



Semi-Annual Success Story ("Section C")  
submitted to the

Office of Coastal Management/NOAA

Reporting Period: October 1, 2014 – March 31, 2015

## Virginia Marine Debris Reduction Plan and Monitoring

**CZMA Performance Measure Areas:** Government Coordination & Decision-Making, Marine Debris

**Geographic Location:** Virginia Coastal Zone; Congressional Districts 1-4,7,8,10,11

### Identification & Description of Issue:

Growing concern about the impacts of marine debris in the ocean and coastal waters, along with increasing emphasis on stormwater management of litter and debris, have led to a new urgency to understand and address the sources of marine debris in Virginia's coastal and ocean waters. According to NOAA, marine debris has become one of the most widespread pollution problems in the world's oceans and waterways, impacting wildlife, human health and safety, habitats, and economies. As much as 80% of marine debris comes from land-based sources. In Virginia, partners have identified the most problematic and abundant types of debris to be: (1) fishing gear (commercial and recreational); (2) cigarette butts and balloons; (3) food and beverage containers; and (4) plastic bags. In order to strategically address this problem through Virginia policies and programs, the Virginia Coastal Zone Management (CZM) Program initiated and funded a planning process from 2012 to 2014 that culminated in the development of the *Virginia Marine Debris Reduction Plan*.

***Virginia is the first state on the east coast to have a plan in place to address marine debris.***

This plan describes major goals and strategies to address and measurably reduce marine debris on a state-wide basis through prevention, interception, innovation, and removal for ecological, social, and economic benefits. The focus of developing the plan was on determining specific actions that are politically, socially, and economically feasible for Virginia to accomplish in the near-term (two years), mid-term (two to five years), and long-term (up to 10 years). The plan will guide the work of a collaborative team of Virginia agencies, community groups, citizens, and other stakeholders for the next decade. The plan also will help Virginia meet one of the goals of the Mid-Atlantic Regional Council on the Ocean (MARCO): to improve ocean water quality. MARCO recognizes marine debris and ocean acidification as two major ocean water quality issues. The *Virginia Marine Debris Reduction Plan* is available on the Virginia CZM Program web site at [www.deq.virginia.gov/Programs/CoastalZoneManagement/CZMIssuesInitiatives/MarineDebris.aspx](http://www.deq.virginia.gov/Programs/CoastalZoneManagement/CZMIssuesInitiatives/MarineDebris.aspx).

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### Developing a Marine Debris Reduction Plan for Virginia

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## How the Virginia CZM Program Was Involved:

A key mission of the Virginia CZM Program is to identify coastal policy issues that cut across agency jurisdictions and develop policy recommendations. Marine debris is one of those issues. During the Virginia CZM Program's FY2010 coastal needs assessment, marine debris ranked as a high priority in large part due to the program's growing involvement in ocean health and management issues as it took on responsibilities as a member of MARCO. Creation of a Virginia Marine Debris Reduction Plan became a deliverable of the Program's FY 2011-2015 "Ocean Strategy." One of the first steps the VA CZM Program took in 2013 was to host a Summit on marine debris which was attended by over 70 marine debris professionals. At the summit it became clear that there was strong support for development of a marine debris reduction plan. The plan was developed by a leadership team consisting of representatives from government agencies (federal, state, and local), academia, nonprofit organizations, businesses, experts in marine debris issues, and other stakeholders - researchers, community educators, members of the waste management and recycling communities – who are potential implementers of the reduction plan. The planning process included input from participants who attended the 2013 Virginia Marine Debris Summit, responses to surveys and one-on-one interviews, and discussions and feedback during multiple meetings of the leadership team. While developing the plan was a collaborative process, the Virginia CZM Program has taken the responsibility for encouraging the ongoing cooperation necessary to implement various phases and activities described in the plan.



### Summit Planning Team:



## Qualitative and Quantitative Summary of Accomplishments and Outcomes:

With a *Virginia Marine Debris Reduction Plan* in place, Virginia is beginning to implement behavior change campaigns, pollution prevention, and policies to reduce this form of pollution. Strategies for achieving each of these goals are organized around five themes: (1) influencing individual behavior change; (2) increasing collaboration among Virginia litter and marine debris prevention and removal projects; (3) increasing the marine debris knowledge base; (4) identifying and securing necessary funding for implementation; and (5) utilizing regulations to reduce the sources of marine debris.



One of the near term actions identified in the plan was design and implementation of a social marketing campaign targeting behaviors that will reduce balloon litter in the marine environment. Balloons were identified as one of the most harmful items to wildlife and perhaps "low hanging fruit" in terms of "solvability" because the intent behind balloon releases is not to litter. Development of this campaign is underway with funding from the NOAA Marine Debris Program

(MDP) and a FY 14 Virginia CZM Program grant. Social media announcements of this project have garnered a great deal of attention and interest. NOAA's Marine Debris Program reports that links about Virginia's project – "A Rising Concern: Reducing Balloon Release and Debris" on their blog post and project profile "blew" their "Facebook stats out of the water."

