

October 27, 2016

**Virginia Coastal Zone Management Program
Semiannual Section B.1 Report on Section 312 Evaluation and Metrics
For the Period from April 1, 2016 – September 30, 2016**

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B.1.A. SECTION 312 EVALUATION PROGRESS

Virginia's most recent evaluation began in the fall of 2014 with the Virginia CZM Program responding to 36 evaluation questions regarding administration of the program, protection of coastal habitat, coastal hazards and sea level rise, coastal water quality, coastal-dependent uses, public access, governmental coordination, and descriptions of major achievements and challenges. NOAA then conducted an online survey of Virginia CZM stakeholders and partners, and in May 2015 conducted interviews of key partners on identified target areas. A public meeting was held on May 12, 2015.

Stakeholders interviewed by the NOAA team described the program as *partner-oriented* and *having effective partnerships with local communities and regional and non-profit groups*. "Flexible to meet the needs of locals" and "inclusionary" were some of the ways stakeholders expressed partnership demonstrated by Virginia CZM.

The three target areas identified by the NOAA team to evaluate the Virginia CZM Program were: 1) Restoring and Protecting Coastal Habitats and increasing Public Access, 2) Ocean Planning, and 3) Coastal Resilience. Preliminary accomplishments and recommendations identified by NOAA in each target area are as follows:

Restoring and Protecting Coastal Habitats and Increasing Public Access

Accomplishment: The Public Access Authorities are providing a new tool for public access acquisition and management through a local policy framework enabled by state legislation.

Accomplishment: The VCZMP's place-based restoration efforts have been highly successful, leveraging significant funding from partners and resulting in "on the ground" coastal habitat improvements.

Ocean Planning

Accomplishment: The VA CZMP's leadership in regional ocean planning has brought together diverse stakeholders to plan for the location of future offshore facilities while minimizing user conflicts and impacts to coastal resources.

Recommendation: The NOAA Office for Coastal Management encourages the VA CZMP to continue its leadership role in regional ocean planning and to plan for how the work will move forward over the next five years, including continued emphasis on ways to diversify and leverage funding.

Progress This Period (April – September 2016): The CZM Program Manager has continued her leadership role by establishing and co-leading Regional Planning Body work groups for four of the Healthy Ocean Ecosystem Actions in the final plan submitted to the National Ocean Council for certification on October 31, 2016. These are: 1) identification and assessment of Ecologically Rich Areas; 2) Mapping shifts in species due to climate change; 3) developing a regional ocean acidification monitoring network; and 4) developing a regional marine debris strategy(ies). Draft work plans are being developed and preliminary reporting on work groups will be presented during a December 8 2016 public webinar. Securing additional funding

remains difficult as private foundations tend to believe that government should fund these activities. Various federal grant funding opportunities are being sought.

Coastal Resilience

Accomplishment: The VA CZMP's leadership in coastal resilience has enhanced the capacity of local partners for adaptation planning and promoted the use of living shoreline approaches to enhance community and ecological resilience.

Recommendation: The NOAA Office for Coastal Management recommends that the VA CZMP further define the program's "niche" as it relates to coastal resilience.

Progress This Period (April – September 2016): The Virginia CZM Program addressed this recommendation by focusing its efforts to build coastal resilience into two key areas identified in the Section 309 Coastal Hazards Strategy. The Strategy, which was developed with significant stakeholder input, targets community resiliency (the built environment) and shoreline resiliency (natural and nature-based features). Projects funded through the Strategy should ultimately lead to new enforceable policies that advance coastal resiliency in these two areas. The first year of the Strategy focused on acquiring the data necessary to develop local shoreline management plans, and on providing training for shoreline contractors and local government officials responsible for shoreline management decisions.

B.1.B. SECTION 312 METRICS

The Five-Year Reporting Period for these Metrics is October 1, 2012 – September 30, 2017.

Progress from October 2015 – September 2016 is reported below.

Section 312 Metrics - Seaside Habitat Restoration

Goal: Sustain and enhance healthy habitats (on the seaside of Virginia's Eastern Shore) that are resilient and support thriving coastal resources.

Objective 1: By October 2017, seed scallops that are hatchery reared and released on the seaside of Virginia's Eastern Shore will increase.

