

2020 Marine Debris Work Group Progress Report and 2021 Work Plan

Reporting Period: January 2020 – December 2020

Work Group Webpage: <https://www.midatlanticocean.org/ocean-planning/work-groups-collaborative-efforts/marine-debris-work-group/>

Work Group Leads: Laura McKay (VA); Maureen Krudner (EPA)

Work Group Members: Work group membership is open to government and non-governmental entities operating in the five Mid-Atlantic states and the District of Columbia that are willing to participate in work group activities. Members are expected to contribute on monthly work group calls and assist with project implementation.

Current Members Include:

Last Name	First Name	Organization
Arcaya	Alyssa	EPA
Blair	Devon	NJ
Bristow	Avalon	MARCO
Carr	Emmalee	NJ
Chesnin	Noah	Wildlife Conservation Society
DeLarosa	Nora	USDA
Gove	Matt	Surfrider
Gronostajski	Kyle	Alliance for a Living Ocean
Hassell	Kevin	NJ
Henderson	Helen	American Littoral Society - NJ
Hillsman	Terron	USDA
Huber	Sandy	NJDOT Clean Communities Council

Huber Jones	Sherryll	NY
Keane	Ellen	NOAA/NMFS/Protected Resources
Kehoe	Christy	NOAA
Krudner*	Maureen	EPA
Kuriawa	John	NOAA/NOS/OCM
Mazzeo-Pfoertner	Christie	NY DOS
McKay*	Laura	VA
Morrow	Donna	MD Dept. Natural Resources
Muthukrishnan	Swarna	Clean Ocean Action - NJ
Raabe	Steve	OpinionWorks
Register	Katie	Clean VA Waterways
Robinson	Matt	D.C.
Rolfe	Jason	NOAA/NOS/Marine Debris
Seid-Green	Ya'el	NOAA/NOS/Marine Debris
Shifren	Sheri	NJ
Somers	Kelly	EPA
St. Laurent	Kari	DE
Weis	Judith	Rutgers
White	Rachel	NJ
Witmer	Virginia	VA

* Co-Lead

Work Group Goals, Objectives and Actions: This work builds on Action 4 of the 2016 Mid-Atlantic Ocean Action Plan: "Develop a regionally appropriate strategy for marine debris reduction." For calendar year 2020, the Work Group is focusing on four activities: developing a Community-Based Social Marketing (CBSM) campaign to change behavior resulting in marine debris reduction at the Mid-Atlantic regional scale, with an initial focus on reducing balloon releases; conducting shoreline marine debris surveys and documenting the quantities and types of debris found; identifying steps for creating a Mid-Atlantic Marine Debris Reduction Plan; and maintaining a marine debris projects inventory website.

ACTIVITY 1 - Continue the community-based social marketing campaign to reduce balloon releases

Expected Completion Date: July 2022

Create a campaign based on community-based social marketing principles that will change perception of balloon releases in the region such that they are no longer conducted. This activity is funded by a 2018 NOAA Marine Debris Program grant to MARCO and builds off of the work conducted via Virginia CZM's Joyful Send-Off Balloon Release Reduction Campaign. The Virginia work was advised by Doug McKenzie-Mohr, author of "Community-based Social Marketing." Coaching by him is continued under the FY18 NOAA Marine Debris Program grant to MARCO. In 2019, a baseline attitudinal survey conducted across all 5 Mid-Atlantic states informed the campaign strategy. Surveys were administered in fall 2019. Based on data from the surveys, a revised project timeline has been developed to address a variety of audiences and balloon release occasions. In 2020, once the campaign materials are produced, stakeholder outreach will be conducted via digital content on the website, social media and other techniques that are expected to be effective. In the out years, data will be collected that will begin to measure and evaluate overall campaign success.

