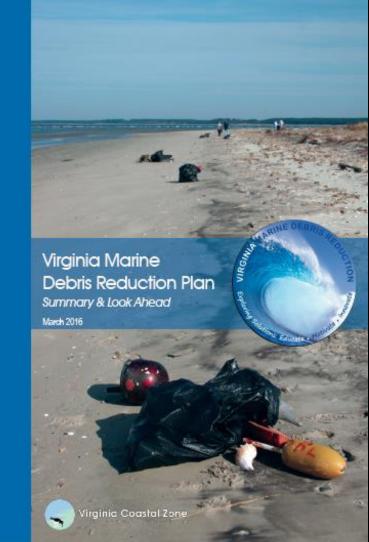
Tackling Marine Debris in Virginia and the Mid-Atlantic

Katie Register, Executive Director Clean Virginia Waterways of Longwood University April 25, 2019, STAC Workshop

Virginia Marine Debris Reduction Plan

- A ten-year horizon
- Collaborative effort
- Based on what is feasible
 - politically, socially, and economically



Download from VA CZM Program website

Reduce Land-based Sources







Photo: Clean VA Waterways





Water-based Sources Derelict fishing gear & vessels Disasters



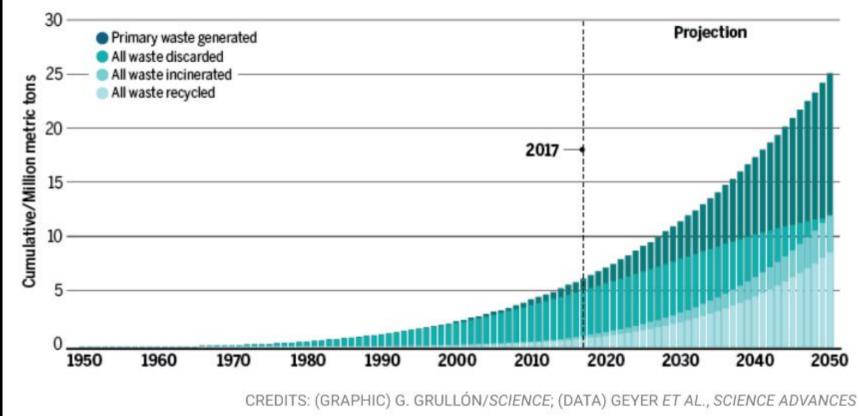


More plastic coming soon



Throwaway Living. 1955. Life Magazine

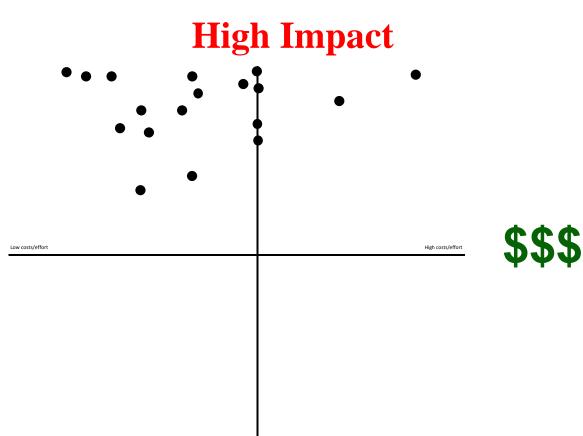
Plastic waste projections



This chart shows plastic <u>waste</u>. Production of plastic is ~20% higher. Mostly single-use disposables (short-term use). Fracked gas making production of new plastic less expensive. We can't recycle our way out of this problem.

Many Partners Contributing to Solutions

Increase Collaboration



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Low impact

Figure 2. "Bang for Buck" in increasing collaboration.

