

# Targeting Behaviors around the bay: where to aim?

Caroline Donovan, Steve Raabe,  
Kacey Wetzel

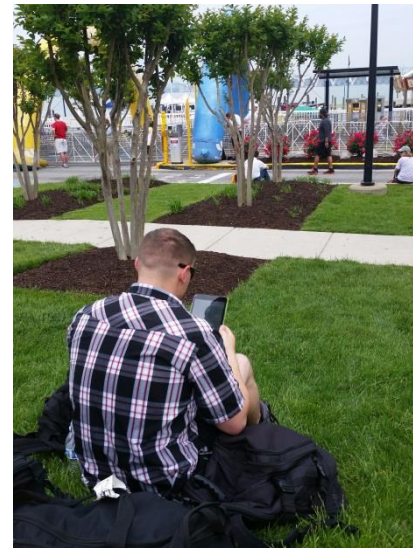
Alex Fries, Nicole Lehmer, Suzi  
Spitzer, Jamie Testa, Vanessa  
Vargas

March 24, 2016



# overview of presentation

- Social marketing campaigns
- The survey
- Results
  - By Behavior
  - Impact data
- Impact data

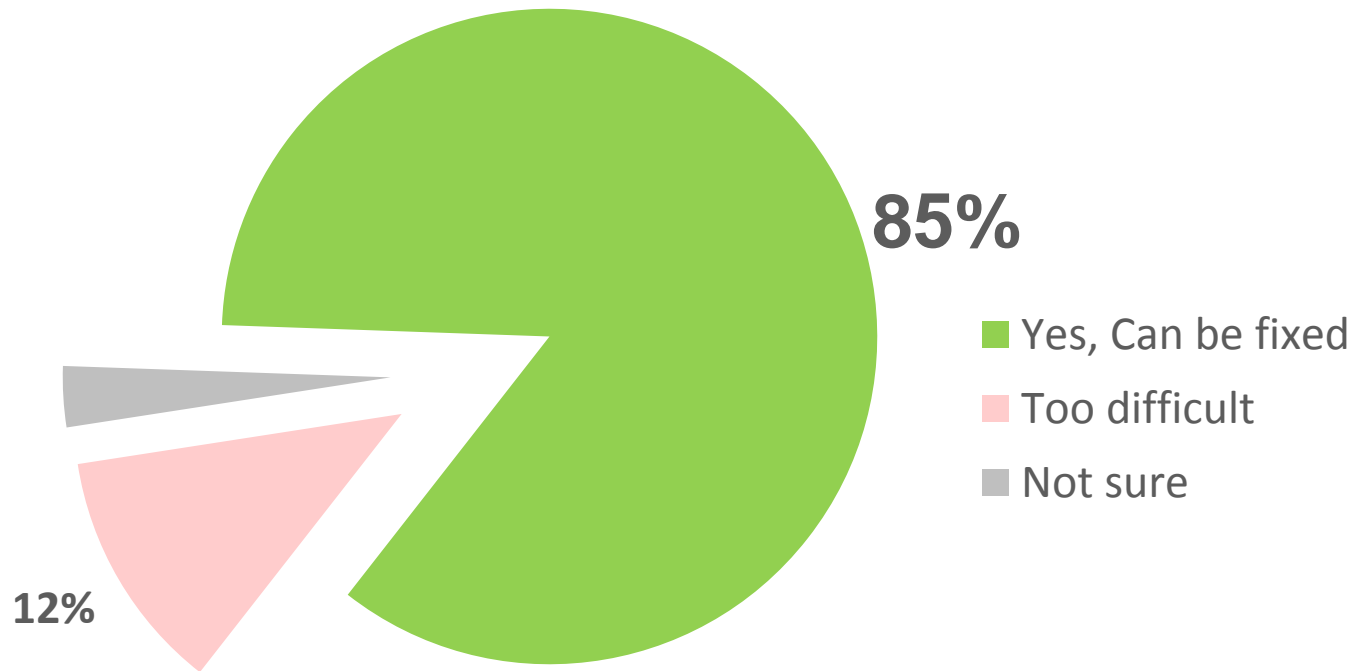


# Why give the survey?

- Informed behavior selection for watershed organizations
- Allows for Return On Investment consideration
- Efficient allocation of limited resources
- Demonstration of need to funding agencies and stakeholders

