



Maryland Climate Change Commission Scientific and Technical Working Group *Update: Third Commission Meeting*



Don Boesch
August 15, 2007





S & T Working Group Charge

Develop a *Comprehensive Climate Change Impact Assessment*:

- **Advise the Commission, as well as other working groups, on the scientific and technical aspects of climate change;**
- **Investigate climate change dynamics, including current and future climate models and forecasts; and**
- **Evaluate the likely consequences of climate change to Maryland's agricultural industry, forestry resources, freshwater supply, aquatic and terrestrial ecosystems, and human health**

Provisional website <http://www.umces.edu/president/STWG/>





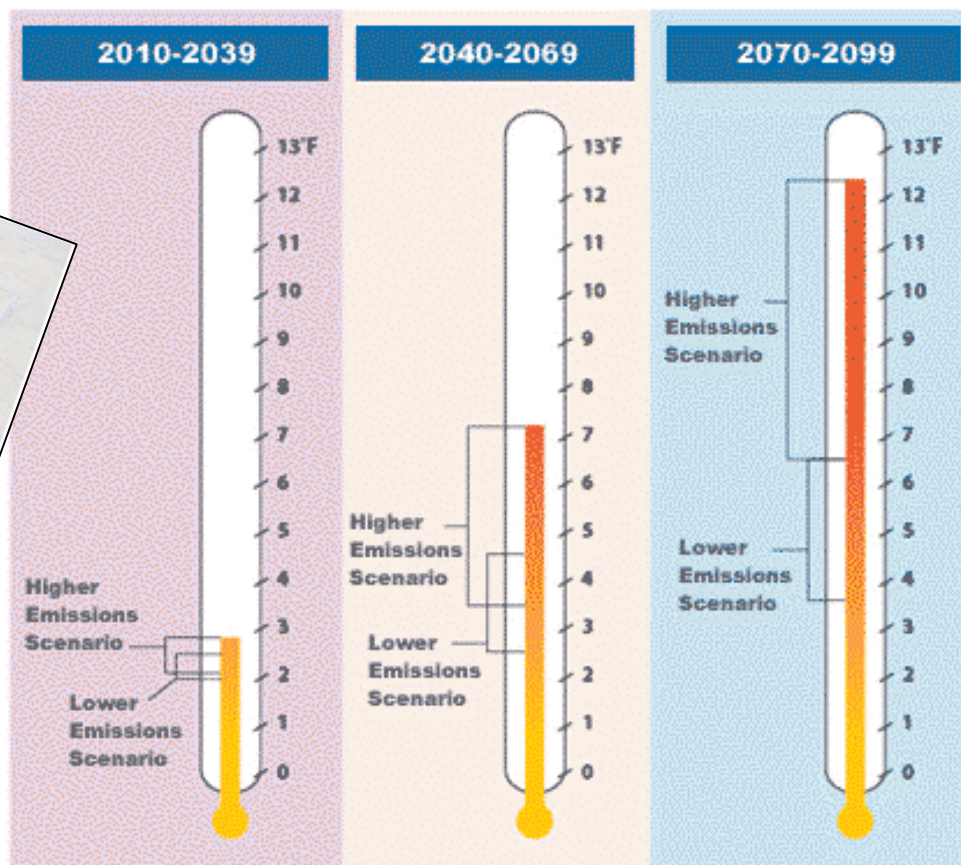
Roles

- **Chaired by USM (Don Boesch), MDE (Bob Summers), and DNR (Frank Dawson)**
- **Working Group members include scientists from Maryland's universities, federal agencies, and non-governmental organizations**
- **Prepare *Comprehensive Climate Change Impact Assessment***
- **The Center for Climate Strategies will inventory and forecast greenhouse gas emissions and sinks; STWG will review and advise**
- **Advise other WGs on scientific and technical aspects of climate change**





