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**MEETING SUMMARY**  
**MINNESOTA CLIMATE CHANGE ADVISORY GROUP**  
**Agriculture, Forestry, and Waste Management Technical Work Group**  
**(AFW TWG)**

Call #7, October 11, 2007, 1:00PM – 3:00PM

**Attendance:**

1. Technical Working Group members: Ted Troolin, Andy Hart, Greg Miller, Shalini Gupta, Jim Kleinschmit, Stacey Bohlen, Julie Ketchum, Tim Gieseke, Dave Tilman, Dave Zumeta, Will Anthony, Bill Lee, Clarence Lehman (for Dave Tilman), Cheryl Miller
2. Center for Climate Strategies (CCS) staff:  
Stephen Roe, Brad Strode, Gloria Flora
3. Minnesota Department of Commerce (DOC) and Pollution Control Agency (PCA)  
Liaisons and Attendees:  
Liaison: David Richfield, MPCA  
Other MPCA: Rebecca Walter, Anne Claflin, Peter Ciborowski, Bill Sierks  
DNR:  
Agriculture: Michael Yost  
Met Council: Rebecca Flood  
Commerce:
4. Public Attendees: Matt Norton, MCEA; Doug Carnival, NSWMA / Monsanto
5. Observers: Dan Donkers, Ramsey County; Darwin Schultz, Hennepin County

**Background documents:** (see [http://www.mnclimatechange.us/Agriculture\\_Forestry.cfm](http://www.mnclimatechange.us/Agriculture_Forestry.cfm))

1. Summary of Call # 6
2. Meeting Notice and Agenda
3. PowerPoint for Teleconference.
4. Policy Options Document

## **Discussion items and key issues:**

### ***General:***

1. CCS conducted roll call and reviewed the Agenda.
2. The key purpose of this meeting was to review feedback from the MCCAG meeting on Sept. 17 and refine the policy options preparing for quantification.
3. CCS reviewed, and the TWG accepted, the summary of Call #6 pending the following changes:
  - a. AFW 5 modified to ensure that the term “fuel” refers directly to excess above-ground biomass that may lead to wildfires.
  - b. Amend the Policy Options Document (POD) to reflect the preciously agreed upon title change for AFW-7.
4. CCS reviewed Stepwise Planning Process, noting that there is still a little bit of work to be done on straw proposals, and that this work needs to be completed during this meeting. The Group may revisit goals if it’s determined that the goals are not appropriate, so long as it is done relatively soon and with strong consensus of the Group.

### ***Review of MCCAG Feedback:***

- AFW-1: The MCCAG suggested Policy Design elements such as research and incentives should be included in the Implementation Mechanisms section. The MCCAG also noted that the goal prescribing GPS technology on all nitrogen application systems may not be achievable and expressed concern about practice-based mandates, rather than performance-based goals. CCS suggested that the TWG propose an overarching nitrogen reduction goal that would be achieved through the current policy goals. After a lengthy discussion, the Group decided that the sub-group should work off-line to determine a goal that focuses on the total amount of fertilizer applications that will be reduced, rather than the current technology mandates.
- AFW-2: A member asked that this sub-group be given the opportunity to meet off-line to continue work on establishing a goal for number of acres protected. CCS suggested that the sub-group consult the NRCS National Resources Inventory (NRI) data, on the number of acres converted from high-carbon sequestration lands to developed uses. A TWG member noted that this option should include woody crops and other bio-energy crops, in addition to current conventional grassland agriculture.
- AFW-3: A comment was made by the MCCAG about one of the goals of this option, which was the result of a CCS typo. This has been fixed and the goal for biomass used for ethanol head and electricity has been changed from 100% to 80%. The TWG members discussed some of the recent actions taken on ethanol in MN, the current state of ethanol production, and the best way to construct this option. This sub-group will also reconvene in the next few days in order to revise the Policy Design section of this option.
- AFW-4: The MCCAG noted that AFW-4 will have to extend goals beyond the current biomass utilization required by the Renewables Energy Standard (RES). The Committee also suggested that thermal conversion is a more efficient process than electricity generation. Finally, the Committee asked the AFW TWG to consider supply issues, to

ensure the sustainability of state resources. It was suggested that while thermal conversion of biomass may be more efficient, the GHG benefits might be higher for biomass electricity generation. The reason for this is that thermal energy would displace natural gas heating, while electricity generation would displace traditional generation, which includes coal combustion. TWG members suggested that references to “waste” in this option be referred to as “residue.”

