

Facilitating Community Resiliency Discussions Using The Vulnerability and Consequences Adaptation Planning Scenarios (VCAPS) Process

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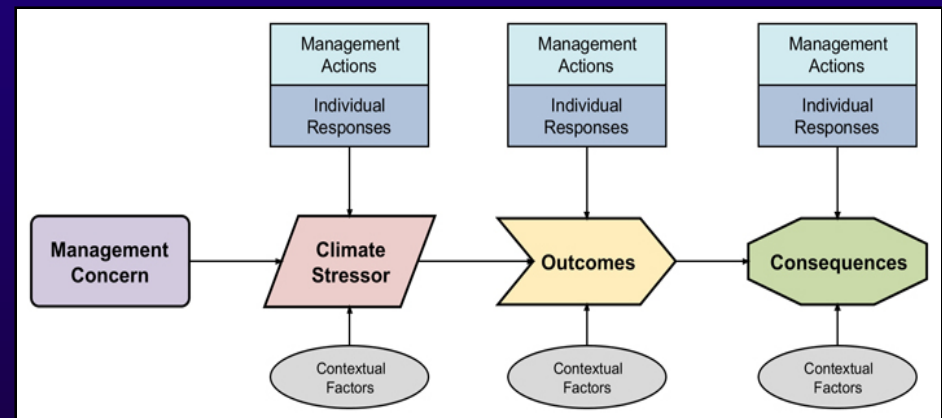
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NOAA in the Carolinas



Outline

- What is VCAPS?
- Typical VCAPS Process
- VCAPS in the Carolinas
- Summary



What is VCAPS?

- A facilitated process to support local planning
- Engages local officials
- Provides an opportunity for group learning and dialogue
 - About climate science and hazards
 - A framework for thinking

VCAPS Elements

- Integrates local knowledge with scientific information
- Anchored in conceptual frameworks of hazards and vulnerability
- Diagramming tool links local stressors, consequences, vulnerabilities, management options
- Represents reasonable, flexible demands on time, and resources

VCAPS Benefits

- Produces “useable knowledge”
 - Can be integrated into routine planning activities
 - Hazard mitigation planning (MA)
 - Climate change planning (SC, NC)
 - Highlights multi-hazards approach, timing, and flexibility
- Engages (skeptical?) local governments

Typical VCAPS Process



- Review background materials
- Contact key informants to identify participants and logistics
- Facilitate 2-4 meetings
- Conduct follow-up participant interviews
- Produce lessons learned document

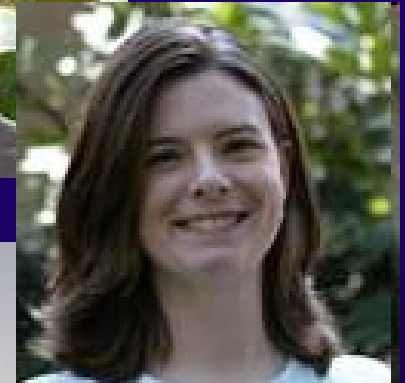
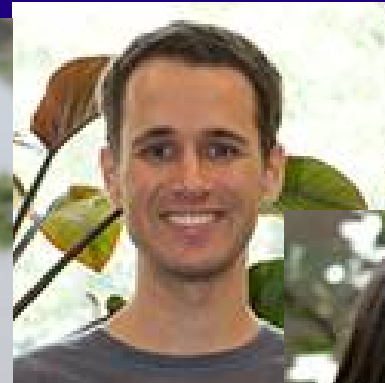
VCAPS Session Participants (6-10)

- Town manager/administrator
- Town Council
- Planning Commission and staff
- Water and sewer staff
- Stormwater managers
- Building inspector
- Town comptroller
- Consulting engineers
- Other local decision makers