Adapt the UCS Approach



Increase in mean annual temperature compared to 1961-90

**Northeast Climate
Impacts Assessment**

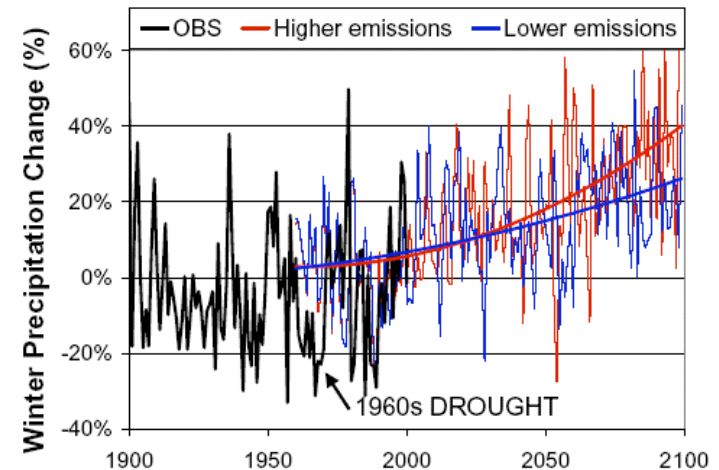
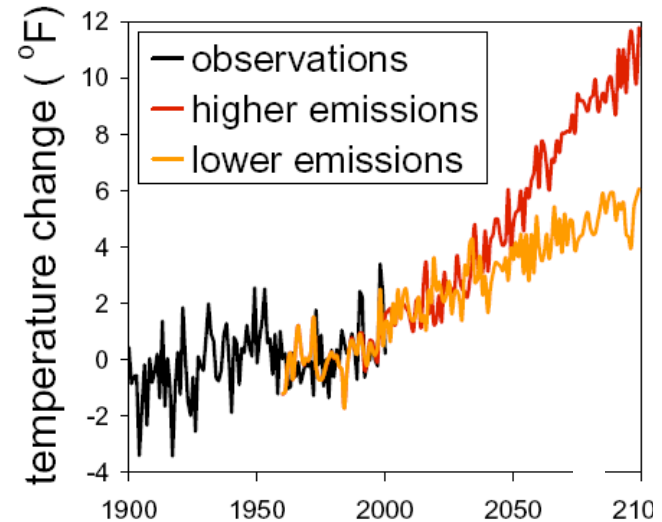
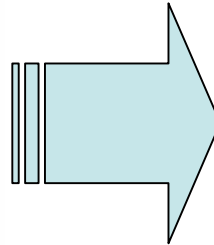
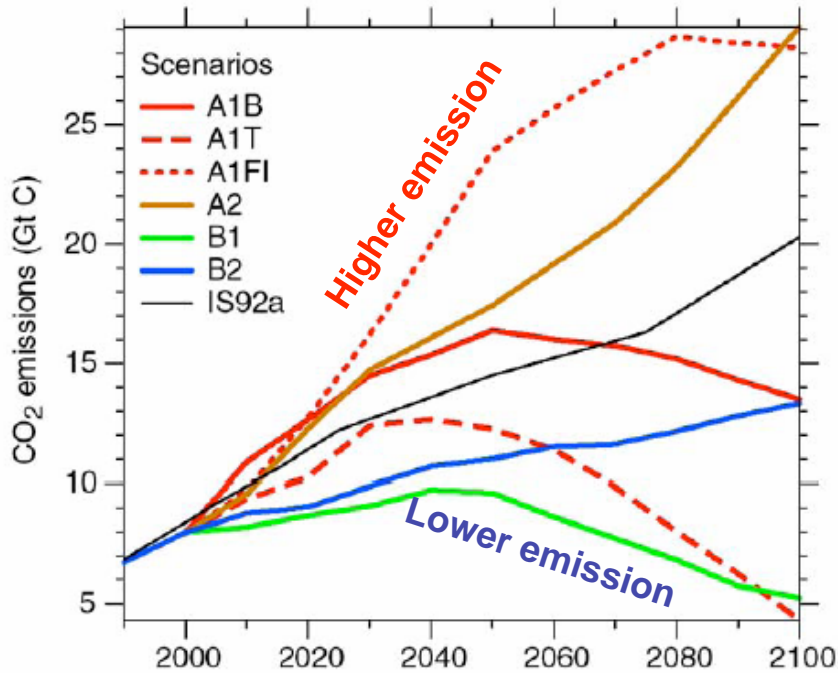
www.northeastclimateimpacts.org/





Using Existing Climate Models

Emission Scenarios



Questions:

- Use **A1B** or **A2** scenario?
- Use model averages of selected models?



