for conversion to migratory songbird stopover habitat. The Southern tip of Virginia's Eastern Shore is a documented, hemispherically important stopover site (aka "rest stop") for songbirds during fall migration from the Northeast US and Canada to Central and S. America.

Task: 10	Virginia Institute of Marine Science			Federal Budget Total:	\$160,249.00
Seaside Restoration					
<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Project Period Open
Open	Start:	End:	Closeout:		
	1/1/2017	3/31/2018	6/30/2018		

Eelgrass Restoration: Eelgrass flowering shoots were collected in late May and June from both Mobjack and South bay beds, manually and mechanically, and placed in holding tanks at VIMS and Oyster. Seeds were subsequently removed and placed in holding tanks at VIMS under appropriate salinity and temperatures. Initial seed counts in July were approx. 566,000 seeds from Mobjack Bay and 718,000 seeds from South Bay. The plan was to distribute seeds the last week of September, but windy weather forced VIMS to cancel field work that week and broadcast them in Oct. Faunal (via plant collections) and fish samples (trawling) were collected in South Bay in May, June, July, August, and September.

Water Quality Monitoring Dataflow cruises for integrated measures of shallow water quality were recorded every 50 meters of the established cruise track (salinity, temperature, turbidity, chlorophyll fluorescence, pH, dissolved oxygen) which were successfully completed on 3/6/17, 3/3/17, 5/3/17, 6/15/17, 7/14/17, 8/14/17, 9/13/17, 10/11/17 for the South Bay, Cobb Bay, Spider Crab Bay and Hog Island Bay restoration areas. A final 2017 cruise is scheduled for 11/10/17. Telemetry of the 15 minute, fixed station data was also continuous during this period and current data can be viewed at: <https://stormcentral.waterlog.com/public/vims> through the www.VECOS.org website.

Scallop Restoration: Broodstock were brought to the Castagna Research Hatchery at VIMS ESL for spawning in Spring 2017, and supplied to Cherrystone Aquafarms, Inc. to test spawning at commercial scale. Three spawns were conducted at ESL, resulting in the production of 1.263, 8.255 and 2/413 million eyed larvae, respectively. Cherrystone Aquafarms produced 11.3 million larvae in one spawn. Larvae in excess of nursery capacity were directly released into the grassbeds. The spring spawns resulted in nursery production of 180,000 > 3 mm scallops exported to cages and 72,367 released. The fall spawn at ESL produced 2.106 million larvae that were exported to the ESL nursery, resulting in 2,734 >3 mm scallops deployed to the cage system in South Bay. Production of scallops from the nursery system during this period totaled 404,000. Currently retained scallops in cages include 400 from Fall 2015, 5,000 from Fall 2016, 180,000 from Spring 2017, and 27,34 from Fall 2017.

During the week of July 17-19, 2017, VIMS and TNC staff conducted an extensive survey of wild (not caged) adult scallops in the three grass beds previously sampled in 2015 and 2016: the original grass bed in South Bay in which most of the scallops have been caged or released (1488 acres), the area south of the main South Bay that had colonized naturally (874 acres) and the grass bed in Cobb Bay (916 acres). These beds were found to contain estimated adult scallop abundances of 63,972, 70,720, and 61,223, respectively, for a total abundance of over 195,915 adult scallops.

Final Products	% Completion	Anticipated Completion Date
Final Report	0	Jan. 31, 2018

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #Name?

Task: 11	Virginia Commonwealth University	Federal Budget Total:	\$70,554.00
Coastal VEVA Data Synthesis Update and Coastal GEMS Application Update			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Project Period Open
Open	Start: End: Closeout:		
	10/1/2016 3/31/2018 6/30/2018		

Although the original start date for this project was October 1, 2016, it was not signed into contract until February 9, 2017. Progress has initially been slow, as staff were simultaneously working to complete the related project, FY14 Task 13 (Coastal VEVA Components Update and Coastal GEMS Application Enhancements), which was extended through June, 30 2016.

VCU staff ran version 2 of the Coastal VEVA model to create an updated Coastal VEVA dataset. In addition to the updated raster layer, VCU staff created a vector layer which includes an attribute field to indicate presence of VEVA partner input syntheses. Coastal VEVA partners will meet this fall to review version 2 of Coastal VEVA in order to validate the data, discuss changes from version 1, and ensure readiness to make available and present version 2 to the public. After this meeting, educational and outreach efforts can begin in earnest.

VCU staff created a document detailing five story map topics, including story ideas, spatial data, media (photo/video) needs and contacts. Topic ideas include SAV, Coastal VEVA, Oysters, Economics of Land Conservation, and Mapping Atlantic Coast Recreational Uses. VCU staff met to discuss these ideas, decide upon appropriate story map templates, and divide story map ideas among project staff to begin initial work. ArcGIS online logins were created for staff to utilize VCU ESRI subscription to create story maps, and a Flickr account was created to store media for use in story maps.

Final Products	% Completion	Anticipated Completion Date
Updated Coastal VEVA Geospatial Data	90%	March 31, 2018
Coastal VEVA Educational Materials and Outreach Efforts	0%	March 31, 2018
Coastal GEMS Application Software and User Interface Updates	0%	March 31, 2018
Coastal GEMS Map Stories	10%	March 31, 2018
Coastal GEMS Landing Page	0%	March 31, 2018

Task: 12	Dept. of Game & Inland Fisheries	Federal Budget Total:	\$30,000.00
Lower Chickahominy Watershed Herpetological Inventory			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Closeout	Start: End: Closeout:		
	10/1/2016 9/30/2017 12/31/2017		

The lower Chickahominy River herpetological survey has been completed. The Virginia Department of Game and Inland Fisheries hired two field biologist assistants in February 2017 to work under the direction of the Agency herpetologist. In February and early March, the team initiated the project by identifying areas that could be accessed and that had a variety of representative habitats (e.g., grassy wetlands, forested swamps, etc.). The survey areas include the Chickahominy Wildlife Management Area, New Kent Forestry Center, and Crawford State Forest, along with private lands where the team has been granted access permission. The team launched surveys in March. Survey methodologies include audio surveys for calling frogs, road-cruising at night after rain events, and "visual encounter surveys" (including flipping logs and other ground cover material). The team has also placed 65 sheets of tin across the study areas to facilitate snake surveys and has placed about 20 PVC pipes for treefrog surveys. The team completed approximately 2,000 hours of survey activities (finishing at the end of July), documenting 64 reptile and amphibian species. These records include two new species to the area: scarlet kingsnake (*Lampropeltis elapsoides*) and Atlantic Coast leopard frog (*Lithobates kauffeldi*). Four species previously documented in the watershed were not documented via the survey effort: glossy swampsnake (*Liodytes rigida*), northern scarletsnake (*Cemophora coccinea*), eastern mudsnake (*Farancia abucura abucura*), and slender glass lizard (*Ophisaurus attenuates*). In August and September, DGIF staffs prepared field survey species maps and developed a draft final project report.

Final Products	% Completion	Anticipated Completion Date
Field survey results	100%	
Field survey maps	100%	
Final report	90%	November 15, 2017

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #Name?

Task: 41	Accomack-Northampton Planning District Commission			Federal Budget Total:	\$30,000.00
A-NPDC Technical Assistance Program					
<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Closeout	Start:	End:	Closeout:		
	10/1/2016	9/30/2017	12/31/2017		

Climate Adaptation Working Group Newsletters

A total of ten biweekly CAWG Newsletters were distributed to over 500 subscribers between April 1 and the end of September. There were two CAWG meetings scheduled, but one was postponed due to weather. The next meeting was organized for November. A sea-level rise presentation was given to about 25 people at the Chincoteague Museum. All newsletters and information about upcoming meetings and events can be found on the CAWG web page on the A-NPDC web site at the following link. <http://www.a-npdc.org/accomack-northampton-planning-district-commission/coastal-resources/climate-adaptation-working-group/>

Coastal Management Trainings

A-NPDC has successfully directed or trained at 4 events reaching approximately 70 people. Trainings focused on ground water & surface water quality planning, coastal hazards, and water access. Including educational events, over 1,000 people were reached.

Technical Assistance

A-NPDC served on local & state committees including the ES Environmental Education Council, Southern Tip Partnership, ES Watersheds Network, VCZM Coastal Policy Team, HB1774 Stormwater Work Group, and Resilience Planning for Water-Dependent Uses Projects.

