



## WICCI Science Council Meeting

Tuesday, November 27, 2007  
DNR Science Operations Center  
12:15 PM

### ATTENDANCE

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- Jack Sullivan (JS)
- Lewis Gilbert (LG)
- Pete Nowak (PN)
- Steve Pomplun (SP)
- Sarah Shapiro-Hurley (SSH)
- John Magnuson (JM)
- Sharon Dunwoody (SD)
- Bill Walker (BW)
- Dan Vimont (DV)
- John Kutzbach (JK)
- Chris Kucharik (CK)
- Scott Craven (SC)
- George Kraft (GK)
- Dick Lathrop (DL)
- Bud Harris (BH)
- David Webb (DW)
- Sandra McLellan (SM) [1:40]
- Jonathan Patz (JP) [1:50]

### ABSENT MEMBERS

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- Philip Moy
- Ken Potter
- Darrell Zastrow

### MEETING PROPER

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#### *Introductions and Presentation of Agenda*

12:15 – PN called meeting to order

PN presented agenda:

1. Introductions
2. Climate Group Discussion
3. Potential Working Group Topics
4. Election of WICCI Co-Chairs
5. New Business

Questioned about the Advisory Committee, PN said that since the input from all the Science Council has already been recorded, the Outreach Committee is currently working on deciding on members. This means examining suggested members within the different categories to try and achieve a balance, and to consider the initial Working Groups that will emerge from Science Council recommendations.

PN introduces Bill Walker, and the other members introduce themselves.

BW describes his work with the Governor's Global Warming Task Force and that he work as a policy and economics advisor for the state of Wisconsin.

### ***Presentation of Proposal for Wisconsin Climate Working Group***

DV, CK, and JK distribute copies of their proposal for a working group to address Wisconsin climate investigation, modeling, and projections.

DV: There are two levels of tasks proposed in this. The first can be done quickly and would not require a lot of funding: (1) assemble what we have now of existing operations and construct some simple scenarios of WI climate change, and (2) develop resources to answer questions of already functioning working groups.

DV, CK, and JK then fielded questions concerning the working group. Highlights of their replies:

- The working group's activities will be focused solely on Wisconsin.
- An example of regional data that could be used to influence public policy is that there seems to be a general trend that wet areas of the state will become wetter and dry areas will get drier.
- The time scale of the working group's activities will focus on recent existing observations, rather than paleo-historical data, which would require much more time and resources.
- Time intervals for projections will be on the horizons of around 2025-2035. Data for up to 2050 or 2100 have not been charted yet, but data for 2100 would be useful to see where things are heading in the long term. Short-term data also have the advantage of having higher resolutions and, therefore, are more informative.
- Predictions should be reevaluated and updated progressively, because projections made with information available now will be less reliable than projections made with further data available five years from now.
- A longer term objective would be for the working group to quantify uncertainty and why suspiciously dramatic data sets are showing up in the models. This quantification is especially important for the policy-relevant climate impacts assessment.
- We need to understand why models are showing more variability. It is hard to quantify the uncertainty for data showing an increase in extreme events at different times of the year.
- The models will not show ALL the information that other working groups will require. Other groups should pose questions (e.g. effects on cold water streams) and climatologists can develop predictions based on data in the models (e.g. analyzing temperature change and precipitation change and how they would affect the streams).
- The group can come up with trends that will be useful for everyone. Specific members of the group who can meet regularly with other working groups will be identified to take questions and participate in their discussions. They could discuss new ideas and how we would adjust to those.

- There is no way that the working group would be able to know what the decision-making process is going to be like, so they would need to know how the decision is going to be made and what level of precision is needed to address these issues.

JS mentioned a specific example: We manage X miles of coldwater fisheries in the state. It would be important for me to know that X miles of Brook Trout habitat cannot support the trout that we manage and maintain. If that is the case, then we could try to answer that question.

DV: That's a great example of how these two could come together. That's how these working groups and the relaying of information from one to another will be needed.

JM: People will be most interested in specific streams and locations. People are concerned with specific areas, rather than temperature overall.

### ***Issues of Communication***

Due to the complexity of the climate modeling data, as well as the inherent uncertainty in the creation of scenarios, the members of the Science Council discussed strategies towards communicating uncertainty to the press and general public.

DV and JK also mentioned the State Climatology Office (SCO), which is not currently supported by the State of Wisconsin, and that WICCI should consider how to relate to SCO and publish WICCI data on the website.

LG stressed that WICCI should exist as its own separate entity while supporting the activities of SCO. Adding that rationalizing the activities of WICCI will be valuable in acquiring funding.

DV suggested posters, outreach to teachers, hands-on experience with students.

SD mentioned the possibility of providing weather stations to schools that could provide statewide weather data, if there were an interested funder.

DL and SP noted that WICCI should eventually work up to drafting press releases and publishing IPCC-type reports.

