

Governor's
COMMISSION on
CLIMATE CHANGE



Governor's Commission on Climate Change

Presentation to HRPDC

July 16, 2008

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Executive Order 59

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- Recognizes steps that Virginia has already taken to combat climate change:
 - Legislative establishment of a renewable portfolio standard
 - Joining the Climate Registry
 - Aggressive pursuit of conservation and efficiency in the Virginia Energy Plan and Executive Order 48
- Additional tools and resources are needed.



Executive Order 59

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“I am hereby formally establishing the Governor’s Commission on Climate Change to prepare a Climate Change Action Plan for Virginia that identifies the additional steps that must be taken to achieve the goal of reducing greenhouse gas emissions by 30 percent by 2025.”



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Climate Change Action Plan:

1. **Inventory** the amount of and contributors to Virginia's greenhouse gas emissions, and projections through 2025
2. Evaluate expected **impacts of climate change** on Virginia's **natural resources**, the **health** of its citizens, and the **economy**, including the industries of **agriculture, forestry, tourism, and insurance**



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Climate Change Action Plan:

3. Identify what Virginia needs to do to prepare for the likely consequences of climate change
4. Identify the actions (beyond those identified in the Energy Plan) that need to be taken **to achieve the 30% reduction goal** and
5. Identify climate change approaches being pursued by other states, regions and the federal government.



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- Commission is chaired by Secretary of Natural Resources Preston Bryant
- Ex officio members include the Secretaries of Commerce and Trade, Transportation, and Energy Policy Advisor
- 1 year to complete work
- Report due December 15, 2008



CCC Work Plan

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- 8 meetings
- Held in Richmond and at universities around the Commonwealth
- Each meeting includes
 - a commission roundtable
 - a public comment period



CCC Workplan

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- Meeting #1: Richmond, February
 - Organizational meeting
 - Virginia Greenhouse Gas Inventory
 - Proposed legislation: Mandatory Greenhouse Gas Reporting
- Meeting #2: UVA Miller Center, March
 - Intergovernmental Panel Climate Change
 - Miller Center Climate Change Initiative
 - State and regional approaches (Pew Center)
 - Federal approaches
 - GHG Inventory
 - Role of Nature in Storing Carbon



CCC Workplan

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- Meeting #3: W&M, April
 - Industry Perspectives
 - Voluntary actions
 - Experience with other state programs
 - Expected impacts of climate change on Virginia's natural systems and public health
- Meeting#4: GMU, May
 - Expected economic impacts of climate change on Virginia's transportation infrastructure and ports, military installations and the insurance industry
 - Economic opportunities
 - Green investing
 - Emerging technologies
 - Pending federal legislation
 - Warner-Lieberman
 - Economic effects



CCC Workplan

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- Meeting #5: Virginia Tech, June
 - Actions by localities
 - Connection between climate change, land use, building practices, and transportation choices
 - Climate Change Adaptation
 - Update on congressional action: Congressman Boucher
 - Carbon Capture and Storage



Impacts Expected in Virginia

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Presentation: “Impacts of Climate Change on Coastal Virginia and Chesapeake Bay”

- Higher coastal water levels and greater salinities
- Ocean acidification
- Shoreline erosion and submergence
- Increasing nutrient inputs, decreases in oxygen content of estuarine waters, decreasing pH
- Significant ramifications for coastal, bay and estuarine plants, animals, food webs and ecosystems