Ground Water Committee

A-NPDC held 4 Committee meetings and had an educational, interactive booth at the Northampton Watershed Festival and MashFest at the Chincoteague Bay Field Station. Additionally, ANPDC coordinated with the Cooperative Extension and the Southeast Rural Community Assistance Project (SERCAP) to subsidize and advertise the household water quality clinic to be completed in October and November. The Committee completed reviews of research publications, responded to public questions about water quality and quantity, and reviewed other relevant projects including spoil disposal and Chincoteague well contamination. The Committee continues to discuss issues and programs concerning surface water quality, natural hazards, and land stewardship in addition to groundwater. New community outreach and educational materials continue to be developed; ANPDC's newest effort is a video explaining the Shore's groundwater system. Set to be completed in late 2017, the video will be found at <http://www.a-npdc.org/accomack-northampton-planning-district-commission/ground-water-management/publications-resources/>.

Chincoteague Walking & Biking Tour of Historic Chincoteague Island Brochure

A-NPDC staff organized and held a meeting with stakeholders, including representatives from the Chincoteague Chamber of Commerce, Cultural Alliance, Town, and more, in mid-May. The brochure was sent to print in late June and the final digital version of the updated brochure, including hyperlinks, was supplied to the stakeholders and made available on the A-NPDC web site at <http://www.a-npdc.org/accomack-northampton-planning-district-commission/community-enhancement-3/historic-chincoteague-walking-and-biking-tour/>.

Benefits Accrued from Prior CZM Grants Report – The report has been updated and completed.

Final Products	% Completion	Anticipated Completion Date
Climate Adaptation Working Group Newsletter Report	100%	
Coastal Management Training Report	100%	
Technical Assistance Report	100%	
Ground Water Committee Report	100%	
Chincoteague Walking & Biking Tour Brochure	100%	
Benefits Accrued from Prior CZM Grants Report	100%	

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #Name?

Task: 42	Crater Planning District Commission	Federal Budget Total:	\$30,000.00
Crater PDC Technical Assistance Program			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Closeout	Start:	End:	Closeout:
	10/1/2016	9/30/2017	12/31/2017

(1) Crater PDC staff processed 27 environmental impact reviews for local, state, and federal projects. (3) Three coastal meeting/training sessions were held during the reporting period (4/27/17, 9/14/17, 9/19/17). Topics of discussion were WIP III, Bay Act Compliance, and training on Floodplain Management. (3) Crater PDC staff coordinated and administered regional review of the Appomattox River Trail and Signage Plans, the planning study of a possible connection between the Appomattox River Trail and the Virginia Capital Trail, and the Virginia Outdoors Plan. (4) Commission staff participated in several environmental planning efforts pertaining to Chesapeake Bay TMDL, the Albemarle-Chowan Watershed, and the Middle James Round Table. (5) Crater PDC staff continued to provide technical support to FOLAR – Friends of the Lower Appomattox River. This included hosting meetings, providing website maintenance, preparing brochures, and preparing and submitting grant proposals. Staff also assisted FOLAR with its 4/29/17 RiverFest. (6) Staff continued work on maintaining and producing paper and internet versions of the Appomattox River Interpretive Guide.

Final Products	% Completion	Anticipated Completion Date
Environmental Impact Review Comments	100%	9/30/17
Coastal Meetings	100%	9/30/17
Coastal Training	100%	9/30/17
FOLAR Assistance	100%	9/30/17
Benefits Accrued From Prior CZM Grants	100%	9/30/17

Task: 43	Hampton Roads Planning District Commission	Federal Budget Total:	\$60,000.00
Hampton Roads Coastal Resources Management Technical Assistance Program			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Closeout	Start:	End:	Closeout:
	10/1/2016	9/30/2017	12/31/2017

Environmental Impact Review. HRPDC staff provided comments to DEQ on four (4) environmental impact assessments/statements and coastal zone consistency determinations. This included coordination of local government input.

Public Information and Education. HRPDC staff maintained information on its website and provided regular briefings to local elected officials on the HRPDC Commission, local governing bodies, and to professional and civic organizations. During this period twelve (12) entries related to coastal resources management were posted to the HRPDC website. HRPDC hosted one (1) APA/AICP Web Conference, and helped plan and coordinate three (3) Hampton Roads Adaptation Forums. HRPDC staff also hosted and assisted with the planning for a resiliency workshop with FEMA and DCR.

Regional Coordination Process. HRPDC staff facilitated monthly regional advisory committee meetings addressing stormwater, floodplain management, wetlands, the Chesapeake Bay, and other coastal and environmental issues. Through these committees, the localities develop regional consensus on state and federal regulatory and legislative issues, coordinate plans addressing these issues, and exchange information on program activities. During this period, the Regional Environmental Committee (REC) met four (4) times. Topics covered included regional studies and projects, stormwater BMPs, environmental education, bike/pedestrian trails, public access planning, and climate adaptation.. The Coastal Resiliency Committee met two (2) times. Topics included FEMA regulations and policies, state legislative efforts, storm surge modeling, and efforts to acquire data for water levels and first floor elevations. The Coastal Resiliency Working Group also met two (2) times. Topics included stormwater models, data needs, and floodplain management regulations.

Regional Technical Studies and Assistance. HRPDC staff completed an initial hypsometric analysis of Hampton Roads localities' vulnerability to sea level rise and updated regional assessments of sea level rise exposure.

Benefits Accrued from Prior CZM Grants. HRPDC staff summarized the continued benefits of CZM grants addressing sea level rise and coastal resiliency.

Final Products	% Completion	Anticipated Completion Date
EIA/EIS and Coastal Consistency Review	100%	
Public Information, Education, and Training	100%	
Regional Coordination Process	100%	
Regional Technical Studies and Special Projects	100%	
Benefits Accrued from Prior CZM Grants	100%	

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #Name?

Task: 44	Middle Peninsula Planning District Commission	Federal Budget Total:	\$30,000.00
MPPDC Technical Assistance Program			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report	
Closeout	Start: End: Closeout:		
	10/1/2016 9/30/2017 12/31/2017		

Product #1: Coastal Management Analysis and Policy Support: Middle Peninsula Planning District Commission (MPPDC) staff provided analysis and policy assessment using a variety of approaches to assist and improve local and regional planning efforts associated with the directive of HB 1774. In particular, MPPDC staff served on a workgroup to consider alternative methods of stormwater management in rural Tidewater localities. The Committee began meeting in July 2017 and drafted recommendations that offer rural jurisdictions equitable participation in the Virginia Stormwater Management Program. MPPDC staff also developed an information sheet that illustrates estimated population data from the Weldon Cooper Center Demographics Research Group.

Product #2: Local and State Planning Coordination: MPPDC staff continued to host meetings of the local government administrators, local planning staff and local government appointed committees. Topics discussed at these meetings included stormwater management, land donations, flooding & public safety, hazard mitigation and local land use police powers. MPPDC staff specifically partnered with the Federal Emergency Management Agency to coordinate a resiliency workshop in April 2017 for local elected officials and staff to learn and discuss how federal policy and funding can assist with flooding.

Product #3: MP CBPAA Work Plan & Support for Online Facility Reservation System: Since April 2017, the MPPDC staff hosted two meetings of the Middle Peninsula Chesapeake Bay Public Access Authority. Topics discussed included land donations to the MPCBPAA as well as authorization of a construction contract for the Dragon Run nature viewing platforms on the Clay Tract. MPCBPAA staff updated the reservation system with NOAA tidal information (https://waterdata.usgs.gov/va/nwis/uv/?site_no=01670080&PARAMeter_cd+62620) as some of the MPCBPAA properties are inaccessible at high tides. MPPDC staff continues to work with Virginia Sea Grant to explore ways to leverage PAA lands for both scientific and compatible blue and green based economic development.

Product #4: Benefits Accrued from Prior CZM Grants: MPPDC staff developed a 2-page document that provided a list of names and descriptions of MPPDC projects funded by the Virginia Coastal Zone Management Program in previous years that have produced measureable benefits in subsequent years and/or have served as a foundation for additional projects. MPPDC staff focused on stormwater, living shorelines, and public access.

