



# South Carolina Climate, Energy & Commerce Advisory Committee

AFW Technical Working Group  
Meeting #9

January 22, 2008

Office of the Governor  
The Center for Climate Strategies

# Agenda

- Call to order and roll call
- Review and approval of previous call summary
- Presentation of Quantification Methodology and Baseline Data
- Discussion and Recommendations for the Draft South Carolina Emissions Inventory & Forecast
- Date, time, & agenda items for next meeting
- Public Input and Announcements

# Stepwise Planning Process

1. Develop inventory and forecast of emissions
2. Identify a full range of possible actions
3. Identify initial priorities for analysis
4. Develop straw proposals
5. Quantify GHG reductions and costs/savings
6. Evaluate externalities, feasibility issues
7. Develop alternatives to address barriers
8. Aggregate results
9. Iterate to final agreements
10. Finalize and report recommendations

# Quantification of Options

- Review of general methodology and baseline data
- See AFW Policy Options Document
  - Posted online and distributed via e-mail

# Next Steps: TWG Input

- TWG Members who have not yet done so, are asked to provide text for the following sections:
  - **\*\*Implementation Mechanisms\*\***
  - Related Policies/Programs in Place
  - Key Uncertainties
  - Additional Benefits and Costs
  - Feasibility Issues

# Next Steps: Development of Priority Policy Options

- Design Template / Matrix
  - Policy description
  - Policy design (derived from design options matrix)
  - Potential implementation mechanisms
  - Related policies/programs in place
  - Type(s) of GHG reductions
  - Estimated GHG savings and cost per MTCO<sub>2e</sub>
  - Key uncertainties
  - Types of additional (non-GHG) benefits and or costs
  - Description of feasibility issues, if needed
  - Status of group approval
  - Level of group support
  - Barriers to consensus

# Next Steps: Dates for Remaining CECAC and TWG Meetings

## **Scheduled CECAC Meetings:**

- Meeting #5: Friday, February 22, 2008
- Meeting #6: Friday, May 9, 2008
  - Meeting Time: 10:00 am – 5:00 pm