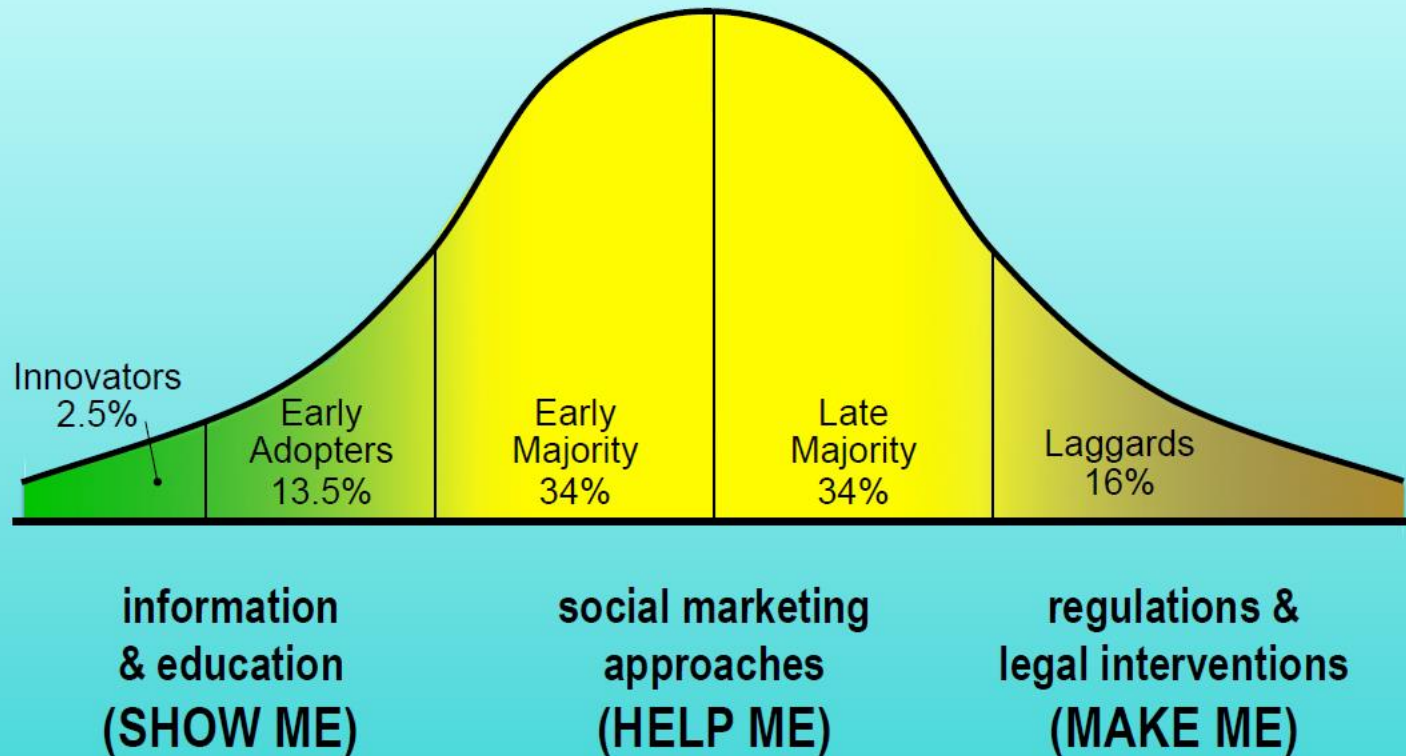
# Engaging the Public in Stewardship

Can Water Pollution be Fixed?