Strategy 1: Historically, the bay scallop was a commercially harvested species on the seaside of Virginia's Eastern Shore. Following dramatic declines in eelgrass on the seaside during the 1930's, bay scallops, which depend upon the grass beds as habitat for juveniles, went locally extinct. The Virginia Coastal Zone Management program has provided funding to increase eelgrass habitat on the seaside of Virginia's Eastern Shore since 1999. Seagrass acreage is now at a level that could support a viable bay scallop population.

Therefore, to re-establish a self-sustaining bay scallop population, the Virginia Coastal Zone Management program provides funding for a restoration program that involves the hatchery production of bay scallops that will be deployed in cages within the eelgrass beds, where they will serve as spawning stock to re-populate the grass beds. The Seaside Habitat Restoration grants are designed to meet Executive Order 18 goals and ultimately establish not only a viable population of bay scallops but also a recreational fishery that will help support a vibrant ecotourism industry on Virginia's Eastern Shore.

At level funding from the 2013 budget, together with additional funds from the US ACOE Estuarine Habitat Restoration Fund (Award #W912DR-14-2-0004), an average of 120,000 adult scallops can be produced and held in spawning cages in the grass beds. Additional, scallops produced over the 120,000 will be released directly into the grass beds. Reaching this target number is dependent upon environmental conditions (especially water temperature), primarily as they relate to rearing early juvenile scallops through the nursery phase.

Performance Measure 1: By October 2017, the number of seed scallops that are hatchery reared and released on the seaside of Virginia's Eastern Shore using CZM Federal and match funds.

Target 1: By October 2017, 200,000 seed scallops will be hatchery reared and released on the seaside of Virginia's Eastern Shore using CZM Federal and match funds.

Annual Data:

Between October 1, 2015 and September 2016, approximately 200,000 scallops produced from spawns in 2015 were maintained in cages in the grassbed. Following winter mortality, 36,500

bay scallops were released in July 2016 and another 33,000 in Fall 2016 into the South Bay grassbed. Another 152,000 spawned in Spring 2016 were placed in cages in South Bay. 110,000 juvenile scallops from this age class were added to an experimental nursery setup that contained 1,000,000 eyed larvae produced by VIMS ESL. 5,000 juvenile scallops spawned in Fall 2016 were deployed in cages in the grass beds in September 2016.

Cumulative Data: To date, approximately 200,000 have been reared to spawning age in cages within the grassbed and another 157,000 juvenile scallops are currently being held in cages in the grassbed. All of these will be retained to spawning age within the cages.

Documentation:

- A map is provided showing where bay scallops were released during this time period.
- This project (both bay scallop and eelgrass restoration) is being funded under cooperative agreement NA14NOS4190141 Task 11 (open from January 2015 through December 2016), and NA15NOS4190164 Task 10 (open from January 2016 through March 2017).

Narrative: The Virginia CZM Program provided \$322,000 in CZMA funding (\$161,000 in FY2014 and \$161,000 in FY2015) and the state contributed \$264,258 (\$130,000 in FY2014 and \$134,258 in FY2015) towards the seaside restoration project. Major funding partners who assisted during this timeframe were the Virginia Marine Resources Commission's Recreational Fishing License Fund, the Army Corps of Engineers and the Keith Campbell Foundation for the Environment. The Nature Conservancy provided in-kind support for facilities and volunteer support.

Scallop Release Transect Lines



Objective 2: By October 2017, the acreage of eelgrass on the seaside of Virginia's Eastern Shore will increase.

Strategy 2: Eelgrass is one of the most productive habitats in the Chesapeake Bay and seaside bays of Virginia's Eastern Shore. During the early 1930s, eelgrass declined in the seaside bays due to a wasting disease and was completely eliminated by 1933. In 1997, several small natural patches were observed in South Bay on the seaside of Virginia's Eastern Shore. Since 1999, through VA CZM grants to the Virginia Institute of Marine Science, eelgrass seeds have been broadcast into 456 acres in four seaside bays, which have now spread naturally to over 6,195 acres in these same bays.