(<https://marinedebrisblog.wordpress.com/2015/01/15/addressing-a-rising-concern-balloon-debris/> and

(<http://marinedebris.noaa.gov/regional-coordination/rising-concern-reducing-balloon-debris-through-social-marketing>) The post was the top post in January and reached more than 12 million people. A January post on 'Turtle Balloon Ingestion' reached more than 1,235,000 people with 11,920 shares to-date



([www.facebook.com/NOAMarineDebris/photos/a.368681563150319.92549.196531417032002/9297](http://www.facebook.com/NOAMarineDebris/photos/a.368681563150319.92549.196531417032002/9297)).

NOAA MDP's tweet "[Don't let that balloon go!](http://go.usa.gov/taww) We're working w/@VirginiaDEQ on an effort to reduce marine debris from balloon releases" had 15,424 impressions (<http://go.usa.gov/taww>).

Articles appeared in Bay Journal and its Blog about the Virginia Marine Debris Reduction Plan -

[www.bayjournal.com/article/vas\\_marine\\_debris\\_program\\_strives\\_to\\_change\\_trashy\\_behavior](http://www.bayjournal.com/article/vas_marine_debris_program_strives_to_change_trashy_behavior). The

Bay Journal also published an article about microplastics which references the Virginia Marine Debris Reduction Plan -

[www.bayjournal.com/article/every\\_little\\_bit\\_counts\\_microplastics\\_plague\\_chesapeake\\_waters](http://www.bayjournal.com/article/every_little_bit_counts_microplastics_plague_chesapeake_waters)

The Virginia CZM Program was also successful in securing another grant from the NOAA MDP that provides for researchers from the Virginia Aquarium & Marine Science Center and Clean Virginia Waterways at Longwood University to collect data on the quantities and types of marine debris found in Virginia's coastal zone using NOAA's *Marine Debris Shoreline Survey protocol*. Virginia is the first east coast state to implement this monitoring protocol. While extensive data exists about the types of litter and trash found in Virginia's waterways, beaches and coastal waters, these data are of the "snapshot" variety. Data collected using a rigorous, standardized protocol will increase understanding of the nature and sources of marine debris and contribute to adapting management strategies for reducing marine debris. The data also can be used to evaluate the effectiveness of Virginia's policies and efforts to mitigate marine debris through the *Virginia Marine Debris Reduction Plan*.



Virginia CZM has also been influential in inspiring MARCO to build upon the VA CZM efforts. MARCO expects to hire a contractor to help conduct a Mid-Atlantic regional assessment of marine debris sources and impacts and to participate in the upcoming June 2015 marine debris workshop in Maryland which is being hosted by NOAA's Marine Debris Program.

Finally, as a result of Virginia's marine debris reduction efforts, Keep America Beautiful approached Clean Virginia Waterways to offer a \$10,000 grant (twice their usual award) to support a project to reduce cigarette litter generated by tourists in Virginia Beach. Keep America Beautiful sees the Virginia campaign as a pilot and model for similar campaigns across the nation.

## CZM Funds Expended & Other Funds Leveraged:

### Virginia CZM Program Grants

FY 11 Task 95.02	\$6,000	Virginia DEQ – Virginia CZM Program (partnering with Virginia Sea Grant and Virginia Aquarium)	<u>Virginia Marine Debris Summit</u>
FY 11 Task 95.03	\$52,020	Longwood University – Clean Virginia Waterways	<u>Marine Debris Reduction Plan for Virginia</u>
FY 12 Task 95	\$98,000	Virginia DEQ – Virginia CZM Program	<u>Virginia Ocean Plan</u> (project deliverables included staff support for development of Virginia Marine Debris Reduction Plan)
FY 13 Task 81	\$45,000	Virginia Aquarium & Marine Science Center Foundation	<u>Monitoring Marine Debris in Virginia's Coastal Zone</u>
FY 13 Task 95.01	\$81,884	Virginia CZM Program, Virginia Commonwealth University	<u>Virginia Ocean Plan</u> (project deliverables included staff support for development of Virginia Marine Debris Reduction Plan)
FY 14 Task 5.03	\$65,000	Longwood University – Clean Virginia Waterways	<u>Virginia Marine Debris Reduction Plan Refinement and Implementation of Balloon Reduction Social Marketing Campaign</u>

**Total CZM Funding - \$347,904**

### Leveraged Funds

NOAA MDP FY 14	\$50,000	Virginia DEQ - Virginia CZM Program (partnering with Clean Virginia Waterways, Longwood University)	A Rising Concern: Reducing Balloon Release and Debris through a Social Marketing Campaign
Keep America Beautiful	\$10,000	Clean Virginia Waterways, Longwood University	Cigarette Litter Prevention Program Grant to reduce cigarette-related litter generated by hotels and hotel guests in Virginia Beach

**Total Leveraged Funding - \$60,000**