Votes for #1 Priority: 2



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Reduce Balloon Releases

Improve Stormwater Management

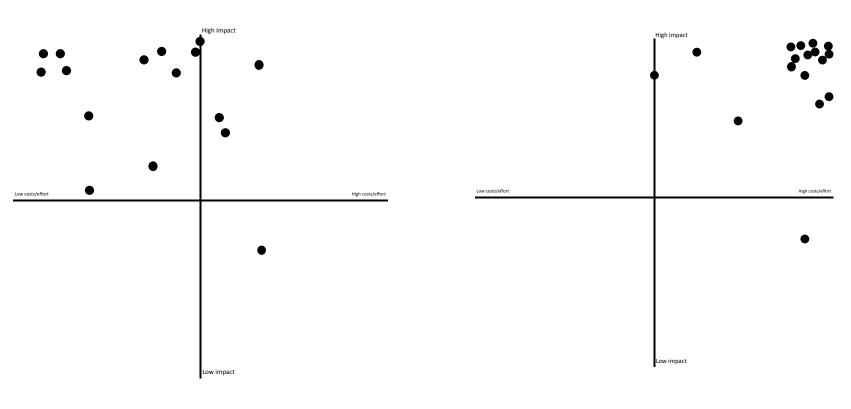


Figure 3. "Bang for Buck" in reducing ballon release

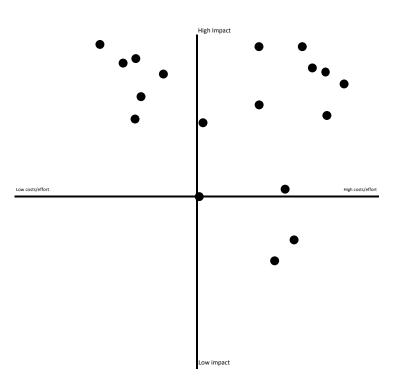
Votes for #1 Priority: 2 Votes for #2 Priority: 1 Figure 16. "Bang for Buck" in improving stormwater management

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Votes for #1 Priority: 0 Votes for #2 Priority: 0

Reduce Waste from Ships

Reduce Abandoned Fishing Gear



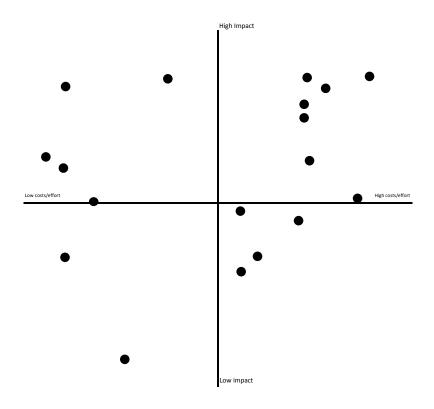


Figure 17. "Bang for Buck" in reducing abandoned fishing gear

Votes for #1 Priority: 0 Votes for #2 Priority: 0 Figure 18. "Bang for Buck" in reducing waste from ships

Votes for #1 Priority: 0 Votes for #2 Priority: 0

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Address Disposable Products Packaging Waste

Low impact

Reduce Microplastics

Low costs/effort Might costs/effort

High Impact

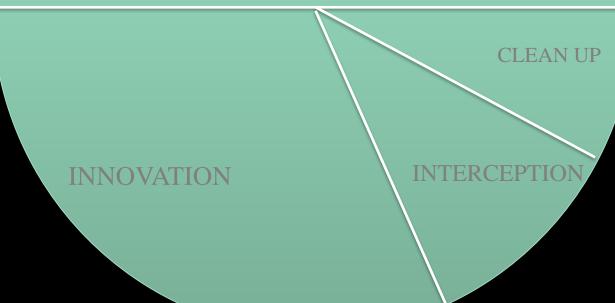
Figure 20. "Bang for Buck" in reducing microplastics

Votes for #1 Priority: 0 Votes for #2 Priority: 0 Figure 15. "Bang for Buck" in addressing disposable products and packaging waste

Votes for #1 Priority: 0 Votes for #2 Priority: 0

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PREVENTION





Commitment to addressing marine debris

- Increase collaboration
- Marine Debris Summits (2013 & 2016)
- VA Marine Debris Reduction Plan (2014)
- Building capacity: Community-Based Social Marketing workshop
- Mid-Atlantic cooperative work on marine debris

Building Capacity: Social Marketing

Help partners create successful social marketing campaigns to address sources of marine debris

Social Marketing to Protect the Environment Colling Office

Convertigence interaction

Doug McKenzie-Mohr Nancy R. Lee P. Wesley Schultz Philip Kotler

Social Marketing Campaign: Reduce Balloon Releases

"Joyful Send-off" campaign to reach brides, wedding planner...and universities.











Reducing use of plastic straws

- Universities
- Parks
- VA Beach "Keep It Beachy Clean"
- Virginia Green program



KEEP IT

BEACHY

BeachyCleanVB.org #KeepItBeachyCleanVB #StrawFreeVB

FOR SKIPPING THE STRAW

Virginia Beach

Disposal options for used and derelict clam netting on Virginia's barrier islands

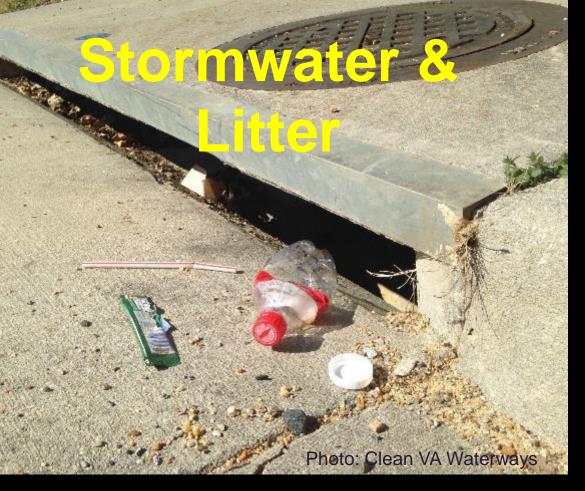






Clam growers committed to removing clam nets that wash up on beaches after storms. VA CZM is researching recycling of nets.

