



National Capital Region Climate Change Report

**Presentation to Sustainable Loudoun
3rd Annual Energy Summit
Stuart A. Freudberg
Director, Environmental Programs
Metropolitan Washington Council of Governments
November 14, 2008**





COG Board Action April 11, 2007



- **R31-07 creates COG Climate Change Steering Committee to:**
 - ❖ **Prepare regional inventory of greenhouse gases**
 - ❖ **Identify best practices and policies**
 - ❖ **Examine climate change impacts**
 - ❖ **Recommend regional greenhouse gas reduction goal(s)**
 - ❖ **Recommend committee structure for climate change initiative**
 - ❖ **Propose advocacy positions**
 - ❖ **Prepare recommendations report to COG Board**



Climate Change Steering Committee

Officers:

Chair: Hon. Nancy Floreen, Montgomery County Council

Vice-Chair: Hon. Gerry Connolly, Chairman, Fairfax County Board of Supervisors

Vice-Chair: Hon. Mary Cheh, Council of the District of Columbia

District of Columbia - Members

Rick Rybeck, District Dept. of Transportation

George Hawkins, District Dept. of the Environment

Harriet Tregoning, District Office of Planning

Maryland - Members

Tad Aburn, Director, Air and Radiation Management,
Maryland Dept. of the Environment

Hon. Roger Berliner, Montgomery County Council

Hon. Judith Davis, Mayor, Greenbelt

Hon. Camille Exum, Prince George's County Council

Virginia - Members

Hon. Paul Ferguson, Arlington County Clerk of the Circuit
Court

Mercury Payton, Manassas Park City Manager

**Hon. Andrea McGimsey, Loudoun County Board of
Supervisors**

Hon. Redella Pepper, Alexandria City Council

Hon. David Snyder, Falls Church City Council

Other Regional/State Organizations - Members

John Catoe, General Manager, Washington Metropolitan Area
Transit Authority

Robert Grow, Director, Government Relations, Greater
Washington Board of Trade

Nikki Rovner, Deputy Secretary of Natural Resources,
Commonwealth of Virginia

Alternates to Members:

Zach Dobelbower (alternate to Ms. Tregoning)

Mark Rawlings (alternate to Mr. Rybeck)

Jack Werner (alternate to Mr. Hawkins)

Elizabeth Entwisle (alternate to Mr. Aburn)

Hon. John Foust (alternate to Mr. Connolly)

Nat Bottigheimer (alternate to Mr. Catoe)

COG Staff:

Department of Environmental Programs:

Stuart Freudberg, Director

Joan Rohlf, Jeffrey King, George Nichols, Leah Boggs,

Ted Graham, Tanya Spano, Sunil Kumar, Tanisha Williams

Department of Transportation Programs:

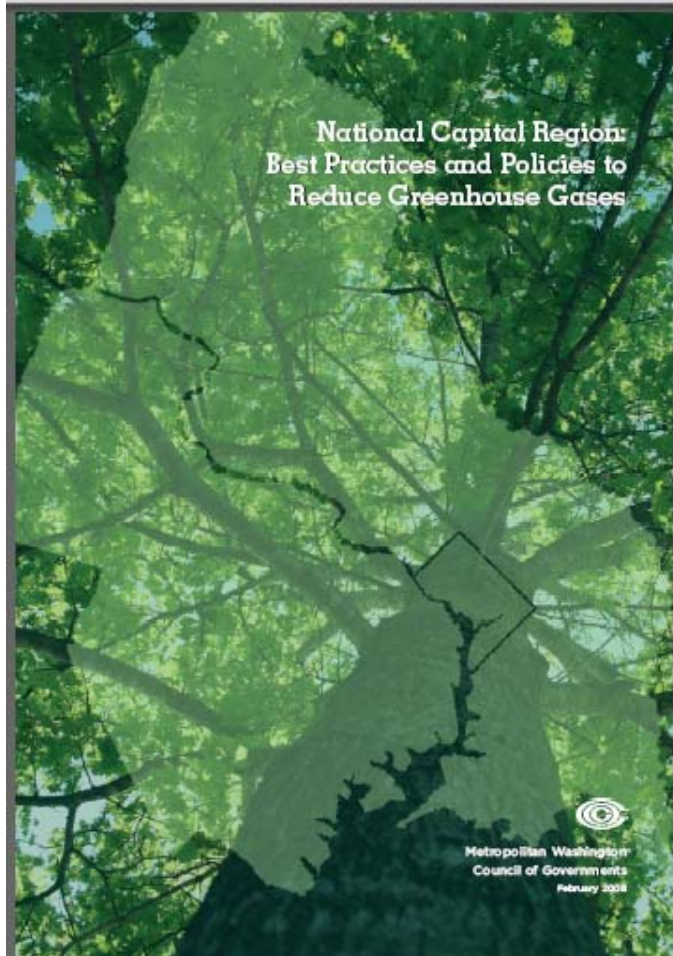
Ron Kirby, Monica Bansal, Eulalie Lucas, Daivamani Sivasailam

Major Accomplishments

- ❖ Greenhouse gas emissions inventory 2005-2050
- ❖ Best Practices Report
- ❖ Emission reduction goals for 2012, 2020, 2050
- ❖ Federal/state advocacy
- ❖ Draft Report July 9, 2008
- ❖ Listening July 9 – Sept. 30
- ❖ Final Report Adopted November 12, 2008



Best Practices Guide



HIGHLIGHTS:

- Over 2/3 of local governments in the region purchase renewable energy
- Over 1/2 of the jurisdictions have adopted energy efficiency measures
- Nearly 90% of the communities in the region have embarked on transit oriented development and over 80% have “walkable community” initiatives
- About 70% of communities have green space protection and green infrastructure programs
- All communities in the region have recycling programs.



