

MARSH RESILIENCE SUMMIT

FEBRUARY 5-6, 2019

A roadmap forward in the Chesapeake Bay



CHESAPEAKE
BAY

Chesapeake Bay Sentinel Site Cooperative

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Coordinator

Chesapeake Bay Sentinel Site Cooperative Mission



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Provide long term data, information, tools and educational resources, derived from local observations collected at sentinel sites to improve planning and management decisions regarding relative sea levels, inundation and associated ecological changes.



Our Sentinel Sites



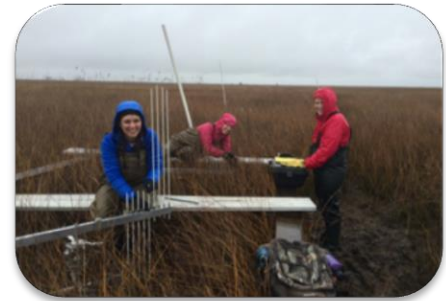
Assateague
NSS



Blackwater
NWR



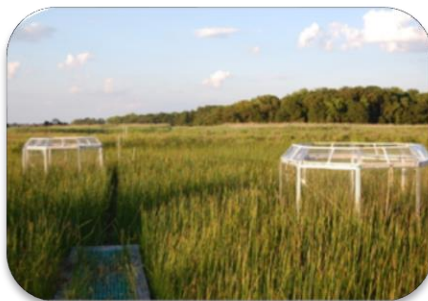
CBNERR-VA



CBNERR-MD



Poplar Island



SERC



VCR



VCU

Partners:

None of us is as smart as all of us



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Smithsonian Environmental
Research Center

Why we wanted a summit

- * Marshes are under threat, but they're dynamic
- * Changes to marsh extent impact other coastal land uses
- * Why save marshes?
- * How can we save them?



Why we wanted a summit

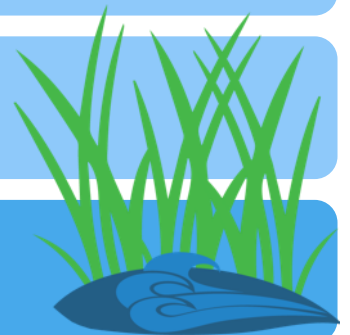
Bring stakeholders to the table

What works

What's on the horizon

Research priorities

Calls to action



Summit Stats

- * February 5-6, 2019
- * Coastal Virginia and Maryland
- * Approx. 230 participants
- * Representing 115 agencies
- * 50 presentations
- * 24 posters



Photo credit: Aileen Devlin, VASG

What worked

- * Regional focus
 - * Geographical commonality
 - * MD vs VA
 - * Similar issues, diversity of approaches
- * Discussion and dialogue
 - * Audience diversity
 - * Facilitators and small groups



Results

- * Most presentations and posters are posted on the CBSSC website <http://chesapeakebayssc.org/marsh-summit/>
- * The Marsh Summit Proceedings provided brief session summaries and list Discussion Session notes in the appendices

Sessions and discussions

Marsh
migration

Environmental
markets

Co-benefits of
marsh
conservation

Community
resilience

Management
Techniques

Dredge and
beneficial use

Living
shorelines and
thin layering

Agriculture
and industry

Marsh Migration

- * The role subsidence plays in sea-level rise
- * Role of phragmites
- * Sediment source
- * Migration barriers
- * Policy options
- * Investments:
 - * Dealing with timescales
 - * Tradeoffs



Photo credit: Lennert Schepers

Environmental Markets

- * Blue carbon
- * Insuring natural infrastructure
- * Who pays?
- * How to quantify?



