



South Carolina Climate, Energy & Commerce Advisory Committee

AFW Technical Working Group
Meeting #2

June 12, 2007

Office of the Governor
The Center for Climate Strategies

Agenda

- Call to order and roll call
- Review and approval of previous call summary
- Continued Review of the Catalog of State Actions
- Continued Review of Draft South Carolina Emissions Inventory & Forecast
- Proposed 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

Catalog of State Actions & Action Descriptions

- Refer to the Documents Posted at the AFW Web Page.

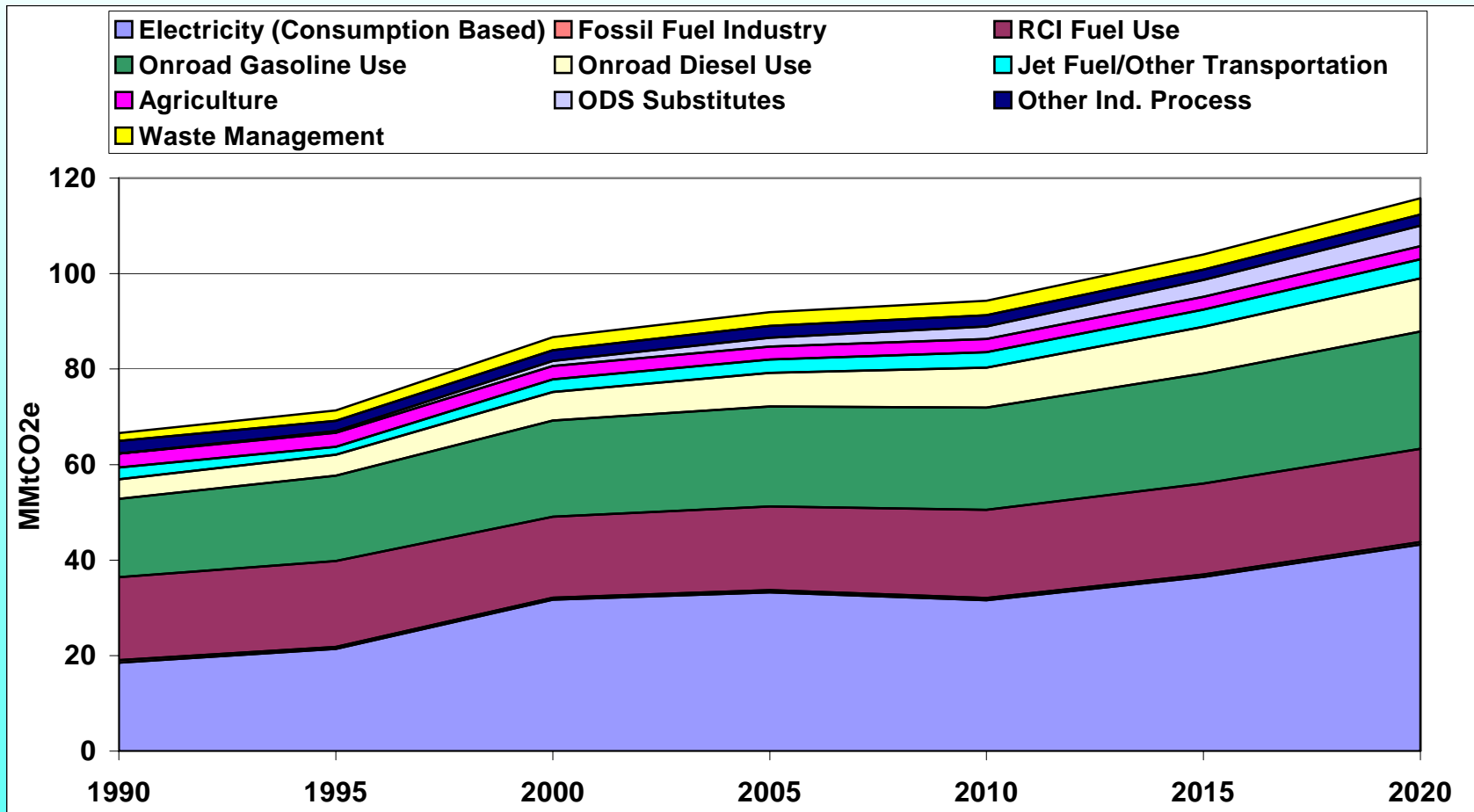
Next Steps for the AFW TWG

- Complete Catalog for review by the CECAG on June 20
- CCS incorporates comments from the CECAG
- TWG fills in nominal ratings for GHG reductions, costs, and additional information
- TWG recommends priorities for analysis
- CECAG reviews and approves TWG priorities
- TWG develops straw proposals for policy design