Final Products	% Completion	Anticipated Completion Date
Coastal Management Analysis and Policy Support	100%	
Local and State Planning Coordination	100%	
MP CBPAA Work Plan & Support for Online Facility Reservation System	100%	
Benefits Accrued from Prior CZM Grants	100%	

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
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Task: 45	Northern Neck Planning District Commission	Federal Budget Total:	\$30,000.00
Northern Neck Planning District Commission Technical Assistance			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Closeout	Start: End: Closeout:		
	10/1/2016 9/30/2017 12/31/2017		

NNPDC staff have continued to provide planning and technical support to local governments, the Northern Neck Land Conservancy, and the Northern Neck Master Gardener's Shoreline Evaluation Program. NNPDC staff held a local coordination and training meeting on 4-5-17 conducted in collaboration with Dewberry, VDEM and FEMA regarding the Northern Neck Regional Hazard Mitigation Plan (HMP) update. Among the topics discussed were hazard mitigation strategy development for the region, as well as for each locality. In addition, there was a review of agency programs and tools for hazard mitigation, non-regulatory flood risk products, and the value of promoting hazard mitigation. The draft HMP was reviewed and final reports for each locality were disseminated for completion. NNPDC staff held a local coordination and training meeting on 8-17-17 conducted in collaboration with Wetlands Watch on behalf of VIMS to introduce the Adapt VA website (adaptva.com). The introduction included a review of the website and its various tools which can assist agencies, localities, and property owners in assessing risk and reducing hazards. In addition, feedback was requested on the site and a dialogue with local land use administrators yielded positive results. NNPDC staff coordinated with Richmond County and Friends of the Rappahannock to develop an additional water trail in Richmond County along Totuskey Creek. This pristine natural landscape, in conjunction with the surrounding indigenous cultural landscape, makes it an excellent interpretive water trail. Interpretive maps, guides and GPS-ready digital map were created and made available at (<http://www.northernneck.org/parks-nature-trails/#WaterTrails>). The NNPDC has had grant applications with VDEM and FEMA approved to fund the elevation of two homes in the Northern Neck in order to remove them from the flood plain. The homes to be elevated are in Lewisetta in Northumberland and Little Florida in Richmond. NNPDC staff continues to provide information about the program for homeowners interested in elevating their homes. The Northern Neck Chesapeake Bay Public Access Authority published its "Donating Land for Public Access: Public & Tax Benefits" brochure (<http://northernneck.us/wp-content/uploads/2016/09/BROCHURE-NNPAA-2016>) and received its first donation, waterfront property in Lancaster County. In support of the Watermen's Tourism Training Program, NNPDC staff developed a presentation to be used as part of the curriculum for three upcoming classes in the Northern Neck and Middle Peninsula. NNPDC staff continues to work with Northern Neck communities to develop the Virginia Oyster Trail and participated in a Management Team meeting in April 2017. Over the grant period, staff continued to administer the Governor's Agriculture and Forestry Industries Development Fund grant, acting as fiscal agent on behalf of the Virginia Oyster Trail, which is assisting with website development and trail implementation. NNPDC staff continue to administer the Assign-a-Highway Program, which from October 1, 2016 to March 31, 2017, collected 9.97 tons of litter along Northern Neck primary and secondary roads (<http://northernneck.us/assign-a-highway>). NNPDC staff have identified benefits accrued from products completed under previous VACZM grants.

Final Products	% Completion	Anticipated Completion Date
Coastal Management Support	100%	
Local Coordination and Training	100%	
Richmond County Water Trail	100%	
Hazard Mitigation Assistance Home Elevation Program	100%	
Northern Neck Chesapeake Bay Public Access Authority	100%	
Watermen's Heritage Tourism Training	100%	
Virginia Oyster Trail	100%	
Assign-A-Highway Program	100%	
Benefits Accrued from Previous VACZM Grants	100%	

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
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Task: 46	Northern Virginia Regional Commission	Federal Budget Total:	\$30,000.00
NVRC Coastal Resources Technical Assistance Program			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report	
Closeout	Start: End: Closeout:		
	10/1/2016 9/30/2017 12/31/2017		

Coordination & Training:

During the reporting period, Northern Virginia Regional Commission (NVRC) staff coordinated three meetings among local government officials on topics related to non-point source pollution and stormwater runoff.

The Coastal Technical Assistance Program allows NVRC staff to be a part of the Virginia Coastal Policy Team (CPT) and the Coastal PDC working group. One CPT meeting was attended by NVRC during the reporting period and one Coastal PDC Working Group meeting was attended.

Special Project – Northern Virginia Clean Water Partners:

During this reporting period, the NVRC staff coordinated the Northern Virginia Clean Water Partners annual Only Rain Down The Storm Drain campaign. The Northern Virginia Clean Water Partners is comprised of a group of local governments, drinking water and sanitation authorities, and businesses working together to inform individuals about the pollution potential of common activities, so that individuals can take direct action to reduce pollution.

The Clean Water Partners selected the following three high priority water quality issues to focus on for the Campaign:

- bacteria,
- nutrients, and
- illicit discharge of chemical contaminants.

The Partners identified the target audiences for these issues as pet owners, homeowners with a lawn or garden, and home mechanics. A custom outreach campaign was designed to utilize both geographic and behavioral targeting to reach audiences across multiple screens. This approach mirrors current media consumption habits while minimizing advertising waste.

In 2017, over 50,000,000 video impressions were delivered across more than 38 Cable TV networks (and hundreds of websites), including HGTV, A&E, FS1, History and Animal Planet just to name a few. Combined with video ads delivered on Premium-content websites throughout Northern Virginia, the Clean Water Partners were able to extend their campaign across multiple devices and align their message with brand-safe premium video content to reach Northern Virginians everywhere they consume video.

A post-campaign survey of 500 northern Virginia residents was conducted to measure the effectiveness of the campaign. A summary report for the campaign including the number of people who viewed the ads will be prepared and distributed to the Partners in September 2017 for inclusion in their annual MS4 reports. This campaign continues to deliver a measurable long term impact, year after year.
<http://www.onlyrain.org/>

Final Products	% Completion	Anticipated Completion Date
Coordination & Training	100%	
Special Project – Northern Virginia Clean Water Partners <input type="checkbox"/>	100%	<input type="checkbox"/>
Benefits accrued from prior CZM grants	100%	

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #Name?

Task: 47	George Washington Regional Commission			Federal Budget Total:	\$30,000.00
George Washington Regional Commission Coastal Zone Management Assistance					
<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Closeout	Start:	End:	Closeout:		
	10/1/2016	9/30/2017	12/31/2017		

GWRC holds coordination/training meetings for the Regional Stormwater Managers' Technical Committee and participates in Coastal PDC meetings with CZM staff. The Regional Stormwater Managers' meetings are held for members to discuss topics of interest related to stormwater management and to improve understanding of stormwater regulations and best practices. During this reporting period, Regional Stormwater Managers' meetings were held on May 18th and August 29th. Meetings will continue to be held quarterly throughout the remainder of the grant cycle. GWRC also participates in Coastal PDC meetings which provide an opportunity for the eight Virginia Coastal PDCs and Virginia CZM staff to identify and discuss coastal policy issues. A Coastal PDC meeting was held on May 24, 2017.

GWRC created a GIS data layer which identifies colonial swamp reclamation structures (drainage ditches, earthen berms and dams) within the Mattaponi watershed. GWRC is using aerial imagery to create this layer. This data will be helpful in a future Healthy Watersheds project that GWRC plans to fund through the Chesapeake Bay Healthy Watersheds Consortium

Final Products	% Completion	Anticipated Completion Date
Minutes of coordination meetings, digital copies of training material, program, and financial reports	100%	
GIS Data Layer	100%	
Benefits Accrued from Prior CZM Grants	100%	

Task: 48	Richmond Regional Planning District Commission			Federal Budget Total:	\$30,000.00
Richmond Regional Technical Assistance					
<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Closeout	Start:	End:	Closeout:		
	10/1/2016	9/30/2017	12/31/2017		

Technical Assistance – RRPDC staff have processed 14 intergovernmental reviews and 28 environmental reviews during the reporting period. RRPDC staff have also followed developments of the Chesapeake Bay TMDL and Phase III WIP planning process. RRPDC staff participated on the technical advisory committee for RVA H2O, the City of Richmond's integrated permit planning process. The TAC exists to allow the City and DEQ staff the opportunity to vet program and permit elements with technical experts and stakeholders. Three TAC meetings were held during the reporting period. Throughout recent meetings, the TAC has developed goals and strategies for program implementation; these will be included in the integrated permit as appropriate. RRPDC staff attended Coastal Program related meetings including a Coastal PDC meeting and other environmentally related meetings, such as the Environment Virginia Symposium. Information from these meetings is always shared with the RRPDC Environmental TAC.

