

Mid-Atlantic Healthy Ocean Ecosystem Action 4: Marine Debris

Mid-Atlantic Regional Planning Body Meeting
update June 20, 2017

MID-ATLANTIC REGIONAL

**OCEAN
ACTION
PLAN**



Develop regionally appropriate Marine Debris reduction strategy

- Build on existing efforts
- Ensure strategy is appropriate to the region and is socially, politically and economically feasible to implement
- Develop strategies which may include source reduction, cleanups, public outreach, education, and social marketing campaigns



Steps to accomplish action



1. Identify existing efforts and prioritize options for a marine debris type to target for reduction



2. Present options for selecting a marine debris type to the public and RPB

3. Implement selected strategies with the engagement of responsible parties

Timeline of Past Activities (January - June 2017)

A horizontal timeline consisting of four chevron-shaped boxes pointing to the right. The boxes are dark blue with white text. The first box is the darkest blue, and the others are a lighter shade of blue. The text inside each box describes an activity and its duration.

Jan:
Work
Group
created

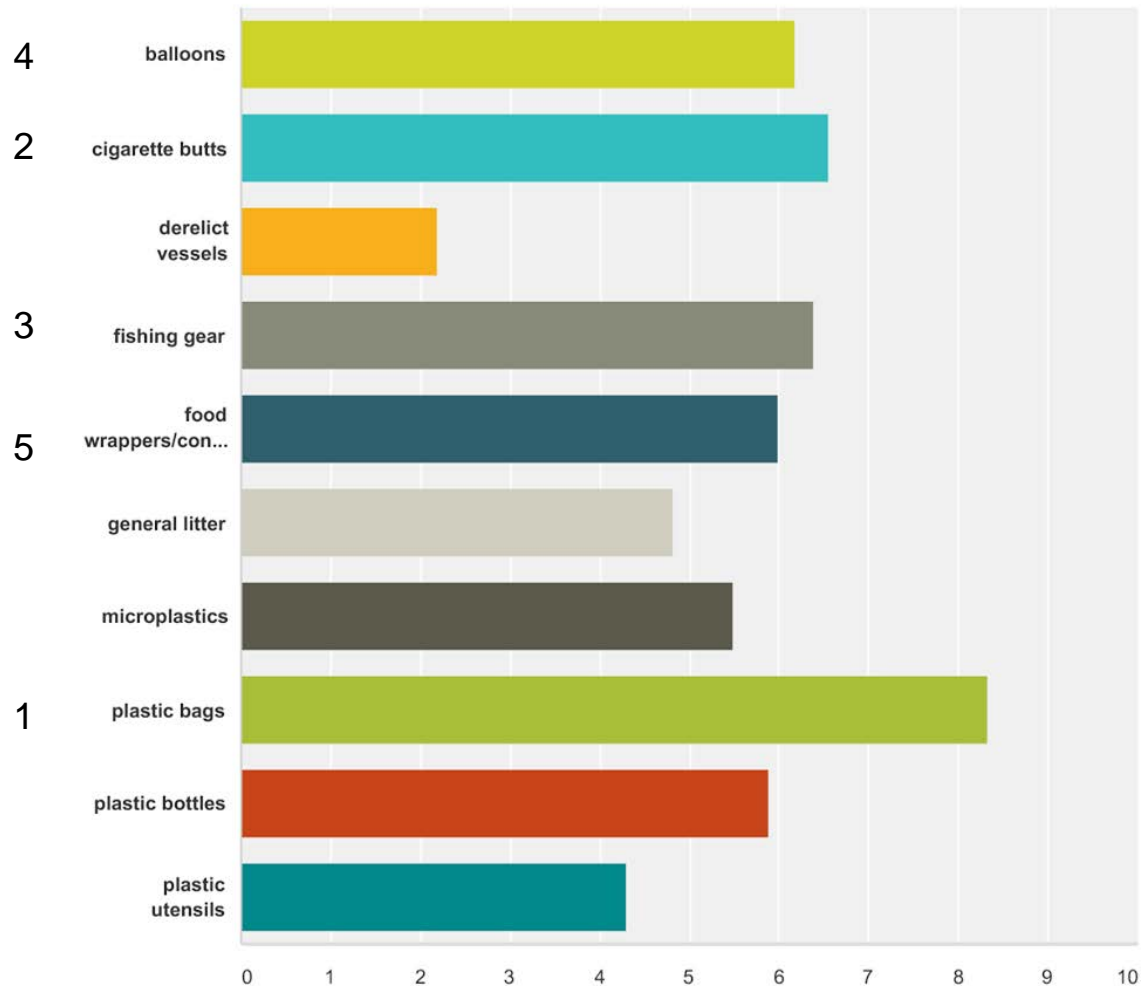
Jan-Mar:
Developed
project
database

Apr-May:
Surveyed
RPB and
identified
RPB's top 5
debris types

June 5-7:
CBSM &
Marine
Debris
Workshops

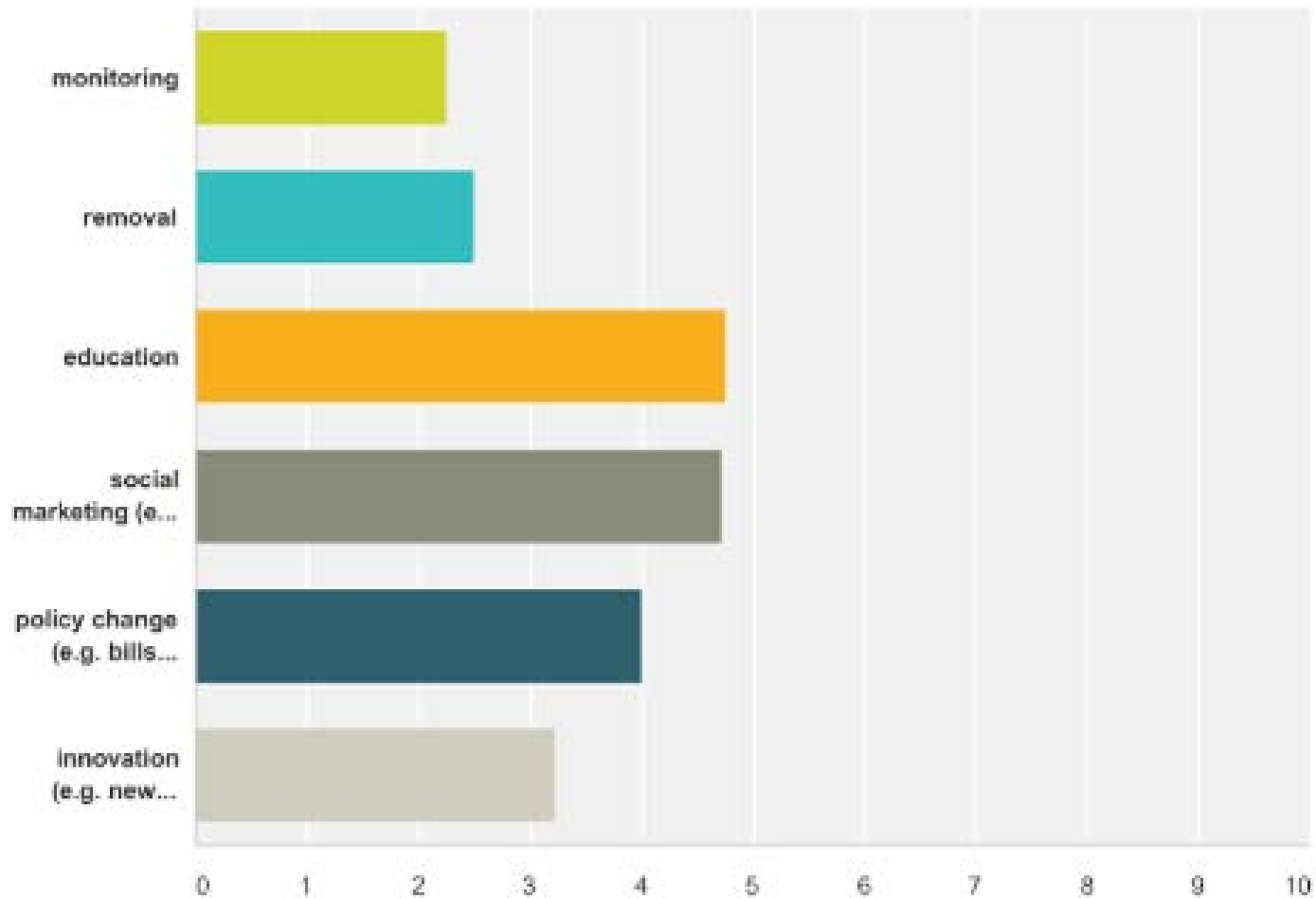
Results of RPB Survey

Most Important and Feasible Marine Debris Type for Mid-A RPB Focus



Results of RPB Survey

Most Important and Feasible Project Approach



Most Harmful Marine Debris



Community-Based Social Marketing (CBSM)



Concepts:

- Foster sustainable *behavior change*
- Proven more effective than traditional, information intensive *education*
- Speaks directly to the barriers and benefits an individual experiences when changing behaviors