A1 Progress Description

(Include results for the period, stakeholder engagement, impediments to progress, and budgetary/ resource needs)

A1 Progress Period: January 2020 - June 2020

Over 1,100 interviews were conducted in-person and online across the five MARCO states in fall 2019 to assess people's perceptions of and experience with balloon releases. The results indicated that across all states, 51% to 62% of the general public identified as having participated in a balloon release. There was a high incidence of informal and private releases, and the releases were mostly celebratory in nature. We learned that many releases happen in the context of family-centered activities, and that many respondents have the misconception that balloons disintegrate or float into space once released. While the results were largely consistent with the positive message premise of Virginia CZM's *Joyful Send-off* campaign, the scope must be broadened beyond weddings to provide information and alternatives to people who are thinking about balloon releases at any celebration, honor ceremony, or memorial.

Partnering with aquariums in the region was suggested by the project team as an effective and efficient mechanism for widely disseminating a balloon release reduction message. Reducing balloon debris fits with the "consumer awareness goals" of the

Association of Zoos & Aquariums' current Plastic Pollution Initiative, and the Aquarium Conservation Partnership members aim to "...empower their 21 million annual visitors, and millions more in their communities, to drive a national shift away from single-use plastic and toward innovative alternatives."

The team proposed the aquarium partnership idea to Dr. Doug McKenzie-Mohr during a coaching call at the end of 2019, and received guidance on how partnering with aquariums could remain consistent with the community-based social marketing framework. According to Dr. McKenzie-Mohr, the key to keep in mind is ensuring that messages are carried from the aquariums by visitors who then bring the messages back into their communities. Consistent with Dr. McKenzie-Mohr's suggestions, the core group contacted four Aquarium partners in the region to inquire about helping develop messaging and, and subsequently utilizing their local, community-based programs to help disseminate the messages. The four aquarium partners include: Virginia Aquarium in Virginia Beach, VA; National Aquarium in Baltimore, MD; Adventure Aquarium in Camden, NJ; and the New York Aquarium in New York City, NY.

The project team, which now includes the aforementioned Aquarium partners, have utilized the survey results to develop graphics that will be tested and then implemented within Aquarium programming. The graphics are currently in the testing phase.

A1 Progress Period: July 2020- December 2020

MARCO received a no-cost extension on FY18 NOAA grant through July 2022 due to COVID-related delays.

Pre-Testing of Image/Message Graphics and Results:

Image/message combinations in two tracks 1) impacts on wildlife and 2) alternatives to balloon release were pre-tested in July and August with 13 diverse community representatives identified by aquariums in New York, Virginia and Maryland.

Based on the feedback received, images and language that did not test well were discarded, image and message pairings were changed, and messages were revised for clarity. Overall, the pre-testing responses highlighted that people connect with people - alternative images need to be bright, positive, hopeful, include diversity, show multiple people, children and families. Messages need to clearly convey "do not release balloons" and that the alternative pictured is in lieu of balloon release.

One-on-one Interviews with Earlier Survey Respondents:

The revised image/message graphics were then tested during 10 one-on-one interviews conducted by OpinionWorks via Zoom in late November and early December.

Preliminary findings suggest interviewees reacted very positively to several of the image/message combinations. The most effective animal impact pairing shows an image of a swimming duck entangled in an inflated balloon. The most effective alternative pairing shows a multi-racial family planting a small tree in honor of a loved one. We also learned from the interviewees that it is very effective to see the animal impact graphics adjacent to or shared closely together in time or space with the graphics suggesting alternatives. Additional interviews will be completed by December 31, 2020.

The Aquarium Conservation Partnership - originating from the Monterey Bay Aquarium - has agreed to be a partner in the effort and help with message development and even national distribution of campaign materials. The ACP Director, Kim McIntyre, has joined the core work group for this project.

ACTIVITY 2 - Conduct bi-annual assessments of balloon and other debris

Expected Completion Date: July 2022

Monitoring will be conducted on 1 mile stretches of beaches in each of the five Mid-Atlantic states. Staff and volunteers will collect data on the number and type of balloons identified as well as other types of debris. Data will be shared on the MACO Work Group pages of the MARCO website. These surveys are being conducted with funding from the 2018 NOAA Marine Debris Grant mentioned above. The results from the surveys may inform other elements of this project, including campaign strategy and success measures.

