



# Natural Resource Components of Climate Policy

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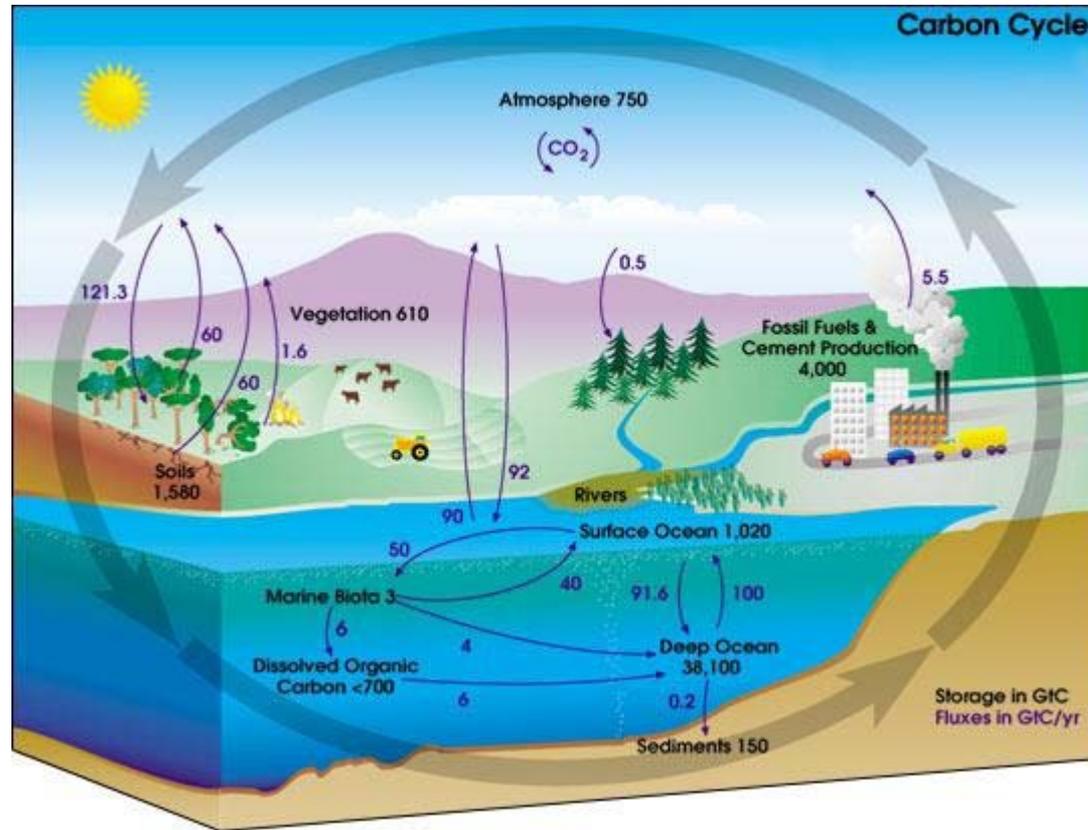
Climate Change Speaker Series: June 9, 2010

# Natural Resource Components of Climate Policy

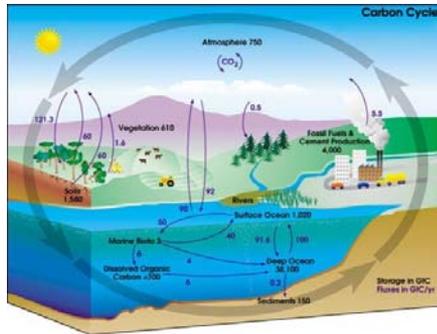
## Outline

- A. Human intervention in the natural carbon cycle
- B. 2008 Natural resource policy goals for climate mitigation
- C. Climate Advisory Team recommendations
- D. Forestry in Cap and Trade systems
- E. Washington's Forest Carbon Workgroup
- F. Relationship to climate adaptation

