



Partnerships for Climate Resilience & Adaptation on the Eastern Shore

November 4, 2016

Adaptation & Response Work Group

Brian Ambrette



Photo: David Harp

ESLC: What we do

- ▶ Land Preservation & Stewardship
- ▶ Center for Towns
- ▶ Coastal Resilience Program
- ▶ Policy Advocacy
- ▶ Eastern Shore Conservation Center

Where we work

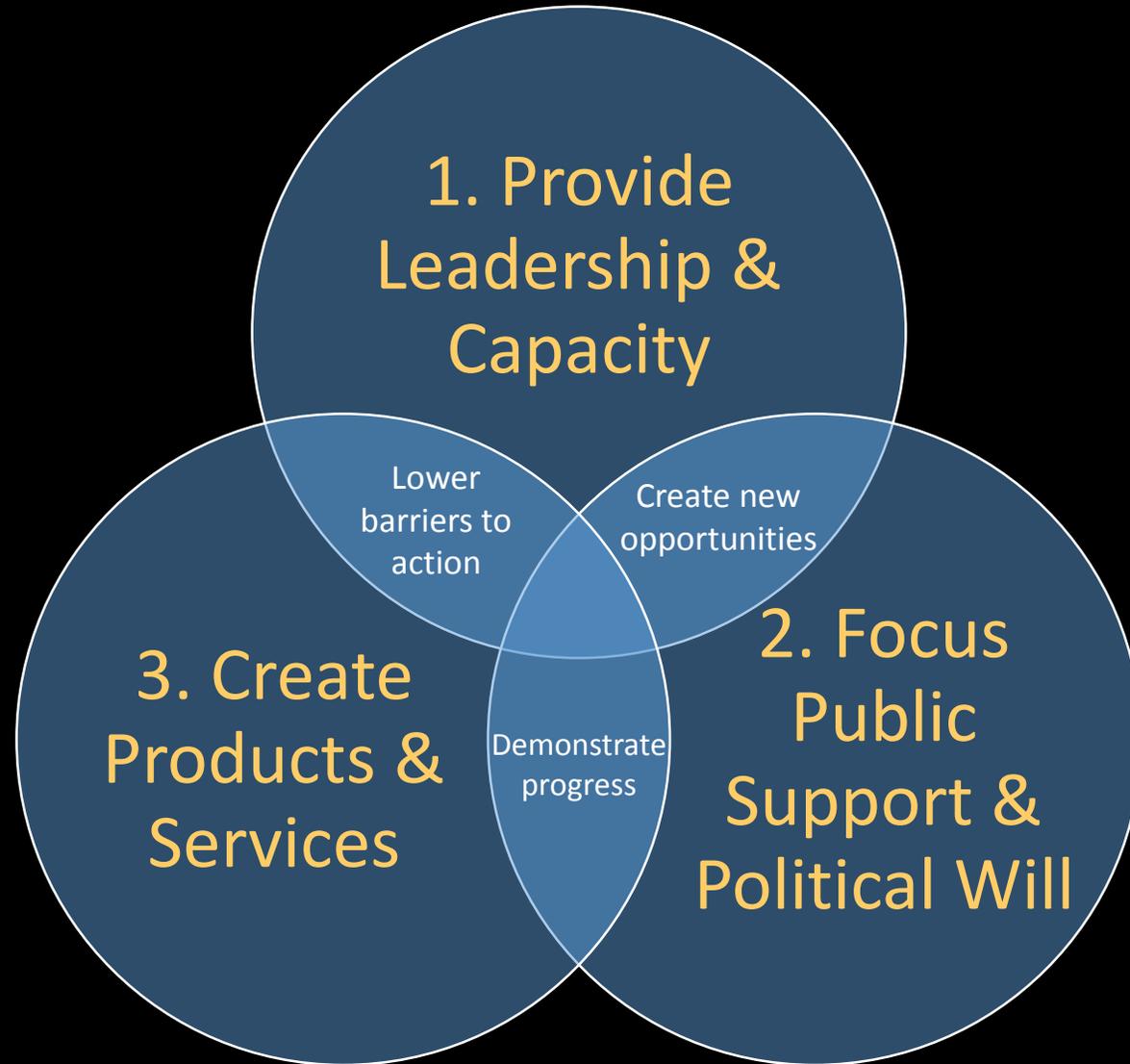
- ▶ C&D Canal to the Nanticoke River
- ▶ Caroline, Cecil, Dorchester, Kent, Queen Anne's, Talbot counties