VCAPS Facilitation Team

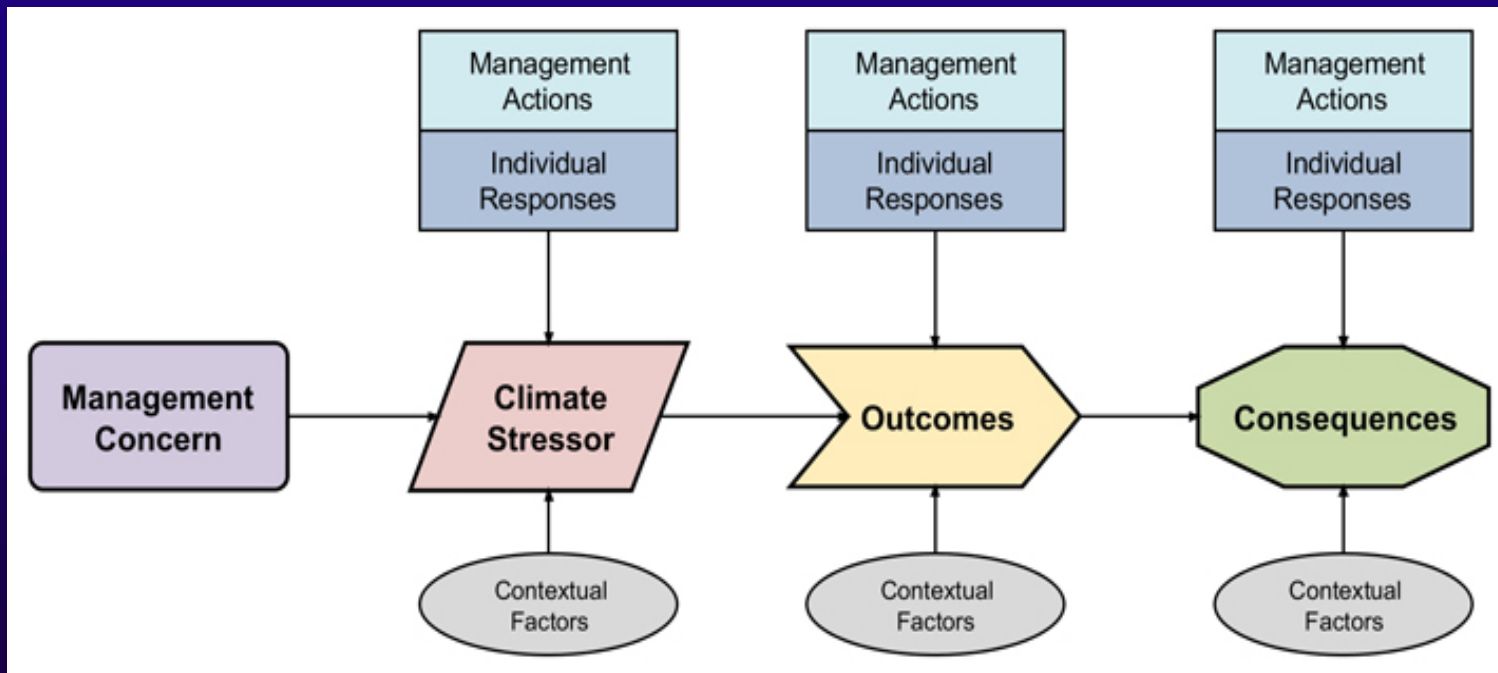
- Facilitator
- Scribe
- Climate Expert
- Assistant Scribe
- Notetaker



VCAPS Diagramming Sessions

- Session 1
 - Introduction to VCAPS
 - Presentation about locally relevant climate stressors
 - Primer on VCAPS building blocks
 - Interactive diagramming time
- Session 2++
 - Interactive diagramming time
 - Reflections and wrap-up

