



South Carolina Climate, Energy & Commerce Advisory Committee

AFW Technical Working Group
Meeting #7

November 7, 2007

Office of the Governor
The Center for Climate Strategies

Agenda

- Call to order and roll call
- Review and approval of previous call summary
- Update on status of straw proposals from sub-group volunteers
- Next steps for the AFW TWG
- Discussion and Recommendations for the 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

Straw Proposal Status Update: Workgroup Volunteers

- Refer to Policy Options Template posted on web and distributed via e-mail.
- Straw Proposals must be finalized by November 21 to allow lead time for posting prior to CECAC meeting
- Volunteer list to be posted at end of Call Summaries.
- Each TWG member has received a contact list to facilitate communication within sub-groups. This contact information will not be posted on-line.

Next Steps: Goals for CECAC Meeting #4

- Goal: For each priority policy option, obtain CECAC input on and approval of TWG straw proposal descriptions, design characteristics, and related policies and programs in place in SC to establish parameters for quantification analysis
- TWG Steps:
 - Draft straw proposals
 - Revise as needed
 - Approve straw proposals to forward to CECAC

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_{2e}
 - 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 #4: Friday, November 30, 2007
- Meeting #5: Friday, February 22, 2008
- Meeting #6: Friday, May 9, 2008
 - Meeting Time: 10:00 am – 5:00 pm

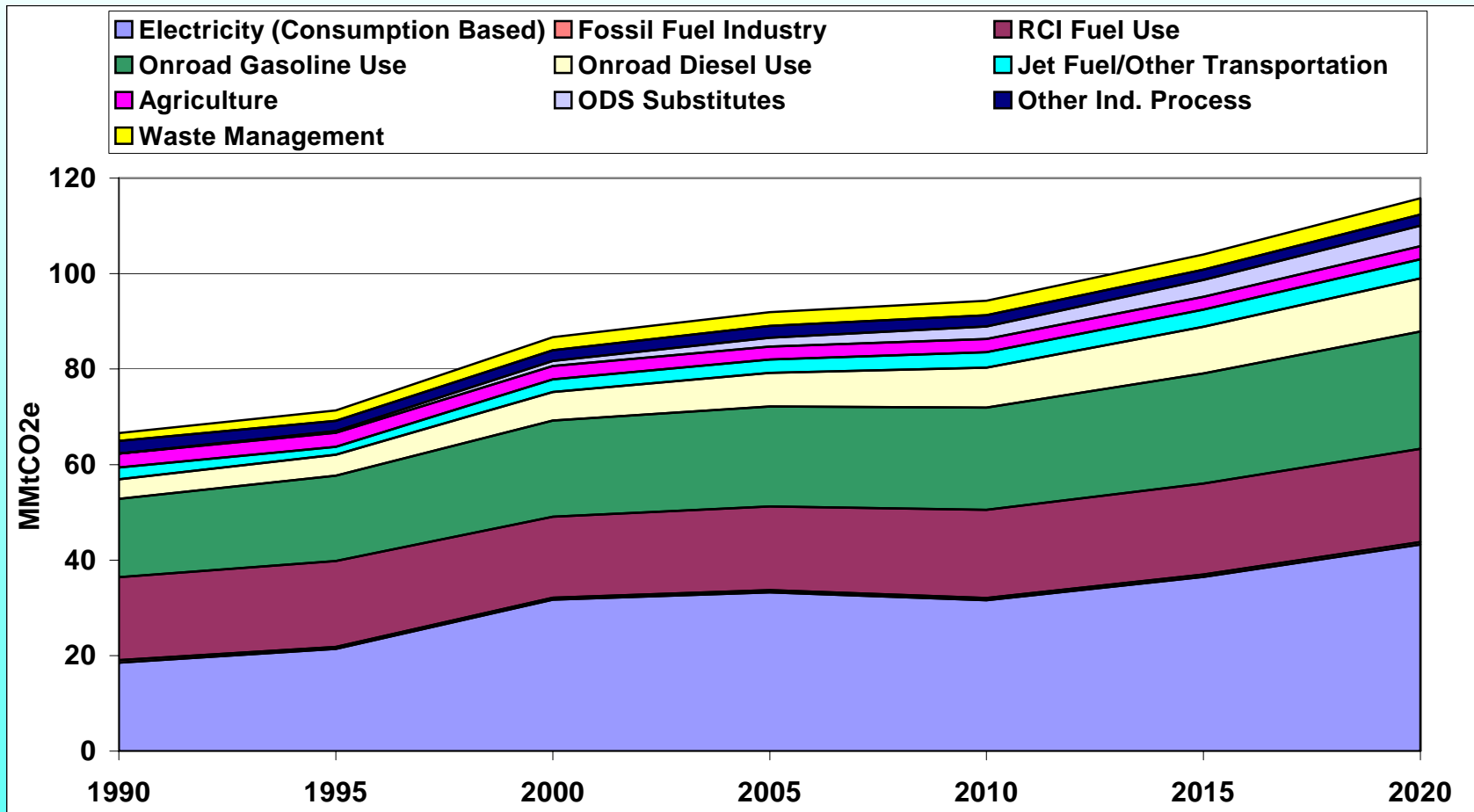
Scheduled TWG Meetings:

- Meeting #8: Thursday, December 13, 2007
- Meeting #9: Tuesday, January 22, 2008
- Meeting #10: Thursday, March 6, 2008
- Meeting #11: Thursday, April 17, 2008 (if necessary)
 - Meeting Time: 2:00 pm – 4:00 pm

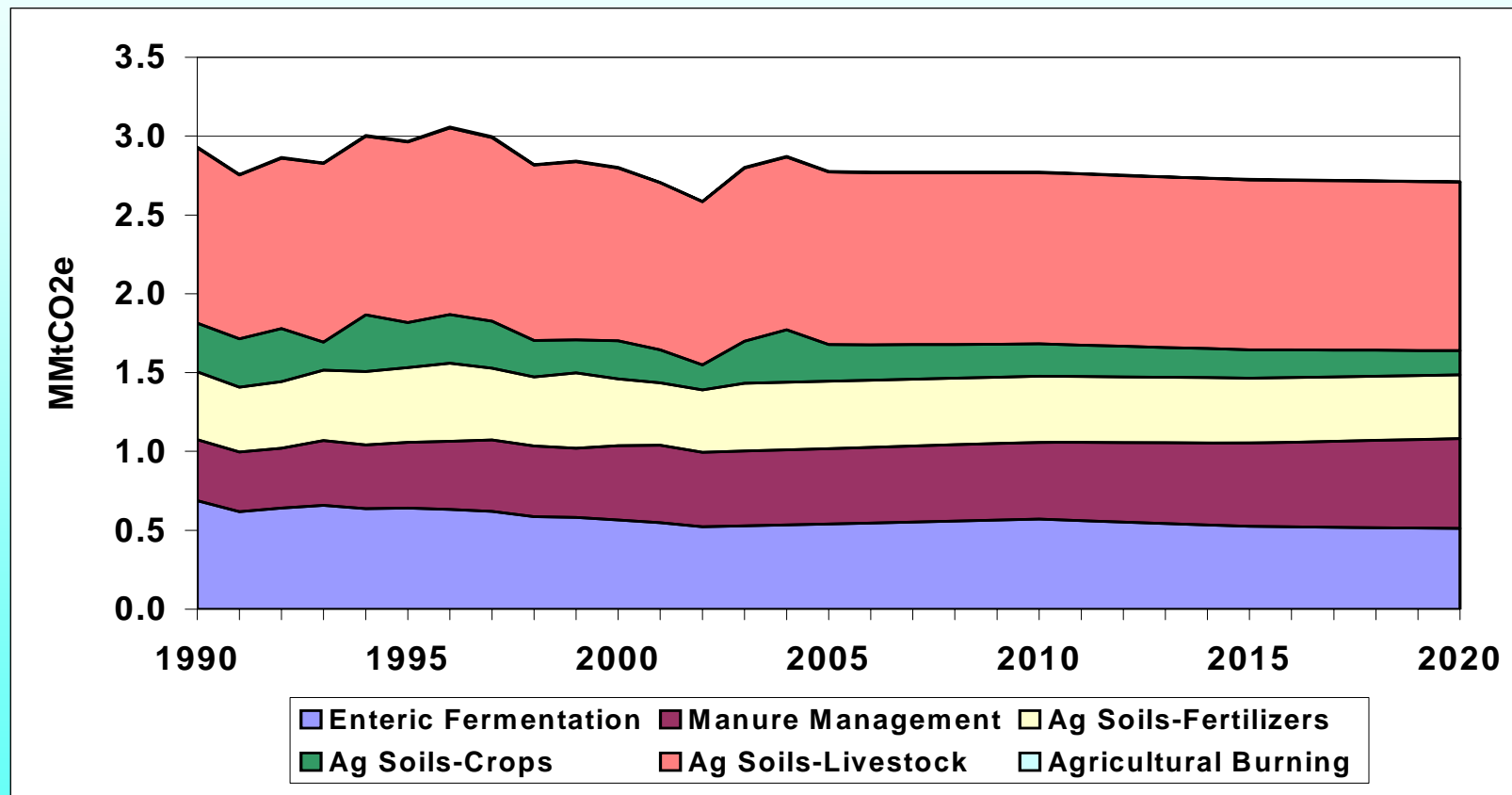
Draft GHG Inventory & Forecast

- AFW appendices posted on website

South Carolina Gross GHG Emissions By Sector, 1990-2020



Agriculture



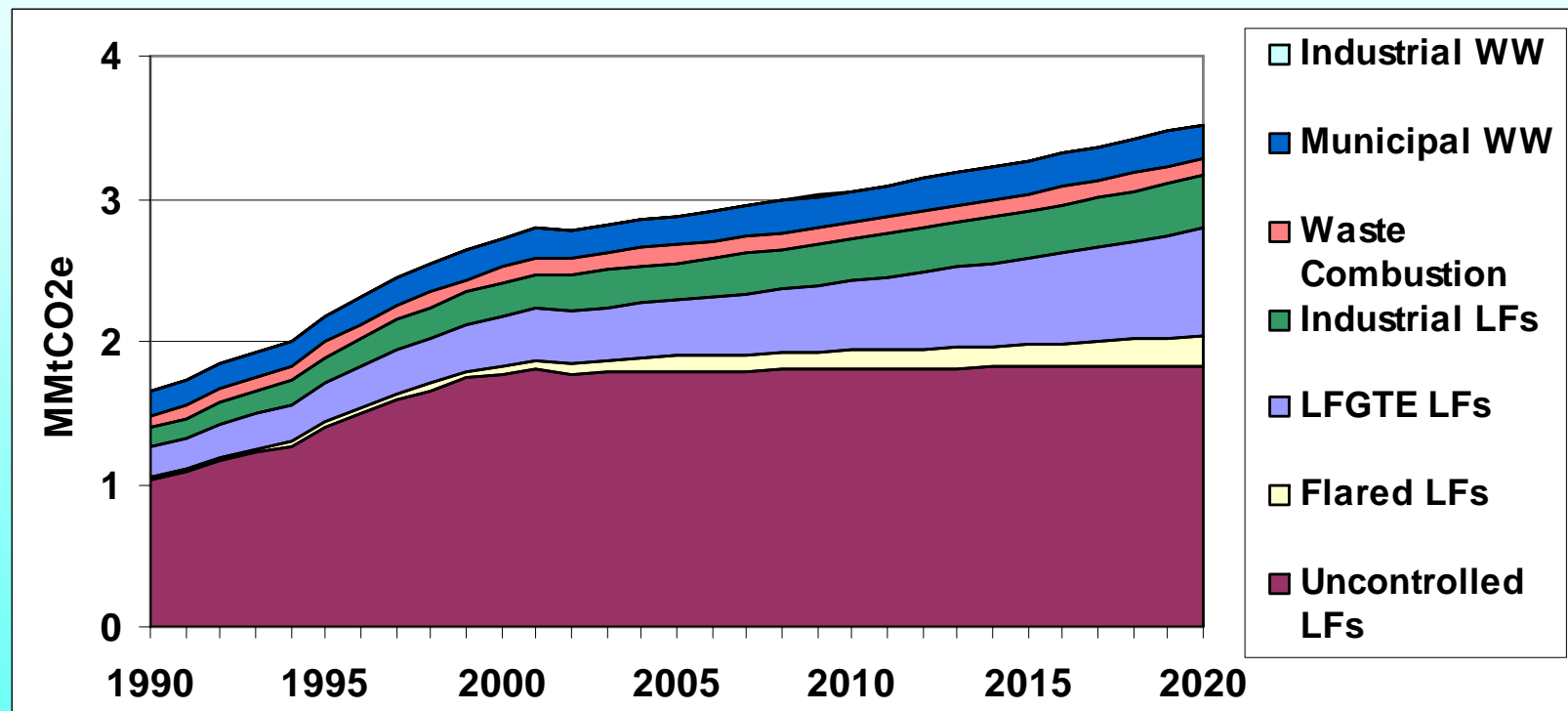
Agriculture

- 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

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

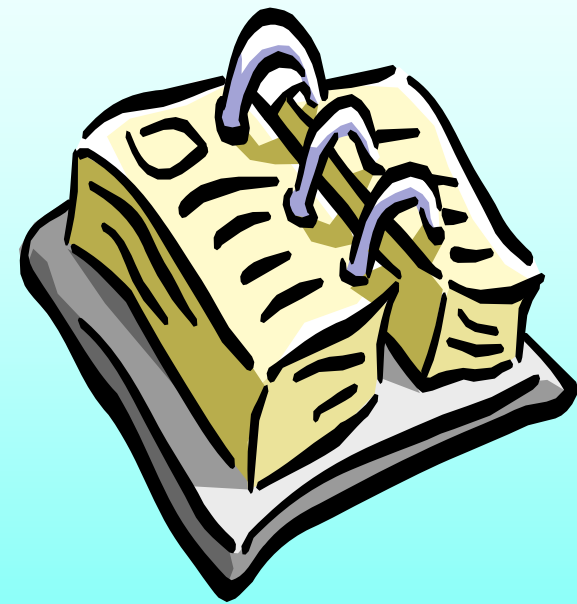
- Key Assumptions
 - 2001-2005 carbon stock change representative of current and historical conditions
 - No significant change in sequestration from 2006-2020
- Key Uncertainties
 - Effects of future development on forested acreage
 - Effects of near-term climate change on forest sequestration levels

Next Steps

- Meet with volunteer sub-groups to finish Straw Proposals for CECAC review
- Straw Proposals will be reviewed during the next TWG meeting
- Next CECAC meeting: November 30, 2007

Next TWG Meeting

- Date and Time
 - Next Scheduled: December 13, 2007; 2:00PM to 4:00 PM.
 - Proposed supplemental meeting: November 20
- Future Meetings
 - CECAC: Nov. 30, Feb. 22, May 9
 - AFW TWG: Dec. 13, Jan. 22, March 6, April 17
- Agenda:
 - Review Straw Proposals and Policy Options Template



Public Input, Announcements