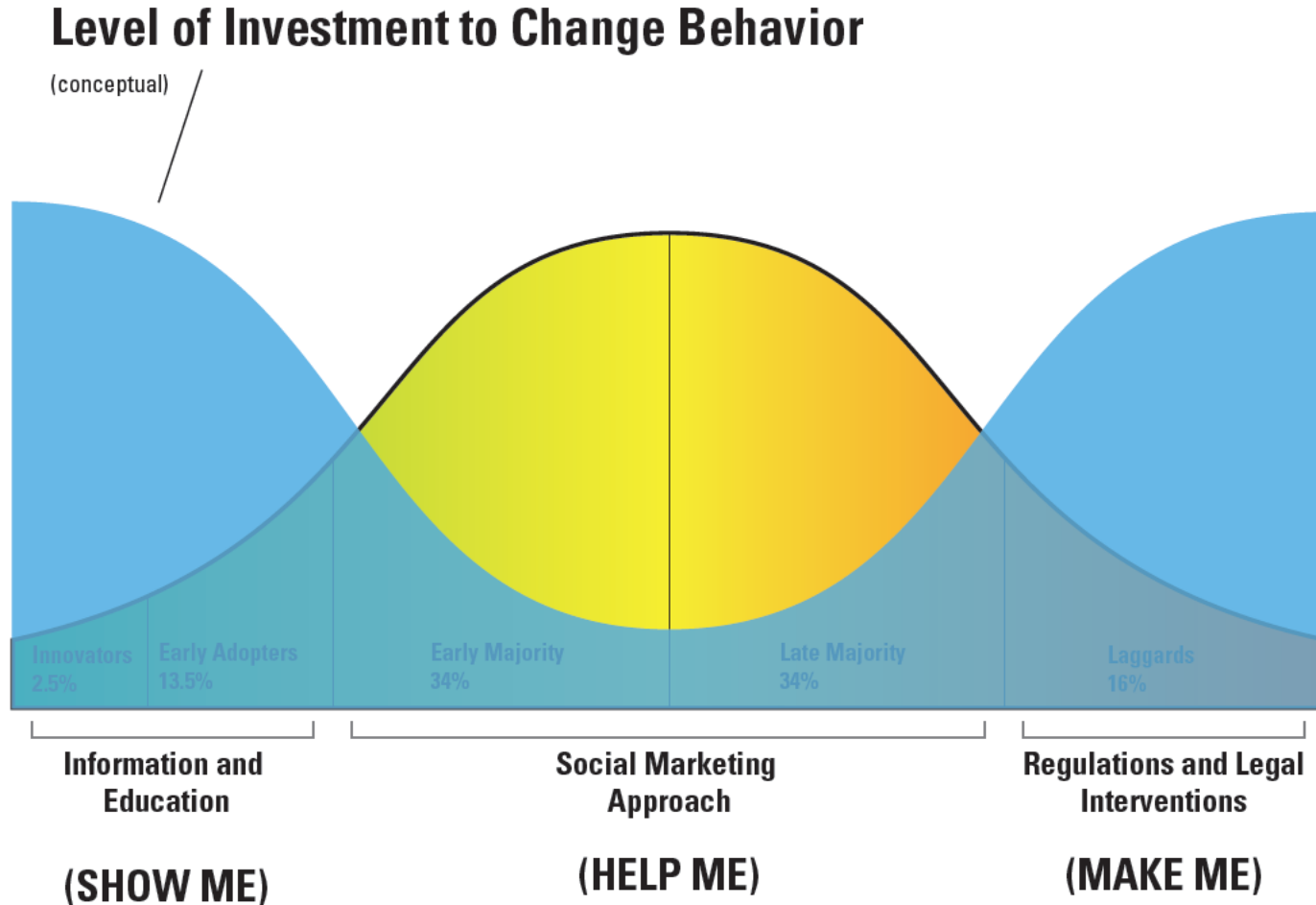
“When you think about pollution in our local waters,  
do you think the problem can be fixed or is it too difficult?”

# Diffusion Approaches: Education, Marketing, and Law



Graphic based on Everett Rogers, Diffusion of Innovations and Jay Kassirer, Confessions of an Environmental Social Marketer

# Time and effort to make change



# Engaging the Public in Stewardship

## Choose the Right Behavior to target

Impact of the Behavior on Water Quality

X

Penetration (Level of Adoption) in the Community

X

Likelihood the Public will Adopt the Behavior

# survey

- Baysurvey.org
- Branched survey
- Online
- Mobile tablets at events
- 2 study periods (2013-2014, 2015)
- *Go to survey online*




### Home and Property Survey

Thank you for taking part in this brief survey. This is the first survey of its kind, as we learn how residents, farmers, institutions, and businesses all throughout the Chesapeake Bay area, the Atlantic Coastal Bays, and Western Maryland are handling rainwater, vegetation, and other issues on their properties.