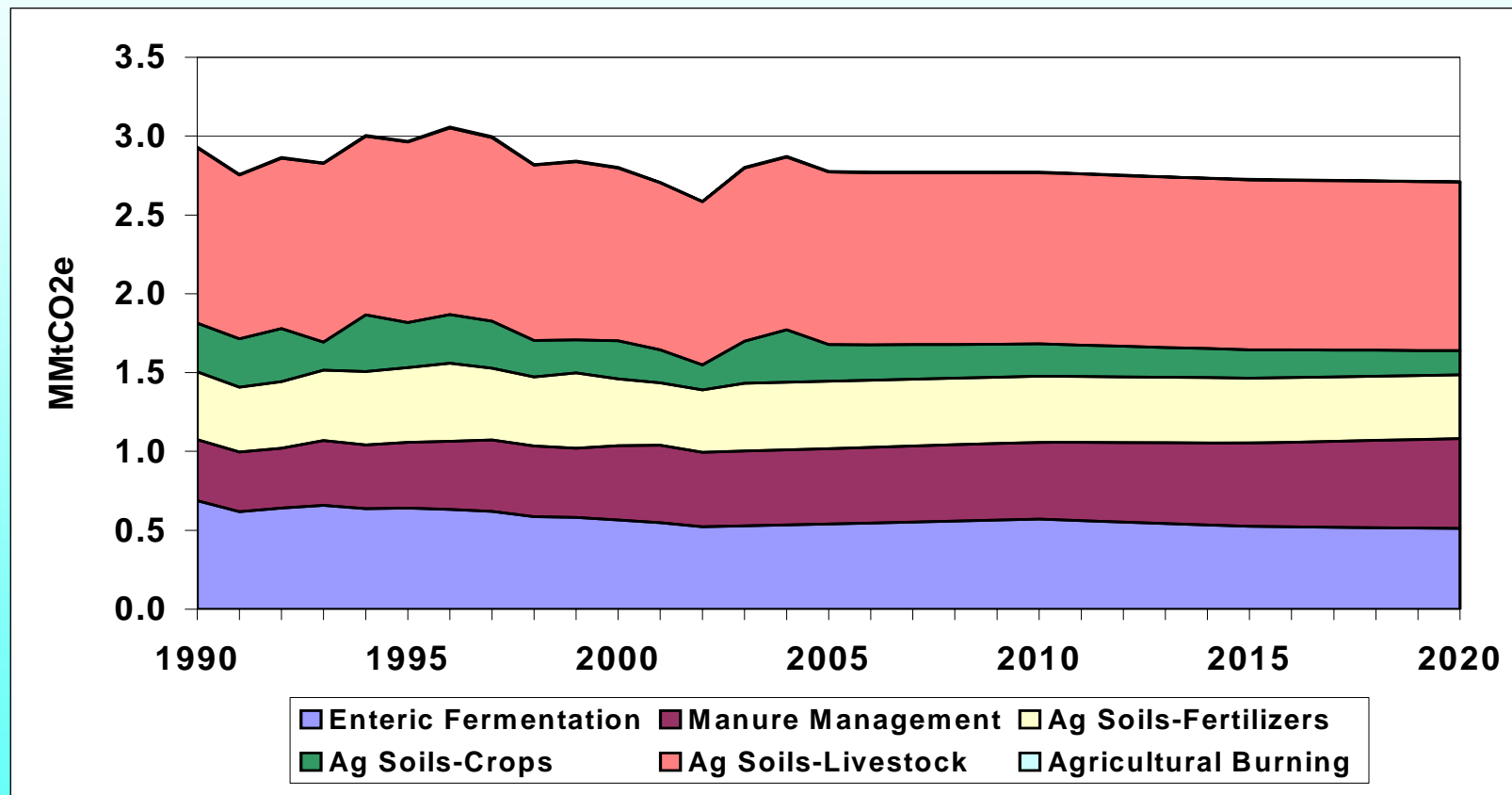
GHG Inventory & Forecast

- AFW appendices posted on website

South Carolina Gross GHG Emissions By Sector, 1990-2020



Agriculture



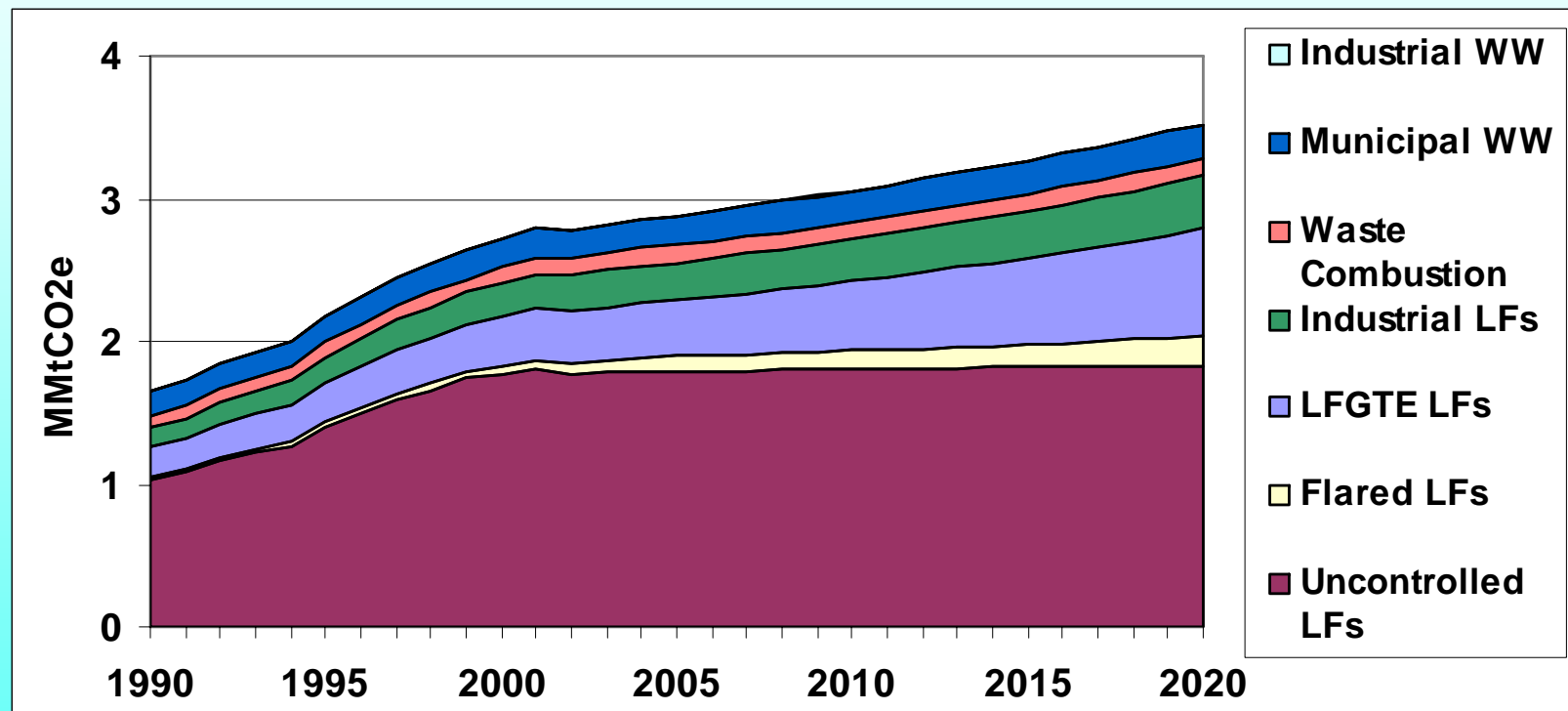
Agriculture

- 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

Waste Management



Waste Management

- Data sources
 - EPA Landfill Methane Outreach Program Database
 - Additional landfill data provided by SCDHEC
 - SCDHEC data on waste combustion and wastewater (WW) flows for fruit/vegetable processing
 - State population and SGIT default data for municipal WW treatment
- Methods
 - SGIT with data sources above
 - CCS post-processing to account for controls and growth

Waste Management

- Key Assumptions
 - Growth Rates
 - Landfills – based on historic emissions growth (2000-2005)
 - Industrial WW – based on historic emissions growth (1990-2005)
 - Municipal WW – SC population projections
- Key Uncertainties
 - Future controls applied to uncontrolled landfills
 - Industrial landfills
 - SGIT default of 7% of municipal landfills
 - Industrial WW
 - Growth for food/vegetable processing