The sub-group avoided specifying types of crops and technologies purposefully to maintain flexibility in the face of emerging technologies. However to be able to quantify reductions of CO<sub>2</sub>, the type of fuel production (by percentage) needs to be outlined.

Other issues discussed included: protection of biomass sources; matching markets and demand, real and projected; energy inputs for collection, processing and distribution; types of fuels and end use.

The Governor recently endorsed the Forest Industries Task Force which includes a number of biomass and renewable energy options. Mike Bull, Ass't. Commissioner for Commerce has the specifics.

It was noted that the numbers listed in the front chart are theoretical, not taking into consideration sustainability issues related to the supply of biomass.

The Forest Resources Council's harvesting guidelines for production of biomass relate only to forest and brushlands. Other sources would include agriculture lands, agro-forestry operations, urban forestry, rights-of-way, etc. Guidelines for these sources would be useful.

- Two other calls were proposed to finish the discussion of the options. AFW 5 and 6 will be discussed on Oct. 25 from 1-3 PM CST. AFW 7 and 8 will be discussed Oct. 24 from 8-9 AM CST. All TWG members are invited and encouraged to join these calls.
- This summary will be continued during these meetings.

### ***Public Input:***

1. Members of the public were offered the chance to provide input.

Matt Norton, Minnesota Center for Environmental Advocacy, expressed concern with AFW-4. Mr. Norton suggested that the burning of harvested trees in the 50-80+ years age class to produce energy releases years of stored carbon that adds rather than reduces net emissions. Thus, burning round-wood must be calculated differently than burning brush or annually reproducing biomass. Overall, increasing mature timber harvest for burning seems a flawed strategy for achieving emission reductions.

**Next steps and agreements:**

1. **The next full meeting of the AFW TWG is set for November 1, 2007, 1:00 to 3:00 PM.**
2. All members are invited to join the sub-group meetings. Details will be provided soon in an e-mail from CCS.
3. Please send all changes to Straw Proposal language to Brad Strode ([brad.strode@pechan.com](mailto:brad.strode@pechan.com)) and Gloria Flora ([gflora@s-o-solutions.org](mailto:gflora@s-o-solutions.org)) for incorporation into the Priority Options Template.

<b>Revised Number</b>	<b>Preliminary Number</b>	<b>Preliminary Title</b>	<b>TWG Volunteers (leader in bold)</b>
<b>AFW-1</b>	AFW-1	Agricultural Crop Management	<b>Andy Hart</b> , Staci Bohlen, Jim Kleinschmit, Dave Tilman, Greg Miller, Tim Gieseke
<b>AFW-2</b>	AFW-5	Land Use Management Approaches for Protection & Enhancement of Soil Carbon	<b>Stan Ellison</b> , Staci Bohlen, Will Anthony, Jim Kleinschmit, Cheryl Miller, Dave Tilman, Tim Gieseke
<b>AFW-3</b>	AFW-7	In-State Liquid Biofuels Production	<b>Shalini Gupta</b> , Andy Hart, Dave Tilman
<b>AFW-4</b>	AFW-4	Expanded Use of Biomass Feedstocks for Electricity, Heat, or Steam Production	<b>Greg Miller</b> , Stan Ellison, Will Anthony, Shalini Gupta,
<b>AFW-5</b>	AFW-2	Forestry Management Programs to Enhance GHG Benefits	<b>Cheryl Miller</b> , Dave Zumeta, Joe Maher, Peter Aube
<b>AFW-6</b>	AFW-6	Forest Protection – Reduced Clearing and Conversion to Nonforest Cover	<b>Dave Zumeta</b> , Cheryl Miller, Joe Maher, Peter Aube
<b>AFW-7</b>	AFW-3	Integrated Waste Management	<b>Julie Ketchum</b> , Ted Troolin, Jim Kleinschmit, Shalini Gupta
<b>AFW-8</b>	AFW-8	End of Use Waste Management Practices	<b>Ted Troolin</b> , Julie Ketchum, Shalini Gupta, Jim Kleinschmit