Your responses will be combined with thousands of others from around the Bay to create a complete picture. Thanks again for participating in this important project.

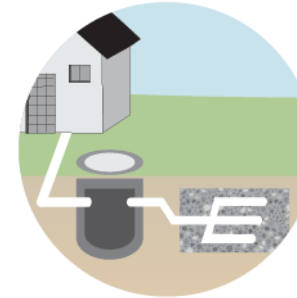
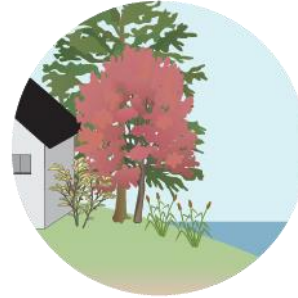
\* I am 18 years of age or older and voluntarily agree to participate in this survey.

Next





# behaviors

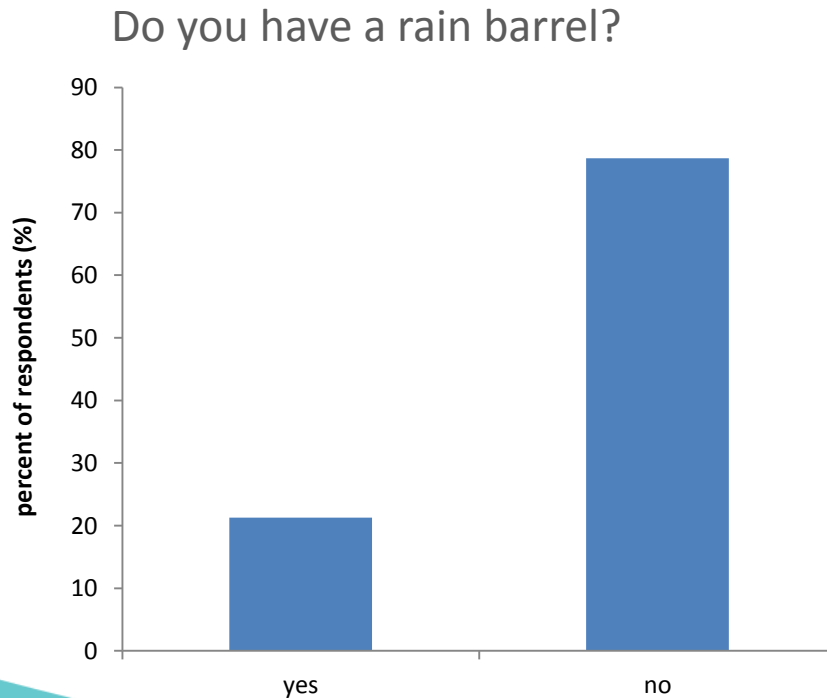


# Survey numbers

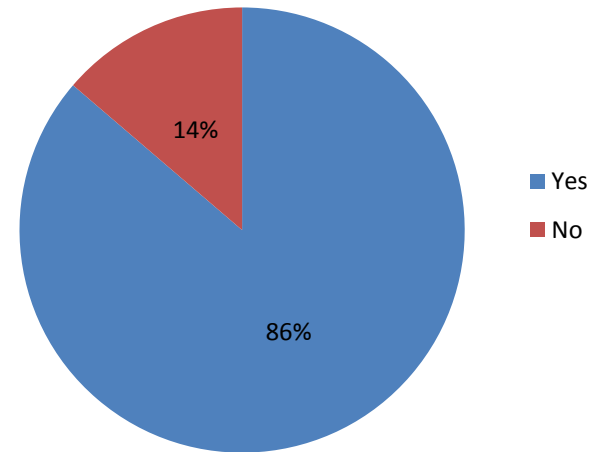
- Total number of surveys, 2013-Nov 2015
  - ~1145
  - 2013 Beta-testing phase (web and emailing only)  
= ~496
  - 2015 survey (tablet and web and emailing) = ~650
  - Includes all answers, even outside Chesapeake watershed

