Marine Debris Work Group

2024 Work Plan

Work Group Leads:

- State co-lead: Will Isenberg, Coastal Planner - Coastal Zone Management Program, Virginia Department of Environmental Quality
- Federal co-lead: Katie Morgan, Mid-Atlantic Regional Coordinator - NOAA Marine Debris Program
- Support Coordination: Jes Watts, MARCO Project Manager

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:

FIRST NAME	LAST NAME	AFFILIATION
Greg	Atkin	National Aquarium
Kathleen	Bergin	DE DNRC
Amy	Bloomfield	NY DEC Div of Materials Mngmt
Avalon	Bristow	MARCO
Alli	DePerte	Atlantic Marine Conservation Society (AMSEAS)
Mary	Ford	MARACOOS
Cassidy	Fredette-Roman	EPA HQ TFW
JoAnn	Gemenden	NJ Clean Communities
Matt	Gove	Surfrider Foundation
Devon	Haines	NJ DEP
Brittany	Haywood	Delaware Sea Grant
Zach	Huntington	Clean VA Waterways
WIII	Isenberg	VA DEQ CZM
Marina	Jackson	NJ
Cathy	Johnson	National Park Service
Ellen	Keane	NOAA/NMFS/Protected Resources
Alanna	Keating	Boat US Foundation

John	Kuriawa	NOAA/NOS/OCM
Kristi	Lieske	DE Coastal Management
Christie	Mazzeo-Pfoertner	NY DOS
Katie	Morgan	NOAA
Donna	Morrow	MD DNR
Swarna	Muthukrishnan	Clean Ocean Action - NJ
Casey	Personius	NY DEC
Samantha	Pfeffer	NJ
Steve	Raabe	OpinionWorks
Katie	Register	Clean VA Waterways
Lindsay	Ries	NPS, Coastal Ecology Region 1
Hannah	Sanders	EPA Region 3 Trash Free Waters
Cynthia	Seibold	Balloon Mission
Sheri	Shifren	NJ
Lydia	Silber	EPA HQ - Trash Free Waters
Sandi	Smith	MD Coastal Bays
Veronica	Tangiri	Prince William Soil and Water Conservation DIstrict
Julia	Wakeling	Watershed protection Division - D.C.
Kristin	Wakefield	MARACOOS
Jes	Watts	MARCO
Virginia	Witmer	VA DEQ CZM

Description:

Marine Debris is "any persistent solid material that is manufactured or processed and directly or indirectly, intentionally or unintentionally, disposed of or abandoned into the marine environment or the Great Lakes."[1] Marine debris harms wildlife through ingestion, suffocation, and entanglement. It also poses a threat to human health through bioaccumulation of plastics and toxins in the food chain. Large-scale marine debris degrades coastal ecosystems and creates a hazard to navigation. Addressing the problem of marine debris requires collaboration among multiple levels of government, tribal nations, academic and research institutions, non-governmental organizations, regional partnerships, maritime and fishing industries, policymakers, and the general public – especially historically excluded communities.

MARCO supports regional coordination on marine debris through the Marine Debris Work Group and related activities.

Goal:

Bring together regional stakeholders to collectively identify, understand, prevent, and mitigate the impacts of marine debris.

[1] 33 CFR § 151.3000 (2023)

This Work Plan is in alignment with and corresponds to the Mid-Atlantic Regional Ocean Action Plan section, "Healthy Ocean Ecosystem Action 4: Develop a regionally appropriate strategy for marine debris reduction."[2]

Continued Activities

Activity 1: Support implementation of the Mid-Atlantic Marine Debris Action Plan.

Description:

The Mid-Atlantic Marine Debris Action Plan[3] 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 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. Each Work Group Activity in this work plan references the associated Marine Debris Action Plan Action Number.

Timeline: January 2024 - December 2026

Project Outcomes:

The following activities (Activities 2-9) reflect language from the Action Plan for those actions in which MARCO is listed as a "lead" or "partner" organization. The Work Group will consider each of these as they develop annual work plans for each year 2024-2028, and/or funding proposals for specific projects. The Work Group reserves the right to change specific metrics and approaches depending upon capacity, funding availability, and MARCO priorities. Additionally, these outcomes could be modified upon completion of the NOAA MDP Mid-Plan Review Report, expected in early 2024.