Coordination and Training – On May 16, 2017, RRPDC staff hosted an Environmental TAC meeting. DEQ staff provided an informational presentation on Chesapeake Bay Protection Act local compliance reviews and the status of the Phase III WIP planning effort. City of Richmond staff provided an update of the RVA H2O process. The meeting concluded with a local round robin discussion of program and project updates. On September 19, 2017, RRPDC staff, in cooperation with Crater PDC staff and DCR, hosted a Floodplain Management Workshop in Chesterfield County. The full-day workshop included information on the regulatory requirements of the National Flood Insurance Program and the Community Rating System, a program through which policy holders in qualified jurisdictions can get premium cost reductions.

Local Implementation Advocacy – RRPDC staff produced maps for GroundworkRVA depicting the location of project sites relative to recently collected urban heat island data. The maps allow Groundwork to prioritize the location of greening projects for areas suffering the most from urban heat island effects during the summer months.

Benefits Accrued – RRPDC staff maintain a file on how past TA grant projects are being used by RRPDC staff and others around the region. RRPDC staff will include a one page summary of how past products are being used by many in the region towards the Rivers of the Richmond Region plan implementation in the grant final report.

Final Products	% Completion	Anticipated Completion Date
Technical Assistance	100%	
Coordination and Training	100%	
Local Implementation Advocacy	100%	
Benefits Accrued	100%	

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #Name?

Task: 49	Virginia Aquarium and Marine Science Center Foundation	Federal Budget Total:	\$31,000.00
Virginia Sea Turtle and Marine Mammal Stranding Network			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Project Period Open
Open	Start: 1/1/2017	End: 12/31/2017	Closeout: 3/31/2018

This grant started on January 1, 2017. From April through September 2017, the Virginia Aquarium Stranding Response Program (VAQS) recorded 253 strandings in Virginia. There were 242 strandings recorded during the same period in 2016.

The VAQS Stranding Team responded to 60 marine mammal strandings in Virginia during this reporting period, 59 cetaceans and one pinniped. Seventeen (28%) of the strandings were located in Virginia Beach and other cities south of the James River, 18 (30%) on the western shore of the Chesapeake Bay north of the James River, and 25 (42%) on Virginia's eastern shore. The cetacean species included 50 bottlenose dolphin (*Tursiops truncatus*), three harbor porpoise (*Phocoena phocoena*), one common dolphin (*Delphinus delphis*), one pygmy sperm whale (*Kogia breviceps*), one Sowerby's beaked whale (*Mesoplodon bidens*), one humpback whale (*Megaptera novaeangliae*), one minke whale (*Balaenoptera acutorostrata*) and one unidentified small delphinid. There was one pinniped species, a harbor seal (*Phoca vitulina*). Six live stranding events occurred during this reporting period, including 5 bottlenose dolphins and one common dolphin. Two of the bottlenose dolphins were likely entangled in crab pot lines. The common dolphin was pushed back into the water several times by the public before arrival of the VAQS stranding team. This dolphin was in very poor condition and it was determined that euthanasia was the most humane course of action. The humpback whale and beaked whale were reported mortalities that were floating offshore and never recovered.

There were 193 sea turtle strandings recorded in Virginia during this reporting period, compared with 187 during the same period in 2016. The sea turtle species included 106 loggerhead (*Caretta caretta*), 61 Kemp's ridley (*Lepidochelys kempii*), four green (*Chelonia mydas*), 11 leatherback (*Dermochelys coriacea*) and 11 that were unidentified to species. Ninety-five (49%) of the strandings were located in Virginia Beach and other cities south of the James River, 64 (33%) on the western shore of the Chesapeake Bay north of the James River, and 34 (18%) on Virginia's eastern shore. There were 64 live sea turtle strandings during this reporting period. The probable cause of stranding for 57 (30%) of the turtles was entanglement, and 51 (26%) had signs of watercraft related injuries. There were multiple sea turtles in rehabilitation at the end of the study period.

VAQS Staff attended professional meetings and workshops during this reporting period. There were also educational outreach presentations to groups in the Hampton Roads area, and Stranding Team volunteers contributed more than 10,000 hours. A detailed list of all trainings, presentations and publications will be included in the final report.

Final Products	% Completion	Anticipated Completion Date
Stranding Response Data Sharing and Reporting	75%	December 31, 2017
Personnel and Cooperator Training Activities	85%	December 31, 2017
Public Education and Outreach Activities	90%	December 31, 2017

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #Name?

Task: 50	George Washington Regional Commission	Federal Budget Total:	\$26,593.00
Plant GW (Greater Rappahannock) Natives Campaign			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Project Period Open
Open	Start: 10/1/2016	End: 6/30/2018	Closeout: 9/30/2018

During this reporting period, GWRC continued to work with the native plants planning team to implement the campaign strategy developed with FY15 CZM Technical Assistance funds. The campaign was named "Plant Central Rapp Natives" and was officially launched at the City of Fredericksburg's Earth Day Festival which was held on April 22nd in Old Mill Park. The Plant Central Rapp Natives campaign was a sponsor of the festival and had a booth at the event. The launch event was successful and provided the opportunity to distribute the native plant guides and educate attendees about the campaign.

A full color "Native Plants for Central Rappahannock Virginia" guide has been produced. The guide is 48 pages in length and showcases plants native to the region. The guide also includes information about the benefits of native plants and tips for planting in different types of landscapes. Throughout this reporting period, the steering team has been working to distribute copies of the guide to interested citizens of the GW region.

GWRC worked with the Point of Sale Materials workgroup to produce promotional materials for the campaign. Calling cards were designed and purchased. These cards can be left at local plant providers when individuals are looking for a particular plant. Plant tags were purchased which will help identify plants at providers that are native to the Central Rappahannock area. GWRC has designed signs which can be used at the campaign launch event to identify partners of the campaign. The signs will also be used at plant provider locations to promote the campaign. The Point of Sale Materials workgroup has provided these materials to local providers.

GWRC has assisted CZM staff with setting up a Plant Virginia Natives website which will include pages for each of the Virginia regional native plants campaigns. The Plant Central Rapp Natives pages on the plantvirginianatives.org site serve as the main site for the campaign.

GWRC is continuing to work with CZM staff and the campaign steering team to ensure the campaign efforts continue beyond the close of the grant. Co-chairs will be selected to help facilitate future campaign initiatives.

Final Products	% Completion	Anticipated Completion Date
George Washington Regional Plant Guide	100%	
Campaign Promotional and Marketing Materials	100%	
Plant GW Natives Campaign Website	100%	
Plant GW Natives Final Report	25%	June 30, 2018

Task: 51	Hampton Roads Planning District Commission	Federal Budget Total:	\$19,994.00
Regional Strategic Plan for Public Access in Hampton Roads			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Project Period Open
Open	Start: 10/1/2016	End: 12/31/2017	Closeout: 3/31/2018

During this grant period, the HRPDC staff:

- Organized a stakeholder meeting for localities, state agencies, and other interested parties to learn about the project and contribute ideas on information sources and deliverables
- Completed research on existing local, state, and national plans
- Collected and analyzed data related to demand for and distribution of public access
- Completed an inventory of public access sites and trails, including data review and cleanup
- Developed an online geoapp to display the inventory to the public and other users
- Reached out to local retailers and outfitters to gauge preferred methods of sharing the inventory with users

Final Products	% Completion	Anticipated Completion Date
Assessment of Plans, Policies, and Locations for Public Access	90%	December 31, 2017
Identification of Opportunities for Funding of Public Access Projects	0%	December 31, 2017
Mapping of Existing and Planned Public Access Locations and Trails	90%	December 31, 2017
Trails and Public Access Sites Maps/Pamphlets	10%	December 31, 2017

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #Name?