# Human Intervention in the Natural Carbon Cycle

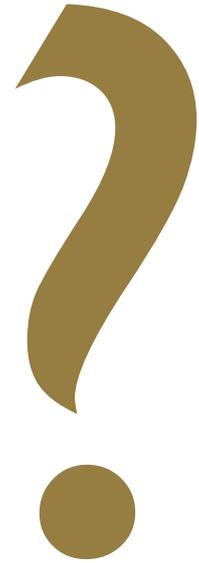


# Human Intervention in the Natural Carbon Cycle

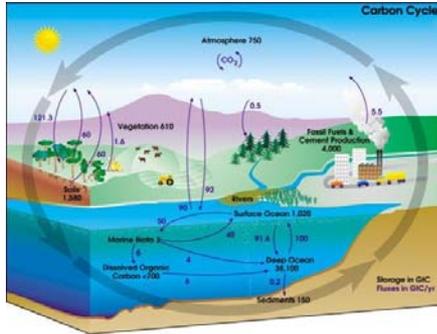


Non-tailpipe/smokestack influences – forests

- Forest clearing
- Forest managing/growing
- Forests influenced by climate



# Human Intervention in the Natural Carbon Cycle



## US Forest cover trends

- Stable or increasing slightly

## Washington State forest cover trends

- Gains – Reforestation; volume, growth
- Losses – Conversion; forest health and fire

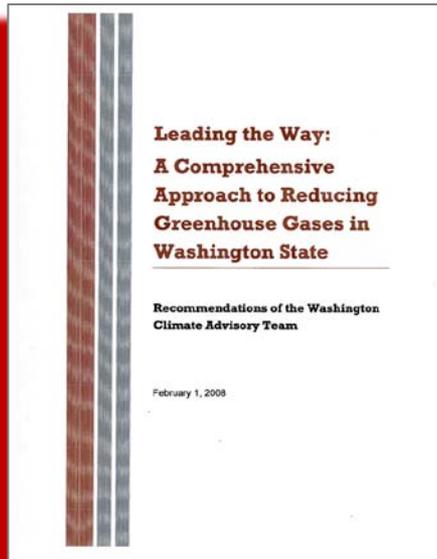
# Natural Resource Policy Goals for Climate Mitigation



- Reduce losses of forest cover to land use conversion
- Increase carbon sequestration and storage by forests
- Displace fossil energy sources and energy-intensive building materials

Other natural resource goals influence pursuit of these goals (e.g.; biodiversity protection; forest product market development)

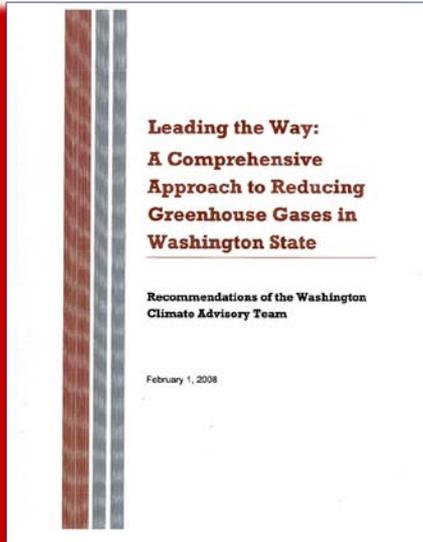
# 2008 Climate Advisory Team



## “Most Promising: Forestry Carbon Mitigation Strategies

- Improving Forest Health/Fuel Reduction
- Reducing Conversion to Non-Forest
- Expanding Use of Wood Products
- Developing Advanced Biomass Conversion Technologies
- Expanding Urban Forests

# 2008 Climate Advisory Team



## Other Forestry Carbon Mitigation Strategies

- Enhancing Carbon Sequestration in Forests
- Enhancing Carbon Sequestration in Harvested Wood Products
- Expanding Forest Biomass Energy