Photo: Brian Ambrette

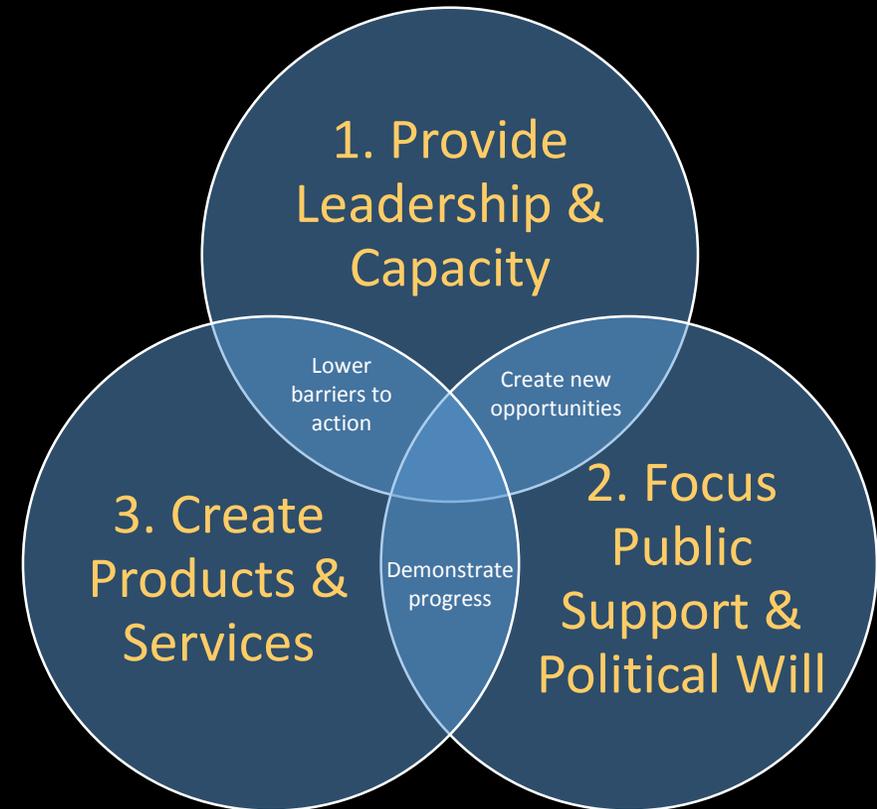


Coastal Resilience Program Goals



Projects and Initiatives

- ▶ **Kent County climate vulnerability study (completed September 2016)**
- ▶ Regional climate adaptation collaborative (launched March 2016)
- ▶ Coastal Resilience Chapter for comprehensive plans (Cambridge - November kickoff)
- ▶ Outreach (ongoing)



Kent County Climate & Sea Level Rise Vulnerability Study

Goal 1 – **Identify** the natural hazards that will be exacerbated by climate change and sea level rise and **understand** how those impacts will affect the residents, economy, and natural resources of the county.

Goal 2 – **Engage stakeholders** in dialogue about natural hazards, the effects of climate change, and potential actions for mitigation or adaptation.

Goal 3 – **Communicate** the study's findings and recommendations to the public.

Goal 4 – **Train a team** in Maryland on the "VCAPS" method for assessing vulnerabilities.