Photo: Clean VA Waterways



Workshops for Stormwater Managers

- Prevention of litter
- Interception of litter at stormdrains or "end of pipe" collection
- Need for funding & sharing of BMPs
- Results: 2 counties created task forces
- Increased interest in local ability to enact policies to reduce litter.
- Interest in raising the Litter Tax to help fund required reduction in plastic pollution in storm water.



Workshops for Stormwater Managers

- Woodbridge
- May 28, 2019

Monitoring VA's Remote Coastal Beaches 2013-2017





Smith Island Hog Island Fisherman Island Cedar Island False Cape State Park







- 11,441 balloon litter items documented
- Up to 272 per mile
- #1 most frequently found item

From "Balloon Litter on Virginia's Remote Beaches. 2018. VA CZM Program

Balloon Litter on Virginia's Remote Beaches

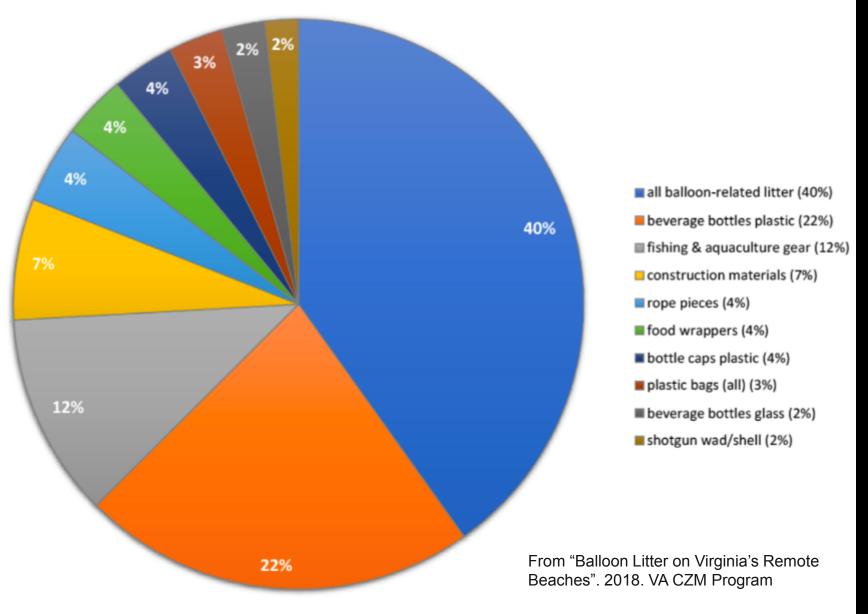
Results of Monitoring from 2013 through 2017



A report from Clean Virginia Waterways of Longwood University to the Virginia Coastal Zone Management Program for the FY16 Task 94.03 Grant

August 2018

Top Ten Marine Debris Items



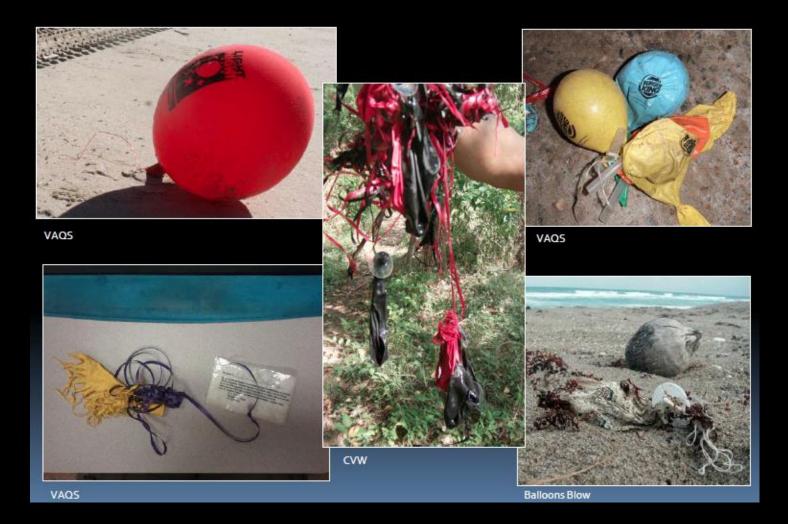




11,441 balloon litter items

- Latex > Foil
- 67% had attachments
- Star shape > heart
- Disney > Nickelodeon
- Birthday, Graduation,
 Mothers Day
 36 weather balloons
 - Balloons to Artwork!