Community-Based Social Marketing (CBSM)

Steps:

- a. Select specific behavior to change
- b. Identify barriers & benefits (research)
 - a. Develop strategies using
 - i. commitments/pledges
 - ii. social norms
 - iii. social diffusion
 - iv. prompts, etc.
 - v. effective messages
 - vi. incentives
 - vii. convenience
 - b. Conduct a pilot to test effectiveness
 - c. Implement broadly & evaluate



June 7 Workshop Results

A wide-angle photograph of a beach. The foreground is dominated by a large pile of dry, brown driftwood and sticks. Scattered among the driftwood is various marine debris, including a clear plastic bottle, a white plastic bottle, and a small orange and white object. The beach extends into the distance, meeting a calm, blue ocean under a clear sky. The horizon is visible in the far distance.

27 Attendees:

- Assessed several marine debris types
- Ranked ideas and determined the top 3



1. Balloons

Threats:

- West to east airshed route carries balloons to the Atlantic
- Ingestion
- Entanglement

Recommended Approach:

- Community Based Social Marketing to reduce balloon releases
 - Build on existing VA pilot study by conducting baseline research on barriers and benefits in the other Mid-A states
 - Map chain of behavior
 - Identify end-state behavior
 - Identify benefits and barriers
 - Social diffusion



1. Balloons

Pros

- Initial literature search, specific behaviors, and barriers and benefits research already completed in one state - not starting from scratch
- Balloon ingestion noted as severe threat by Mid-Atlantic aquaria involved in animal rescues and strandings
- Releasing balloons is not a behavior or habit carried out by many people so should be feasible to reach the audience

Cons

- Not yet perceived as a serious problem

2. Plastic Bags

Threats:

- Ingestion
- Multiple ways bags can reach the ocean
- Aesthetic impact

Recommended Approach:

- Community-Based Social Marketing
 - First identify pathways for plastic bags getting to the ocean (e.g., storm drains, garbage trucks, careless individuals, etc.)
 - Determine which behaviors contribute the most bags or focus on behavior change to forego plastic bags
 - Map the chain of behavior
 - Identify behavior
 - Use prompts/pledges if problem is simply forgetting to use a cloth bag
- Some programs already in place, but additional CBSM effort could pave way for policy change
- Target audience could be huge
- RPB support for background research needed



2. Plastic Bags

Pros:

- High threat according to Ocean Conservancy
- Huge numbers of plastic bags
- Many programs already in place but unknown whether any use a CBSM approach

Cons:

- May be a more difficult behavior to change
- Many local efforts are in place and are effective
- Need to conduct initial steps of CBSM (lit search, benefits & barriers, chain of behavior) to understand how bags are being released into the environment and/or what barriers exist to the desired behavior change





3. Derelict Fishing Gear

Threats:

- Ingestion
- Entanglement
- Ghost fishing - gear continues to catch and kill animals

Recommended Approach

- Focus on pots - more data available compared to nets
- Focus on recreational crab potters - more easily targeted and more opportunities for CBSM
- Develop a CBSM program highlighting economic losses



3. Derelict Fishing Gear

Pros:

- #1 most deadly marine debris according to OC;
- Very “marine-based” type of debris and may be most appropriate for the RPB to address working with the MAFMC
- Some work on ghost pots has been done that potentially could be expanded with a CBSM approach
- Demographics engaged in rec crab potting may be clearer target

Cons:

- May also be appropriate as an action within the OAP’s Commercial & Recreational Fishing actions - may be other venues to address the problem
- Behaviors could be difficult to change



Cigarette Butts

- Important debris types but ranked lower during June 7 workshop
- Littering cigarette butts is extremely difficult behavior to change - Keep America Beautiful has spent millions already and has a program and grant funding available
- Potential project with Shinnecock Nation could be pursued given their ability to sell cigarettes to a large audience but difficult to implement on regional scale.



Single-use Plastic Food and Beverage Items

- In aggregate, these items are common and harmful types of marine debris.
- Since CBSM recommends identifying specific and “non-divisible” actions, workshop participants determined that this category was too broad.
- There might be interest in concentrating on aspects of this category: for example, replacing single-use plastic straws with paper straws or reusable, washable metal straws.

Timeline of Upcoming Activities (June - December 2017)

Jun 20:
RPB selects a
marine
debris type for
focus of work
group

Jul:
Work group
identifies
specific
behaviors
and selects
one

Aug:
Identify barriers to and
benefits of desired
behavior

Aug - Dec:
Identify funding
sources; Develop
strategies

Questions?