Impacts Expected in Virginia

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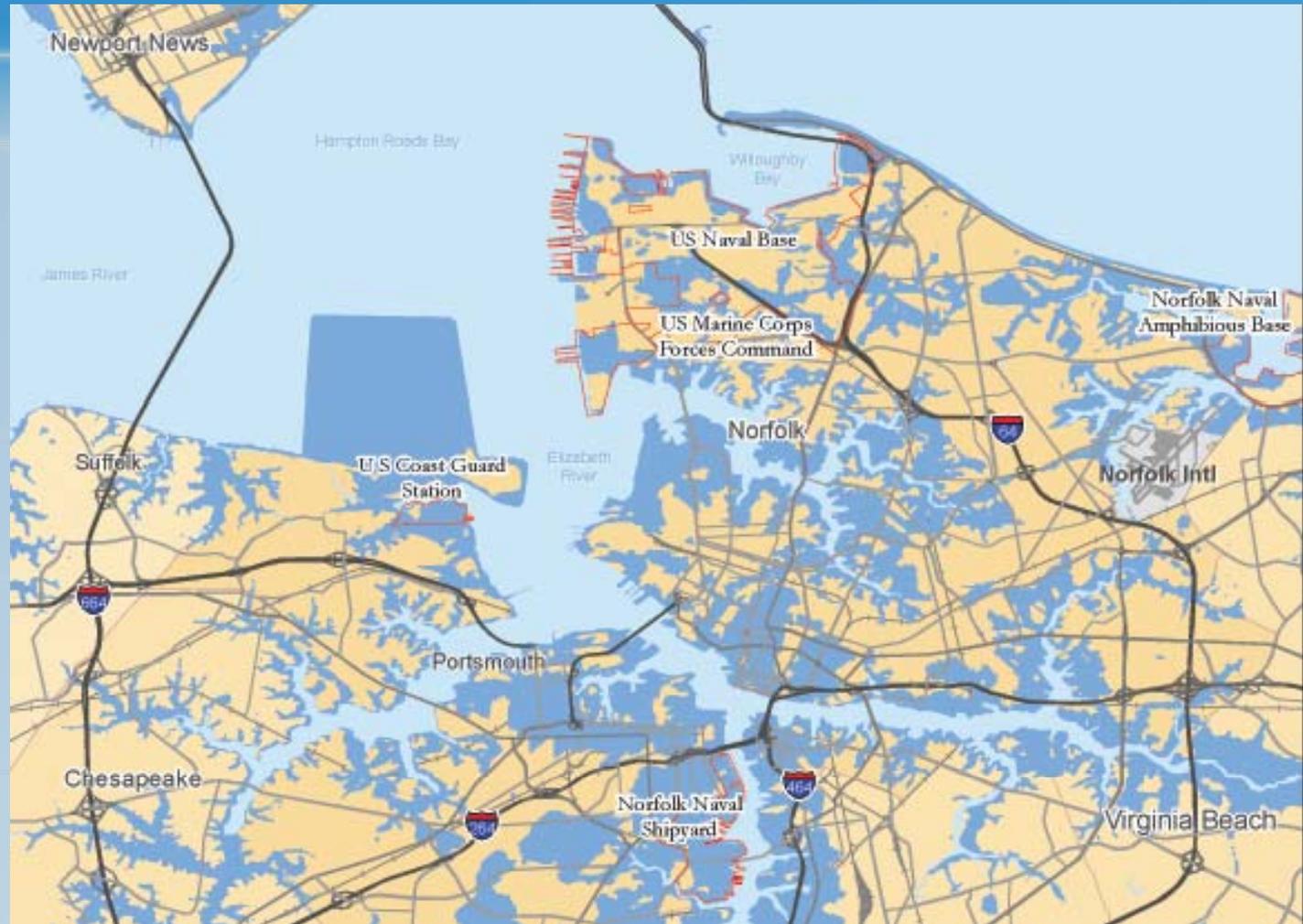
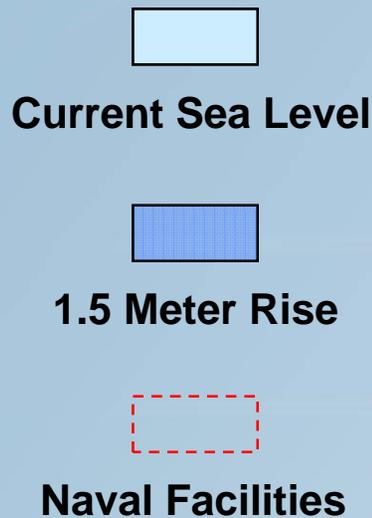
Presentation: “The Potential Impacts of Global Sea Level Rise on Transportation Infrastructure”

- Norfolk Naval Facilities at risk for sea level rise
- VA roads, rail, airports, and ports also at risk
- Transportation infrastructure and long-term planning for climate change risks necessary





