

Federal and State Approaches

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CLIMATE CHANGE

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Potential Policy Responses

1. Minimize Impacts....

....Mitigation

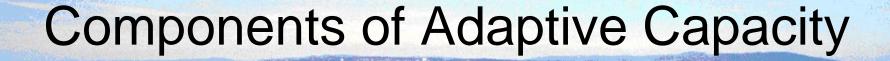
2. Create Strategies to Respond....

...Adaptation

Adaptive Capacity

The ability of a system to modify or change its characteristics or behavior so as to better cope with existing or anticipated external threats.





- Vulnerability
- Risk
- Other Characteristics of the System or Resource

U.S. Geological Survey

National Hazards, Risk, and Resilience Assessment Program

- Risks to society and environment of the combined effects of such natural hazards as coastal erosion and the influence of climate variability and change.
- Developing accurate forecasts of hazard losses; increasing efforts to communicate about risks, resilience, and ongoing changes in the environment that relate to natural hazard vulnerability.
- Building a robust monitoring infrastructure that includes its Marsh Surface Elevation Network.

Reducing vulnerability in order to develop adaptive capacity.



In Mississippi the Army Corps is considering facilitating a retreat of residents from flood prone areas.



Other Federal Initiatives

- House Appropriations Subcommittee on Interior, Environment, and Related Agencies *Temporary* Commission on Adaptation to review science
- EPA Report called Preliminary Review of Adaptation Outcomes for Climate Sensitive Ecosystems and Resources
- Senators Whitehouse and Boxer proposed the Global Warming and Acidification Coastal and Ocean Resiliency Act (S.2211)

National Flood Insurance Program

- Repetitive loss properties make up 1% of the NFIP properties but represent about 38 % of the total insured losses
- Over 2.3 M buildings were constructed in 100-year flood plains in communities that participate in NFIP
- By 2005, 70 % of the NFIP flood maps were over 10 years old

Proposals to Improve Federal Policy

- 1. Multiperil Insurance Act of 2007 (H.R. 920)
- 2. Homeowners Insurance
 Protection Act and Homeowners
 Insurance Availability Act (H.R.
 91 and H.R. 330)
- 3. Policyholder Disaster Protection Act (H.R. 164)

Proposed Amendment of NFIP

Flood Insurance Reform and Modernization Act (H.R. 1682)

- Phase out subsidies;
- Authorize rate increases;
- Increase max coverage available; and
- Require NFIP to update flood maps.

Opportunity for States

- States already provide disaster insurance
- Could states fill gaps left by the federal government?

State Responses to Climate Change

- 47 states will have climate action plans by 2008
- Alaska, Arizona, California, Maryland, Oregon, and Washington have addressed adaptation with plans or commissions.



Maryland

- Sea Level Response Strategy for the State of Maryland (2000)
- Maryland Wildlife Diversity Conservation Plan (2006) recognized threat of SLR
- O'Malley's Climate Change Commission Adaptation and Response Group working to reduce vulnerability
- Developed a catalogue of adaptation actions for the existing built environment and infrastructure



Washington

- Gregoire's State Climate Change
 Challenge and Climate Advisory Team
- Coastal and Infrastructure
 Preparation/Adaptation Working Group

Proposals in Washington

- Develop scenarios of sea level response for different environments
- Limit armoring, increase setbacks, restore shorelines, remove dikes
- Improve processes for siting new construction in vulnerable areas
- Increase resilience
 - Set back development
 - Protect key geomorphic processes
- Identify critically vulnerable sites, areas, and settings
 - Natural places AND built environments
 - Develop creative funding mechanisms for acquisition
- Anticipate responses that will be driven by crises
- Where engineering is inevitable, be imaginative



California

- Schwarzenegger commissioned Preparing for the Impacts of Climate Change in California: Opportunities and Constraints for Adaptation (California Climate Change Center, 2006)
- San Francisco Bay Conservation and Development System mapped areas vulnerable to SLR for adaptation planning
- California Energy Commission published Climate Change Impacts and Adaptation in California (2005)

Other States Adapting to SLR

- Alaska
- Connecticut
- Maine
- Massachusetts
- New Jersey
- New York

- North Carolina
- Oregon
- Rhode Island
- South Carolina
- Texas
- Virginia

Concerns for the Future

- Takings claims
- Successful adaptation requires interjurisdictional cooperation