BH: People accept that climate change is happening, but there are still many folks that do not believe it. Is there some kind of outreach we could do in the beginning to communicate these issues to other people?

BH questioned how WICCI could reach out to the segment of the population that still does not accept that climate change is not happening. SD: "Nationally, a huge percentage of the population believes that climate change is on the way, but I am sure there are quite a few people who are skeptical. There will always be a strong group of skeptics. I usually write them off, because anything that I could tell them would increase their fervor. I think the group comes at a great time, as a cultural swing towards accepting that is actually happening, and we can take advantage of this at a state level. It is a perfect time for this."

DL and DV mentioned that trend data quantifying anecdotal evidence and narratives supported by data would have greater impact on people.

SSH: The working groups are going to come up with adaptive management strategies for managers, and the managers could go out and communicate these things to their constituency, but the people we are really worried about are the managers of the natural resources.

DV: I think SSH raises a good point. The working groups are going to have to address how they are going to interact with the decision-makers and deliver it to them in a way that they can communicate to their constituency in an effective way to support their policies.

General discussion continued concerning establishing good communication, determining the roles of the working groups and advisory committees, and making WICCI information relevant.

BW: We are talking about short-term decisions (a few years), but more important are decisions made now that will have an effect in the distant future (30, 40, 50 or more years). This is a central issue in the economics of climate change. How do you make decisions now about things that will not happen until the far distant future? On aspect of this is how to deal with uncertainties where you don't even know what the possible outcomes are, let alone what their probabilities are. One reason for pushing hard on climate change now is to avoid situations where we "drop off a cliff", or have some unimagined bad result happen suddenly. Also, to the extent we are giving information to public policy makers, we should offer information they can use to make decisions now.

DV: I will use as an example as the number of 90 degree days. The number of days has been going down over the past few decades. We have no reason to believe that it is going to be going up. But that is a great comment, the short term is important.

Members discussed different examples of "cliffs" (extreme climate scenarios) that would be important to relate to policy makers. Examples included no precipitation as snow and Atlantic currents shutting down.

BW: Mainstream economic models of climate change point out that there are good reasons to delay some action on climate change (but still do far more now than we are doing now). For one thing, future generations are likely to have much greater capacity for addressing climate change. However, no one knows how to deal with the uncertainties in the climate, especially how to plan for low probability but high harm events.

### ***Logistics for the Wisconsin Climate Working Group***

Members accepted the proposal for the working group and began a discussion on how to support the activities.

CK said that he and others had already begun to compile climate trend data, but they could use extra funding to advance it further.

LG mentioned that his role would be to seek out more informal funding for these activities as goals become more clearly articulated. He mentioned that beginning WICCI activities is of prime importance because it is much easier to acquire funding for a group that is already functioning,

versus one that is in the planning phase. The central administration of UW is willing to fund WICCI activities, but they need a detail-specific plan of how the money will be spent.

DV: My suggestion is that part 2.1 would get people engaged, and the people who engage in that could move onto part 2.2 to part 2.3. I would suggest that it is more seamless than is mapped out in the bulleted point.

DW mentioned that the activities would qualify for a DNR grant in a year or so.

*[Break from 2:05 - 2:20]*

### ***Working Group Topics***

Following the break, participants discussed the criteria for choosing the initial set of working groups. Conversation led to the scope that each working group should take. Participants discussed if working groups should tackle umbrella topics, such as the northern forest, or should they be narrower in scope and address specific questions.

JP mentioned that the IPCC used both regional and sectoral types of working groups.

It was also called into question whether the other working groups could do anything without specific data from the Wisconsin Climate group. JP mentioned that working groups worked concurrently in the IPCC, and CK noted that there is preparatory work that groups would need to do before they could address the data from the climate group.

After a long discussion by members, LG suggests that the Science Council come up with a small set of specific questions that they would like answered and to base the working groups off of that set. JS offered to bring together managers of hydrology and forest science in the DNR and produce a handful of short-term and long-term questions for the next Science Council meeting.

**Action Item: JS will meet with various scientists in the DNR to come up with some questions related to how a changing climate might affect Wisconsin that working groups could be based on.**

### ***Election of Co-chairpersons***

PN brought up the idea of the election of co-chairpersons. He posed that Dick Lathrop and John Magnuson were nominated as candidates by e-mail before the meeting, and they have both said that they would be willing to serve. The two would be appropriate because they represent DNR and academia, respectively.

All members agreed that DL and JM should be Co-chairpersons of the WICCI Science Council.

### ***Schedule Next Meeting***

After some discussion, members decided that they should not conduct a meeting on December 18, since it would not give JS enough time to meet with scientists and come up with questions to use for the creation of working group topics.

Members agree to meet in January instead of in December.

*Meeting adjourned at 3:26.*