A2 Progress Description

Include: results for the period, stakeholder engagement, impediments to progress, and budgetary/resource needs

A2 Progress Period: January 2020 - June 2020

Due to COVID-19, many states were unable to conduct spring or summer 2020 monitoring, as beaches were closed. Planning for fall 2020 surveys is underway.

State	Total Balloon Debris Pieces collected in Winter/Spring 2020	Total non-balloon debris ¹ pieces collected in winter/spring 2020
Virginia	110 (Feb 2020)	1,082 (Feb 2020)
Maryland	6 (April 2020)	553 (April 2020)
Delaware	Survey canceled due to beach closure	Survey canceled due to beach closure
New Jersey	Survey canceled due to beach closure	Survey canceled due to beach closure
New York	Survey canceled due to beach closure	Survey canceled due to beach closure

A2 Progress Period: July 2020 - December 2020

Due to COVID-19, some states were unable to conduct summer or fall 2020 monitoring, as beaches were closed.

State	Total Balloon Debris Pieces collected in Summer/Fall 2020	Total non-balloon debris ² pieces collected in summer/fall 2020
Virginia	212 (Survey done on 10/27/20; ½ mile was surveyed)	770 (this doesn't include 1,004 pieces of foam plastic)
Maryland	1 (Survey done 11/13/2020; 1 mile)	195
Delaware	1 (Survey done 12/3/2020) *	2 (both nurdles)
New Jersey	Not able to conduct fall survey	Not able to conduct fall survey
New York	89 (fall only)	804 (fall only)

*Delaware beach appears to have been recently cleaned.

¹ Non-balloon related debris include but are not limited to: bags (paper, plastic, and other materials), bottles (glass, plastic, other), bottle caps, cans, cigarette butts, lighters, clothing, fishing materials, k-cups, foam fragments, hard or film plastic pieces, rope, shotgun shells, straws, construction material.

² Non-balloon related debris include but are not limited to: bags (paper, plastic, and other materials), bottles (glass, plastic, other), bottle caps, cans, cigarette butts, lighters, clothing, fishing materials, k-cups, foam fragments, hard or film plastic pieces, rope, shotgun shells, straws, construction material.

ACTIVITY 3 - Support and Participate in the Mid-Atlantic Marine Debris Action Plan

Expected Completion Date: Winter 2020-2021?

The Mid-Atlantic Marine Debris Action Plan would bring together the Mid-Atlantic marine debris communities to document entities working on marine debris with the purpose of increasing coordination, adding value to existing efforts, and identifying future actions. The Plan will strengthen Mid-Atlantic regional effectiveness by bringing our marine debris community together to develop a regional marine debris action plan that addresses current marine debris issues in the region and to create a road map for the future. In collaboration with NOAA Marine Debris Program, we will participate in Mid-Atlantic Marine Debris Action Plan conversations, help set regional priorities, and attend a workshop or webinar to identify the needs of the Mid-Atlantic marine debris community.

A3 Progress Description

Include: results for the period, stakeholder engagement, impediments to progress, and budgetary/resource needs

A3 Progress Period

January 2020 - June 2020

This Mid-Atlantic Marine Debris Action Plan (Action Plan) is a product of stakeholder feedback and input from the Mid-Atlantic marine debris community's interested partners and leads. It is meant to be a comprehensive framework for strategic action to address marine debris in the region. The plan consists of four goal areas (Consumer Debris, Derelict Fishing Gear, Microplastics and Microfibers, and Vessels and related vessel debris) based on marine debris community input. Within each of these goals, are strategies, objectives, and specific actions, created based on the priorities shared from stakeholders across the region.