# Forestry in Cap and Trade System Policy Considerations



- In or out of cap?
- If out, marketable offsets or not?
- Offset requirements (why?)
  - Additionally above baseline
  - Permanence/reversals
  - Avoid leakage (considering all pools)
  - Measurement and verifications
- Offset categories – most promising?
- Influence of other goals – “co-benefits”

# Forestry Outside of Cap and Trade Systems



- Other market incentives
- Non-market incentives
- Funding Sources to cap and trade system

# Washington's Forest Carbon Workgroup

2008 Climate Action Team Forest Sector Workgroup

## Forest Sector Workgroup on Climate Change Mitigation Final Report

### Co-conveners

Craig Partridge, Department of Natural Resources  
Stephen Bernath, Department of Ecology

### Facilitators

Jerry Boese, Ross and Associates Environmental Consulting, Ltd.  
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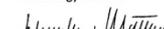
Michelle Connor,  
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NW Energy Coalition



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NW Pulp and Paper



John Miller,  
Clallam County



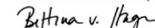
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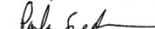
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Steve Stinson,  
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Family Forest Foundation



Paula Swedeen,  
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# Washington's Forest Carbon Workgroup

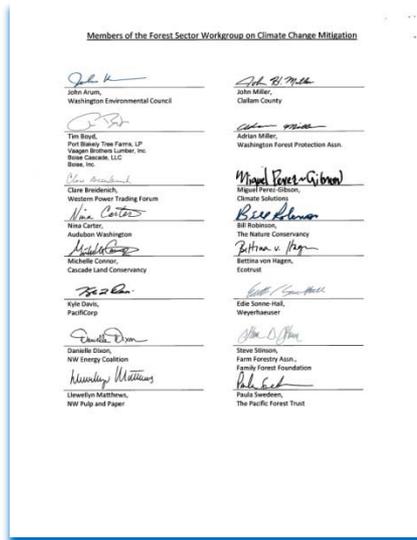
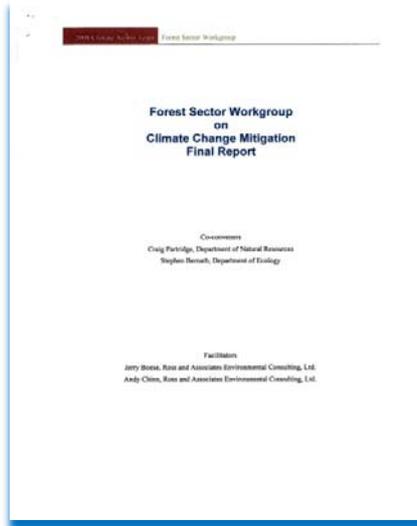
## 2008 Consensus Recommendations

### 1. Avoided Conversion

- On-site clusters to reduce footprint
- Transfer of Development Rights

### 2. Urban Forests

- New tree planting programs



# Washington's Forest Carbon Workgroup

## 3. Forest Management

### a. Offsets

- “Business as usual” baseline
- 100+ year duration
- Contractual and regulatory safeguards against reversal
- Pursue administrative simplicity
- In-forest storage pools plus harvested wood products pool

### b. Non-offset Incentive

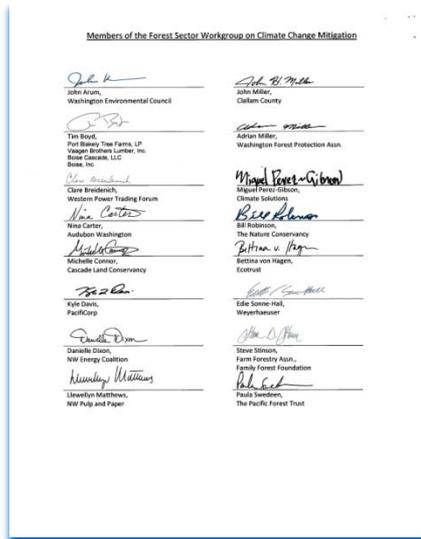
- For carbon storage that's not clearly additional but could be legally reduced
- Funding from emission allowance auction revenue in cap and trade system



