



**DRAFT MEETING SUMMARY
NORTH CAROLINA CLIMATE ACTION PLAN TECHNICAL WORK GROUP**

Agriculture, Forestry, and Waste Management TWG Call #11, March 15, 2007

Attendance:

1. TWG Members: John Bonitz, Anne Coan, Jim Hickman, Max Merril, Craig Westerbeek, Dennis Hazel, Chris Hopkins
2. Public: none
3. CCS: Stephen Roe, Katie Bickel
4. DAQ/DENR: Charles Davis, Brock Nicholson

Background documents:

(all posted at http://www.ncclimatechange.us/Agriculture_Forestry.cfm)

1. Agenda
2. AFW TWG Call #10 Summary
3. AFW Policy Options Document
4. Power Point Presentation to the AFW TWG

Discussion and conclusions:

1. The Call #10 Summary and issues discussed at the last meeting were reviewed and the TWG was asked whether any changes were needed to draft Call #10 Summary. It was requested that the term "farming" be replaced with "production methods" with regard the organic component of AFW-3. No other changes were requested.
2. Agenda review: purpose of the call is to review the draft mitigation options and identify final additions and changes. By the next call, the TWG needs to have a draft final document ready for CAPAG review. CCS reported no issues remaining on the I&F.
3. Review of Mitigation Options: CCS reviewed the summary page and noted that the next version will have totals for AFW sector (last three rows) completed. For all options, CCS requested input to fill gaps and to elaborate on Implementation Mechanisms sections—which are key to the proposals.

4. AFW-1: Need input on Parties Involved from TWG volunteers. CCS is reviewing the cost estimate based on external feedback (outside of TWG) indicating the initial estimate is high. Estimate assumes a 5 cent/kilowatt-hr value for the electricity produced (either to offset on-site consumption or for sale back to the grid). TWG feels that 5 cents a kilowatt-hour reflects the real avoided costs to the producer. CCS clarified that we are trying to incorporate existing programs, e.g., tax credits on the capital costs. CCS may make potential adjustments to cost estimates based on the above, or text clarifying what is and is not included. TWG recommends using a weighted average of dairy and swine costs (currently it is a straight average, but swine population much higher in NC).
5. AFW-2: Need input on Parties Involved from TWG volunteers (likely use the same list as AFW-6 Policies to Promote Ethanol Production).
6. AFW-3: CCS noted the complications with analyzing the GHG benefits of organic production methods because not all organic systems use soil management that increases carbon sequestration methods and there is not a standard accepted approach to quantifying the other potential benefits related to using lower embedded GHG inputs in production methods (i.e., reduced pesticide and fertilizer use in organic systems). Some organic methods can result in lower yields that need to be factored in to the analysis. CCS has yet to include the costs and benefits of the organic component of the goal. There was discussion over the conflicting information on the GHG benefits of organic production methods. CCS recommended including a balanced amount of information regarding the GHG benefits in the feasibility section and presented two options for quantification: not quantifying the organic farming goal because of the lack of consensus information on the quantifiable benefits; or quantifying just the soil carbon benefit and acknowledging the other issues with heavy caveats of the estimates for transparency.
7. The goal level for organic farming was discussed, with some differing opinions. One TWG member suggested that 10% of total agricultural production being certified organic by 2020 is ambitious; data provided by another TWG member suggests this level of growth in organic production in NC is feasible. Others noted that the goal should be based on specific practices as opposed to certified organic practices. CCS recommended reviewing some specific studies and addressing some of the concerns through elaborating on the feasibility issues and revisiting the 10% goal level off-line with interested members.
8. AFW-4: A TWG member noted interest in linking AFW 4 & 7. They use similar implementation mechanisms, however they also have genuine differences in cost effectiveness. There is a desire to recognize strong linkages and a decision was made to re-order options to: 4. A. Preservation of working lands - Agricultural lands; 4.B. Preservation of working lands - Forest lands
9. AFW-5: Including NC AG Cost-share Program under implementation mechanisms may not be appropriate (statute is to address water quality issues). Suggestion to revise it to a more general cost-share program.
10. The TWG discussed the attribution of benefits across options and how the benefits of biodiesel, ethanol, and biomass feedstock production are not fully recognized in the