Action

[2] (2016). Mid-Atlantic Regional Ocean Action Plan. In *Bureau of Ocean Energy Management* (p. 43). https://www.boem.gov/sites/default/files/environmental-stewardship/Mid-Atlantic-Regional-Planning-Body/Mid-Atlantic-Regional-Ocean-Action-Plan.pdf

[3] National Oceanic and Atmospheric Administration Marine Debris Program (2021). 2021 Mid-Atlantic Marine Debris Action Plan. Silver Spring, MD: National Oceanic and Atmospheric Administration Marine Debris Program.

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.
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.
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.
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.
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.
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.
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.
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.
3.2.1.2. By the end of 2026, conduct at least one microplastic and microfiber research webinar to share data and detection strategies and to discuss best practices to promote future research in the region.
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.

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.

Activity 2: Develop Community Based Social Marketing (CBSM) campaigns that will be implemented in subsequent years.

Description:

Develop CBSM campaigns based on barriers research for three marine debris types:

1. Plastic water bottles
2. Cigarette filters
3. Small-scale fishing gear (e.g., monofilament line, polypropylene line, soft bait, nets, etc.).

This activity supports progress on the Mid-Atlantic Marine Debris Action Plan, Action 1.2.2.1, which states, "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."

This activity also supports progress on the Mid-Atlantic Marine Debris Action Plan, Action 2.1.1.3, which states," 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."

This activity also supports progress on the Mid-Atlantic Marine Debris Action Plan, Action 3.1.1.1, which states, "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."

Timeline: January 2024 - December 2024

Project Outcomes:

- Completion of CBSM barriers research across all five Mid-Atlantic states. This research will include:
    a. Quantitative approach: The development and dissemination of CBSM-based surveys for each debris type.
    b. Qualitative approach: In-depth interviews and/or focus groups for each debris type.
    c. A written report and presentation on the CBSM survey results for 3 marine debris types.
- Understand barriers and motivators to:
    a. Plastic water bottle use
    b. Cigarette filter disposal
    c. End-of-life disposal of small-scale fishing gear (e.g., monofilament line, polypropylene line, soft bait, nets, etc.)

- Campaign 1: Prevent single-use **plastic water bottle** use
    a. Continue to support purchase of water bottle refill stations for installation at identified waterfront recreational areas
    b. Create and disseminate outreach products on each debris type; potential products include: fact sheets, infographics, and best practices one-pagers
    c. Other outcomes to be determined by research results
- Campaign 2: Prevent **cigarette filter** litter
    a. Create and disseminate outreach products on each debris type; potential products include: fact sheets, infographics, and best practices one-pagers
    b. Other outcomes to be determined by research results
    c. Reducing cigarette litter in coastal waterways requires a combination of education, infrastructure, policy, and community involvement
- Campaign 3: Support responsible end-of-life disposal of **small-scale fishing gear** (e.g., monofilament line, polypropylene line, soft bait, nets, etc.)
    a. Create and disseminate outreach products on each debris type; potential products include: fact sheets, infographics, and best practices one-pagers
    b. Other outcomes to be determined by research results

Note: Work on debris type #1 (plastic water bottles) began in 2023, including water refill station purchase and installation

Activity 3: Conduct a comprehensive marine debris policy assessment that enables informed decision-making and targeted policy development.

Description:

Provide policymakers and Mid-Atlantic states with a detailed analysis of public awareness and support for laws and policies that aim to reduce the sources of marine debris

This activity supports progress on the Mid-Atlantic Marine Debris Action Plan, Action 1.2.2.1, which states, "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."

Timeline: January 2024 - December 2024

Project Outcomes:

- Contractor-supported completion of Public Policy Assessment across all five Mid-Atlantic states. This research will:
    a. Develop and disseminate regional surveys that measure public support for laws and policies that aim to reduce the sources of marine debris.
    b. Document lessons learned and public policy support for each debris type.
- A written report
- A webinar to present results and provide an opportunity for agencies to share lessons-learned

Activity 4: Plan and host biennial Regional Marine Debris Summits in 2025 and 2027.

Description:
The summits will bring together Mid-Atlantic regional entities working on marine debris (including litter that becomes marine debris) to facilitate coordination between regional organizations, discuss current and emerging marine debris fields, highlight solutions to marine debris prevention and reduction, and identify opportunities to incorporate diversity, equity and inclusion into marine debris efforts. The Summits will be planned in close partnership with the NOAA Marine Debris Program to ensure consistency with the Mid-Atlantic Region Marine Debris Action Plan.

