



2023 Marine Debris Work Group Work Plan and Progress Report

Reporting Period: July 2023 - December 2023

Work Group Webpage:

https://www.midatlanticocean.org/ocean-planning/work-groups-collaborative-efforts/marine-debris-work-group/

Work Group Lead: Will Isenberg (VA) and Katie Morgan (NOAA MDP)

Work Group Members: Work Group membership is open to government and non-governmental entities operating in the 5 Mid-Atlantic states and the District of Columbia that are willing to participate in the activities of the work group. Members are expected to contribute on monthly work group calls and assist with implementation of projects.

Current Members Include:

Last Name	First Name	Organization
Atkin	Greg	National Aquarium
Bristow	Avalon	Mid-Atlantic Regional Council on the Ocean (MARCO)
Chesnin	Noah	Wildlife Conservation Society
Ford	Mary	MARACOOS
Gemenden	JoAnn	NJ Clean Communities
Gove	Matt	Surfrider
Haines	Devon	NJDEP
Huntington	Zach	Clean VA Waterways
*Isenberg	Will	VA - CZM Program
Johnson	Cathy	National Park Service
Keane	Ellen	NOAA/NMFS/Protected Resources

Kuriawa	John	NOAA/NOS/OCM
Lieske	Kristi	DE Coastal Management Program
Mazzeo-Pfoertner	Christie	NY DOS
*Morgan	Katie	NOAA - Marine Debris Program
Morrow	Donna	MD DNR Chesapeake & Coastal Service
Muthukrishnan	Swarna	Clean Ocean Action - NJ
Personius	Casey	NY DEC
Raabe	Steve	OpinionWorks
Register	Katie	Clean VA Waterways
Sanders	Hannah	EPA Region 3 Trash Free Waters
Shifren	Sheri	NJ
Silber	Lydia	EPA HQ - Trash Free Waters
Smith	Sandi	MD Coastal Bays
Watts	Jes	Mid-Atlantic Regional Council on the Ocean (MARCO)
Witmer	Virginia	Virginia Coastal Zone Management Program

^{*} 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 2023, the Work Group is focusing on four activities: completing a Community-Based Social Marketing (CBSM) campaign to change behavior resulting in marine debris reduction at the Mid-Atlantic regional scale, to reduce balloon releases; initiating a behavior research to identify barriers to reducing use of water bottles at waterfront recreational areas; installing water refill stations; conducting shoreline marine debris surveys and documenting the quantities and types of debris found; implementing a Mid-Atlantic Marine Debris Reduction Plan; and maintaining a marine debris projects inventory website.

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

Expected Completion Date: April 30 2023

Continued the balloon release reduction campaign based on community-based social marketing principles. 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 MDP FY14 funded Joyful Send-Off Balloon Release Reduction Campaign. The final months of the campaign focused on evaluation of campaign success. The results of the campaign will be compiled into a final report and also presented to a regional cross-sector audience in mid-2023, potentially during the 2023 Mid-Atlantic Ocean Forum.

A1 Progress Description: January - June 2023

The FY2018 NOAA Marine Debris Program grant to MARCO for the Prevent Balloon Litter CBSM campaign ended on April 30, 2023. The work group is compiling a final report which will be posted on the NOAA website. Additionally, a summary of the project was included in MARCO's April 2023 newsletter, you can read it here.

A1 Progress Description: July - December 2023

Activity was completed last reporting period.

ACTIVITY 2 - Conduct bi-annual assessments of balloon and other debris. **Expected Completion Date**: Ongoing

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. The work group may consider enhancing data presentation on the Mid-Atlantic Ocean Data Portal to include the proportion of different types of debris on each one mile stretch of beach. This could inform priorities for future marine debris efforts. Data will be shared on the MACO Work Group pages of the MARCO website. The results from the surveys may inform other elements of this project, including campaign strategies and success measures.

A2 Progress Description: January - June 2023

State	Total Balloon Debris Pieces collected in Winter/Spring 2023	Total non-balloon debris ¹ pieces collected in Winter/Spring 2023	
Virginia	66	804	

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.

Maryland	9	380
Delaware	2	136
New Jersey	3	482
New York	41	306

A1 Progress Description: July - December 2023

State	Total Balloon Debris Pieces collected in Winter/Spring 2023	Total non-balloon debris ² pieces collected in Winter/Spring 2023
Virginia	49	834
Maryland	19	610
Delaware	No monitoring this period	No monitoring this period
New Jersey	30	1068
New York	79	2640

ACTIVITY 3 - Support the Implementation of the Mid-Atlantic Marine Debris Action Plan.