# Results: rain barrels

- 2015 data analyzed only
- 479 responses

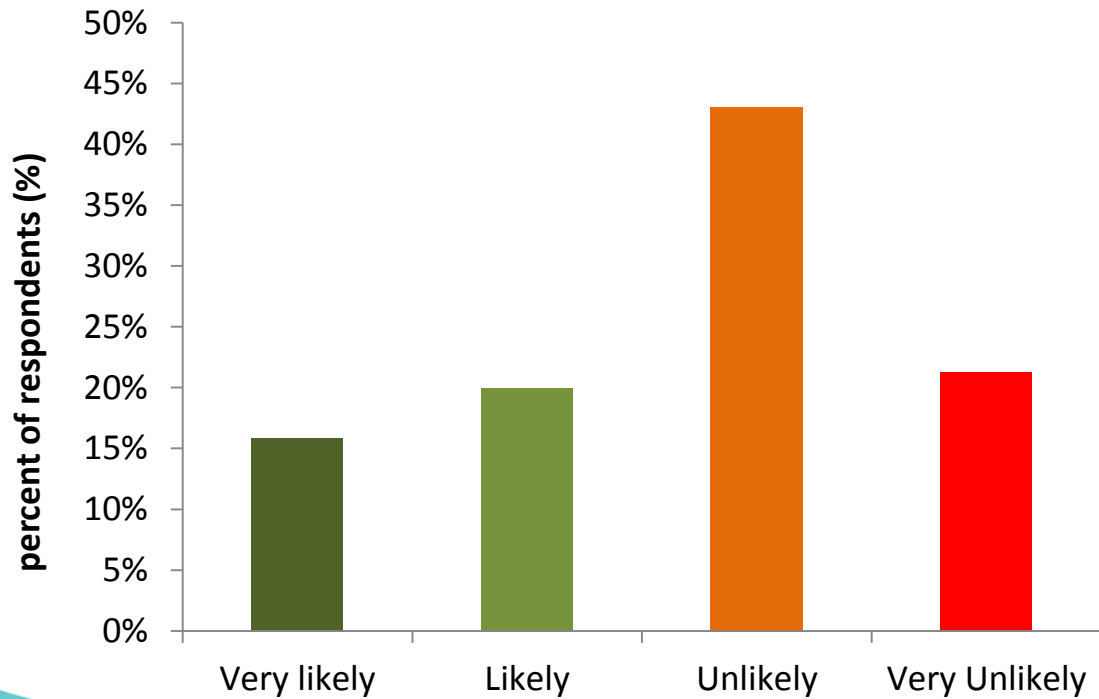


Is rain barrel connected?