Energy and Climate Change Advocacy Positions

Federal Energy Legislation

- Promoted strengthening CAFÉ standards
- Supported “green collar” job programs
- Supported Energy efficiency block grants to local governments

Federal Climate Legislation

- Promoted the role of local governments/regional entities

Regional Climate Program

- Endorsed Cool Capital Challenge
- Sent letter of concern re proposed coal-fired power plant in Wise County, Virginia



Climate Change Report

I. Getting Smart on Climate Change

*Climate Change, Potential Impacts on Region;
Current & Projected Regional Greenhouse Gas
Emission Inventory;*

Regional Greenhouse Gas Reduction Targets

II. Taking Action

Energy Consumption;

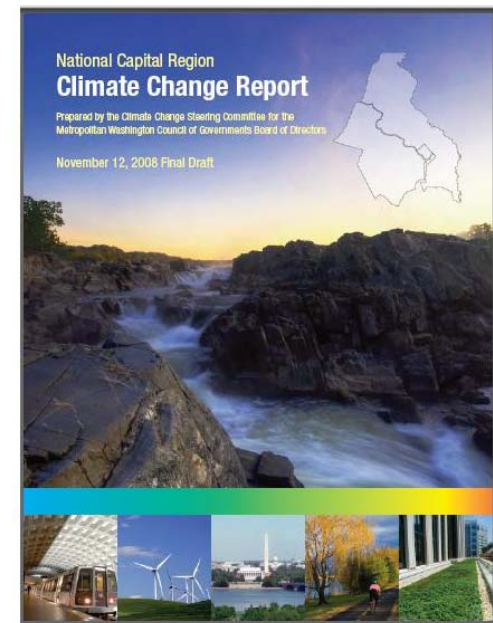
Transportation and Land Use;

*Economic Development; Preparing for Impacts,
Financing; Outreach and Education.*

