Communicating Chesapeake Bay science and management

Caroline Wicks, Heath Kelsey, William Dennison, Alexandra Fries



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Chesapeake Bay is one of the most studied and managed estuaries

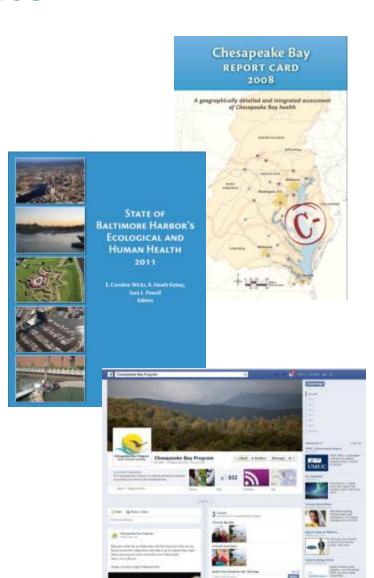
- Clean Water Act = 1972
- Chesapeake Bay
 Commission created = 1980
- 1st Chesapeake Agreement= 1983
 - Several updates to agreement including 2014
- U.S. EPA Chesapeake Total
 Maximum Daily Load = 2010
 - Watershed ImplementationPlans = 2012





Communication strategy evolved with the science

- 1970s Basic research
- 1980s More and more data
- 1990s More and more data, more and more management
- 2000s Synthesis and integration
- 2010s One-way and two-way communication (Web, social media)



What is a communication strategy?

• Strategic communications helps an organization share a clearly defined message with everyone involved with that organization -- internally and externally. It is an intentional process that looks at what each audience within the group needs to hear from you.

1. Define your message

Save the Bay!

4. Explore outlets (print, web)



7. Get approval



2. Analyze your target audiences





5. Create a time frame



8. Implement strategy



3. Define your goal(s)



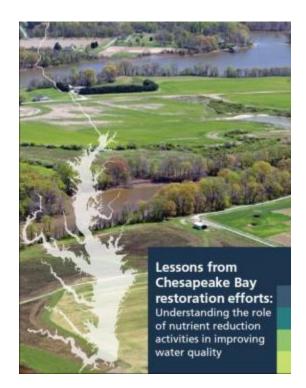
6. Identify ways for feedback

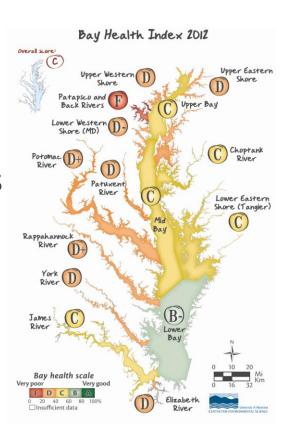




Examples of different communication strategies

- Strategic plan
- Product drives the process
- Products driven by management needs





Developing a variety of communication products



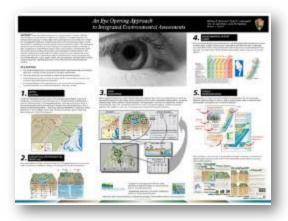
Newsletters



Science Journals



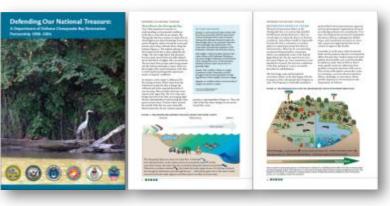
Posters



Reports



Books



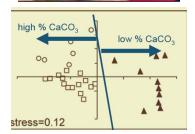
Visual elements for communication

- Conceptual diagrams for context and synthesis
- Maps for geographic context
- Photos that describe methods, study sites, processes and relevance
- Video clips that capture complex system dynamics and processes
- Tables and figures for scientific data





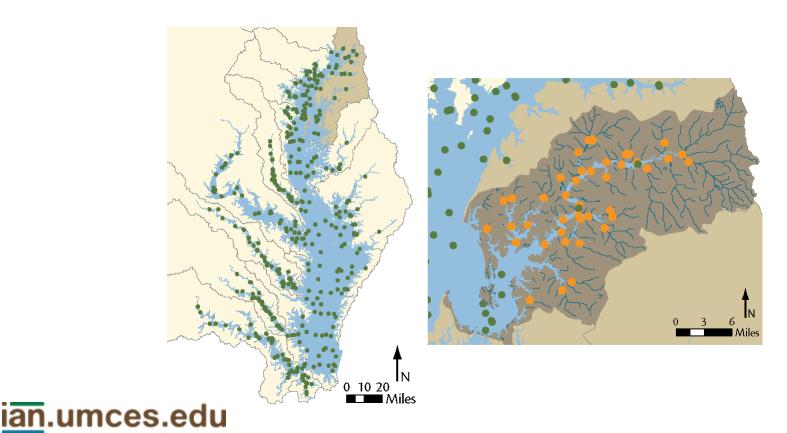






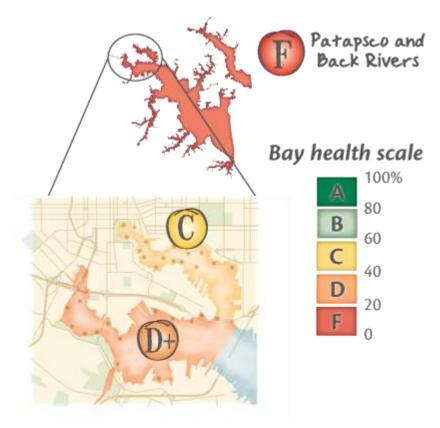
Challenges of a multi-state, multi-partnership communication strategy

- Data synthesis
 - So much data
 - Variety of temporal and spatial scales



Challenges of a multi-state, multi-partnership communication strategy

- Messaging
 - Conflicting messages
 - Sometimes inaccurate/confusing messages being received
 - Information not always presented in a timely fashion
 - Information generally relates to the 'whole bay'. Not enough information about local waterways
 - Regulation vs management
 - Science is complex
 - Report card fatigue







Challenges of a multi-state, multi-partnership communication strategy

Chesapeake Bay Program Data synthesis and Decision Support System messaging Land Use Criteria Change Model Watershed Assessment Model Management Model Procedures Reduce/readjust loads via BMPs, rerun model, repeat as needed Inputs BMPs · Land use Watershed model Chesapeake Bay model Do results meet water Location of quality standards? septic systems Wastewater treatment plant locations and discharges Precipitation Flevation Allocate loads Soil type · etc.

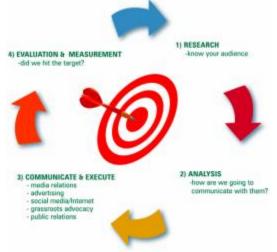
Final thoughts

- As science evolves, so does the communication strategy that connects it to the public
- The current strategy is constantly under revision
- Part of the adaptive management cycle

 Next big technological advancement for environmental science or communications?







If you look at the various strategies available for dealing with a new technology, sticking your head in the sand is not the most plausible strategy.

--Ralph Merkle

Acknowledgements

- UMCES
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- Virginia Department of Environmental Quality
- Old Dominion University
- Mid-Atlantic Tributary Coalition (Riverkeepers, watershed organizations, etc.)