Task: 52	Middle Peninsula Planning District Commission	Federal Budget Total: \$40,000.00
Middle Peninsula Coastal Eco-Business Public & Private Operational Framework		
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report
Closeout	Start: End: Closeout:	
	10/1/2016 9/30/2017 12/31/2017	

Product #1: Guidelines for Eco-Business Expression of Interest - The Middle Peninsula Chesapeake Bay Public Access Authority (PAA) in partnership with Middle Peninsula Planning District Commission (MPPDC) staff created multiple documents for eco-businesses to express interest in business development on PAA owned land. These documents were based on the Queensland Eco-tourism Investment Opportunities Program.

Product #2: Eco-Business Application Form - MPPDC staff developed an Eco-Business Application form to have interested entrepreneurs fill out to clearly describe the eco business/project idea, how it meets evaluation criteria, as well as contact information. (http://www.virginiacoastalaccess.net/ecotour/PAA_EcoBusinessApplication.pdf)

Product #3: Eco-Business Procurement Guidelines - MPPDC staff developed Probitiy Guidelines and Tender Guidelines. The Probitiy Guidelines provide transparency in the program and process that will be used to evaluate applications. The Tender Guidelines review the process that applicants can expect to go through, including the invitation for expression interest and request for detailed proposal. (<http://www.virginiacoastalaccess.net/ecotour/Probitiy.pdf> and <http://www.virginiacoastalaccess.net/ecotour/TenderGuidelines.pdf>)

Product #4: Eco-Business Best Practices Development Guidelines- MPPDC staff developed Eco-Business Best Practices Development Guidelines that assists applicants in developing eco tourism facilities and experiences on PAA public lands that are in the public interest, ecologically sustainable, and ensure, to the greatest possible extent, the preservation of the land's natural condition and protection of its cultural values and resources. (<http://www.virginiacoastalaccess.net/ecotour/BestPractices.pdf>)

Product #5: Eco-Business Facilities and Implementation Framework - MPPDC staff developed an Eco-Business Facilities and Implementation Framework that provides an overview of the how, what, where and why of the ecotourism facilities program. (<http://www.virginiacoastalaccess.net/ecotour/Framework.pdf>)

In anticipation of applicants from the eco-business request for proposal (RFP), MPPDC staff addressed the question of taxation of private businesses on PAA land. Based on correspondence with the Virginia Attorney General: (1) It appears that the PAA is likely exempt from real estate taxes. (Va. Code Section 15.2-6617); (2) Any person or entity leasing property owned by the PAA would not be subject to tax on the entirety of the property, but would be subject to tax on its leasehold interest in the property owned by the PAA (even though the PAA is not subject). (Va. Code Sections 15.2-6617; 15.2-6623; 58.1-3200; and 58.1-3203); (3) Any tenant should not be responsible for a tax on an entire parcel of property unless they are leasing the entire parcel; (4) MPPDC will need to speak directly with each locality to determine how taxes are assessed; and (5) At this time, MPPDC is not aware of the mechanism through which localities would institute PILOT (payment in lieu of taxes) fees. If there is a legitimate PILOT fees program in a locality assessed against the PAA, that would be something the PAA would be responsible for, not the tenant (unless there is a contractual requirement under the lease to pass through a portion of such fee).

Final Products	% Completion	Anticipated Completion Date
Guidelines for Eco-Business Expression of Interest	100%	
Eco-Business Application Form	100%	
Eco-Business Procurement Guidelines	100%	
Eco-Business Best Practices Development Guidelines	100%	
Eco-Business Facilities and Implementation Framework	100%	

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #Name?

Task: 53	Northern Virginia Regional Commission	Federal Budget Total:	\$40,000.00
Northern Virginia's Roadmap to Resilience			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Project Period Open
Open	Start: 10/1/2016	End: 12/31/2017	Closeout: 3/31/2018

Product #2 - Climate Resiliency Team

NVRC coalesced a group of interested stakeholders to form a Climate Resiliency Team for Northern Virginia. This team/workgroup is comprised of individuals representing different types of institutions in Northern Virginia (i.e. academic, non-governmental, and state, regional, and local governmental) and different frames of reference such as coastal planning, community development, education, emergency management, natural resource management, policy, urban planning, and public works.

During this reporting period, NVRC has coordinated, facilitated, and provided leadership for two meetings of the Team to define the scope and planning horizon of the Roadmap to identify priority issues and capacity gaps associated with climate change and coastal hazards that need to be addressed in the Roadmap.

Product #3 Trans-Atlantic Applied Research Climate Adaptation Partnership

NVRC has leveraged the Resiliency work to obtain a small grant from the Alumni Council of the American Friends of the Alexander von Humboldt Foundation to bring Dr. Gerald Schernewski, director of Coastal and Marine Management Group at the Leibniz Institute for Baltic Sea Research, Germany to the Northern Virginia region. Dr. Schernewski is the author of over 100 publications on coastal zone and marine management, implementation of EU-Directives (Water Framework Directive, Natura 2000, Marine strategy), and water quality assessment. The goal of the workshop is to share ideas and research concerning climate change and effects on coastal eco-systems in the Baltic Sea region. The workshop also will explore potential for cooperation between the Baltic Sea and the Chesapeake Bay regions on issues concerning resiliency. The event is currently planned for November 7, 2017.

Product #4 - Northern Virginia Climate Resilience Roadmap

The Climate Resiliency Team has met four times to identify predicted climate stressors and potential future conditions and to develop and review challenge statements from each participating agency. Challenge statements were provided by ten agencies in Northern Virginia that identified what stressors might impact their organizational ability, who will be impacted by the stressor, why it is important for the agency/county to address this stressor, and when the agency/county should take action. The Outline for the "Roadmap" has been completed and the text for the report is currently being developed.

Also during this reporting period, NVRC gave presentations at two conferences about the Resilience Roadmap; the Frontiers of Resilience Conference at George Mason University and the Resilient Virginia conference.

NVRC staff was also interviewed by FEMA about this work for an article that is to be published in the FEMA Region III Resilience Report. The FEMA Region III Resilience Report is released once a quarter to showcase local actions to increase resilience to natural hazards (see attached example) in order to help other planners and emergency managers learn from your example.

Final Products	% Completion	Anticipated Completion Date
Product #1 Forum: Resiliency Planning for Northern Virginia	100%	December 1, 2016
Product #2 - Climate Resiliency Team	100%	
Product #3 Trans-Atlantic Applied Research Climate Adaptation Partnership	75%	November 7, 2017
Product #4 - Northern Virginia Climate Resilience Roadmap	25%	December 31, 2017

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #Name?

Task: 54	Northern Virginia Regional Commission	Federal Budget Total:	\$31,847.00
Northern Virginia Native Plant Social Marketing Campaign ("Plant NoVA Natives")			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Project Period Open
Open	Start: 10/1/2016	End: 3/31/2018	Closeout: 6/30/2018

Product #1 Campaign Implementation and Community Leader Coordination

During the reporting period, Northern Virginia Regional Commission (NVRC) staff coordinated approximately 100 volunteers to promote the campaign at various community events. NVRC staff also tracked, measured, and reported the impact of the Community Leader Program to the campaign steering team – how successful was the Community Leader Program to helping the campaign achieve its goals. In addition, NVRC staff, along with CZM staff, were interviewed about the campaign on Delegate Ken Plum's TV show. The interview will be aired on Reston Comcast Channel 28 (Verizon Channel 1981) on Tuesday, October 17 at 7:30 p.m. and repeated on Wednesday, October 18 at 10:30 p.m. You can also view the program online at <https://www.youtube.com/playlist?list=PLrje5o6qHpBEWdZ49GC6-5pa5tLwIshIK&nohtml5=False>

Product #2 Native Plants and Water Quality Workshop

The Plant NOVA Natives Steering Committee has been working on coordinating speakers and themes for this workshop. It is currently proposed to be held in January 2018. The theme will be "Innovations in Native Plant Use". Topics will include how native plant gardens can act as stepping stones in Conservation Corridors. The agenda will start with keynote speaker Karen Firehock of the Green Infrastructure Center. The group will then hear a talk on native plants in storm water ponds and basins, electrical transmission line plantings and creative use of closed landfills. Emphasis will be on successful projects/models we can share regionally or state-wide. Other topics that might be included are how to create stepping stone gardens and expanding the local tree canopy.