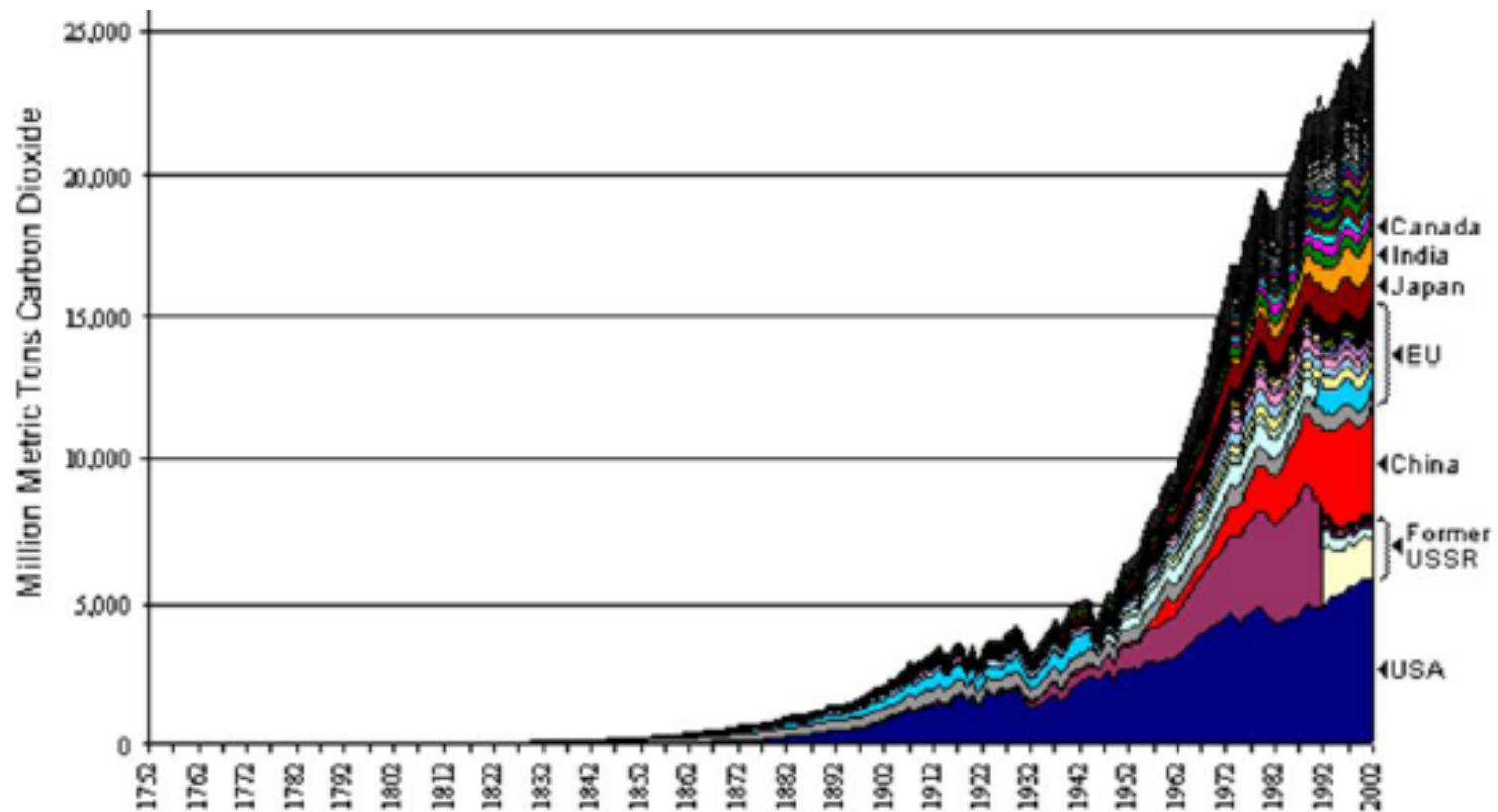
III. Moving Forward

COG Climate Change Program

IV. Reference Information

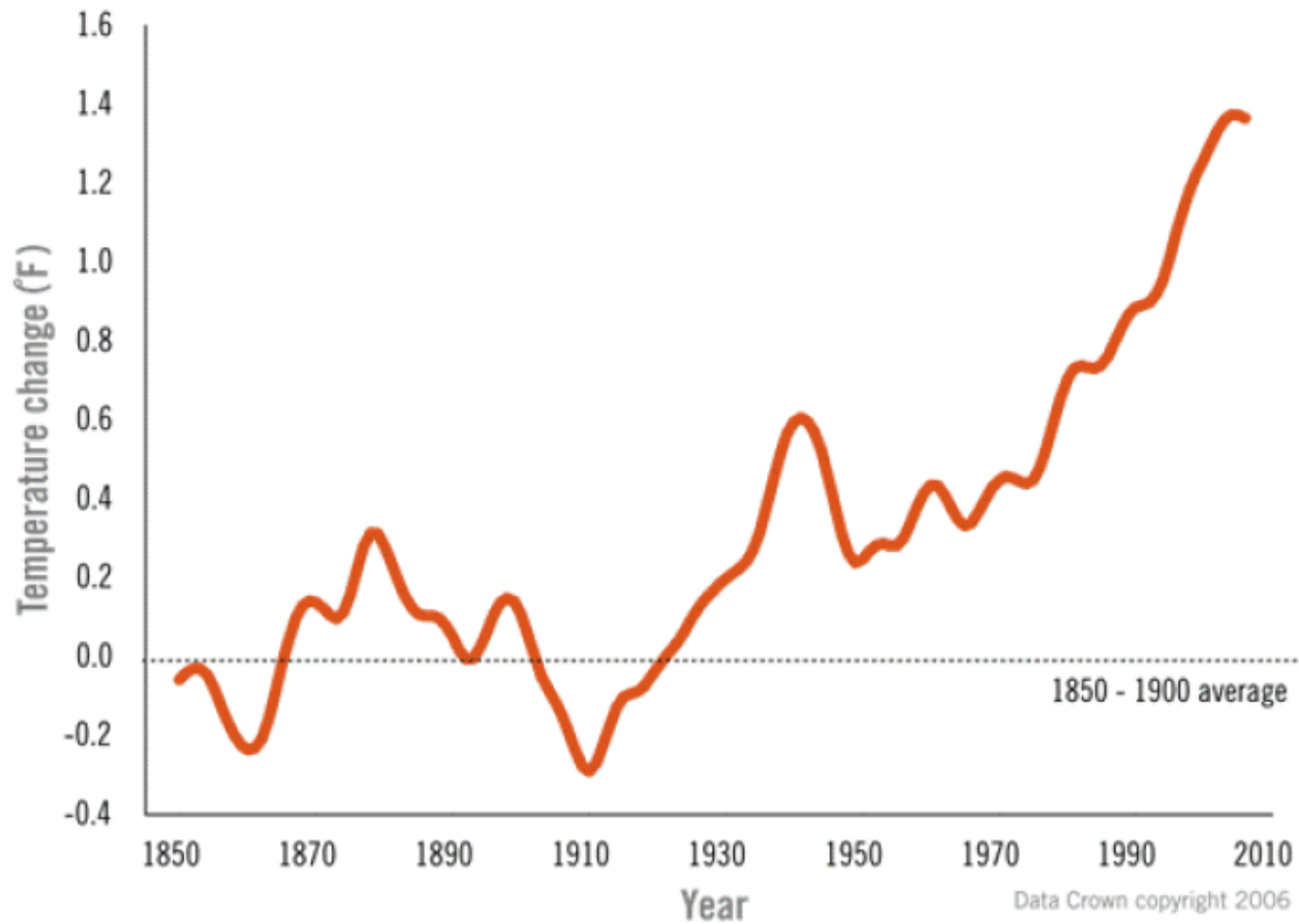