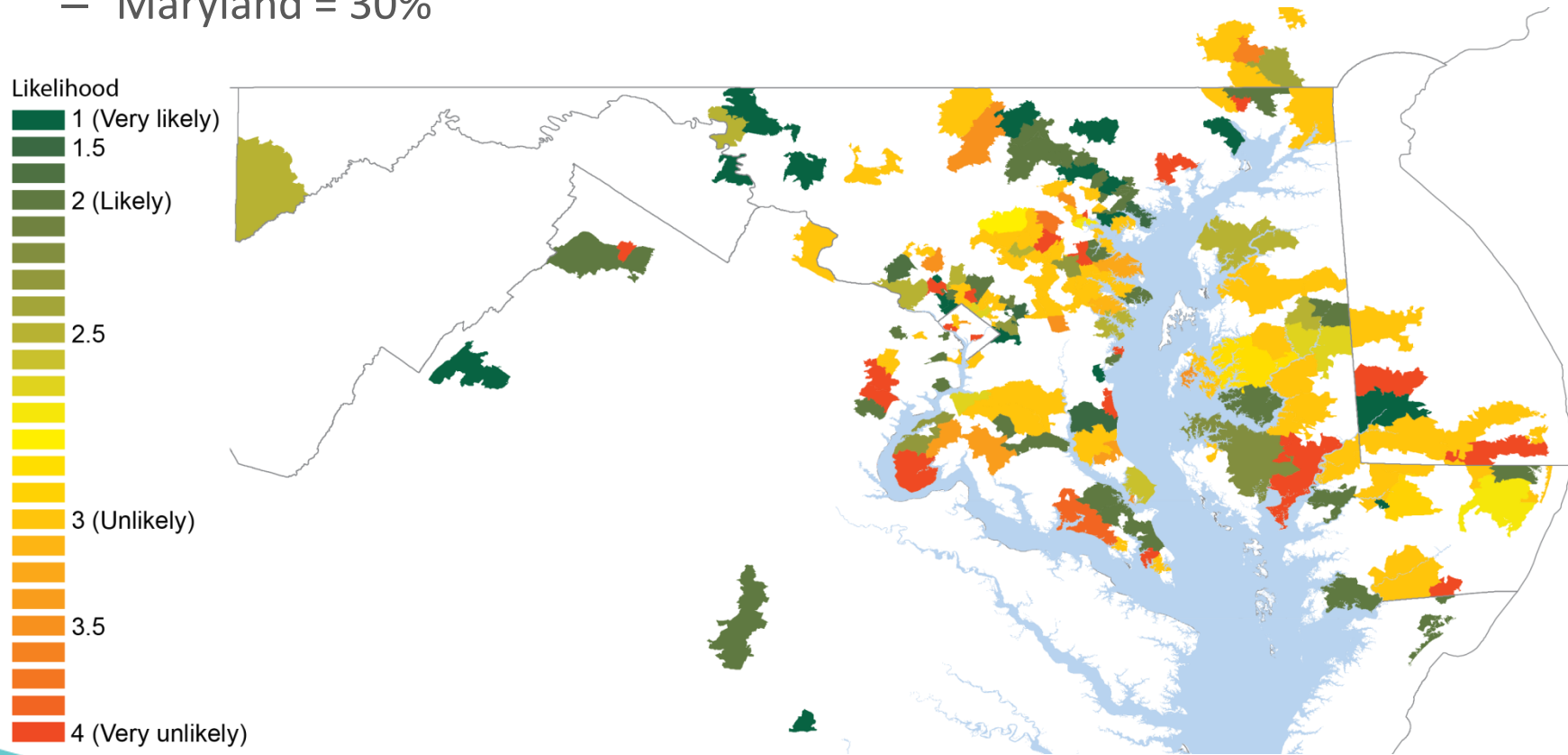
# Results: rain barrels likelihood

- 386 responses



# Results: rain barrels likelihood

- Overall likelihood of installing a rain barrel
  - All results = 30%
  - Maryland = 30%