Product #3 Mid-Campaign Evaluation

The mid-campaign evaluation will be important to guide the future strategy of the campaign. Some data regarding the economic benefits of the campaign to the region have already been compiled. Web-statistics have also been compiled including Facebook. The Facebook page has 1,296 followers.

Product #4 Model Native Plant Comprehensive Plan Language

Building on the resolution that was adopted during the previous reporting period, model native plant language is being developed for local jurisdictions to include in their comprehensive plans. This language is currently being drafted.

Final Products	% Completion	Anticipated Completion Date
Product #1 Campaign Implementation and Community Leader Coordination	90%	03/31/2018
Product #2 Native Plants and Water Quality Workshop	50%	01/31/2018
Product #3 Mid-Campaign Evaluation	75%	03/31/2018
Product #4 Model Native Plant Comprehensive Plan Language	50%	03/31/2018

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #Name?

Task: 81	Virginia Aquarium and Marine Science Center Foundation	Federal Budget Total:	\$45,000.00
Monitoring and Assessment of Marine Debris in Virginia's Coastal Zone			
<u>Project status:</u>	<u>Current approved</u>		<u>Final deliverable(s) status:</u> Project Period Open
Open	Start:	End:	Closeout:
	10/1/2016	9/30/2018	12/31/2018

A no-cost extension has been approved that will extend the project through September 2018. Survey Coordinator, Christina Trapani, continues to work with a trained volunteer team of up to 20 persons. Volunteers contributed more than 180 hours in this reporting period and continue to provide significant and essential support for this marine debris monitoring and assessment project.

During this reporting period, beach surveys were conducted monthly from April through September 2017 at the four Virginia study sites. Coordinator Trapani led teams that completed 25 monthly surveys at the four sites: Fisherman Island National Wildlife Refuge (7), Chincoteague National Wildlife Refuge (5), Back Bay National Wildlife Refuge (7) and Grandview Nature Preserve (6). Inclement weather prevented one survey from being completed at Chincoteague National Wildlife Refuge. NOAA Marine Debris Program staff, including Sherry Lippiatt, joined Trapani in a survey effort at Chincoteague in July. Since initiation of the project in April 2014, a total of 297 surveys have been completed at the four index beaches utilized for study sites. Data from all survey sites have been collected monthly and photos have been taken per the protocol. NOAA Marine Debris Program staff, including Sherry Lippiatt, joined Trapani in a survey effort at Chincoteague.

Clean Virginia Waterways (CVW), led by project partner Katie Register at Longwood University, continues to receive data and periodically updates NOAA's Marine Debris Monitoring and Assessment Project Field Survey Data Collection Site. To date, data have been entered for 142 accumulation surveys, and 571 standing stock transect surveys. During monitoring surveys, photos are taken of each standing stock transect, interesting debris items, typical debris items, and of the shoreline at the study site. Clean Virginia Waterways is uploading hundreds of these photos into NOAA's online database for marine debris monitoring. Thus far, A total of 5,756 debris items have been recorded in the accumulation surveys, and 2,531 debris items have been entered from the standing stock surveys.

Trapani and Mark Swingle from the Virginia Aquarium also participated in the Virginia Marine Debris Emergency Response Workshop that was convened by NOAA and hosted at the Mariner's Museum in Newport News.

Final Products	% Completion	Anticipated Completion Date
Program Management	25%	September 30, 2018
Data Collection	60%	June 30, 2018
Data Management & Analysis	30%	September 30, 2018
Final Report	0%	October 31, 2018

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #Name?

Task: 92.01	Virginia Institute of Marine Science	Federal Budget Total: \$120,000.00	
Decision Support Tools for Managing Tidal Shoreline in Virginia			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u> Submit w/next Semiannual Report	
Closeout	Start:	End:	Closeout:
	10/1/2016	9/30/2017	12/31/2017

This project encompasses the development of Shoreline Inventories and Tidal Marsh Inventories; application of the Shoreline Management Model (SMM), as well as a Web launch of County Portals and Outreach in order to provide guidance on policy implementation and enhanced shoreline best practices for local governments in the coastal zone of Virginia. To date, the following progress has been made toward completion of 4 Shoreline Inventories (Surry County, Hanover County, King George County, and the City of Fredericksburg), 3 Tidal Marsh Inventories (Surry County, King George County, and the City of Fredericksburg) and 5 Shoreline Management Model runs (Hanover, Henrico, Surry, King George counties, and the City of Fredericksburg).

Shoreline and Tidal Marsh Inventories for Surry, Hanover, King George counties, and the City of Fredericksburg were completed in this reporting period. Specific accomplishments included completion of the summary tables and metadata for the all localities. Field work and QA/QC for the Tidal Marsh Inventories was finished in June.

The Shoreline Management Model has been run for each locality. The Comprehensive Coastal Resource Management Portal for each locality has been generated and the map viewer to illustrate and share the information has been developed.

<http://www.vims.edu/ccrm/ccrmp/portals/hanover/index.php>

<http://www.vims.edu/ccrm/ccrmp/portals/henrico/index.php>

<http://www.vims.edu/ccrm/ccrmp/portals/surry/index.php>

http://www.vims.edu/ccrm/ccrmp/portals/king_geo/index.php

<http://www.vims.edu/ccrm/ccrmp/portals/fredericksburg/index.php>

What remains until final closeout of the project is to upload the inventory data to the website and distribute the final products to the localities. All final products are ready in both electronic and hardcopy. CCRM is migrating to a new web platform and we have scheduled these data to be uploaded by the end of October, 2017. Distribution of products to the end user will take place immediately thereafter.

Final Products	% Completion	Anticipated Completion Date
Shoreline Inventories	100%	
Tidal Marsh Inventories	100%	
Shoreline Management Model	100%	
Web development of County Portals and Outreach	100%	

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #Name?

Task: 92.02	Virginia Institute of Marine Science	Federal Budget Total:	\$40,000.00
Living Shoreline Contractor Training and Shoreline Management Plan Public Information Meetings			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Closeout	Start: End: Closeout:		
	10/1/2016 9/30/2017 12/31/2017		

Living Shoreline Design Guidelines: The design manual is in the final formatting stage and the class PowerPoints are being edited to put on the website.

Living Shoreline Contractor Training: Two separate classes were held. The first was at the Virginia Institute of Marine Science on August 24, 2017, and the second was held at the Potomac River Fisheries Building in Colonial Beach on August 31, 2017. Thirty-six contractors, designers, and planners registered for the VIMS session and 21 at Colonial Beach. Presentations were given by Donna Milligan, Karen Duhring, and Scott Hardaway. A hands-on design exercise was given as well. Three representatives from the Virginia Department of Conservation and Recreation's Shoreline Erosion Advisory Service also were in attendance to provide information about their services. In addition, several VIMS staff attended.

Shoreline Management Plan Talks: Talks were given to four local Wetlands Boards. Individualized presentations were created for each board visit. This required the updating of some GIS information. Scott Hardaway presented the findings and usefulness of the Shoreline Management Plans. The Gloucester Wetlands Board talk was held in conjunction with the Abingdon Ruritan Club. The Club's environmental committee hosted an informational evening on April 25, 2017 with presentations by Karen Duhring, Donna Milligan, and Scott Hardaway. Information also was presented on the Living Shoreline loan program created by the Middle Peninsula Planning District Commission. In addition to the Wetlands Board members, the general public was invited. Approximately 25 people attended overall. Other presentations were:

Westmoreland Wetland Board, June 19, 2017.
James City County Wetlands Board, August 9, 2017.
York County, September 12, 2017.

Final Products	% Completion	Anticipated Completion Date
Contractor training manual and class materials update - Final Report	90%	November 15, 2017
Living shoreline contractor training	100%	September 30, 2017
Shore Man Plan public information talks	100%	September 30, 2017

Task: 93.01	Richmond Regional Planning District Commission	Federal Budget Total:	\$30,000.00
Cumulative and Secondary Impacts: Leveraging Economic Benefits of the Natural Resources of the Lower Chickahominy			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Closeout	Start: End: Closeout:		
	10/1/2016 9/30/2017 12/31/2017		

Steering Committee Coordination and Facilitation – RRPDC staff continued facilitation of the project steering committee, including the development of a Request for Proposals (RFP) for an economic study for the three-county study area. See more information about the RFP below. Emails, in-person meetings, individual phone calls, and conference calls were used throughout the process.