Global CO₂ Emissions Since 1752



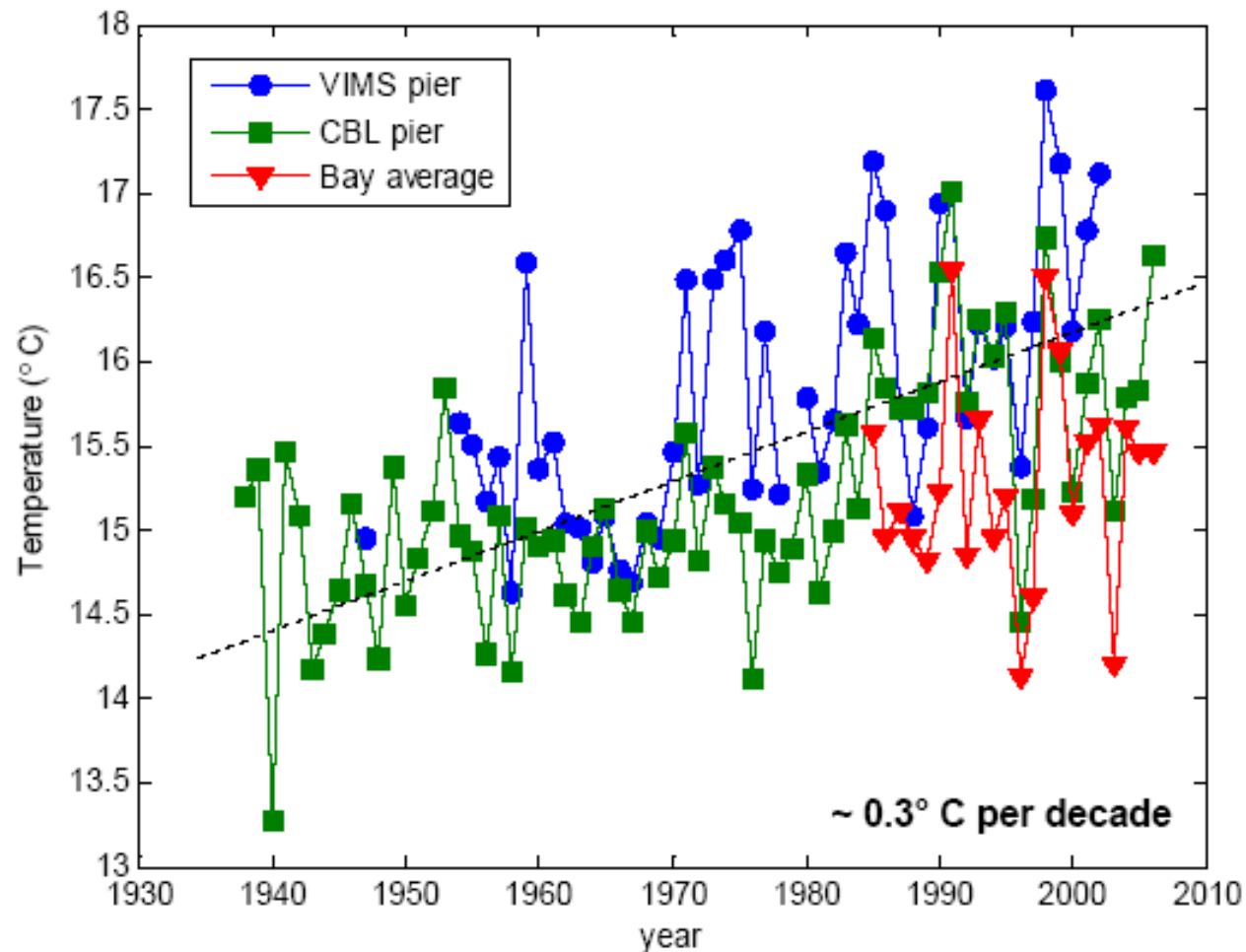
Source: Carbon Dioxide Information Analysis Center, U.S. Dept. of Energy