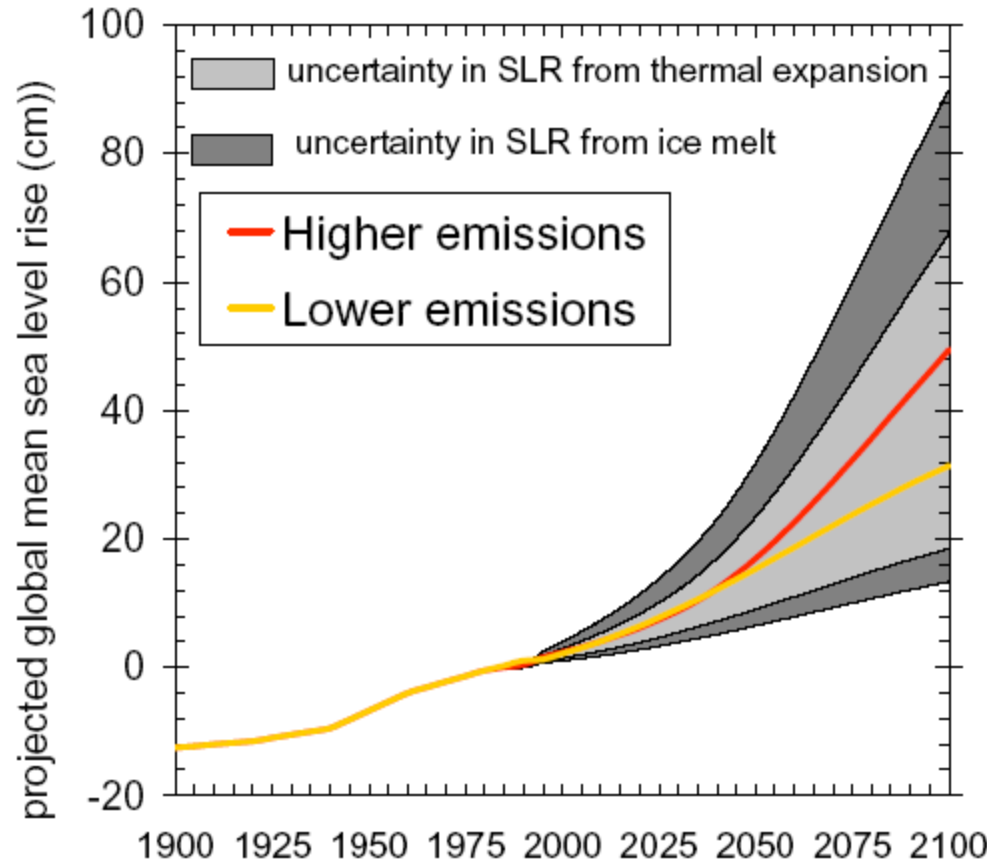
Working Subgroups

- **Climate Trends and Models**
- **Sea Level Rise and Coastal Storms**
- **Hydrology and Water Resources**
- **Forests and Agricultural Ecosystems and Resources**
- **Coastal Ecosystems and Resources**
- **Human Health and Urban Environments**





Sea-level Rise Projections



Will need to estimate relative sea-level rise (adjusted for subsidence)

Working Subgroup to work with Adaptation and Response Working Group to achieve consistent sea-level projections

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Vision for Report

- **Executive Summary**
- **Introduction to Climate Change**
- **Data, Models and Assessment**
- **Recent and Future Climate Changes in Maryland**
- **Consequences**
 - Coastal zone
 - Terrestrial and aquatic ecosystems
 - Water resources
 - Agriculture, forestry, fisheries
 - Human health
- **Implications for Mitigation and Adaptation**

