

# An evolving relationship between the LCC and CSC in the Southeast



# Some quick remarks...

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- LCC and CSC challenges
- Where we would like to get to
- Initial steps toward this outcome

# LCC/SECSC challenges

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- “Wicked Problems” – CC problems have no definitive formulation and no clear point at which they are solved.
- Mixing the science and management cultures: doing science that passes the “so what?” test.
- Defining priorities and differentiating responsibilities.

# “Wicked Problems”

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- Scientific complexity
  - Challenging to understand vulnerability of complex interacting systems operating at many scales
- Better information does not lead to better decisions
  - Information may be scientifically relevant without being decision relevant; improving science no guarantee on increased use.
  - Solving societal problems is not just a matter of generating new and better technical knowledge
- Values conflict and uncertainty
  - Perceptions of risk and value associated with effects of CC and management activities vary and are evolving with experience.
- Urgency –management actions won't be postponed until scientific and value uncertainties are resolved

# Cultural challenge: doing science that passes the “so what?” test

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Unclear exactly how to do this, but...

- Upfront communication
  - Not assuming that scientists know best about the “so what?” of a societal problem
  - Mgt. information needs frame the science
- Ongoing communication
  - How to involve managers as part of the science team...without burning them out.
  - How to communicate in a way that fosters learning and adaptation

# Defining priorities and differentiating responsibilities.

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- CSC priorities for now
  - Data/investigations that apply to multiple LCCs
  - Regional landscape/climate changes
  - Connection point for understanding cross-LCC science needs
- Longer term priorities
  - A portfolio approach, with a mix of
    - Curiosity/speculative vs applied
    - Short vs longer term
    - Data infrastructure vs interpretive
    - Regional vs local (balancing national and int'l GC research agenda and LCC needs closer to home)

# Agencies, tribes, NGOs, & private landowners

Planning, analysis,  
and decision-making

Adaptation needs met:  
changes in policy,  
management, etc.

Development of  
analytic and decision-  
making tools

Monitoring and  
data collection

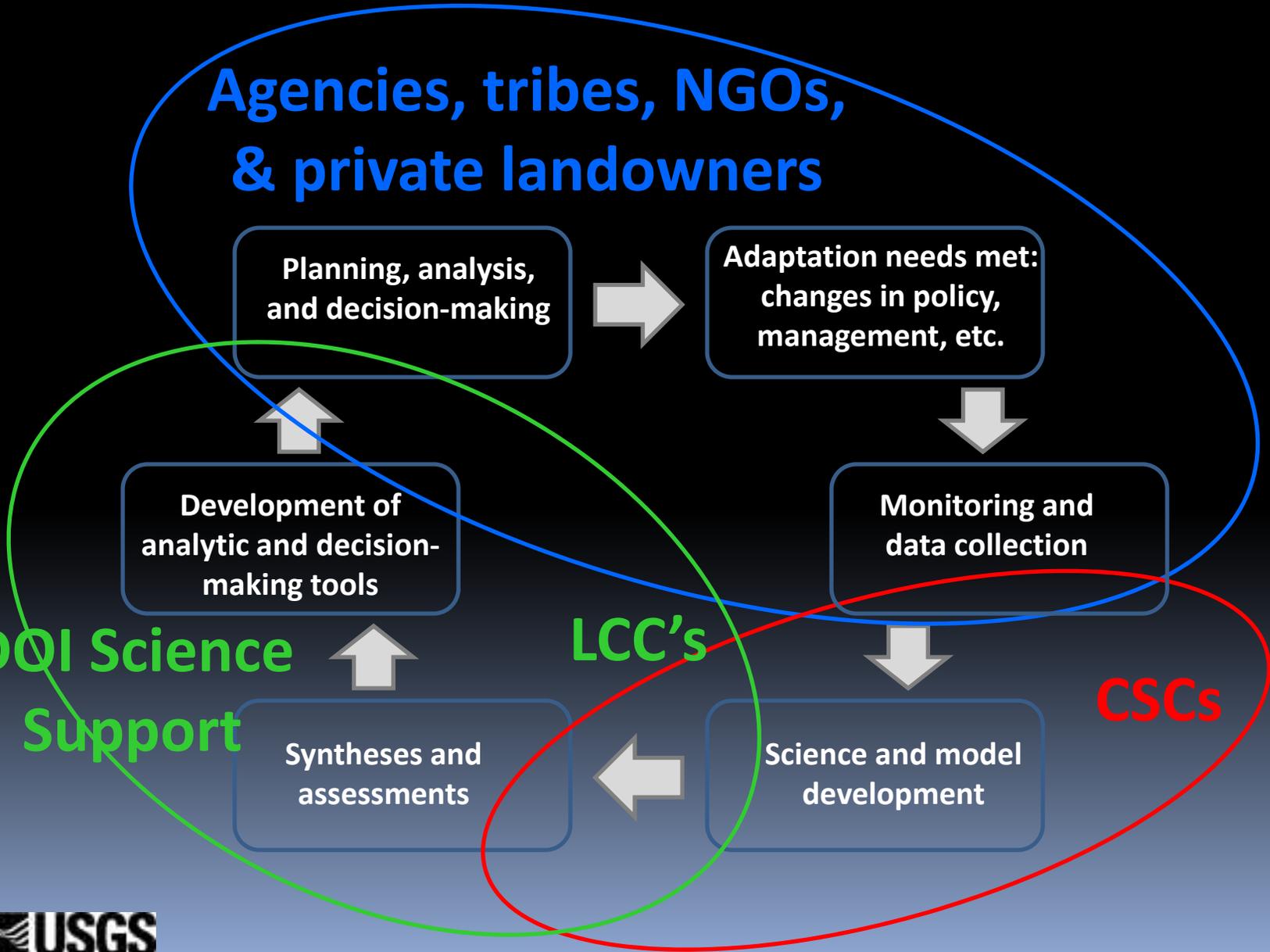
DOI Science  
Support

LCC's

CSCs

Syntheses and  
assessments

Science and model  
development



# How to judge the effectiveness of SECSC/LCC relationship?

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- Science information considered by users as credible, legitimate, actionable, and salient for decisions
- Process engages scientists and decision makers in mutual learning and production of knowledge that would not have emerged from either side alone.
- Process yields increased mutual understanding, respect, and trust
- Decision makers determine that decisions were improved by virtue of the science support provided by the SECSC.

# First steps in moving toward these outcomes

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- St. Pete meeting: understand “in-house” science capabilities and the relation to LCC needs
- Resulting FY12/13 SECSC funding focus:
  - Synthesis of State of Science
    - Downscaling, ecohydrology, SLR, urban growth, climate vulnerable ecosystems, communicating uncertainty
  - Connectivity analysis
  - Sustainable landscape conceptual model
  - Impact of mangrove migration on coastal ecosystems
  - Snowfall projections for Eastern US.



# Overview: Status of Southeast CSC

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- NCSU selected as host Sep 2010
- Sonya Jones, acting SECSC Director 2010-2011
- Jerry McMahon, SECSC Director July 2011
- Science Plan approved February 2012
- Co-op Agreement funds 12 graduate students, partial support for 2 Post-docs, and infrastructure. No direct support for faculty research.
- Supports new NCSU Master Degree (Climate Change & Society)
- <http://www.theglobalchangeforum.org/se-csc/>