The Virginia Coastal Zone Management program continues to provide funds to increase eelgrass acreage on the seaside of Virginia's Eastern Shore through seeding areas in these bays. This ensures that this important habitat is restored and continues to thrive to support the many species that depend on it. With an increase in healthy eelgrass beds, habitat and resources for bay scallops, finfish, sea turtles, and avian species can be supported. Reaching the proposed target in this metric is dependent upon favorable environmental conditions. If certain unfavorable conditions occur, especially storm events, the amount of seeds recovered from the eelgrass beds and thus broadcast out into the seaside bays could be negatively impacted.

Performance Measure 2: By October 2017, the total number of acres seeded/planted with eelgrass on the seaside of Virginia's Eastern Shore using CZM Federal and match funds.

Target 2: By October 2017, 150 acres of eelgrass seeded/planted on the seaside of Virginia's Eastern Shore using CZM Federal and match funds.

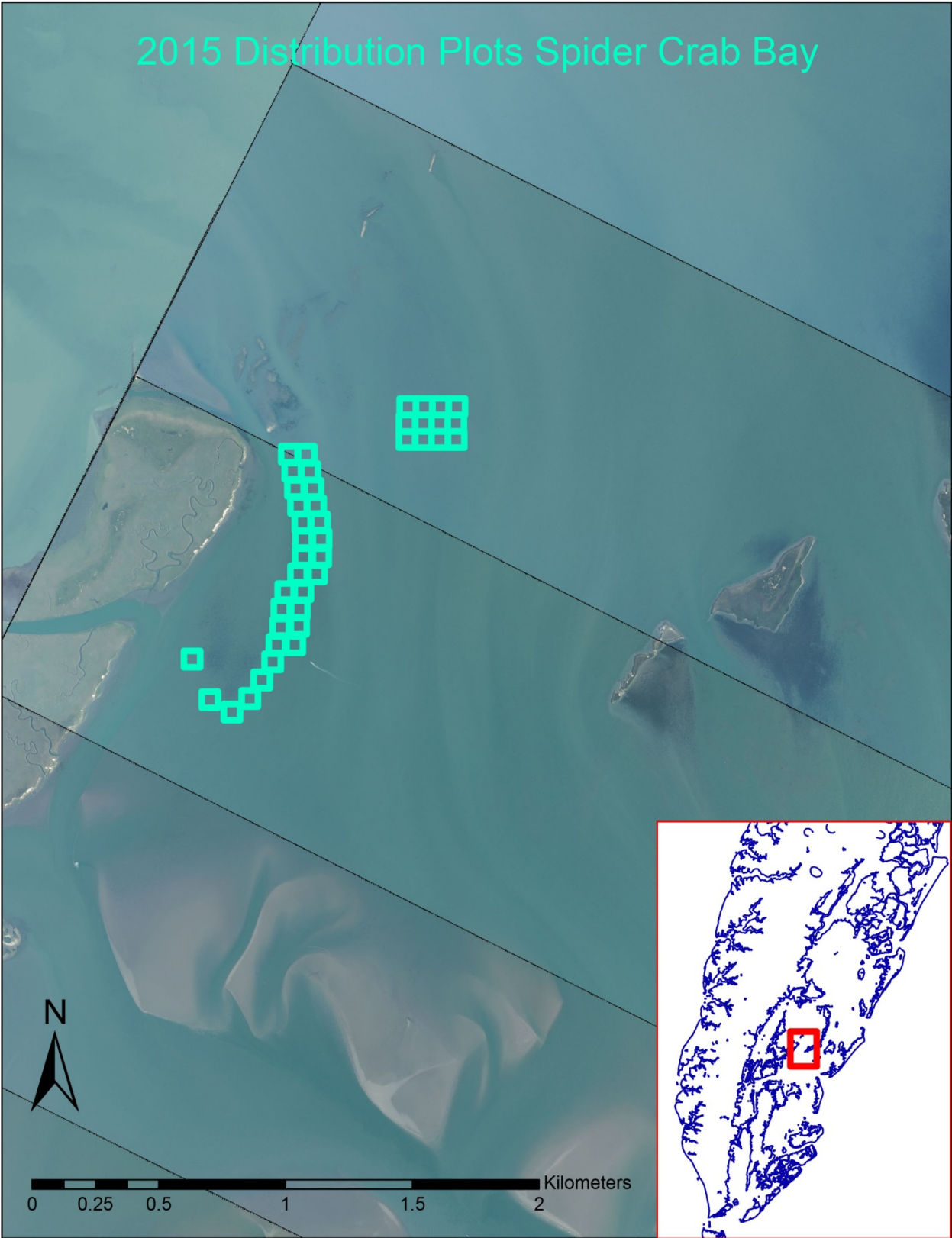
Annual Data: Between October 1, 2015 and September 30, 2016, 42 acres were planted with eelgrass seeds in Spider Crab Bay.