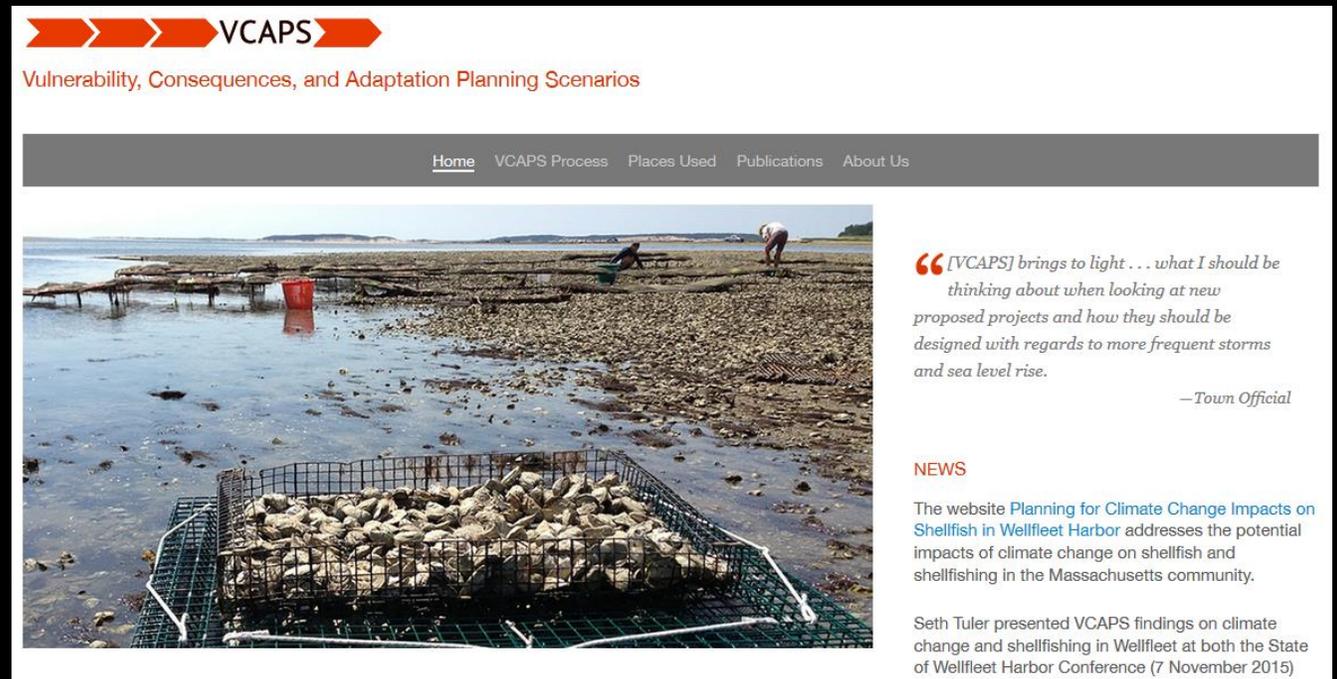


The VCAPS Method

Vulnerability, Consequences, and Adaptation Planning Scenarios

Benefits

- ▶ A participatory process
- ▶ Uncovers data needs, responsibility gaps, and planning requirements
- ▶ Strengthens collaboration across departments
- ▶ Improves public awareness and participation



The screenshot shows the VCAPS website header with the logo and title "Vulnerability, Consequences, and Adaptation Planning Scenarios". Below the header is a navigation menu with links for Home, VCAPS Process, Places Used, Publications, and About Us. The main content area features a photograph of a coastal scene with a shellfish trap in the foreground and a person working in the background. To the right of the photo is a quote from a town official: "[VCAPS] brings to light . . . what I should be thinking about when looking at new proposed projects and how they should be designed with regards to more frequent storms and sea level rise." Below the quote is a "NEWS" section with a link to "Planning for Climate Change Impacts on Shellfish in Wellfleet Harbor" and a paragraph mentioning Seth Tuler's presentation at a conference in 2015.