Forestry

Forest Pool	Carbon Flux (MMtC)	Carbon Flux (MMtCO₂) (negative number = net sink)
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
Totals	-0.3	-1.0
*Totals (excluding soil carbon)	-7.8	-28.5
<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

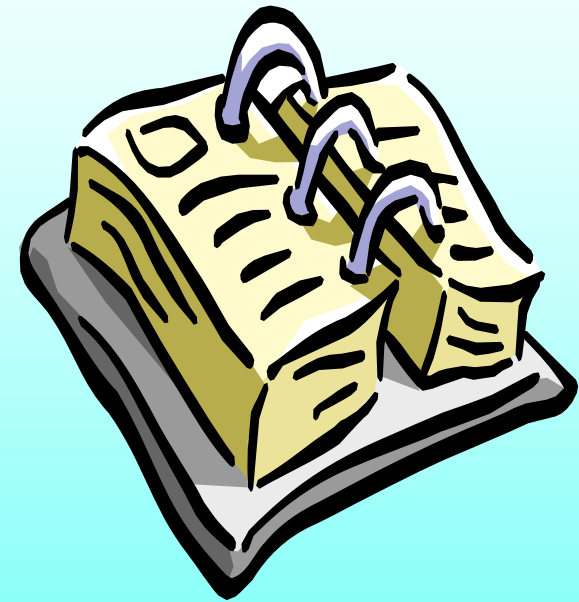
- Key Assumptions
 - 2001-2005 carbon stock change representative of current and historical conditions
 - No significant change in sequestration from 2006-2020
- Key Uncertainties
 - Effects of future development on forested acreage
 - Effects of near-term climate change on forest sequestration levels

Next Steps

- Review CECAC input on AFW Catalog of Policy Options & Descriptions
- Discuss policy option prioritization procedure
- Continued review and revision of GHG Inventory & Forecast

Next TWG Meeting

- Date and Time
 - TBD
- Agenda:
 - Review/revise policy options catalog based on CECAC input
 - Discuss procedure for prioritizing policy options for analysis
 - Continue review/revision of South Carolina emissions inventory and projections



Public Input, Announcements