Increasing Global Surface Temperature



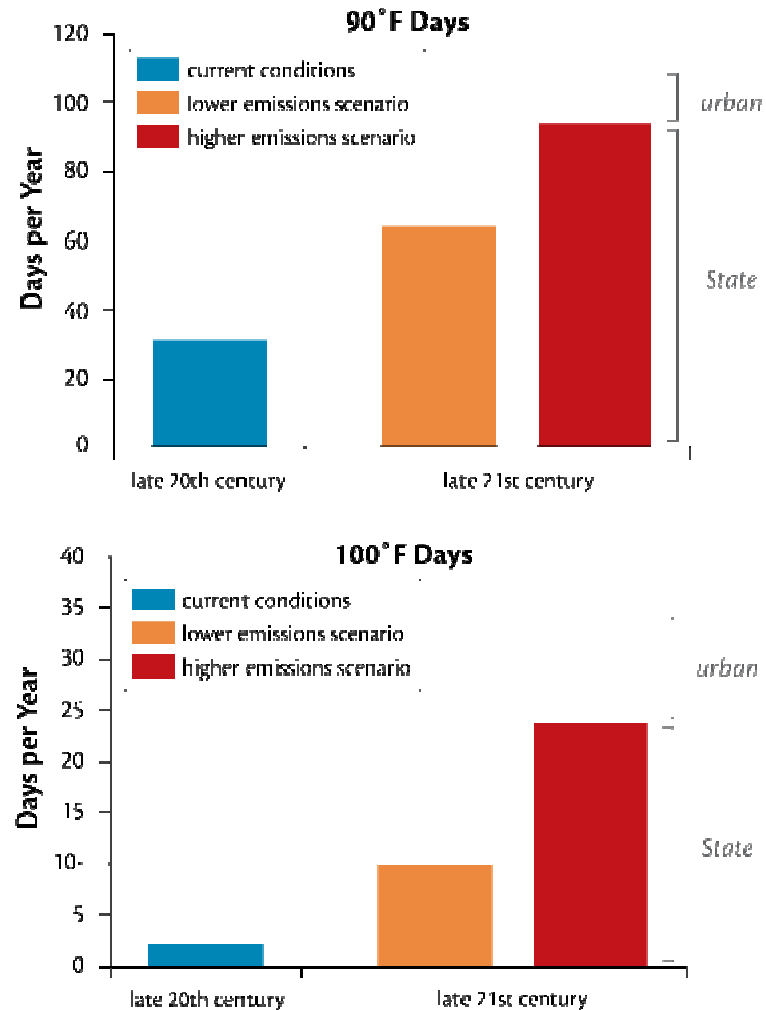
Source: Pew Center on Global Climate Change

Measured Temperature Changes in