Cumulative Data: The cumulative total of eelgrass planted = 138 acres.

Documentation:

- A map is provided showing the plots that were seeded during this time period.
- This project (both bay scallop and eelgrass restoration) is being funded under cooperative agreement NA14NOS4190141 Task 11 (open from January 2015 through December 2016), and NA15NOS4190164 Task 10 (open from January 2016 through March 2017).

Narrative: The Virginia CZM Program provided \$322,000 in CZMA funding (\$161,000 in FY2014 and \$161,000 in FY2015) and the state contributed \$264,258 (\$130,000 in FY2014 and \$134,258 in FY2015) towards the seaside restoration project. Major funding partners who assisted during this timeframe were the Virginia Marine Resources Commission's Recreational Fishing License Fund, the Army Corps of Engineers and the Keith Campbell Foundation for the Environment. The Nature Conservancy provided in-kind support for facilities and volunteer support.



Section 312 Metrics - Shoreline Management

Goal: Living Shoreline practices are adopted where feasible in all shoreline erosion control and related development projects, expanding and enhancing viable natural shoreline habitats for coastal species, and affording protection to shorefront landowners and businesses.

Objective: Virginia's coastal counties and cities will develop new local shoreline management plans as a result of assistance from the Virginia CZM Program.

Strategy: Some shoreline erosion control practices currently used can negatively affect the habitat and water quality protection functions of natural shorelines. "Living Shoreline" techniques are appropriate in many of these cases, and can maintain or increase these natural shoreline functions. Recent state legislation requires coastal localities to adopt shoreline management plans as a component of their comprehensive plan. The shoreline plan must recognize living shorelines as the preferred erosion control alternative and map areas suitable for their use. The Virginia CZMP provides funding to the Virginia Institute of Marine Science to help develop draft local plans to help meet this requirement. The plans are designed to protect shoreline habitats; minimize nutrient runoff from uplands; protect properties from coastal erosion and help encourage appropriate shoreline management techniques. Once the draft plans are developed by VIMS, they are submitted to the local planning commission for consideration under the locality's required 5-year comprehensive plan update. If approved by the planning commission (a process which Virginia CZM Program cannot control), the comprehensive plan is then submitted to the local county board of supervisors (or city council) for final consideration and eventual adoption (again, a political action that the CZM Program cannot undertake or control).

Performance Measure: By 2017, the number of local shoreline management plans developed and submitted to local planning commissions for consideration.

Target: By 2017, 7 local shoreline management plans developed and submitted to local planning commissions for consideration.

Annual Data: Between October 1, 2015 and September 30, 2016, two shoreline management plans were developed and submitted to localities for consideration.

Cumulative Data: To date, eight shoreline management plans have been developed and submitted to localities for consideration.

Documentation:

- Westmoreland County Shoreline Management Plan, February 2013
- Virginia Beach (Lynnhaven) Shoreline Management Plan, April 2013
- York County Shoreline Management Plan, January 2014
- City of Suffolk Shoreline Management Plan, April 2014
- Charles City County Shoreline Management Plan, February 2015
- Fairfax County Shoreline Management Plan, March 2015
- James City County Shoreline Management Plan, October 2015
- Stafford County Shoreline Management Plan, November 2015

Narrative: Shoreline Management Plans are available on the Shoreline Studies Program website at VIMS (link below). Shoreline management options recommended for these localities range from planting marsh grasses, performing upland modifications, to construction of sizeable offshore breakwater systems. The Shoreline Management Plans reflect a desire to use the minimal amount of erosion control required based on the setting and the conditions observed.

(http://www.vims.edu/research/departments/physical/programs/ssp/shoreline_management/planning/shore_plan_reports/index.php)