AFW sector. The TWG discussed ways to make the links very clear such that the benefits of in-state production of feedstocks are apparent. CCS will raise this issue internally and discuss options for presentation of these issues that can illuminate the links and shared benefits across sectors (e.g., a matrix of options showing the inter-relatedness of options, identifying the positive linkages that enhance benefits and ensure maximum reductions).

11. AFW-6, 11, 12 were briefly reviewed with minimal comments. CCS will incorporate cost data into analysis for AFW 11.
12. Forestry options (AFW 8-10, and 13) were briefly reviewed. A key assumption in AFW 8 was discussed, regarding the proportion of carbon that is lost from a forest when the land is developed. TWG members were comfortable with the existing assumption that 90% of biomass and soil carbon is lost. CCS agreed to reach out to TWG forestry experts who have not been on recent calls, to request their review and input on the forestry options before the next TWG call.
13. The goal levels of the new Urban Forestry option (AFW 13) were reviewed and supported by the TWG. It was noted that demand-side management programs are another potential enabling mechanism and TWG volunteers will provide additional text to reflect this. The GHG reduction benefits include carbon sequestration and displacing fossil fuel based energy supplies.

Next steps:

1. TWG members will submit additional input to CCS by April 2, 2007 for incorporation into a final draft version
2. The close to final version will be reviewed on the next TWG call, scheduled for April 12, 2007 1-3pm
3. The proposals will be finalized in preparation for the next CAPAG meeting, scheduled for May 8, 2007

TWG Volunteers for Policy Option Development

Option No.	GHG Reduction Policy Option	TWG Volunteers
AFW-1	Manure Digesters/Other Waste Energy Utilization	Mitch Peele, Marion Deerhake, Kraig Westerbeek
AFW-2	Biodiesel Production (incentives for feedstocks and production plants)	John Bonitz, Mitch Peele, [Alex Hobbs, Solar Center, who is not a TWG member was mentioned as a technical resource]
AFW-3	Conservation Tillage/No-Till (carbon sequestration and reduced energy use)	Mitch Peele, Chris Hopkins, David Smith
AFW-4	Preserve Open Space/Agricultural Land	David Smith, Mitch Peele, Max Merrill, (Bill Holman)
AFW-5	Agricultural Biomass Feedstocks for Electricity or Steam Production	Mitch Peele, (Dennis Hazel).
AFW-6	Policies to Promote Ethanol Production	John Bonitz, Mitch Peele, Chris Hopkins, Bob Slocum
AFW-7	Forest Protection – Reduced Clearing and Conversion to Nonforest Cover	Chris Hopkins, Bob Hazel, Stephen Whitfield, Max Merrill
AFW-8	Afforestation and/or Restoration of Nonforested Lands	Bob Slocum, Chris Hopkins, Bob Hazel, Stephen Whitfield, (Dennis Hazel)
AFW-9	Expanded Use of Forest Biomass Feedstocks for Electricity (fuel switching)	Chris Hopkins, Bob Slocum, Stephen Whitfield, (Dennis Hazel)
AFW-10	Expanded Use of Forest Biomass Feedstocks for Residential, Commercial/Institutional, or Industrial Heating	Chris Hopkins, Bob Slocum, Stephen Whitfield, (Dennis Hazel)
AFW-11	Landfill Methane and Biogas Energy Programs	Jim Hickman, (David Mickey, not a member of the TWG offered himself as a technical resource)
AFW-12	Increased Recycling Infrastructure and Collection	Jim Hickman, Chris Hopkins, (David Mickey, not a member of the TWG offered himself as a technical resource)