Mapping and Assessment – RRPDC staff has finalized base maps of the study area. Maps include: population density, conserved land, parcels and subdivisions showing the existing pattern of development, land cover, Virginia Ecological Value Assessment, river access points, and wetlands. In addition to the maps, summary text and tabular data has been compiled. This information will be included in a Final Report for the grant year that will be delivered to the Coastal Zone Management Program in November.

Economic Study RFP – The focus during the latter half of this grant year was on finalizing a RFP for an economic study contractor, releasing the RFP, and selecting the contractor. In mid-May 2017, the RRPDC staff delivered to the Virginia Coastal Zone Management Program a final RFP that had been developed in cooperation with members of the project Steering Committee. The RFP sought proposals for a study on a broad range of topics including: the effectiveness of conservation programs, the value of natural resource protection, and the costs of natural resource protection. Proposals were due to the VCZM Program by August 1, 2017. In early August, members of the steering committee scored the proposals and scheduled interviews with candidate finalists. The Steering Committee agreed to the selection of the George Mason University/Urban Analytics, Inc. team for the economic study. The GMU/UAI team was chosen based on expertise in the field and experience on a similar study recently completed for Accomack and Northampton Counties.

Final Products	% Completion	Anticipated Completion Date
Steering Committee Coordination & Facilitation	100%	
Mapping and Assessment	100%	
Economic Study RFP	100%	

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #Name?

Task: 93.02	Dept. of Conservation & Recreation - Natural Heritage			Federal Budget Total:	\$95,000.00
Inventory of Important Biological Resources in the Chickahominy Watershed					
<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Project Period Open
Open	Start:	End:	Closeout:		
	10/1/2016	3/31/2018	6/30/2018		

Towards Product #1, Division of Natural Heritage (DNH) Ecologists, Botanists, and Zoologists contacted land-owners and successfully obtained permission to visit 39 Natural Heritage Resource occurrences known from the study area (1 animal, 34 plants, and 4 communities). During these surveys, five of the 39 occurrences were relocated and five new occurrences (2 plants and 3 communities) were found and complete geo-referenced occurrence data were recorded. Field work will continue into late October 2017.

Towards Product # 2, Virginia Commonwealth University field staff have sampled 27 streams so far. Access to many streams has been impossible due to the large number of impoundments and large tidal streams in the lower Chickahominy. To overcome this difficulty, staff have begun doing boat electrofishing sites on several Chickahominy tributaries. VCU plans to continue doing boat sites this fall.

Final Products	% Completion	Anticipated Completion Date
Data on historic or near-historic natural heritage resources	70%	12/31/2017
Data on stream reaches	60%	12/31/2017
Report - Inventory of Important Biological Resources in the Chick. Watershed	100%	
Final report-Inven. Of Imp. Biological Resources in the Chick. Watershed	0%	5/1/2018

Task: 93.03	Middle Peninsula Planning District Commission			Federal Budget Total:	\$50,000.00
Pushing the Envelope - Introducing Working Waterfront Legislation and Expanding the Working Waterfront Inventory					
<u>Project status:</u>	<u>Current approved</u>			<u>Final deliverable(s) status:</u>	Submit w/next Semiannual Report
Closeout	Start:	End:	Closeout:		
	10/1/2016	9/30/2017	12/31/2017		

Product #1: Feasibility Study focused on an uninsured Workboat Program: Based on the information that Middle Peninsula Planning District Commission (MPPDC) staff gathered from local marinas and local insurance companies, MPPDC staff developed multiple diagrams to illustrate findings regarding the need for an uninsured workboat program. In the past, MPPDC staff have been told anecdotally that watermen cannot get boat insurance, however through this research that was found not to be the case. Insurance is available, but depends on the commercial watermen working through the process of getting the insurance and paying the insurance premiums.

Product #2: Draft Working Waterfront Protection Legislation: MPPDC staff continued to work with the Working Waterfront Steering Committee, as well as Delegate Keith Hodges (98th District), to identify legislative options to improve and protect working waterfronts within the Commonwealth. At the third meeting of the Steering Committee on August 10, 2017, MPPDC staff reviewed a list of legislative ideas focused on new revenue streams for dredging. For instance, local governments may implement a Tax Incremental Financing (TIF) District specific to generating revenue for dredging projects. Also at the meeting, John Joeckel, Eastern Shore Regional Navigable Waterways Committee member, reviewed the possible creation of a "Waterway Management Fund" for the exclusive support of Virginia's waterway management operations. According to Mr. Joeckel, Accomack & Northampton Counties agreed on this concept and proposed the concept to Senator Lewis and Delegate Bloxom to develop legislative language. Following the meeting in late August 2017, Delegate Hodges and MPPDC staff met with Alex Thorup, Director of Policy and Legislation for Kirk Cox, Majority Leader Virginia House of Delegates to review various proposed legislative approaches to address working waterfront concerns. Currently Mr. Thorup is reviewing legislative approaches with Mr. Cox as to what would be appropriate to bundle into a legislative package for rural coastal Virginia at the upcoming General Assembly.

Product #3: Working Waterfront Inventory Synthesis and Expansion: MPPDC contracted with Hampton Roads planning District Commission to conduct a coarse analysis of working waterfronts sites in the remaining coastal planning districts (i.e. Richmond Regional, George Washington, Northern Virginia and Crater PDCs). HRPDC staff analyzed all available databases and conducted a visual search using Virginia Base Map Program (VBMP) aerial photography to inventory working waterfronts. Through this analysis, 115 sites were identified – some definite, some potential. These findings were sent to the PDC's for review and a final list of sites was generated.

Final Products	% Completion	Anticipated Completion Date
Product #1: Feasibility Study focused on an uninsured Workboat Program	100%	
Product #2: Draft Working Waterfront Protection Legislation	100%	
Product #3: Working Waterfront Inventory Synthesis and Expansion	100%	

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #Name?

Task: 94.01 Virginia Commonwealth University Virginia Ocean Plan	Federal Budget Total: \$60,000.00
<u>Project status:</u> <u>Current approved</u>	<u>Final deliverable(s) status:</u> Project Period Open
Open	Start: End: Closeout: 10/1/2016 12/31/2017 3/31/2018

For the Project Reporting period, the Environmental Scientist/Analyst with the Virginia Commonwealth University, Center for Environmental Studies in the Department of Life Sciences continued to serve as the Ocean Planning Stakeholder Engagement (OPSE) Coordinator to the VA Coastal Zone Management Program at the VA DEQ. During the reporting period, the OPSE Coordinator continued to work with the commercial fishing industry in support of the VA efforts to advance the Mid Atlantic Ocean Plan. These opportunities continue to strengthen the relationship between the offshore commercial fishing industry and the VA Coastal Zone Management Program.

During the reporting period, the OPSE Coordinator communicated with the VA Marine Resources Commission to obtain fisheries data relevant to the black sea bass (*Centropristis striata*) and summer flounder (*Paralichthys dentatus*) catch to develop data products consistent with the Mid Atlantic Regional Council on the Ocean (MARCO) Marine Life Data Analysis Team (MDAT) to display species shifts related to changes in temperature or climate. Coordination with Duke University and Nature Conservancy was implemented sharing that the VA Marine Resources Commission indicated those data could be made available for such conclusions but may require analysis to ensure the Rule of 3 is not broken, ensuring data protection standards. The VA Marine Resources Commission indicated those catch and landings data are available back to the mid-1990s. After significant communication with the MRC, data delivered did not meet the request only providing, year, species and harvest gear. MRC indicated that Lat/long was not possible and only Water Area could be provided. A second request for data has been submitted to MRC including year, species, gear and water area, with the OPSE Coordinator waiting for a response.

The OPSE Coordinator continued to attempt to communicate with the commercial fishing industry, specifically the potters, to reopen the dialogue on gear loss due to ship strike. Due to changes in the points of contact representing the various gear types, difficulties establishing a dialogue has proven challenging to continue the conversation. The goal of such interaction is to record and formally document gear loss with the outcome of minimizing economic impacts to each industry with the potential to maximize their activities.

The OPSE Coordinator began the research of electromagnetic field impacts on fisheries, including threatened and endangered fishes, including Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) for the purpose of developing a communication piece for the industry. The focus is to develop a FAQ document translating the conclusions from the research conducted at VCU on EMF impacts on sturgeon but has expanded to include black sea bass, summer flounder, tautog, and channeled whelk. Chesapeake Environmental Communications has been hired to develop the layout and design, and a VCU intern has been brought in for the purpose of conducting the detailed research.

