Summary of March 2010
Planning for North Carolina’s Future: Ask the Climate Question
Climate Change Adaptation Workshop
hosted by N.C. Interagency Leadership Team
And Next Steps
Report to
N.C. Legislative Commission on Global Climate Change
March 15, 2010
Overview

1. Interagency Leadership Team
2. Summary of Climate Change Adaptation Workshop
3. Next Steps
Interagency Leadership Team’s Climate Change Activities

**Goal 2:**
Partner with local governments and other stakeholders to integrate local use and long-range transportation planning as well as applicable environmental & economic planning initiatives to meet mobility, economic, and environmental goals

**Climate Change Activities:**
- Communicate to internal and external stakeholders the challenges created by climate change in order to raise awareness
- Work with stakeholders in vulnerable areas of NC to develop strategies for adaptation to climate change
Workshop Purpose

• Educate decision makers about the projected climate change impacts and adaptation strategies that can build our state’s resilience

• Build partnerships to work toward development of State Climate Action Plan.
Broad Interest Across Planning Areas

Attendees

- Tourism
- Insurance
- Cultural Resources
- Health
- Infrastructure
- Emergency Management
- Economic Development
- Land Use
- Transportation
- Natural Resources
Regional Representation

- Coastal: 30%
- Piedmont: 46%
- Mountains: 12%
- Statewide: 12%
Government’s Support

“By proactively planning and working together, we can be better prepared to address the challenges of climate change ... and be better positioned to find new opportunities for our state in the face of those challenges.”

Governor Beverly Perdue
State Agency Support

Top leadership of Environment & Natural Resources, Transportation, Commerce, Cultural Resources, and Insurance addressed how their agencies will need to address climate change.
Highlights

• Overview of Global Climate Change Impacts on U.S.

• Projected Impacts and Adaptive Responses:
  • Water
  • Transportation & Infrastructure
  • Energy
  • Ecosystems
  • Human Health
  • Society
To What Are We Adapting?

- **Key Summary for Decision Makers:** Regional Impacts of Climate Change and Weather Extremes in the United States
- From US Global Change Research Program (USGCRP) & NOAA 2009
Key Finding 10: Future climate change and its impacts depend on choices made today

- **Two (or 3) options**
  1. Adaptation – to improve our ability to cope with or avoid harmful impacts and take advantage of beneficial ones
  2. Mitigation – to reduce emissions of heat trapping gases or increase their removal

- **Both are necessary**

- **3rd Option:** Simply to do nothing and suffer.
What is Climate Adaptation?

1. **Preparedness: Risk & Hazard “Mitigation”**
2. **Passive Adaptation: Reacting to Climate Change**
3. **Active Adaptation: Planning Ahead for Climate Change**

   - **Toward Resilience:** Ability to cope with or bounce back from climate impacts
Potential Impacts of Climate Change

**Climate Changes**
- Temperature
- Precipitation
- Sea Level Rise

**Infrastructure**
- Water
- Transportation
- Energy Supply & Use

**Health**
- Weather-related Mortality
- Infectious Diseases
- Air Quality - Respiratory Illnesses

**Agriculture**
- Crop yields
- Irrigation demand

**Forest**
- Change in forest composition
- Shift geographic range of forests
- Forest Health and Productivity

**Water Resources**
- Changes in water supply
- Water quality
- Increased competition for water

**Coastal Areas**
- Erosion of beaches
- Inundate coastal lands
- Costs to defend coastal communities

**Wildlife and Ecosystems**
- Shift in ecological zones
- Loss of habitat and species
- Damage to Coral Reefs

**Cultural Resources**

**Economic Disruption**
Other Highlights

• Communicating Climate Science in a Changing Media Environment

• Bridging the Hazards Management-Climate Change Adaptation Divide

• Maryland’s example of how they developed their climate change policy and practices
MD Adaptation Planning Process

1. Review state of the science
2. Assess climate vulnerability
3. Identify critical information gaps
4. Consider and prioritize key issues of concern
5. Explore potential adaptation strategies
6. Evaluate adaptation infrastructure (institutional framework)
7. Identify opportunities & mechanisms to affect change
8. Recommend action strategies (short, medium long-term)
Varying Regional Impacts

• **Mountains**
  – Water resources and climate variability
  – Vulnerability and Emergency Response
  – Ecosystem Services

• **Piedmont**
  – Urban societal issues and growth, land use change
  – Water and Power
  – Transportation

• **Coastal Plain**
  – Sea Level Rise and Storm Surge
  – Agriculture
  – Coastal population patterns, protection, and retreat
Next Steps

1. Continue DENR Climate Change Initiative.
2. Begin dialogue about development of a Climate Action Plan for the state.
3. ILT will discuss involvement in development of a Climate Action Plan for the state.
4. Begin coordinating with other partners (universities; federal, state and local government agencies).
Presentations are archived at
www.climatechange.nc.gov