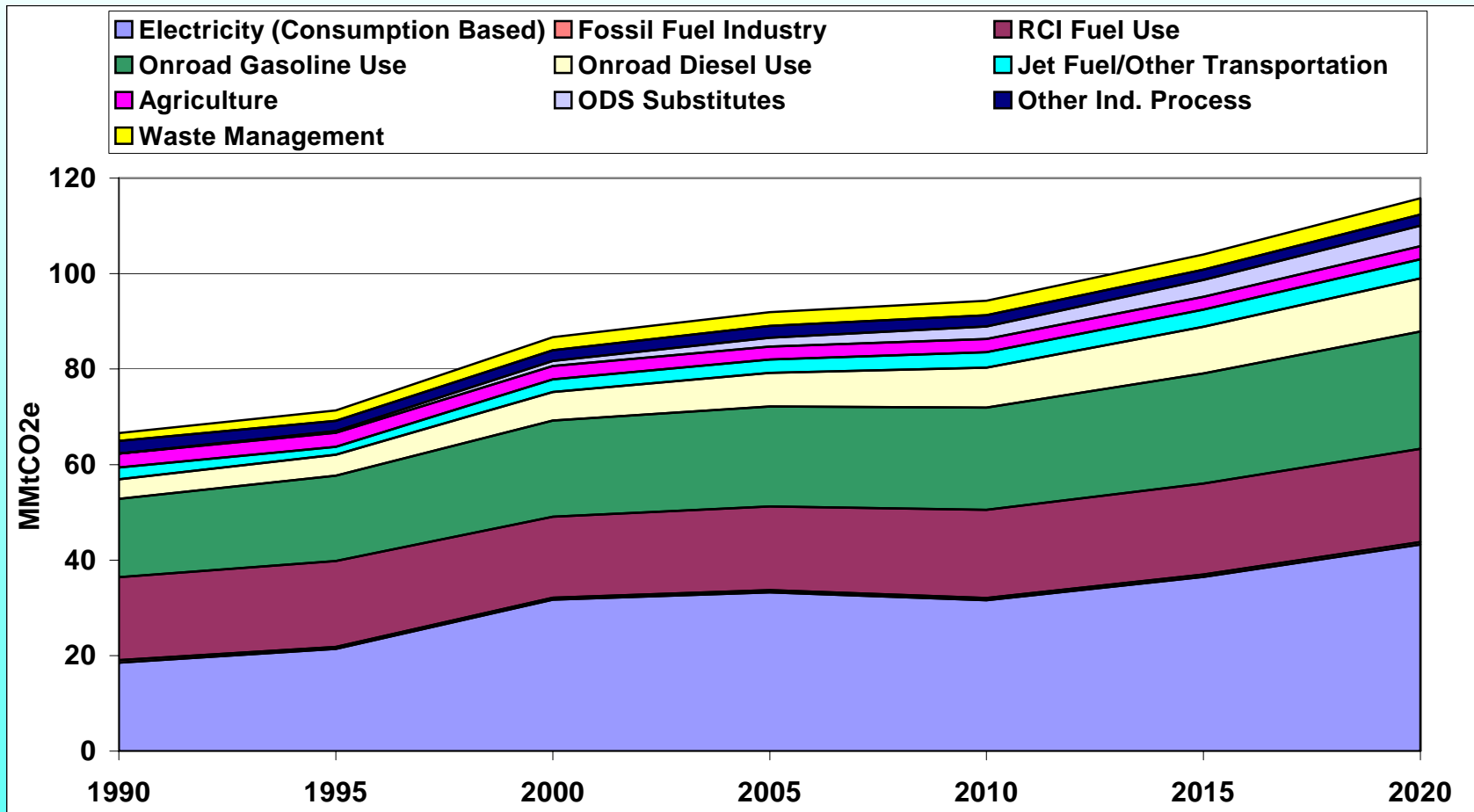
## **Scheduled TWG Meetings:**

- Meeting #10: Thursday, March 6, 2008
- Meeting #11: Thursday, April 17, 2008 (if necessary)
  - Meeting Time: 10:00 am – 11:00 am (Waste Management)
  - Meeting Time: 2:00 pm – 4:00 pm (Agriculture and Forestry)