Expected Completion Date: Implementation to continue through 2026

The Mid-Atlantic Marine Debris Action Plan brings 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 action plan strengthens Mid-Atlantic regional effectiveness by bringing our marine debris community together to develop a regional marine debris action plan that

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.

addresses current marine debris issues in the region and creates a road map for the future. In collaboration with NOAA Marine Debris Program, this work group will support the implementation of the action plan and coordinate semi-annual monitoring for actions with leads and partners and share summary updates through 2026.

A3 Progress Description: January - June 2023

Action	Status Update (as of January 2023)	Status Updated (as of July 2023)
1.1.1.3 (Lead) - By the end of 2026, support outreach, advocacy, and education campaigns based on community-based social marketing techniques to prevent the intentional release of balloons using strategies developed with regional partners and promoted through preventballoonlitter.org	In progress	The NOAA grant ended on April 30 2023, however the work group is committed to continuing the beach monitoring and maintaining the Preventballo onlitter.org website, collecting pledges, and exhibiting and publishing information.
1.2.1.1 - Each year of the Action Plan, compile existing consumer debris research on the Mid-Atlantic Marine	In progress	In progress

Debris Collaboration Portal to enable analysis of information gaps, best practices, and available resources.		
1.2.1.2 - By the end of 2026, promote consumer debris research by conducting stream, river, and shoreline monitoring surveys, monitoring study sites, promoting citizen science, and collecting stormwater data to better inform decision-makers and raise public awareness.	In progress	In progress
1.2.2.1 - By the end of 2026, analyze the effectiveness of community-based social marketing techniques and behavior change campaigns to target, inform, transfer, and influence at least three consumer debris campaigns that are inclusive of the Mid-Atlantic regional community	In progress	In progress
2.1.1.1 - By the end of 2026, promote at least 10 new outreach products to be shared at targeted outreach events to engage the public and recreational fishing and boating communities in derelict gear prevention. Make them available online for diverse audiences through the Mid-Atlantic Marine Debris Collaboration Portal and other platforms.	In progress	In progress
2.1.1.3 - By the end of 2026, develop and share at least five new outreach products on proper disposal and recycling of monofilament line to fishers, boaters, and the general public, and build at least 10 new private partnerships on recycling monofilament line and soft bait	In progress	In progress
3.1.1.1 - By the end of 2026, create and implement at least 15 outreach products and/or education campaigns that are relevant to or could be replicated across the region that raise awareness of microplastic and microfiber issues among Mid-Atlantic residents as an initial step to lead to long-term changes in behavior, and make them available on the Mid-Atlantic Marine Debris Collaboration Portal and other platforms	In progress	In progress
3.2.1.1 - Each year of the Action Plan, share microplastic data, research, best practices, literature, resources, and	Not started	Not started

funding sources on the Mid-Atlantic Marine Debris Collaboration Portal.		
4.2.1.1 - By the end of 2023, identify opportunities to create state inventory programs and identify derelict vessel hotspots with state and local authorities and share resources with the Mid-Atlantic community	Not started	Not started
4.5.1.1 - By the end of 2026, document the successful techniques and legislative approaches of at least five federal, state, and local agencies to share lessons learned on ADV removal, disposal options, and prevention approaches, and explore opportunities for new legislation.	Not started	Not started

Action Plan coordination calls (January - June 2023):

Meeting Date	Meeting Topic	MACO Engagement
February 9, 2023	Consumer Debris	 NYS DEC NJ DEP VA CZM EPA Region 3 NOAA MDP Clean Ocean Action
February 10, 2023	Derelict Fishing Gear	NY DEC VA CZM NOAA MDP
February 23, 2023	Microplastics and Microfibers	 EPA Region 3 Clean VA
February 28, 2023	Abandoned and Derelict Vessels	Clean VA WaterwaysClean Ocean ActionNOAA MDP

June 1, 2023	Consumer Debris	DNRECMARCONJ DEPNOAA MDP
June 23, 2023	Microplastics and Microfibers	 EPA Region 3 (presenter) NYS DEC MARCO NJ DEP Clean VA Waterways NOAA MDP