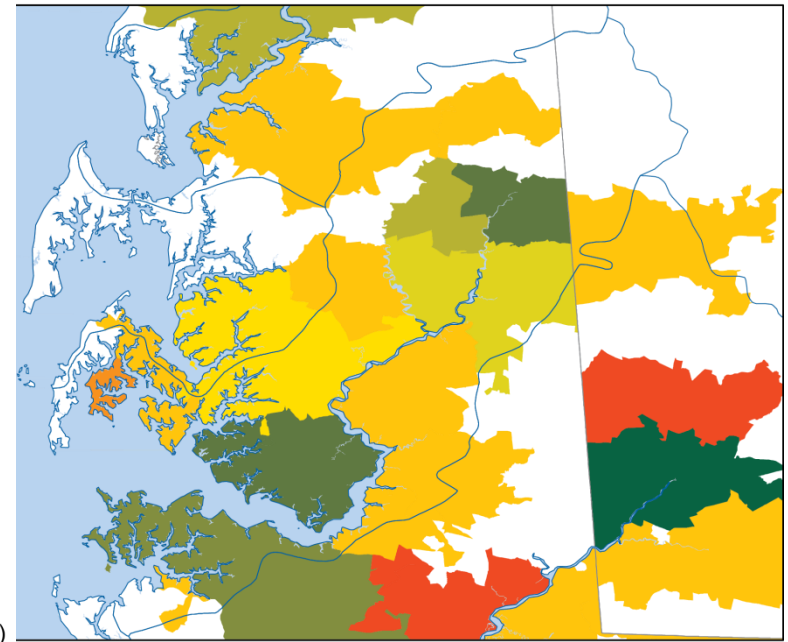
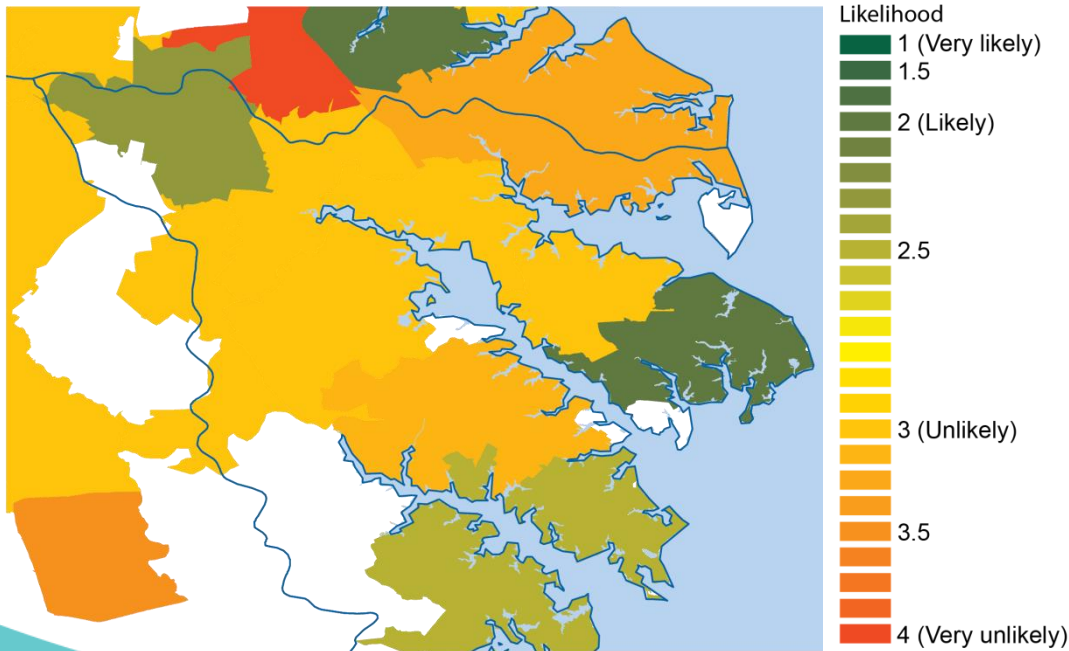