www.vcapsforplanning.org

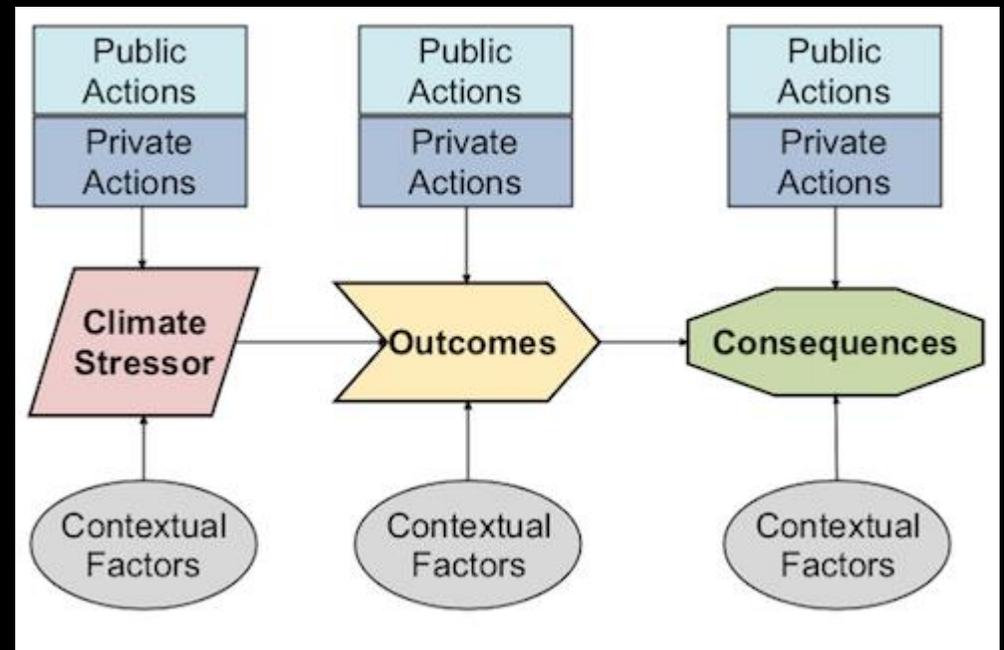


The VCAPS Workshops

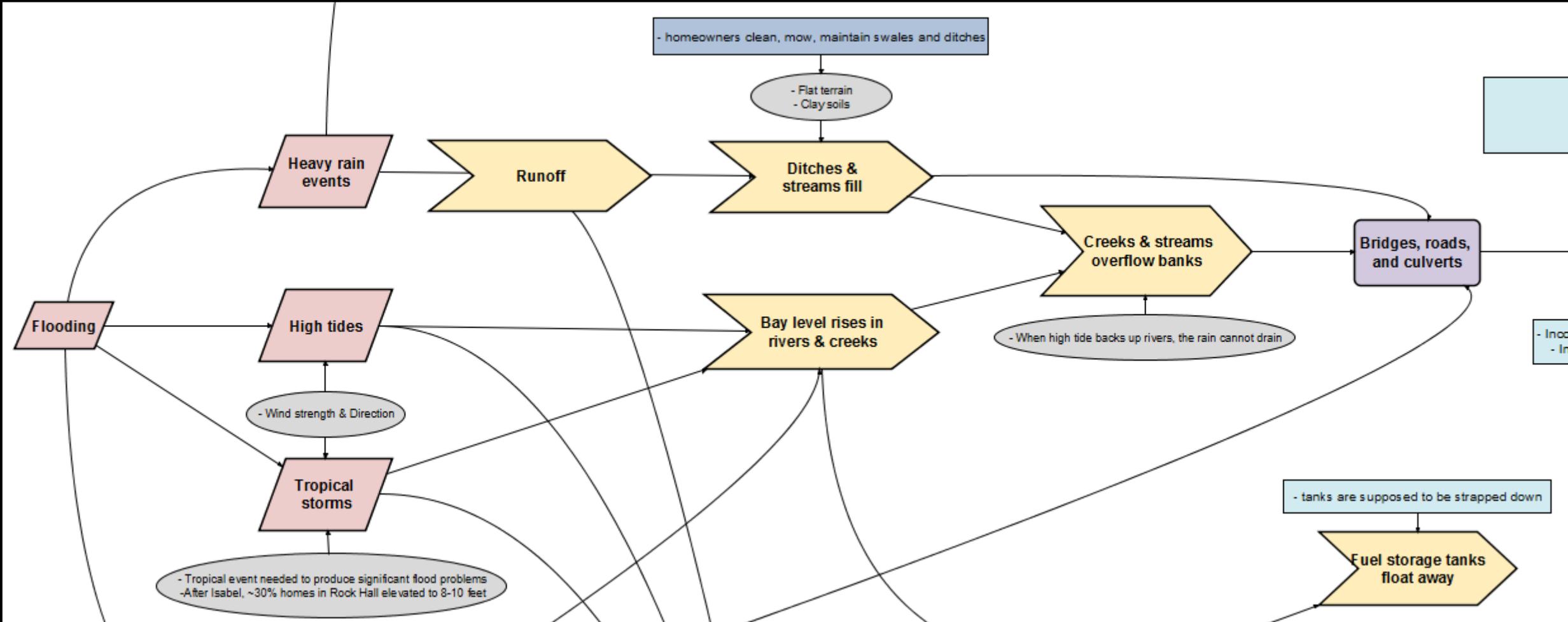
How it works

- ▶ A facilitated conversation
- ▶ Aided by real-time “conversation mapping”
- ▶ Produces cause-and-effect linkages between natural hazards and community impacts
- ▶ Integrates science with local context and experiences