A3 Progress Description: July - December 2023

Action	Status Update (January 2023)	Status Updated (December 2023)
1.1.1.3 (Lead) - By the end of 2026, support outreach, advocacy, and education campaigns based on community-based social marketing techniques to prevent the intentional release of balloons using strategies developed with regional partners and promoted through preventballoonlitter.org	Completed	The NOAA grant ended on April 30 2023, however the work group is committed to continuing the beach monitoring and maintaining the Preventballo onlitter.org website,

		collecting pledges, and exhibiting and publishing information.
1.2.1.1 - Each year of the Action Plan, compile existing consumer debris research on the Mid-Atlantic Marine Debris Collaboration Portal to enable analysis of information gaps, best practices, and available resources.	In progress	In progress
1.2.1.2 - By the end of 2026, promote consumer debris research by conducting stream, river, and shoreline monitoring surveys, monitoring study sites, promoting citizen science, and collecting stormwater data to better inform decision-makers and raise public awareness.	In progress	In progress
1.2.2.1 - By the end of 2026, analyze the effectiveness of community-based social marketing techniques and behavior change campaigns to target, inform, transfer, and influence at least three consumer debris campaigns that are inclusive of the Mid-Atlantic regional community	In progress	In progress
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2.1.1.3 - By the end of 2026, develop and share at least five new outreach products on proper disposal and recycling of monofilament line to fishers, boaters, and the general public, and build at least 10 new private partnerships on recycling monofilament line and soft bait	In progress	In progress

3.1.1.1 - By the end of 2026, create and implement at least 15 outreach products and/or education campaigns that are relevant to or could be replicated across the region that raise awareness of microplastic and microfiber issues among Mid-Atlantic residents as an initial step to lead to long-term changes in behavior, and make them available on the Mid-Atlantic Marine Debris Collaboration Portal and other platforms	In progress	In progress
3.2.1.1 - Each year of the Action Plan, share microplastic data, research, best practices, literature, resources, and funding sources on the Mid-Atlantic Marine Debris Collaboration Portal.	Not started	In progress
4.2.1.1 - By the end of 2023, identify opportunities to create state inventory programs and identify derelict vessel hotspots with state and local authorities and share resources with the Mid-Atlantic community	Not started	Not started
4.5.1.1 - By the end of 2026, document the successful techniques and legislative approaches of at least five federal, state, and local agencies to share lessons learned on ADV removal, disposal options, and prevention approaches, and explore opportunities for new legislation.	Not started	Not started

Partners to the Mid-Atlantic Marine Debris Action Plan met several times from July to December to network, discuss collaboration opportunities, and share progress on ongoing projects in the region and/or lessons learned from their work.

Action Plan coordination calls (July - December 2023):

Meeting Date	Meeting Topic	MACO Engagement
August 2023	Abandoned and Derelict Vessels	 Clean VA Waterways Clean Ocean Action NOAA MDP MARCO

October 2023	Mid-Atlantic Marine Debris Action Plan Mid-Plan Review Workshop	 EPA Region 3 National Aquarium NJ DEP NYS DEC VA CZM MARCO

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

Expected Completion Date: Continual

In order to determine on which type of marine debris and what type of projects the work group should focus, the group created an Excel file of previously conducted projects in all five states. Meanwhile, NOAA had been 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. This website can also be viewed by all stakeholders and the general public <a href="https://example.com/projects/be/green/com/projects/b

A4 Progress Description: January 2023- June 2023

At the time of this report, the database was down. Numbers will be reported in the next report in January 2024.

A4 Progress Description: July - December 2023

The Mid-Atlantic Marine Debris Collaborative website shows 38 ongoing projects, and 21 completed projects across the region, the details of which can be found on this <u>project description</u> page.

ACTIVITY 5 - Research on public attitudes toward marine debris policies

Inform state or local marine debris policy-development by documenting lessons-learned and public perception of existing marine debris policies in the region to inform future marine debris-related policy development. The assessment will measure public support

for new laws and policies that aim to reduce the sources of marine debris through a regional survey and synthesis.

To conduct the assessment, the work group will (with support from a contractor):

- Develop and disseminate surveys or other outreach tools to measure public support for new laws and policies that seek to reduce or prevent sources of marine debris.
- Synthesize results and provide a report to inform Mid-Atlantic states and other policy-makers about policies with the most and least public support.
- Provide a webinar to present results and provide an opportunity for agencies to share lessons-learned.

Expected Completion Date: December 2024

A5 Progress Description: January- June 2023

MARCO identified a contractor through a competitive process in May 2023 and are currently refining the scope and budget for this work. We anticipate work to begin in early fall 2023. Funding for this work is from MARCO's BIL Regional Ocean Partnership grant.

A5 Progress Description: July - December 2023

In July 2023, MARCO executed a contract with OpinionWorks LLC for marine debris policy research and analysis. In September 2023, MARCO staff and the Marine Debris Work Group (MDWG) leadership convened a meeting of policy experts to discuss which marine debris policies should be investigated in the public perception research, as well as which geographic areas within the region should be gauged. The team compiled the resulting information into a template, and provided it to the contractor for inclusion in the project strategy and research approach.