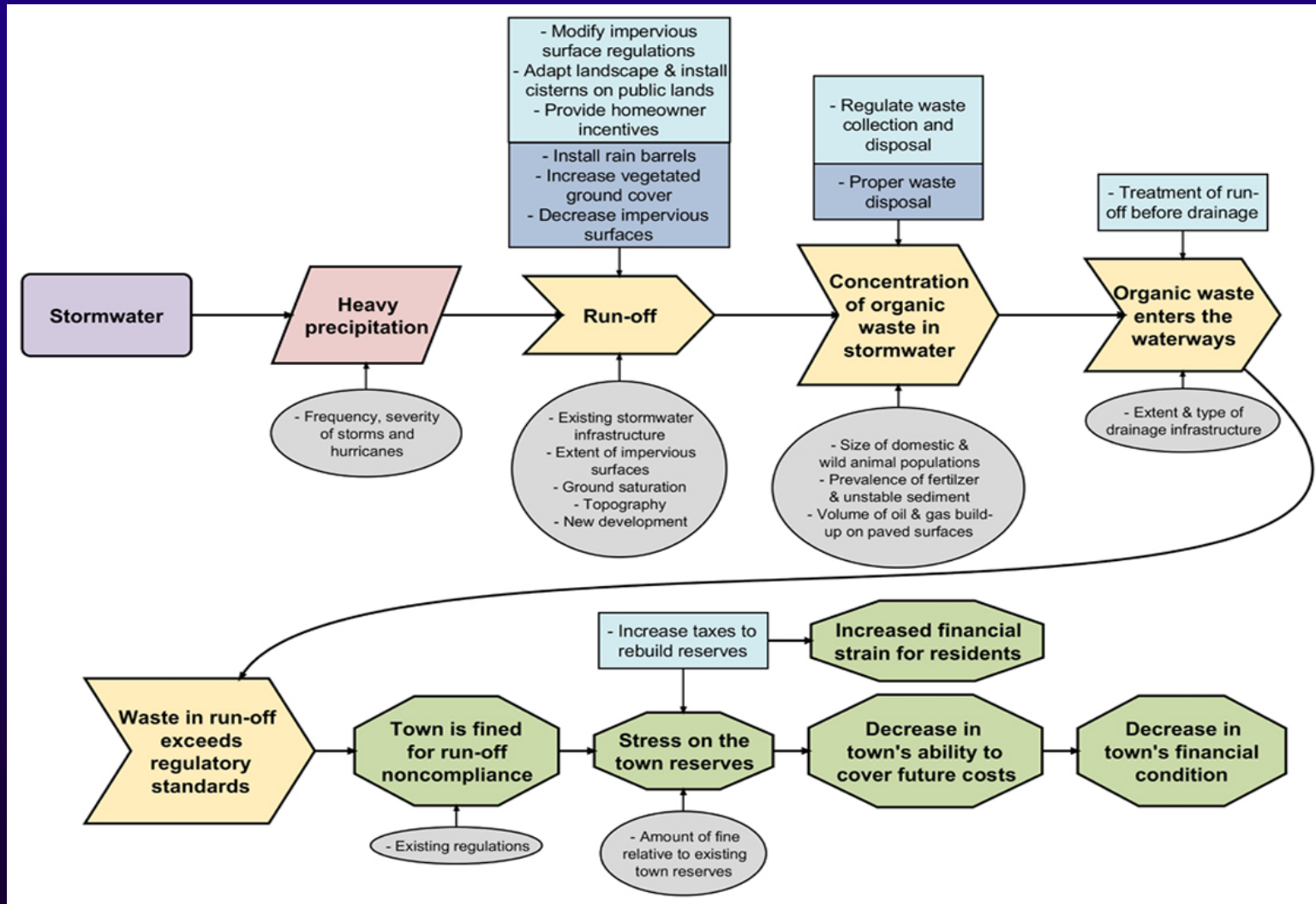
VCAPS Diagrams: Building Blocks



How to Create a Diagram

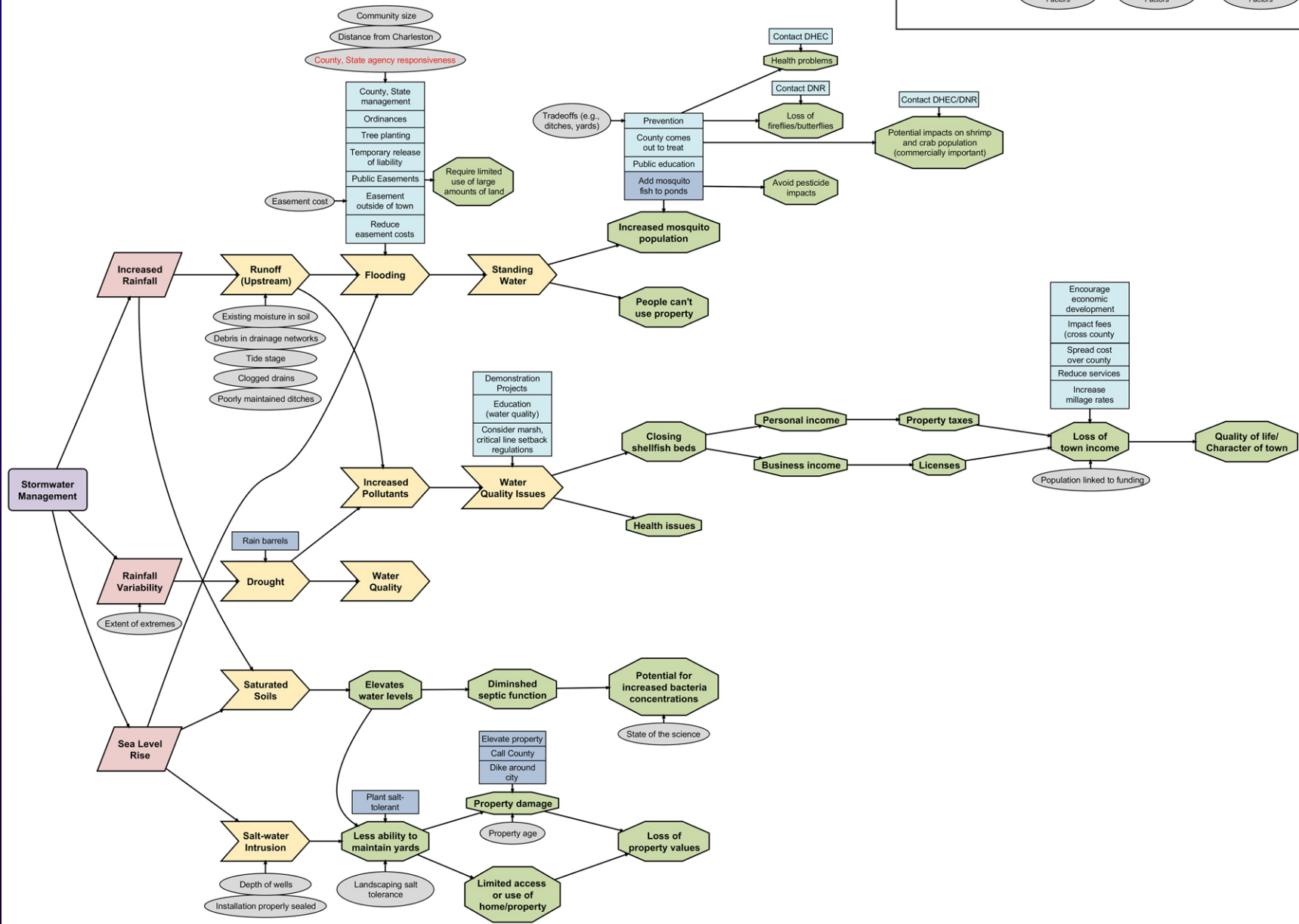
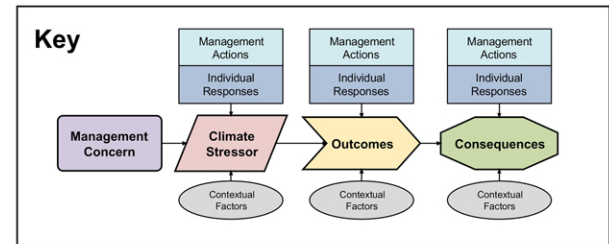
- VUE freeware from Tufts University:
vue.tufts.edu
- Start simple; gradually make more complex
- Begin with management category, climate stressor
- Start with the outcome that follows most immediately from the climate stressor
- Focus on outcomes, consequences that can be modified by management or individual actions