Chesapeake Bay Surface Waters



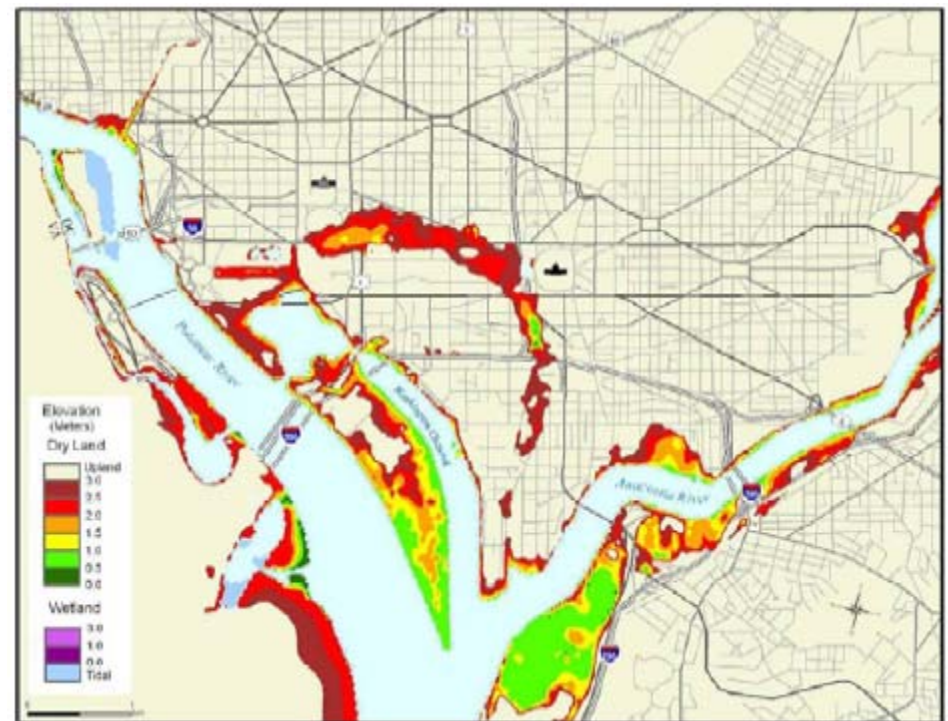
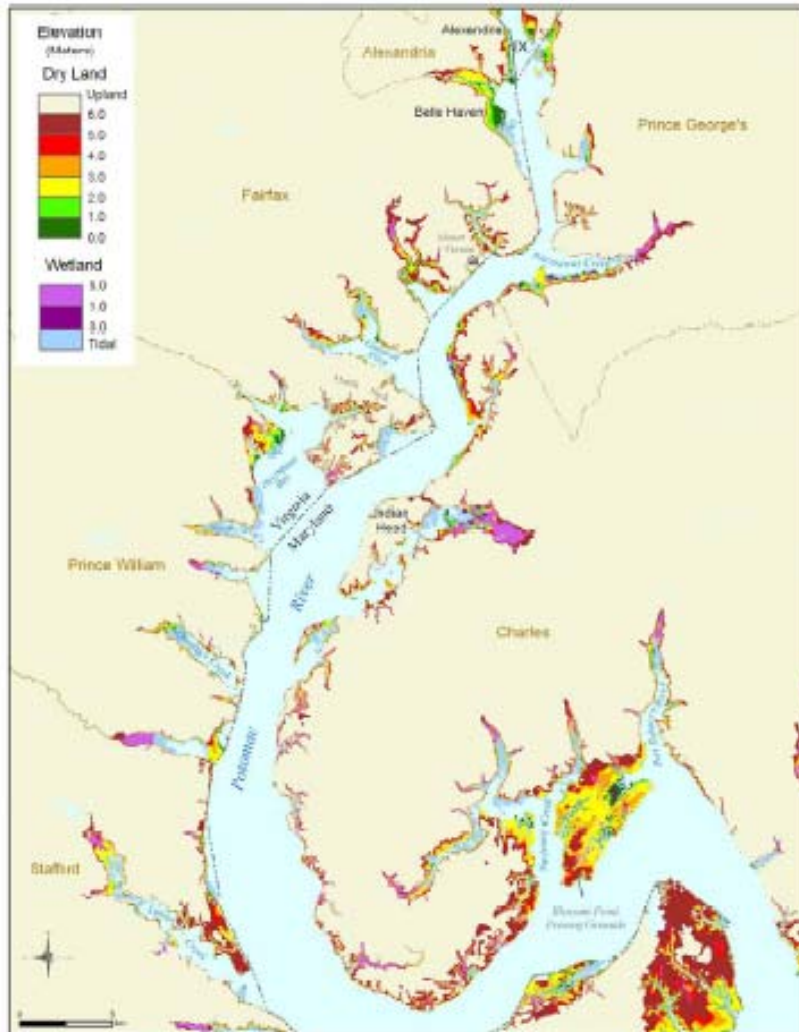
Source: Virginia Institute of Marine Science