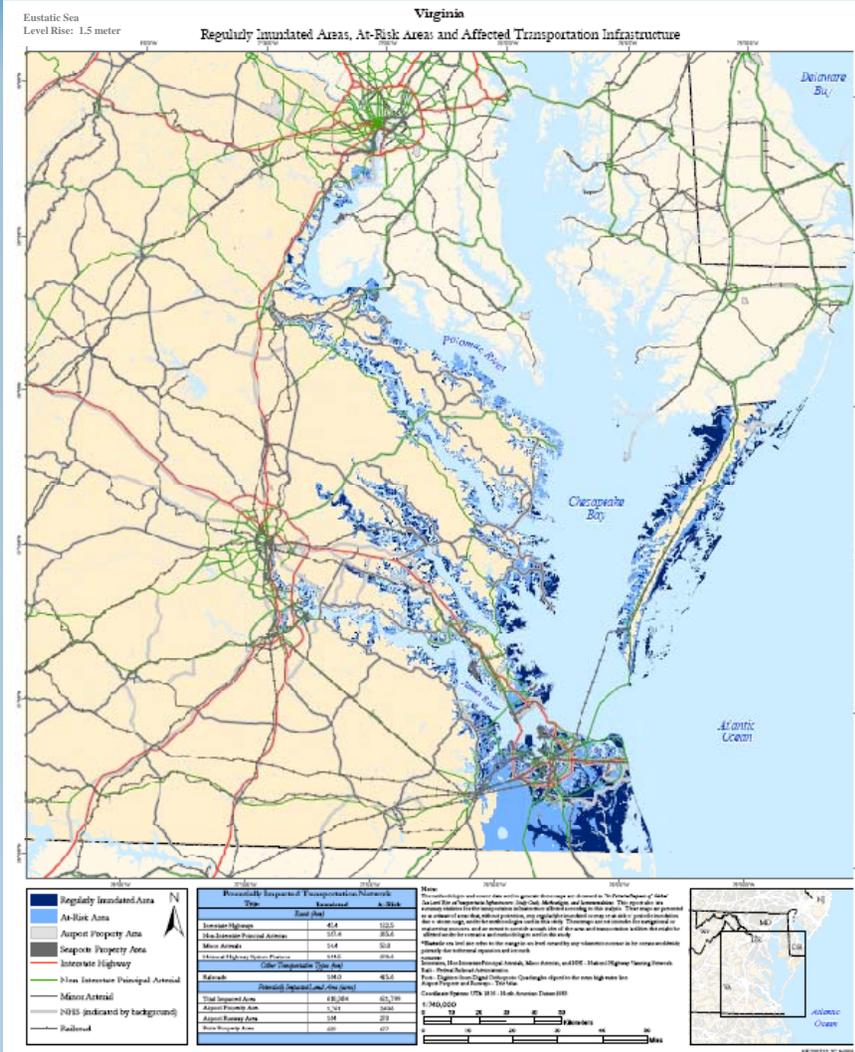
Norfolk Navy Facilities at Risk



1. Charts do not include periodic hurricane storm surge, e.g., Isabel 10+ feet.
2. Reference: DOT The Potential Impacts of Global Sea Level Rise on Transportation Infrastructure, Federal Research Partnership Workshop, October 1-2, 2002, plus ICF follow-on East Coast study

Passion. Expertise. Results.

What does this mean for Virginia?



1.5 Meter SLR Scenario

- Roads
- Rail
- Airports
- Ports

| Potentially Impacted Transportation Network | | |
|---|-----------|---------|
| Type | Inundated | At-Risk |
| <i>Roads (km)</i> | | |
| Interstate Highways | 45.4 | 122.5 |
| Non-Interstate Principal Arterials | 167.4 | 363.6 |
| Minor Arterials | 14.4 | 500 |
| National Highway System Features | 164.5 | 390.6 |
| <i>Other Transportation Types (km)</i> | | |
| Railroads | 164.0 | 413.6 |
| <i>Potentially Impacted Land Area (acres)</i> | | |
| Total Impacted Area | 610,384 | 621,799 |
| Airport Property Area | 1,761 | 2,436 |
| Airport Runway Area | 164 | 270 |
| Ports Property Area | 659 | 677 |

CCC Workgroups

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- Announced at June meeting
 - Built Environment
 - Transportation and Land Use
 - Electricity generation and other stationary sources
 - Adaptation
- Each will hold 1-2 meeting prior to August full commission meeting



Remaining meetings

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Meeting #6: Richmond, August 27

- Workgroup recommendations
- Public hearing

Meeting #7: Richmond, September 10

- Continue to discuss recommendations

Meeting #8: Richmond, November 13

- Finalize recommendations
- Review draft report



Commission Website

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<http://www.deq.virginia.gov/info/climatechange.html>