Attachments



Ribbons, discs, clips, tape, valves...music box, notes & a boa

Protocol for monitoring to support future research



Balloon Litter Monitoring and Assessment for the Coastal Environment

By Kathryn O'Hara, Christina Trapani and Katie Register



July 2018

A protocol for monitoring balloon-related littler from Clean Virginia Waterways of Longwood University to the Virginia Coastal Zone Management Program for the FY17 Task 94.03 Grant.

Monitoring Marine Debris in VA's Coastal Zone



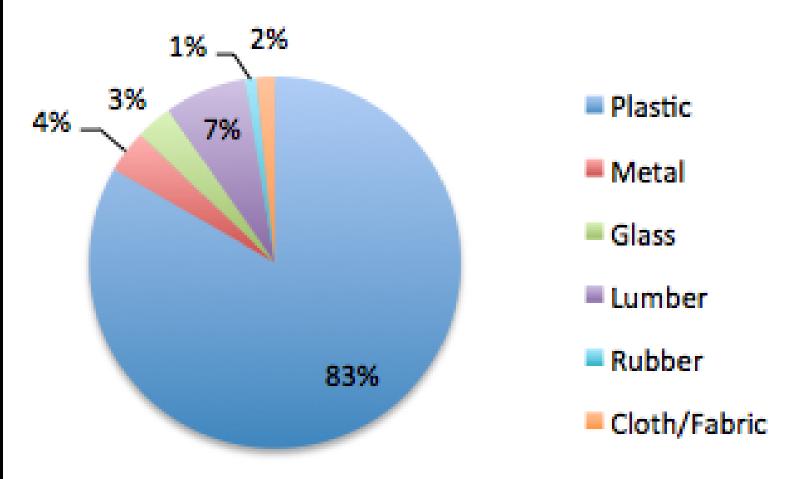






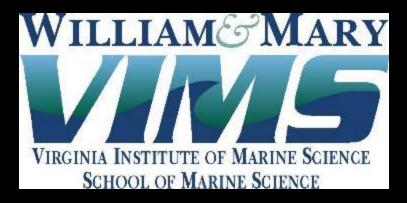
Photo by C. T

Sources of Debris by Material



Shotgun wads

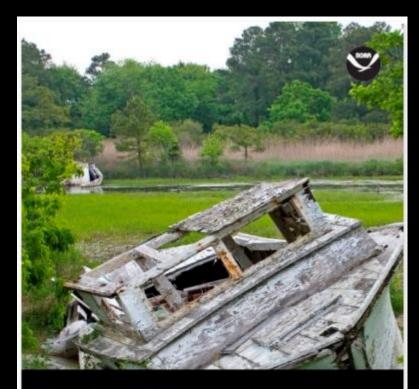
- VIMS: using biodegradable plastic to decrease plastic pollution in marshes.
- GreenOps Ammo sells ammo with biodegradable wads
 - <u>www.greenopsammo.com/</u>





A shotgun wad

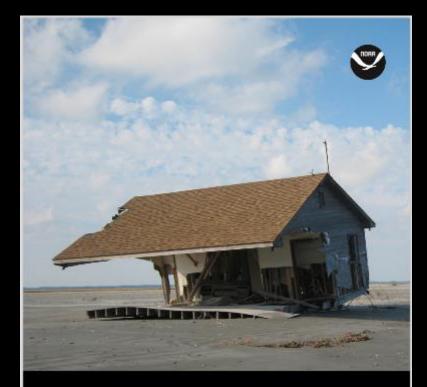
Virginia Marine Debris Emergency Response Guide



Virginia Marine Debris Emergency Response Guide: Comprehensive Guidance Document

NOAA Marine Debris Program National Ocumic and Atmospheric Administration U.S. Department of Commerce March 2018

Party Christia Topati, Em Mexic Company



Virginia Marine Debris Emergency Response Guide: Field Reference Guide

NOAA Marine Debris Program National Oceania and Atmospheric Administration U.S. Department of Commerce March 2018