Timeline: January 2024 - December 2028

Project Outcomes:

- Foster meaningful coordination among stakeholders, encourage interdisciplinary collaboration, and strengthen partnerships
- Incorporate and emphasize diversity, equity, inclusion, justice, and accessibility principles throughout the summit agenda and experience
- Identify barriers to progress, and opportunities for improvement across Mid-Atlantic marine debris cross-sector initiatives
- Provide a platform for sharing current research, emerging trends, innovative approaches, and highlighting best practices and successful solutions
- Session recordings and summary report posted to MARCO website

Note: Recent work: 2023 Mid-Atlantic Marine Debris Summit

Activity 5: Implement Community Based Social Marketing (CBSM) campaigns that were developed in 2024. **(NEW)**

Note: This activity begins in 2025.

Activity 6: Conduct a series of information sessions or webinars to provide the work group and others with education and insights into micro-level marine debris issues. **(NEW)**

Description:
Microfibers are the predominant type of particle found in the environment, and have been found in marine wildlife, ocean habitats, and in seafood. This work group has expressed interest in reducing microfiber pollution in the marine environment. However, the IMDCC Report on Microfibers identified key research needs and knowledge gaps, including microfiber prevalence in environmental compartments (i.e., the ocean), rates and mechanisms of microfiber release from various sources, impacts of microfiber pollution, and the effectiveness and feasibility of

filtration-related mitigation measures[4]. Because of these knowledge gaps, especially related to causes and solutions, the Marine Debris Work Group has chosen to focus on cigarette filters (a non-textile microfiber) as a project with a straightforward behavior and policy strategy that has a FISHsufficient amount of supporting data, and is measurable. In the meantime, it will be beneficial to host information sessions from experts in the field of micro level marine debris. They can co-occur with Marine Debris Work Group monthly meetings.

This activity supports progress on the Mid-Atlantic Marine Debris Action Plan, Action 3.2.1.1, which states, "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."

This activity supports progress on the Mid-Atlantic Marine Debris Action Plan, Action 3.2.1.2, which states, "By the end of 2026, conduct at least one microplastic and microfiber research webinar to share data and detection strategies and to discuss best practices to promote future research in the region."

Timeline: January 2024 - December 2026

Project Outcomes:

- Host quarterly information sessions from subject matter experts on micro-level marine debris topics; potential topics include:
    1. IMDCC Report on Microfibers: summary presentation (November 2023)
    2. Foundational (i.e., microfibers 101)
    3. Conservation relevant topics (e.g., impact on habitat, marine mammals, other aquatic animals, water quality, preliminary ecological risk assessments of microplastics in the watershed, etc.)
    4. Fisheries relevant topics (e.g., impact on oysters, clams, crabs, fish species, economic loss to fishers and farmers, etc.)
    5. Policy relevant topic (e.g., nurdles, extended producer responsibility, spill prevention, etc.)
- 2025 and 2027 Marine Debris Summit Microplastics session
- 2026-2028 Identify and scope potential projects to prevent, reduce, capture and remove, and monitor microfiber marine debris

Note: The first information session occurred in November 2023

Activity 7: Improve regional capacity for large scale removal of Abandoned and Derelict Vessels (ADVs) **(NEW)**

Note: This activity begins in 2025

[4] The IMDCC Report on Microfibers is expected to be released early next calendar year (2024). The Report is currently going through the final approval/clearance process; next it will be submitted to Congress, and implemented in the Federal Plan to Address Microfiber Pollution.

Activity 8: Update Projects Database in the Mid-Atlantic Marine Debris Collaborative Portal.

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 here. MARCO will continue soliciting updates from Work Group members, and adding projects to the Collaboration Portal.

This Activity supports progress on the Mid-Atlantic Marine Debris Action Plan, Action 1.2.1.1, which states: "Each year of the Action Plan, compile existing consumer debris research on the Mid-A Marine Debris Collaboration Portal (Collaboration Portal) to enable analysis of information gaps, best practices, and available resources."

Activity 9: Conduct bi-annual assessments of balloon and other debris.

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 will continue adding this monitoring data to the Mid-Atlantic Ocean Data Portal. Data will also be shared on the 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.

This Activity also supports progress on the Mid-Atlantic Marine Debris Action Plan, Action 1.2.1.2, which states: "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." MARCO will continue soliciting updates on shoreline monitoring surveys from Work Group members, and adding projects to the Collaboration Portal.