The OPSE Coordinator attended the April meeting at Rutgers University Changing Ocean Conditions Related to Fisheries in New Brunswick NJ, the MARCO ERA Workshop in Dover, DE in May, the ERA workgroup webinars, and the Silver Spring RPB meeting in June.

Final Products	% Completion	Anticipated Completion Date
Ocean Stakeholders and VA Ocean Users Needs for the Healthy Ocean Ecosystem (HOE) Goal	45%	Dec, 2017
Ocean Stakeholders and addressing VA's Ocean users' needs for the Sustainable Ocean Uses Goal	50%	Dec, 2017
Scientific literature on EMF impacts on fisheries and threatened and endangered species	50%	Dec, 2017

Task: 94.02 TBD Virginia Ocean Plan: Data Collection & Synthesis	Federal Budget Total: \$15,710.00
<u>Project status:</u> <u>Current approved</u>	<u>Final deliverable(s) status:</u> Project Pending
Proposed	Start: End: Closeout: 10/1/2016 12/31/2017 3/31/2018

About \$3000 remains in this task which will be transferred to Task 94.03 and used for coaching services from Doug McKenzie-Mohr on the balloon release reduction social marketing campaign.

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #Name?

Task: 94.03	Longwood University	Federal Budget Total: \$72,582.00	
Virginia Marine Debris Reduction Plan Refinement and Implementation of Balloon Reduction Social Marketing Campaign			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u> Project Period Open	
Open	Start: 10/1/2016	End: 3/31/2018	Closeout: 6/30/2018

Clean Virginia Waterways (CVW), its contractors, and partners along with CZM staff worked on the following activities this period:

Product #1. Refinement and Continued Implementation of the VA Marine Debris Reduction Plan.

CVW, its contractors, and CZM staff continued collaborations with the Mid-Atlantic RPB marine debris work group about regional approaches to prevent or remove marine debris. CVW staff contributed to an inventory of regional marine debris projects, to be used in a collaboration portal that is being developed by NOAA Marine Debris Program. CVW and CZM staff contributed to the June 7 Mid-Atlantic Marine Debris Workshop, and have provided extensive input to planning a regional expansion of the Joyful Send-off community-based social marketing campaign that is wrapping up its pilot in Virginia. CVW staff presented a summary of the VA Marine Debris Reduction Plan to attendees of NOAA's Virginia Emergency Marine Debris Planning Workshop, and created a display and handout materials that were shown at the Back to the Bay event (June) and the Garden Club of Virginia Annual Conference in September.

Derelict Clam Nets: After a March 2017 meeting on Virginia's Eastern Shore to talk with leaders of the clam aquaculture industry, local NGOs, and The Nature Conservancy (owner of many of VA's barrier islands), CVW and CZM staff have pursued the possibilities of recycling used clam nets as a better solution for the ultimate land-based disposal of used netting. Landowners expressed concern about retrieving derelict nets given the speed with which the nets can move or become partly buried. A plan for monitoring is underway.

Product #2. Balloon Release Reduction Campaign: Complete Implementation and Evaluation. This product is shared between the NOAA Marine Debris Program grant and NOAA/Virginia CZM Program FY14 and FY15 grants to CVW. During this grant period, CVW staff and its contractors supervised photo and video shoots in Norfolk and Virginia Beach for the production of multi-media material for the Joyful Send-off community-based social marketing campaign. They also greatly expanded the Joyful Send-off web site and facebook page, plus developed a Joyful Send-off ad and wrote a press release that generated articles in the Chesapeake Bay Magazine and the "Coastal Virginia Brides" magazine. Materials to support the Joyful Send-off CBSM campaign were designed and printed, including kits of materials for vendors (hotels, resorts, marinas and other places where weddings are held).

Product #3. Balloon Debris Monitoring Report. This product supports the NOAA MDP grant. Researchers Christina Trapani and Kathy O'Hara, along with CVW staff, have been preparing a report of the balloon monitoring they have done on several of Virginia's barrier islands.

Product #4. Reducing Marine Debris Through a Mid-Atlantic Social Marketing Workshop. This grant paid majority of the expenses for the "Introduction to Social Marketing" workshop (June 5-6, 2017 in Richmond) which built the capacity to conduct research & implement campaigns to promote positive environmental attitudes and behaviors and also increase voluntary compliance with anti-litter laws. The workshop was taught by Dr. Doug McKenzie-Mohr, founder of community-based social marketing and author of Fostering Sustainable Behavior. The workshop was funded partly by this grant, partly by FY15 Task 94.03, and partly by a modest registration fee to cover meals. A total of 39 representatives from MARCO, NOAA Marine Debris Program, and other state, regional and federal partners attended the workshop. Another 37 people listened to a 90-minute executive summary that was held on the morning of June 6.

Final Products	% Completion	Anticipated Completion Date
Product #1: Refinement and Continued Implementation of the VA Marine Debris Reduction Plan	75%	3-31-18
Product #2: Balloon Release Reduction Campaign: Complete Implementation and Evaluation	90%	11-1-17
Product #3: Balloon Debris Monitoring Report	90%	12-15-17
Product #4: Reducing Marine Debris Through a Mid-Atlantic Social Marketing Workshop	100%	
Product #5: Final Report	0%	3-31-18

Year: 2016

VIRGINIA COASTAL ZONE MANAGEMENT PROGRAM
Performance Report, Section A, for Cooperative Agreement No. NA16NOS4190171
for the period from #Name?

Task: 94.04	Dept. of Game & Inland Fisheries	Federal Budget Total: \$32,290.00	
Sea Turtles and Fishing Piers - Mitigating Hook-and-line Interactions			
<u>Project status:</u>	<u>Current approved</u>	<u>Final deliverable(s) status:</u> Project Period Open	
Open	Start: 10/1/2016	End: 3/31/2018	Closeout: 6/30/2018

During the reporting period, the Virginia Department of Game and Inland Fisheries contractor Virginia Aquarium & Marine Science Center Foundation, Inc. (VAQF) completed pier survey collection bringing the number of surveys to at least 200 per pier spread over the April – September reporting period. During the next reporting period, VAQF will complete data entry and conduct summary analyses on the survey data. VAQF recorded 47 hooked sea turtles (26 Kemp’s ridley, 13 loggerhead and 8 unidentified), 30 of which were brought in for rehabilitation at VAQF. Forty-one of the turtles were hooked at one of the Pier Partner piers, and the majority of the turtles were hooked at either Buckroe Beach in Hampton (n=18; 38%) or Oceanview in Norfolk (n=13; 28%). During the reporting period, VAQF also tested three hand held metal detectors, Garrett Metal Detectors’ ® Super Scanner (SS) and Pro Pointer (PP) as well as the ultra-sensitive Adams Electronics ® ER3000 (AE). VAQF conducted 102 scans on two carcasses with seven different hook-location combinations to determine proper scanning technique. After these, the SS was eliminated from live trials due to inconsistent performance. In summer 2017 when live hooked turtles were admitted into rehab, 188 scans were conducted on 28 different turtles. During the 118 trials in which a hook was present, the AE resulted in 89% correct detections, and the PP in 98%. During the 70 trials with no hook present, the AE resulted in 89% correct detections and the PP in 86%. During the trials, both units emitted false positive signals (intermittent beeps that sounded like a positive detection). As observers became more familiar with the units, false signals became easier to interpret and not all false signals resulted in a positive detection. The AE emitted false positive signals at least during 49% of the trials compared with 37% using the PP. These results are preliminary, but suggest that metal detectors may be effective tools for hooked turtle response with proper technique and practice. Trials during the next reporting period will involve carcass trials to better understand the effectiveness of the detectors as turtle size increases and hook size decreases. Finally, VAQF and VDGIF jointly submitted an abstract for the Southeast Sea Turtle Regional Meeting in Feb. 2018.

Final Products	% Completion	Anticipated Completion Date
Fishing pier surveys	70%	November 30, 2017
Adapted response & rehabilitation protocols – hooked sea turtles at piers	60%	February 28, 2018
Data analyses & final report with management recommendations	10%	April 15, 2018