Sample VCAPS Chain



McClellanville VCAPS Diagram

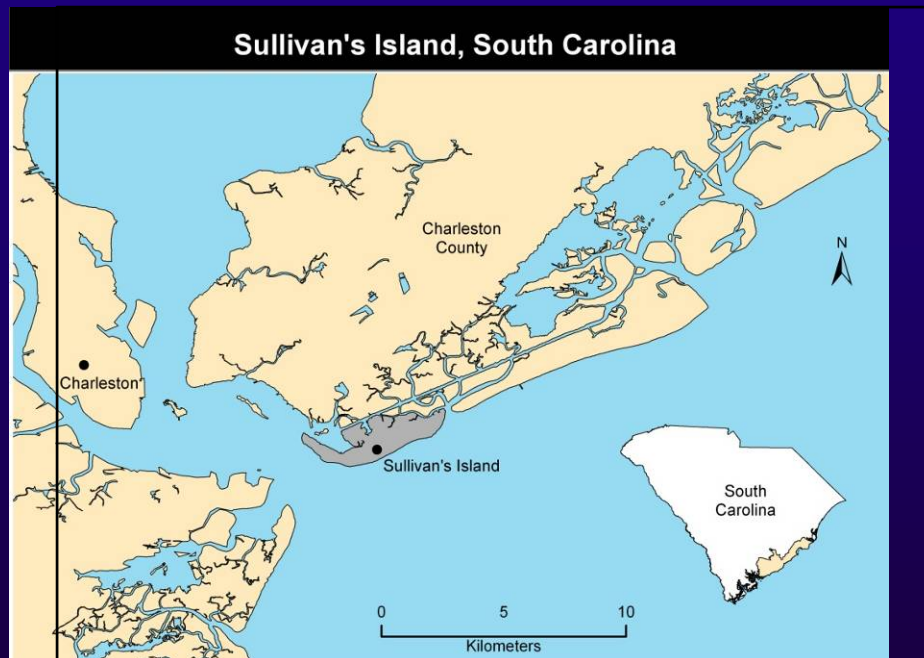
April 1, 2011



VCAPS in the Carolinas



Sullivan's Island, SC: pop. 1,791



- Approximately 8 sq. km; entirely within 100-yr floodplain
- Island already experiences:
 - Erosion
 - Accretion
 - Flooding during exceptionally high tides
- Expected relative sea level rise will exacerbate flooding
- Local officials interested in learning, but some ambivalent about climate change.
- No planning specifically for climate change impacts.

Community Responses to Hazards

- Coastal armoring
- Regulation
- Land protection
- Cooperative service agreements and plans
- Community education
- Update/improve infrastructure



SI Participants' Insights

- Potential impacts multi-faceted
- Opportunities for no/low regret strategies, co-benefits
- Management strategies can have unintended consequences
- Tradeoffs exist among adaptation options
- More could be done to share information across departments, staff, and officials
- Need coordination, strategies for working with state agencies

Summary

- Conceptual framework structured thinking, discussions
- Real-time diagramming supported understanding, information-sharing
- Challenging to balance efficiency vs. letting people share
- Self-generated scenarios more credible
- Local planners interested in working with consultants
- Local planners hungry for local scale, relevant climate science
- Need better integration into “routine” decision processes