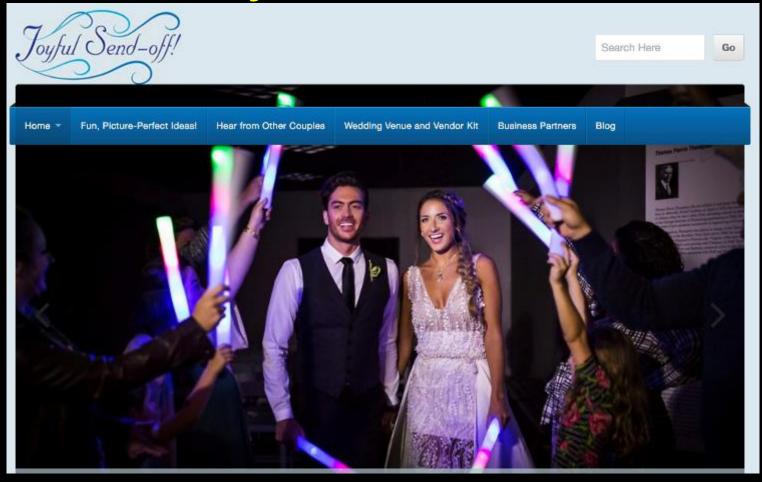
Pacto Christina Trapan, Ree Manno Compto

Reducing Balloon Litter

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Photo: Clean VA Waterways

Joyful Send-off



Community-Based Social Marketing methods to influence behavior. Target: reduce balloon releases at weddings & ceremonies.

New Web Site: PreventBalloonLitter.org

Prevent Balloon Litter Information and resources for the prevention of balloon litter More About Us The Problem with Balloon Litter Sources of Balloon Litter Alternatives to Balloon Releases





Sources of Balloon Litter Where does balloon litter come from and



Impacts on Wildlife Balloon litter can harm wildlife.



Resources About Balloon Litter



Resources

Q

Alternatives to Balloon Releases

Videos to support balloon-litter prevention



Balloon Litter, Say No to Letting It Go!

VA CZM Program & CVW



Balloon Awareness at Longwood University

Longwood University & CVW



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VA CZM Program & CVW



ATTN: Media Available on CVW YouTube Expanding balloon litter reduction campaign into the Mid-Atlantic Region

- Increase behavior change
- NY, NJ, DE, MD & VA
- NOAA Marine Debris Program grant & match from partners
- MARCO (Mid-Atlantic Regional Council on the Ocean) is lead on this project

NOAA Marine Debris Collaborative Portal for the Mid-Atlantic



2019 Mid-Atlantic Marine Debris Summit

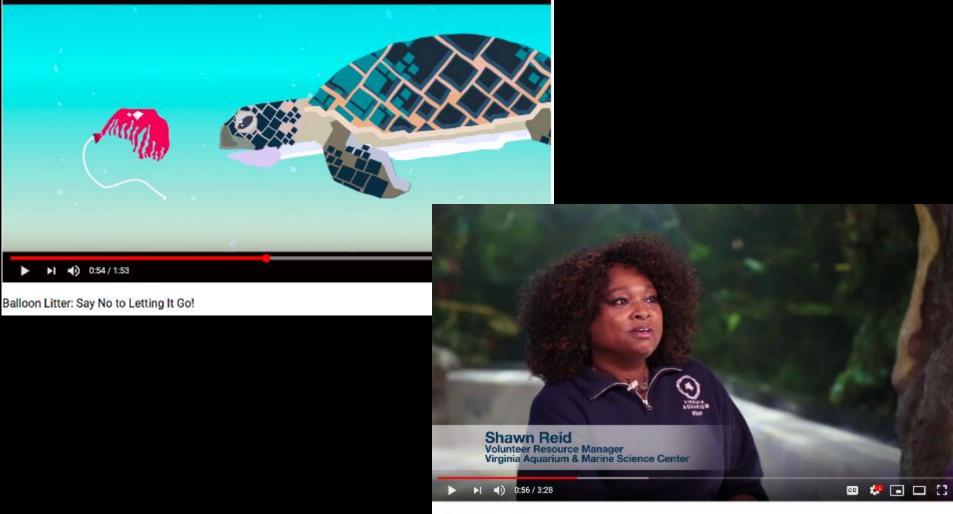
June 17-19, 2019 @ GMU Arlington Campus



Watch, like & share the videos

on the Clean Virginia Waterways of Longwood Univ. YouTube Channel!

https://www.youtube.com/channel/UC79VQJ1IkeGbKJDT-6owRyw



Balloon Litter: A Conversation

On land you call it litter, In the sea, it's marine debris. On the beach or in the ocean, It is all just trash to me. --Ike the feisty loggerhead sea turtle



Thank You!



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www.longwood.edu/cleanva/publications.html