Causal diagramming



The VCAPS Process



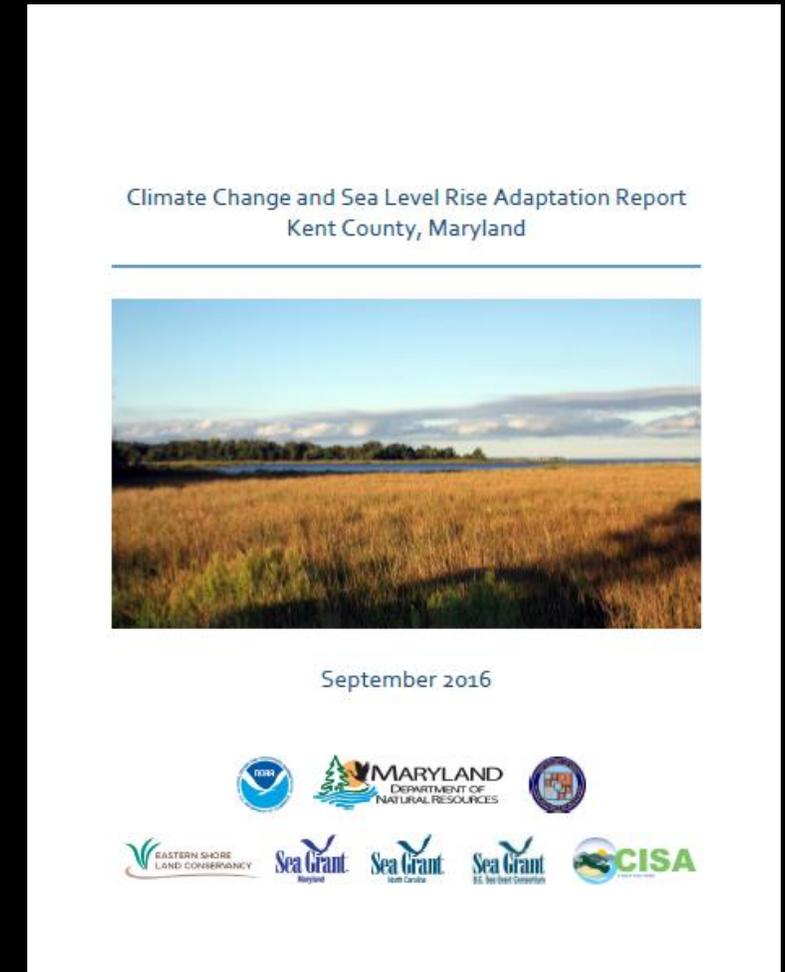
Recommendations

- ▶ Cooperation & Collaboration
 - ▶ Community Resilience
 - ▶ Education, Information, and Outreach
 - ▶ Emergency Management
 - ▶ Infrastructure & Maintenance
 - ▶ Planning & Decision-making
 - ▶ Land Use & Land Management
 - ▶ Research & Data
- ▶ 8 categories
 - ▶ 21 recommendations
 - ▶ 48 actions recommended by stakeholders
 - ▶ 17 additional actions



Outcomes

- ▶ Report adopted by County Commissioners and Planning Commission in September
- ▶ Influencing concurrent Comprehensive Plan update
 - ▶ 2019 Hazard Mitigation Plan update
 - ▶ Options for strengthening floodplain ordinance
- ▶ Common language and shared understanding of climate impacts across county government