# Results: rain Barrels likelihood

- Overall likelihood of installing a rain barrel

Severn = 30%

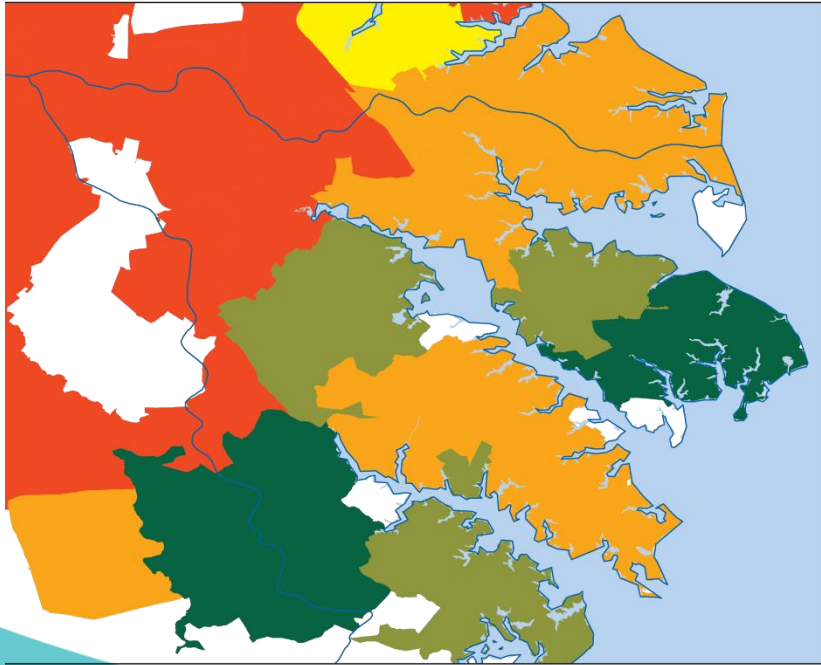
Choptank = 40%



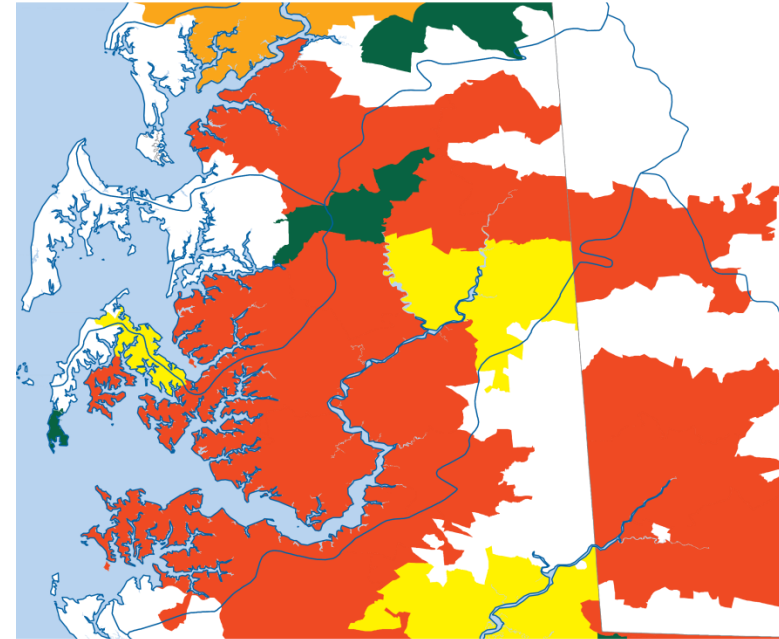
# Results: rain Barrels likelihood

- Have a rain barrel?

Severn = 30%



Choptank = 40%



Have a rain barrel?



# High level results

- Very few rain gardens in place
  - Unlikely to add one unless financial help provided (27.5%)
- Very few rain barrels in place; if so, only 1 (despite multiple downspouts)
  - Unlikely to add one (30%)
- Buffer vegetation
  - Tree, shrub, and grass buffers
  - All likely to preserve buffer
  - Unlikely to plant a grass or tree buffer (22.5-25%)





# High level results

- Leaves
  - Most people are not raking leaves into the street (6% into street)
  - Somewhat likely to bag or compost (36%)
- Conservation landscaping
  - Most people using native plants
  - Likely to replace grass with plants (43%) and to plant natives (56%)
- Fertilizer
  - Most people not fertilizing or fertilizing infrequently
  - Not likely to stop altogether (33%)
  - More likely to only fertilize in the fall (50%)
  - Or reduce by 50% (45%)



# High level results

- Septics
  - Most people pump out (67%) within the last three years (78%)
  - Most people have not installed or replaced (70%)
  - Most people are planning on pumpout within next three years (71%)
- Dog waste
  - Everyone picks it up outside yard
  - Focus on in-yard disposal, even if not likely
- Littering
  - People are littering but no one seems to know those people personally
  - Cigarette butts and food



# Impact data; rain gardens

- Assumptions
  - If a respondent more than one rain garden, assumed two
  - Drainage area for each rain garden is impervious and 500 sq ft
  - Rainfall treated is 1 inch per rain garden

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- Assumptions
  - If a respondent more than one rain garden, assumed two
  - Drainage area for each rain garden is impervious and 500 sq ft
  - Rainfall treated is 1 inch per rain garden
  - Amount reduced per year

Total nitrogen	Total phosphorus	TSS
14.259	2.076	1551.052

# Next steps

- Counties, HOAs, communities use [baysurvey.org](https://baysurvey.org)
- Stewardship Index – Maryland-wide

# Thank you!

- Caroline Donovan
- [cdonovan@umces.edu](mailto:cdonovan@umces.edu)
- [lan.umces.edu](http://lan.umces.edu)
- [Baysurvey.org](http://Baysurvey.org)



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