The Mid-Atlantic marine debris action plan community includes any stakeholder who has an interest in addressing marine debris and creating a shared solution. Members of the Mid-Atlantic marine debris community have helped develop the Action Plan over the course of 2020. In lieu of in-person workshops, the NOAA Marine Debris Program (MDP) Planning Team collaborated with the Mid-Atlantic community and reached out to 75 organizations and held over 50 one-on-one feedback calls including most members of the Mid-Atlantic Marine Debris Work Group, engaged through regional specific fora and channels, collaborating with other regional Action Plans and Mid-Atlantic ocean-focused plans, reviewed marine debris data sources, and incorporated written and verbal feedback on the Action Plan. The Planning Team held workshops sessions in early December to prioritize and finalize the Actions, based on both their relevance across the region, and if there was commitment from organizations to be able to implement those actions in the desired time frame. Following the December 2020

workshops, the draft Action Plan was distributed to both attendees and the broader Mid-Atlantic marine debris community for additional feedback and to provide further opportunity for other organizations to commit to implementing actions needing additional support. The NOAA MDP will then publish the Action Plan and share with partners and leads. The Mid-Atlantic Marine Debris Action Plan is on target to be published in early 2021. Once published, the MDP will lead semi-annual monitoring for the Action Plan with partners and leads.

Other potential activities (dependent upon funding): Survey results from the 2019 Mid-Atlantic Marine Debris Summit, which was planned hosted by Virginia CZM, indicated strong interest in more regular (yearly or every other year) Summits on this topic. The Mid-Atlantic Marine Debris Work Group has expressed interest in helping plan a 2021 Marine Debris Regional Summit and are currently seeking resources to do so. The Summit will bring together researchers, educators, policy-makers and businesses to explore Mid-Atlantic regional solutions for decreasing litter and marine debris.

The Virginia CZM Program's final FY2020 grant application to NOAA OCM includes \$15,000 in Section 310 funds to support a regional summit in 2021.

A3 Progress Period: July 2020 - December 2020

Summer/Fall 2020: NOAA Marine Debris Program (MDP) Planning Team collaborated with the Mid-Atlantic community and reached out to 75 organizations and held over 50 one-on-one feedback calls including most members of the Mid-Atlantic Marine Debris Work Group.

On December 1 - 2, 2020: NOAA MDP organized four workshops centered around Action Plan goal areas Consumer Debris, Derelict Fishing Gear, Microplastics & Microfibers, Consumer Debris, Vessels and Related Debris. There were approximately 100 organizational representatives.

One December 16, 2020: NOAA MDP shared the Action Plan draft for partners and leads to review, including many of the Mid-Atlantic Marine Debris Working Group. This review period will be through 2021.

NOAA OCM approved the VA CZM grant to support a Mid-Atlantic Marine Debris Summit. Summit will be planned for summer 2021 as a two-day virtual event.

ACTIVITY 4 - Update Projects Database in the Mid-Atlantic Marine Debris Collaboration Portal

Expected Completion Date: Continual

To determine which types of marine debris and projects the work group should focus on, the group created an Excel file of previously conducted projects in all five states.

Meanwhile, NOAA was working with the Great Lakes states to create a collaborative website which served the same function, but also included a mapping feature for the projects. Subsequently, NOAA offered to create a similar collaborative website for the Mid-Atlantic into which the data from the Excel file could be uploaded. This “Mid-Atlantic Marine Debris Collaborative” website allows identified staff in each state to upload information about marine debris reduction efforts. The “[Mid-Atlantic Marine Debris Collaborative](#)” website can also be viewed by all stakeholders and the public.

A4 Progress Description

Include: results for the period, stakeholder engagement, impediments to progress, and budgetary/resource needs

A4 Progress Period: January 2020 - June 2020

As of July 2020, there were 92 projects in the database for the Mid-Atlantic. The Work Group continues to solicit updates from fellow members and partners in the region.

A4 Progress Period: July 2020 - December 2020

No new projects were added this period. One duplicate project was removed. Total number of projects is 91.