Milder Winters, Much Hotter Summers



Source: Dr. Donald Boesch, University of Maryland

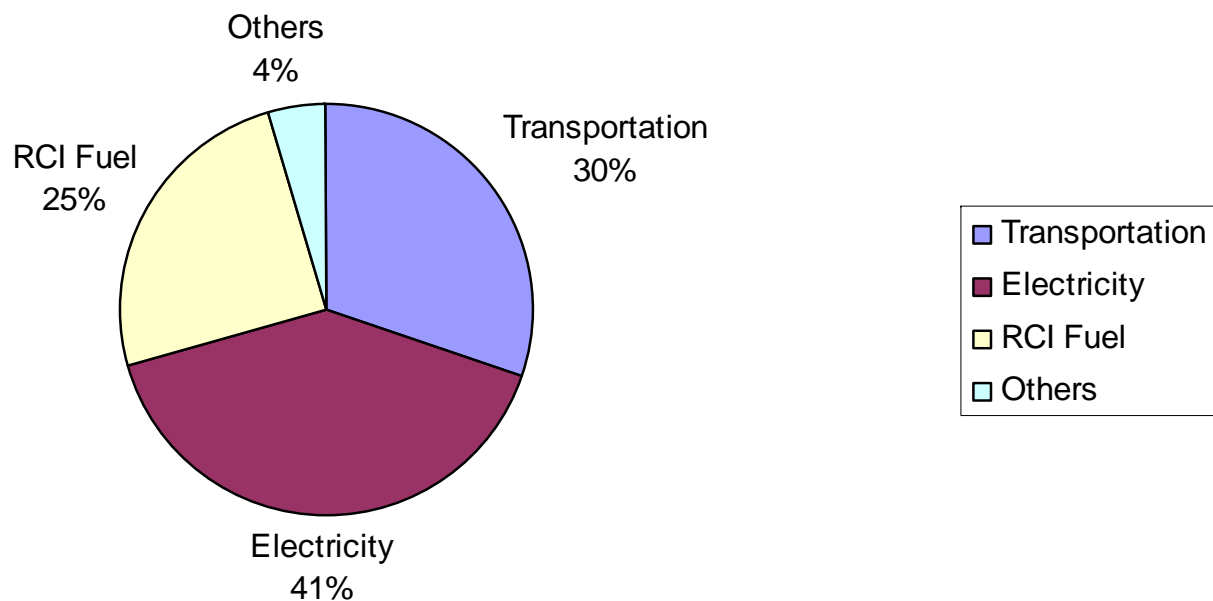
Sea-level Rise Vulnerability in DC Area



Source: Dr. Donald Boesch, University of Maryland

Greenhouse Gas Emissions Inventory

Figure 9. CO₂ Emissions by Sector for the Washington, DC-MD-VA Region

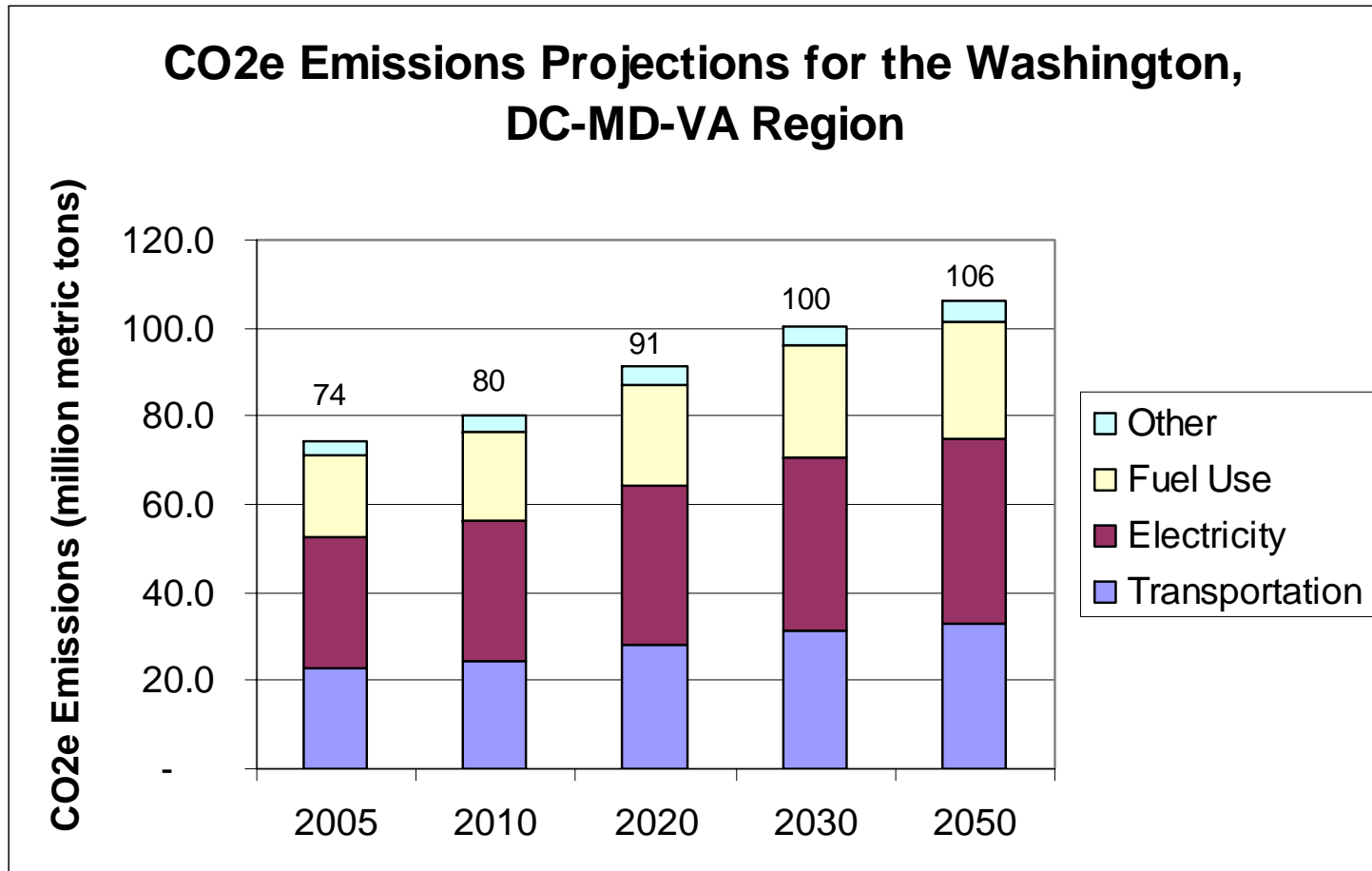


Total - 74 million metric tonnes in 2005

RCI Fuel = Residential, commercial, industrial fuel use.