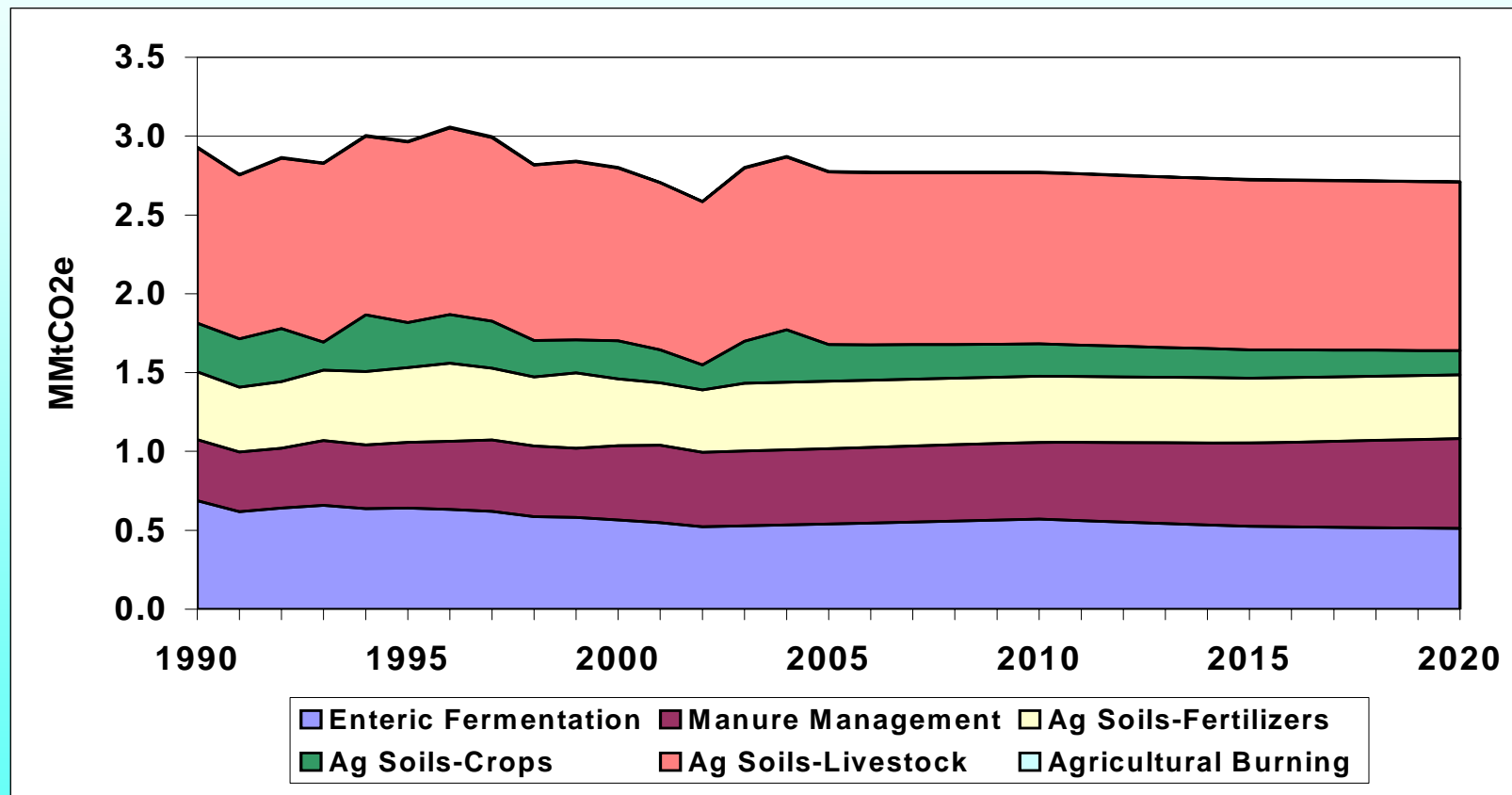
# Draft GHG Inventory & Forecast

- AFW appendices posted on website

# South Carolina Gross GHG Emissions By Sector, 1990-2020



# Agriculture



# Agriculture

- Data Sources
  - Crop Production: USDA/NASS
  - Livestock: USDA/NASS
  - Fertilizer: Fertilizer Institute
- Methods
  - Crops: SGIT emission factors and crop production data
  - Livestock: SGIT emission factors and livestock populations
  - Fertilizer: SGIT fertilizer consumption
  - Livestock population projections based on methods from VISTAS Regional Planning Organization inventory
  - Projections for other categories based on historical growth trends

# Agriculture

- Key Assumptions
  - Future growth for agricultural soils will follow historical trends
  - Livestock population growth will follow national trends (VISTAS inventory uses USDA projections for most livestock categories)
- Key Uncertainties
  - Manure management emission factors derived from limited data sets
  - Livestock numbers based on point estimates for each year to represent populations that fluctuate throughout the year
  - Projection assumptions

# Forestry

<b>Forest Pool</b>	<b>Carbon Flux (MMtC)</b>	<b>Carbon Flux (MMtCO<sub>2</sub>) (negative number = net sink)</b>
Live Tree	-4.7	-17
Understory	-0.2	-0.8
Standing Dead & Down Dead	-0.4	-1.5
Forest Floor	-0.04	-0.15
Soil Carbon* (data subject to change)	7.6	28
Harvested Wood Products	-2.5	-9.0
<b>Totals</b>	<b>-0.3</b>	<b>-1.0</b>
<b>*Totals (excluding soil carbon)</b>	<b>-7.8</b>	<b>-28.5</b>
<p>Totals may not sum exactly due to independent rounding.            Data source: Jim Smith, USFS, personal communications with S. Roe, CCS, November 2006 and February 2007.</p>		

# Forestry

- Data Sources
  - USFS carbon stock data for 2001-2005 based on FORCARB2 model
  - USFS also provides modeled estimates for harvested wood products
- Methods
  - Forestry: USFS FORCARB2 carbon stock change model provides carbon pools for each inventory cycle
  - Flux calculated for each pool based on difference in time between inventory cycles
  - Carbon pool data for the 2001-2005 time-period

# Forestry

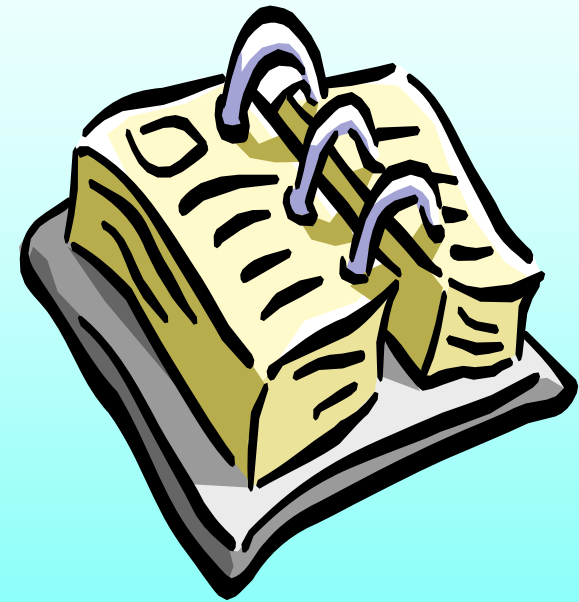
- Key Assumptions
  - 2001-2005 carbon stock change representative of current and historical conditions
  - No significant change in sequestration from 2006-2020
- Key Uncertainties
  - Effects of future development on forested acreage
  - Effects of near-term climate change on forest sequestration levels

# Next Steps

- Work with CCS to develop baseline data and establish quantification methodology.
- Submit text for Policy Options Document.

# Next TWG Meeting

- Date and Time
  - Next Scheduled: March 6, 2007; 2:00PM to 4:00 PM.
- Future Meetings
  - CECAC: Feb. 22, May 9
  - AFW TWG: March 6, April 17
- Agenda:
  - Review quantification of costs and benefits.
  - Review CECAC comments.



# Public Input, Announcements