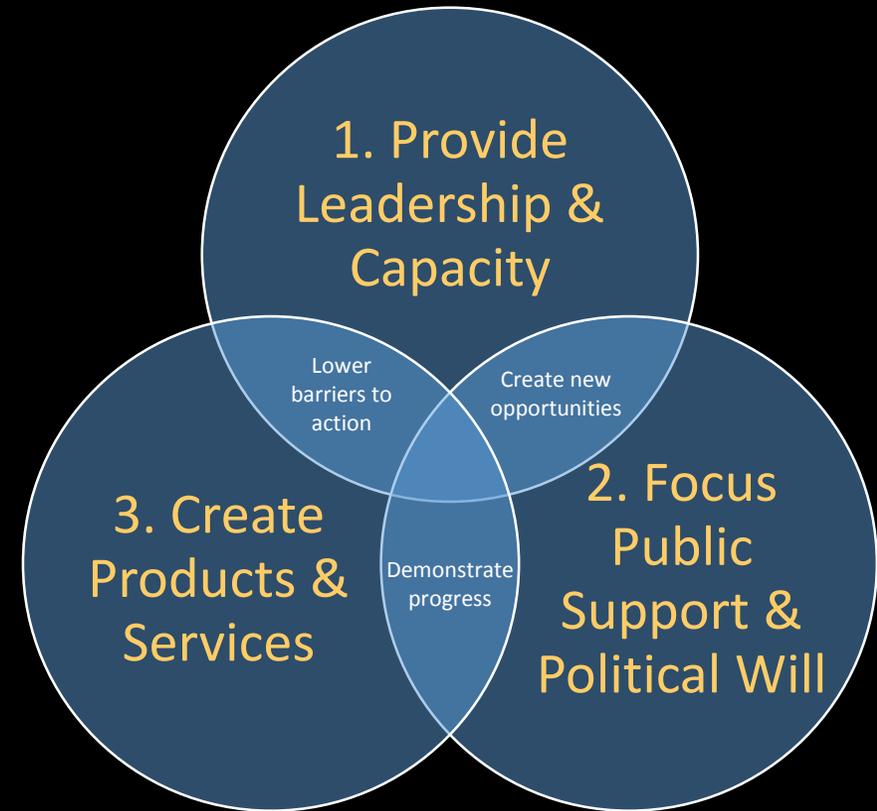
Voices from Kent County

- ▶ *“The 2 to 4 inch rainstorms are more common.”*
- ▶ *“It seems like all we have now is 100-year events.”*
- ▶ *“The 100-year event is much more frequent and unrelated to growth or development.”*
- ▶ *“The Chester River floods more frequently at high tide, particularly in the summer.”*
- ▶ *“Now every storm is a serious concern for life and property.”*
- ▶ *“It doesn’t freeze like it used to. There’s no more skating on the ponds.”*
- ▶ *“Summers are becoming like Florida.”*
- ▶ *“As a teen I remember being hired to work in dry fields during school vacation in March. Now we’re not able to work in the fields until April because they stay wet longer.”*



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Eastern Shore Coastal Resilience Facilitated Community of Practice (FCoP)

Pilot Phase (March – June 2016)

- ▶ Funding from Town Creek Foundation
- ▶ Travel grants for members to attend EPA's Local Solutions: Climate Preparedness Conference
- ▶ 4 monthly meetings
 - ▶ Understand challenges and priorities for local climate adaptation
 - ▶ Identify resources: NOAA Climate Resilience Toolkit
 - ▶ Generate buy-in for sustained regional collaboration



Why regional collaboration?

- ▶ Professional support community
- ▶ Shared risks and vulnerabilities
- ▶ Knowledge sharing, avoid reinventing the wheel
- ▶ Communication across departmental and jurisdictional lines
- ▶ Economies of scale
- ▶ Greater funding opportunities
- ▶ Increase regional adaptive capacity
- ▶ Exposure and influence at state and federal levels



Eastern Shore “climate adaptation partnership”

- ▶ 5 counties – Caroline, Dorchester, Kent, Queen Anne’s, Talbot
- ▶ 2 towns – Cambridge, Oxford
- ▶ 3 state agencies – DNR, MDE, MEMA
- ▶ 4 academic institutions – UMCES, UMD Sea Grant Extension, Chesapeake College CLEEn, Washington College Shore Power Project
- ▶ 1 nonprofit - ESLC



Eastern Shore “climate adaptation partnership”

Vision

Eastern Shore communities are prepared, resilient, and able to adapt to flooding, extreme weather, and changing conditions.

Purpose

The Eastern Shore Climate Adaptation Partnership promotes learning and collaboration among Eastern Shore communities to prepare for changes in weather patterns, flooding, and other environmental conditions. The ESCAP is a venue for partners to provide support, education, technical assistance, and resources to help member communities build resilience.



Eastern Shore “climate adaptation partnership”

Goals

1. **Assist members** in utilizing existing resources, expanding capacities, and locating additional assistance to **reduce risk, and prepare and protect** their communities' human, economic, and environmental health.
2. Collect, house, and **share information** among members.
3. **Educate** members, residents, and elected leaders on changing risks, potential adaptation strategies, and the ESCAP's work.



Eastern Shore “climate adaptation partnership”

Work in progress

- ▶ Adaptation work plans for members
- ▶ White Paper: *The case for local climate adaptation and regional collaboration on the Eastern Shore*

Work concepts in development

- ▶ Extreme Rainfall Study (NOAA grant pending)
- ▶ FEMA Community Rating System collaboration and assistance



Thank you

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