Global Change Adaptation Planning for National Wildlife Refuges

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Cape Romain NWR
Francis Marion NF
3 ft. SLR
A fork in the road

- **Technical**
  - Awareness of ‘shelf life’
    - Desire to take action
  - Scale mismatch

- **Process**
  - Appropriate framing before science needs known
  - Possibly greater long-term benefit
Process for adaptation planning

- Adaptation – a series of allocation decisions
- What is appropriate scale?
  - Whose values?
  - Engagement: collective understanding & governance
- Institutional resilience
  - Can a refuge’s mission evolve?
  - Who can make this decision?
  - When should changes be triggered?
Multi-level learning

Technological

- Exploring novel solutions required moving beyond traditional decision space
  - Broader context, additional stakeholders
  - Re-think objectives & tradeoffs
  - New alternatives (divestment?)
Reserve design using Modern Portfolio Theory
Cape Romain Partnership for Coastal Protection

Global change and conservation triage on National Wildlife Refuges

**Building Adaptive Capacity to Respond to Global Change**

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Spatial conservation planning under uncertainty: adapting to climate change risks using modern portfolio theory

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