# Washington's Forest Carbon Workgroup

## 4. Not addressed in 2008

- Forest health and fire
- Biomass energy
- Building material substitution



# Washington's Forest Carbon Workgroup

## 2010 Work

- More work on avoided conversion
- More work on incentives
  - Including for forest health
- Explore possibilities for early registration of offsets

2010 Climate Action Plan Forest Sector Workgroup

### Forest Sector Workgroup on Climate Change Mitigation Final Report

#### Co-chairs

Craig Partridge, Department of Natural Resources  
Stephen Bernath, Department of Ecology

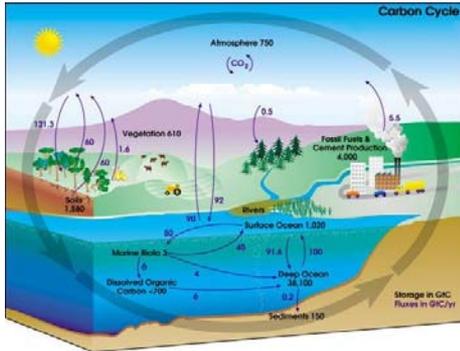
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 Tim Byrd, Port Brewery Tea Farms, LP Yagor Brothers Lumber, Inc. Boise, Idaho, LLC	 Adrien Miller, Washington Forest Protection Assn.
 Clare Bradburn, Western Power Trading Forum	 Michael Forest-Gibson, Climate Solutions
 Nina Carter, Audubon Washington	 Bill Robinson, The Nature Conservancy
 Michelle Connor, Cascadia Land Conservancy	 Bettina von Hagen, Ecotrust
 Kyle Davis, PacifiCorp	 Edie Sonne-Hall, Weyerhaeuser
 Danielle Dixon, NW Energy Coalition	 Steve Simon, Farm Forestry Assn., Family Forest Foundation
 Kimberly Matthews, NW Pulp and Paper	 Paul Jewkes, The Pacific Forest Trust

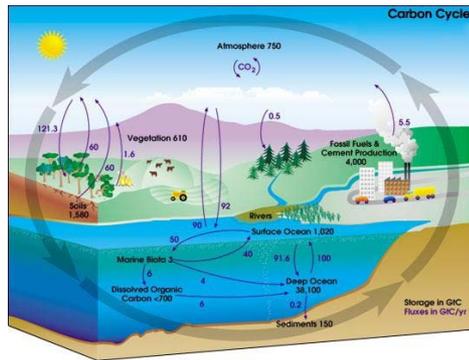
# Relationship to Climate Adaptation



## Back to carbon cycle

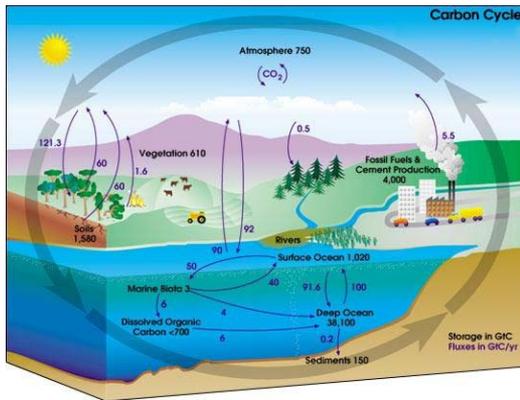
- Climate-stressed forests
  - All forest values threatened
  - Greenhouse gas emission increases
- BC forests – sink-to-source

# Relationship to Climate Adaptation



- Unsustainable current carbon storage?
- Manage inevitable “emissions”
  - CO<sub>2</sub> versus methane
  - Capture energy value
  - Timing

# Relationship to Climate Adaptation



- Adaptation as mitigation
  - Protect the sink function