Co-benefits of Marsh Conservation

- * Moving beyond Band-Aid or short-term approaches
 - * Extirpation
- * Human benefits
- * Increase accountability
- * Citizen science

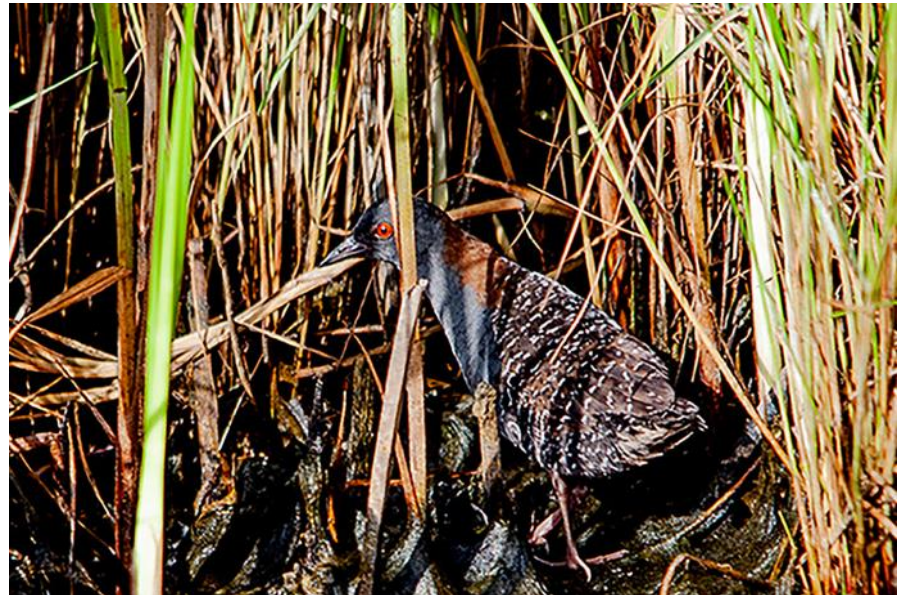


Photo credit: Chesapeake Bay Program

Community Resilience



Photo credit: Rona Kobell

- * Property values
- * Road vulnerability
- * Marsh migration vs marsh encroachment
- * Increase local government capacity

Management Techniques

- * Where are the restoration projects?
- * What's lost in translation?
- * Regulations lag behind science
- * Knowledge gap for freshwater marshes



Photo credit: Lorie Staver

Dredge and Beneficial Use



Photo credit: Scott Hardaway

- * Permitting frustrations
- * Match-making dredge to beneficial use

Living Shorelines and Thin Layering

- * Need for social science and social marketing
- * Link between permits, contractors, and residents
- * Timescales and perceptions



Photo credit: Chesapeake Bay Program

Agriculture and Industry

- * What land options do farmers have?
- * Your marsh vs our forest



Photo credit: Kate Tully



Resulting Priorities and Next Steps

Cost-Benefit Analysis for Coastal Land Use

- * Define the role of a migrated marsh
- * Ensure more long-term, cohesive monitoring



Photo credit: Aileen Devlin, VASG

Information Exchange

- * Use trusted facilitators
- * Use clearinghouses
- * Lead more targeted workshops



Photo credit: Aileen Devlin, VASG

Collaboration and more collaboration



Photo credit: Aileen Devlin, VASG

- * Support interstate efforts
- * Connect everyone
- * Assist lower resource communities
- * Promote co-benefits among user groups
- * Establish interdisciplinary teams

What's next?

- * More workshops!
 - * Vertical Land Motion in the Chesapeake Bay
 - * February 28, 2020, Hampton VA
 - * Evaluating Land Use Tradeoffs
 - * October, 2020 Eastern Shore, MD
- * Another Summit?

Thank you



And thank you to our steering committee:

Donna Bilkovic, Virginia Institute of Marine Science

Michelle Covi, Virginia Sea Grant*

Kyle Derby, Chesapeake Bay National Estuarine Research Reserve Maryland*

Jennifer Dindinger, Maryland Sea Grant

Nina Garfield, NOAA Office of Coastal Management

Keryn Gedan, George Washington University

Sally Lawrence Wood, Chesapeake Bay National Estuarine Research Reserve Virginia

Erik Meyers, The Conservation Fund

Shep Moon, Virginia Coastal Zone Management Program*

Fredrika Moser, Maryland Sea Grant*

William Reay, Chesapeake Bay National Estuarine Research Reserve Virginia*

Suzanne Skelley, NOAA Oxford Laboratory

Skip Stiles, Wetlands Watch

Ariana Sutton-Grier, The Nature Conservancy

Alexander Wooten, Morgan State University



Thank you