ACTIVITY 6 - Community-Based Social Marketing Barriers Research on use of plastic water bottles and other consumer debris

Identify barriers to behavior changes related to marine debris by conducting Community Based Social Marketing (CBSM) barriers research in all five Mid-Atlantic States. With support from a contractor, the work group will:

 Develop and disseminate CBSM-based surveys for at least two consumer debris-types, starting with plastic water bottles. These surveys will be distributed to the public in all five Mid-Atlantic states. Provide a report on the results to the Marine Debris Work Group to inform future CBSM campaign development. Having the barriers-research already conducted will create tremendous efficiency for future CBSM campaign products that the Marine Debris Work Group undertakes.

Expected Completion Date: December 2023

A6 Progress Description: January - June 2023

MARCO identified a contractor through a competitive process in May 2023 and are currently refining the scope and budget for this work. We anticipate work to begin in early fall 2023. Funding for this work is from MARCO's BIL Regional Ocean Partnership grant.

A6 Progress Description: July - December 2023

In July 2023, MARCO executed a contract with OpinionWorks LLC for the CBSM Barriers Research Assessment. MARCO staff and the Marine Debris Work Group (MDWG) leadership conducted data analysis, using data extracted from the Ocean Conservancy International Coastal Cleanup (ICC) Database to determine annual data trends – at a state-specific level – across the five Mid-Atlantic states. The team also gathered input from both the MDWG membership and the 2023 Marine Debris Summit participants (registered speakers and attendees) via informal surveys. The resulting data informed the marine debris types for the CBSM survey instrument. OpinionWorks presented the project overview and research approach to the MDWG and the MARCO Management Board.

ACTIVITY 7 - Installation of Water Filling Stations

The work group has identified single-use plastic water bottle reduction on beaches and other waterfront recreation areas as a priority. This activity will focus on providing access to clean water through installation of water bottle refilling stations. Lack of water filling stations is one identified barrier to the behavior of single use water bottle use. The use of reusable water bottles reduces known human health hazards posed by plastic water bottles, and contactless water bottle refill stations are especially important in an ongoing COVID era.

Expected Completion Date: November 2024

A7 Progress Description: January - June 2023

Ten locations (2 per state) have confirmed the intent to purchase refill station supplies with MARCO Bi-partisan Infrastructure Funds by September 2023.

A7 Progress Description: July - December 2023

The Marine Debris Work Group provided 7 waterfront recreational areas with a water bottle refill station, with priority given to areas in underserved communities. In addition to bottle refill stations, each location purchased water gauges that will allow for usage tracking at each site. MARCO staff and MDWG members have coordinated with refill station recipients to determine the optimal location of education and behavior assessment signage, in alignment with Activity 6. A Quick Response Code (QRC) will be incorporated into the signs, and will lead participants to a survey landing page.

Water Station siting information:

New York: New York localities have purchased four water bottle refill stations. Two bottle filling stations were purchased for installation on the boardwalk of Sunken Meadow State Park, which sees 3 million visitors annually. A third bottle filling station was purchased for installation at Newbridge Road Park, located in Bellmore, NY. The park is situated at the border of Hempstead's Middle Bay with Cedar Swamp Creek to its west, and features a popular dog park, walking trails, recreational ball fields. playgrounds, sitting areas, tennis courts, and an outdoor pool. The fourth bottle filling station was purchased for the Norma J. Levy State Park. The Town of Hempstead Department of Conservation and Waterways (DCW) has secured state funding to construct a new kayak launch at the park's southern end, with construction to begin in spring 2024. Positioned along the South Shore Blueway, part of the extensive kayak launch network throughout Hempstead Bays, this addition will draw more visitors to the waterfront park. There are currently no outdoor water bottle filling stations at this park, and all visitors would benefit greatly from access to potable water. Both the Town of Hempstead DCW and New York State Parks have postponed further installation until early 2024, due to winterization.

Delaware: In July 2023, the City of Rehoboth Beach purchased and installed a water refill station at the Grove Park Canal Dock. Rehoboth Beach is a community located in Sussex County, Delaware known as a year-round vacation destination for business and pleasure. The Grove Park Canal Dock provides residents and visitors with access to the Lewes-Rehoboth Canal for travel and recreational purposes. Located behind the Rehoboth Beach Museum, the canal dock is open from sunrise to sunset. In addition to launch space for kayaks, the dock provides two boat slips that may be used for loading and unloading passengers and supplies; private boats may be docked for a maximum of 30 minutes. Fishing is permitted only from the designated fishing portion of the dock. This location was chosen because of the significant number of recreators accessing the bike trail connecting to the dock and its potential to encourage boaters to bring reusable bottles on their boat trips as opposed to plastic. The bike trail and dock are completely free to access, as well as the nearby Rehoboth Beach Museum. Grove Park includes a tot-lot play area for children and circuit work out equipment for adults and is surrounded by a wide, paved walking path. In addition to the two pavilions, the park has restrooms,

shuffleboard courts, and several benches. Grove Park is home on Tuesdays from May-October to the Rehoboth Beach Farmers Market. All of these free attractions can be accessed by nearby parking, bus, bike, or walking trails.