Source: Metropolitan Washington Council of Governments

Projections of Regional Greenhouse Gas Emissions: 2005-2050

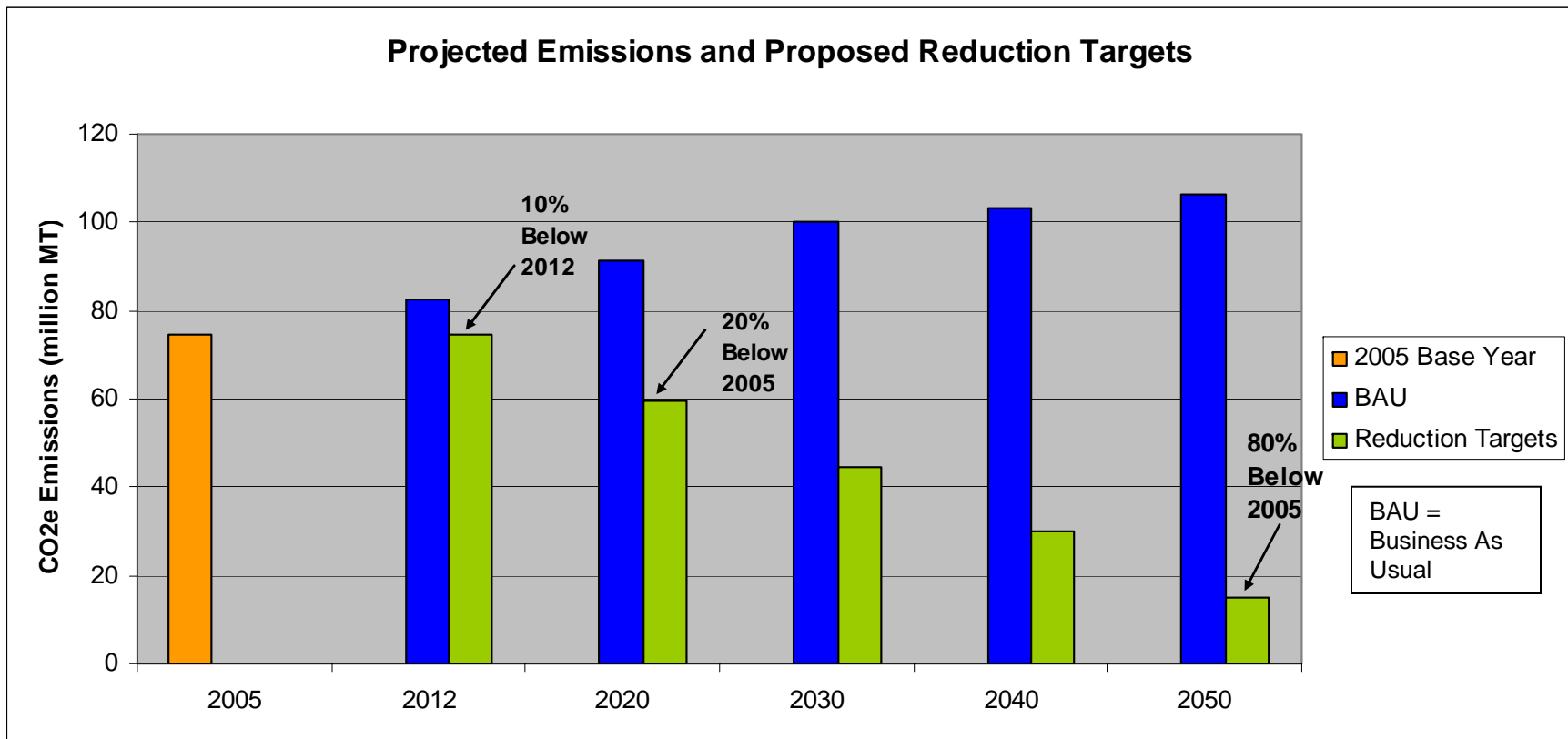
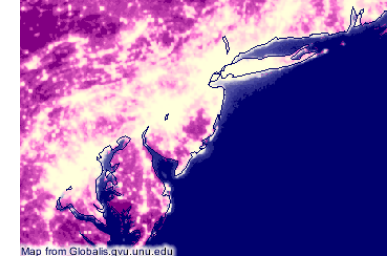


Source: Metropolitan Washington Council of Governments

Proposed Regional Reduction Goals



2012: 10% Below Business as Usual
2020: 20% Below 2005
2050: 80% Below 2005





Major Energy Recommendations



Improve Energy Efficiency/Reduce Energy Demand

- **Implement COG Green Building Policy**
- **Implement Best Practices to reduce local government energy use by 15% by 2015**
- **Promote energy efficient building codes**
- **Promote energy performance contracting/cooperative purchasing**
- **Explore energy audit and retrofit program.**
- **Promote energy efficient street lighting.**
- **Collaborate with utilities on regional energy conservation program.**
- **Advocate for rate structure that rewards conservation investment.**

Develop Clean Energy Alternatives

- **Remove barriers to renewable energy implementation.**
- **Local Governments Purchase 20% Renewable Energy by 2015.**



Major Transportation Recommendations



Increase Fuel Efficiency and Clean Fuel Vehicles

- **Adopt Regional Green Fleet Policy**
- **Implement incentives for high mileage and alternative fueled vehicles**
- **Support California Low Emission Vehicle Standards**
- **Plan for alternative fuel infrastructure (natural gas, hybrid-electric, hydrogen)**
- **Explore state/regional alternative fuels standard.**

Reduce Vehicle Miles Traveled

- **Collaborate with TPB on:**
 - **“What Would it Take?” Analysis**
 - **Regional planning process for reducing transportation greenhouse gas emissions**
- **Invest/expand transit use and infrastructure**
- **Expand commuter options**



Additional Recommendations

Financing and Economic Development

- Evaluate financing mechanisms for energy efficiency projects
- Develop Regional Carbon Offset Fund for preserving tree canopy
- Promote green businesses and green jobs
- Promote cooperative regional green purchasing.

Outreach and Education

- Implement regional public education campaign
- Develop partnerships with private sector and other organizations.

Adaptation

- Partner with universities to research climate change and adaptation strategies
- Develop regional adaptation policies

No-Cost or Low Cost Actions Individuals Can Take Now

- Recycle
- Set thermostat up in summer, down in winter
- Drive 10 fewer miles per week
- Wash clothes in cold water

- Carpool to work
- Telecommute
- Install programmable thermostat
- Replace light bulbs with CFLs
- Replace HVAC filter every 30 days
- Use push mower



Next Steps

- Develop Plan to Meet 2012 Goal
- Work with local governments to implement street light replacement, green fleet policy, renewable energy purchases, and other priority recommendations
- Work with Transportation Planning Board to address transportation greenhouse gas emissions
- Outreach and education program
- Advocacy to state and federal governments





For further information...

- To obtain an electronic copy of the final report:
http://www.mwcog.org/publications/departamental.asp?CLASSIFICATION_ID=4&SUBCLASSIFICATION_ID=34
- Questions?
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