Benefits of the Process

- Gathers and summarizes community information, knowledge, and experience
- Stimulates thinking and conversation about managing consequences
- Identifies issues, data needs to be explored



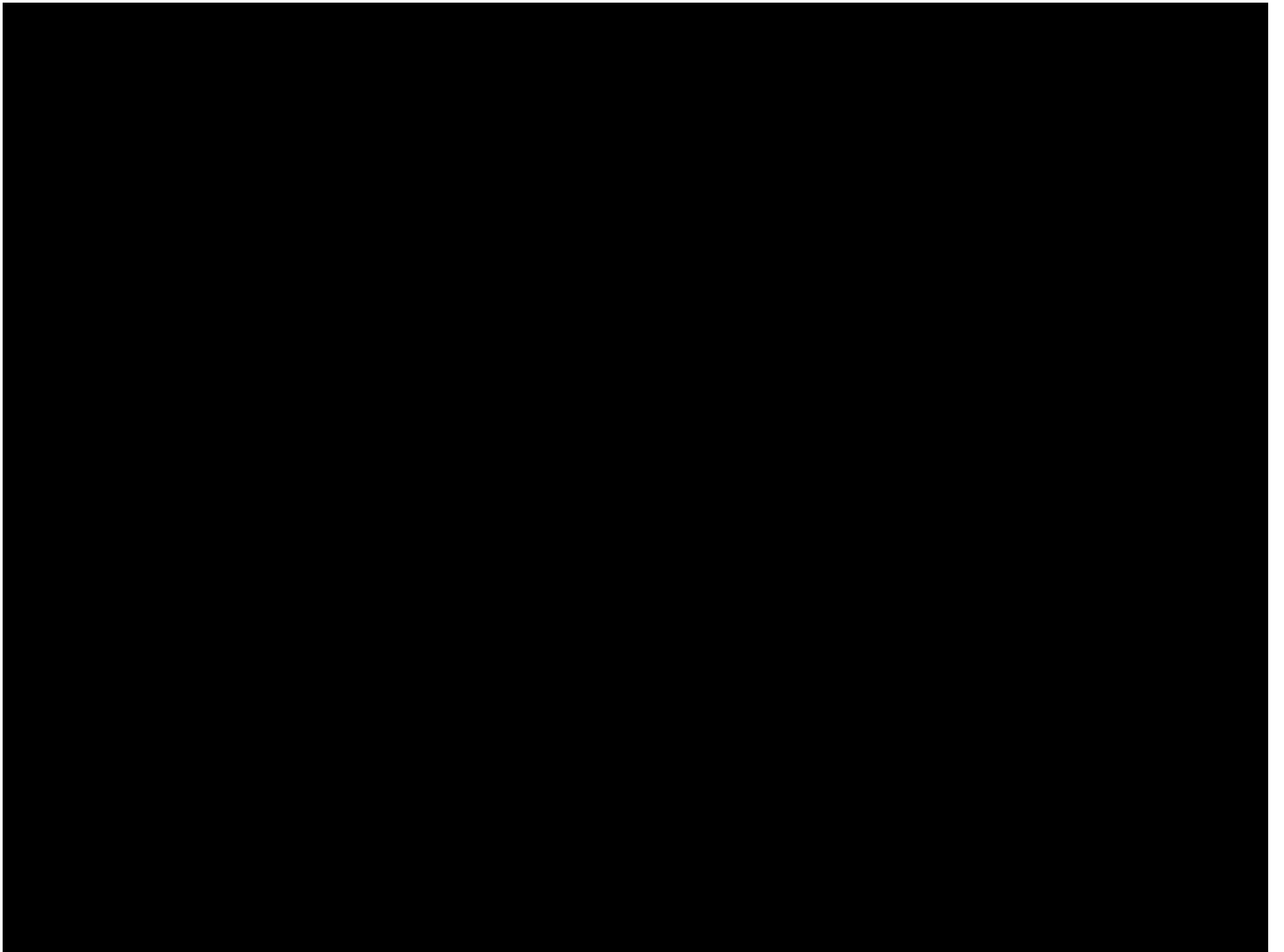
Feedback: Participants' Comments

- “VCAPS provides the structure that allows for a focused discussion.”
- “This is good because you pull global issues into a local context.”
- “Laundry lists are useless.”
- “Helps show how the problems we have now might get worse.”
- “Surprising how much agreement we found.”
- “For 4 hours, this is a respectable amount of work, another 4 hours and we’d have a finished action plan.”


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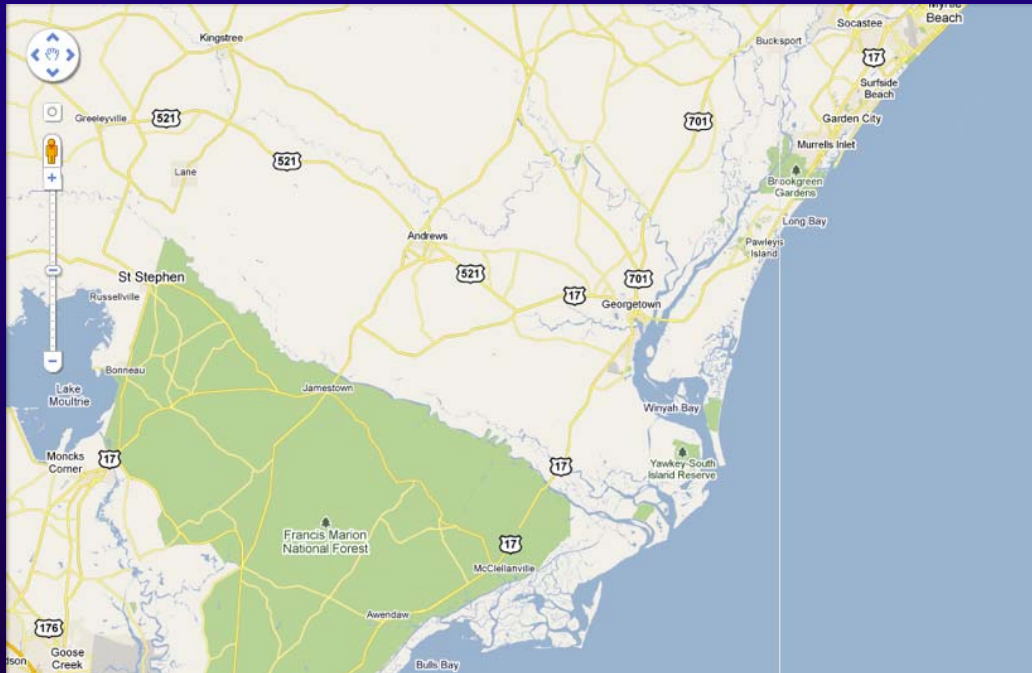


“It was an opportunity to get everybody together and get information out on the table in a format that was easily digestible... working through the chart one step at a time, one issue at a time, one idea at a time and one possible solution at a time was advantageous to everybody there. ”



“Even though we did not focus the discussion on climate change, we ended up addressing all the key issues that are relevant to planning for it.”

McClellanville, SC: pop. 499



- Located north of Charleston
- Approximately 2 sq. km; entirely within 100-year floodplain
- Flooding during exceptionally high tides
- Expected relative sea level rise will exacerbate flooding from storms and tides
- Heavily impacted by Hurricane Hugo

MCVL Participants' Insights

- Lessons and Insights
 - Drainage the major problem
 - County plays a key role in maintaining drainage
 - Inconsistent drainage easements
 - Some people won't grant easements
- Action plan (and messaging) items
 - Revisit set-back ordinances
 - Educate public about easements, lawn chemicals
 - Conduct ecological studies on marine habitat
 - Try to get public to pressure county