Maryland: In August 2023, the Town of Ocean City solicited a bid, and selected a vendor (Electrical Automation Services) for the purchase and electrical work to remove a water fountain and install an Elkay bottle filling station. In October 2023, EAS removed a water fountain and roughed in new piping, made new plumbing connections, and installed a stainless steel plate to cover the site. The new unit was put into service on or around 10/23/23. Between 17 and 23 October 2023, Department of Public Works employees provided 22 hours of assistance and oversight. These efforts were documented as in kind match for the cost of the equipment and installation. The new bottle refill station at Caroline Street Comfort Station on the Ocean City Boardwalk annually serves thousands of diverse visitors from the region.

Virginia: In September 2023, the Virginia Beach Convention & Visitors Bureau (CVB) purchased and installed a water refill station with a water usage counter at the 24th Street Oceanfront Park in Virginia Beach. The Virginia Beach Boardwalk is the primary oceanfront beach recreational area in Virginia. More than 2 million people visit this three-mile-long concrete boardwalk each year. There are environment interpretive panels, recyclable receptacles, and cigarette butt receptacles adjacent to the chosen refill station.

ACTIVITY 8 - Mid-Atlantic Marine Debris Summit

A biennial Regional Marine Debris Summit, will be held to bring together partners working on marine debris reduction and prevention, likely in Fall 2023. The previous two Summits have been supported with funds from Virginia. This summit will be funded with IIJA funds to MARCO. The Summit will be planned in close partnership with the NOAA Marine Debris Program to ensure consistency with the Mid-Atlantic Region Marine Debris Action Plan. A workshop agenda and speaker list will be developed, and a summary report will be published online and distributed to participants.

Expected Completion Date: December 2023

A8 Progress Description: January 2023- June 2023

A Summit Planning Team was convened in March 2023, and has been meeting monthly to create a planning plan. The dates of December 5-7 were chosen and the Summit location will be Ocean City MD Convention Center. The team also refined the goals and outcomes for the meeting, and relayed progress back to the full Mid-Atlantic Marine Debris Work Group to ensure the event is as collaborative and inclusive as possible. The planning team includes:

New York State Department of State

- New York State Department of Environmental Conservation
- New Jersey Department of Environmental Protection
- Delaware Department of Natural Resources and Environmental Control
- Maryland Department of Natural Resources
- Virginia Coastal Zone Management Program
- Washington, DC Department of Energy & Environment
- NOAA Marine Debris Program
- Maryland Coastal Bays Program
- NJ Clean Communities Council

They met on: March 20, 2023; April 10, 2023; May 8, 2023; and June 26, 2023 and will continue meeting at least monthly until the Summit occurs. A <u>Save the Date</u> flier has been distributed via Constant Contact, social media posts and the MARCO website.

A8 Progress Description: July - December 2023

The Summit Planning team convened fortnightly from July through November 2023 to refine event goals and objectives, identify and secure speakers, and create a full process agenda, communicating progress to the full Mid-Atlantic Marine Debris Work Group for maximal collaboration and inclusivity. The MARCO Outreach Coordinator promoted the event via the MARCO listserv, newsletter, and social media platforms. The Coordinator created a Marine Debris Summit webpage that included information on registration, travel and lodging, and other relevant details. The team planned a two-day regional marine debris event, including 144 registered attendees from across – and beyond – the region. The team confirmed 29 speakers across 6 marine debris topic areas (e.g., microplastics, coastal storm debris, large scale removal, prevention and capture technology, marine debris policy, and community education and engagement initiatives). A call for abstracts for a dedicated poster session resulted in the addition of 3 graduate students and early career researchers to the agenda.

The planning team included:

- New York State Department of State
- New York State Department of Environmental Conservation
- New Jersey Department of Environmental Protection
- Delaware Department of Natural Resources and Environmental Control
- Maryland Department of Natural Resources
- Virginia Coastal Zone Management Program
- Washington, DC Department of Energy & Environment
- NOAA Marine Debris Program
- Maryland Coastal Bays Program
- NJ Clean Communities Council
- National Aquarium Conservation Program