

WICCI Science Council Meeting

Monday, March 3, 2007
DNR Science Operations Center
12:00 PM

ATTENDANCE

Science Council Members

- John Magnuson (JM) (Co-Chair)
- Dick Lathrop (DL) (Co-Chair)
- Scott Craven (SC)
- George Kraft (GK)
- Chris Kucharik (CK)
- John Kutzbach (JK)
- Philip Moy (PM)
- Ken Potter (KP)
- Sarah Shapiro-Hurley (SSH)
- Dan Vimont (DV)
- Bill Walker (BW)
- Darrell Zastrow (DZ)
- Bud Harris (BH) [by phone]
- Sandra McLellan (SM) [by phone]

Nonmembers

- Lewis Gilbert (LG)
- Jack Sullivan (JS)
- Pete Nowak (PN)
- Steve Pomplun (SP)
- David Webb (DW)
- Kyle MacGunder (KM)
- Angela Engelman
- Kevin Gibbons (KG)

ABSENT MEMBERS

- Sharon Dunwoody
- Jonathan Patz

SUMMARY OF ACTION ITEMS

*Next meeting to be held **Monday, April 7** at DNR Science Operations Center.*

- BH will draft a proposal for a Green Bay Ecosystem Working Group.
- DV will send out a format for how others should frame climate data requirements.
- Participants will submit climate parameters of interest to DV and CK:
 - Bud Harris for Green Bay
 - Sandra McLellan for Milwaukee

- John Magnuson for limnology
- Philip Moy for coastal
- Darrell Zastrow for forests
- Sarah Shapiro-Hurley for wildlife
- Jack Sullivan for fish
- JK will find out what solar radiation information is available throughout the state.
- KG and LG will work together to create a list and taxonomy of potential collaborators at UW.
- PN will discuss collaboration issues with one of the deans at CALS.
- DL, DV, CK, JK, and DW will meet as the climate science steering committee to produce a draft of a proposal that they will present to the Science Council.
- SP will prepare a strategy memo for the organization of a consortium that could lend support to WICCI activities.
- LG will work with Tia Nelson to include this language in the Task Force's report.
- PM will arrange for a speaker from SEA Grant to present at the next Science Council meeting.

MEETING PROPER

Introductions and Presentation of Agenda

12:06 – Meeting called to order.

Cal MacGunder (retired dentist) introduces himself.

Meeting minutes from February 4, 2008 presented. Moved for approval by SSH and seconded by PN.

Milwaukee Working Group Update

SM reported on progress of the Milwaukee working group. The next meeting set, and KP will give presentation concerning water, because this is a major issue in Milwaukee.

BH discussed possibility of drafting a Green Bay ecosystem proposal using SWOT Analysis (Strengths, Weaknesses, Opportunities, and Threats).

Action Item: BH will draft a proposal for a Green Bay Ecosystem Working Group.

Funding the Climate Science Working Group

JM presented the main topic of the day's meeting, and attendees discussed the \$40,000 available for this year. They also discussed the \$25,000 currently available for use over the next 12 months from the following sources:

- \$10,000 – DNR
- \$5,000 – Nelson Institute
- \$10,000 – Baldwin Grant

Participants then discussed how this money should best be allocated. LG noted that funds are available *immediately*, based on two conditions:

- 1) A two-page work plan with budget

- 2) That the money be placed in a single account at the Nelson Institute, rather than fragmented

DL brought up that most grants require a counterpart from the organization and/or results from prior activities. LG raised that all the in-kind contributions from the Nelson Institute and DNR could be valued and counted as a counterpart.

Conduct of the Climate Science Working Group

Participants discussed potential partners and sources of information:

- *State Climatology Office* – Participants noted that they currently have limited funding, but they have a variety of links to different government offices, as well as the drought index and a lot of other useful information, but this information is not compiled on a daily basis and also lacks the precision of scale that might be most useful in modeling.
- *Midwest Regional Climate Center* – They have a lot of useful data, some of which must be paid for to receive. Money allocated to the climate group could be used to access this information.
- *National Climate Data Center (NCDC)* – They have daily data from over a dozen weather stations. These data could be used to model temperature fluctuations.

CK explained that he has daily data for minimum and maximum temperatures (T_{\min} and T_{\max}), as well as precipitation, starting from the middle of the twentieth century. These data can be interpolated to 8 kilometer grids for seasonal and monthly trend analysis. CK noted that he needs extra funding to fund a graduate student to finish acquiring and analyzing these data.

DV noted that some of these data, such as summer precipitation, can be unreliable, but they are good for noting trends and monthly means, which might be less useful to scientists trying to use this information.

DV and CK then asked other participants what precision of data would be necessary to analyze and draw conclusions. After extensive discussion, participants resolved to submit climate data parameter requirements that they would need in their working groups or specialties to undertake meaningful studies.

Action Item: Participants will submit climate parameters of interest to DV and CK:

- ***Bud Harris for Green Bay***
- ***Sandra McLellan for Milwaukee***
- ***John Magnuson for limnology***
- ***Philip Moy for coastal***
- ***Darrell Zastrow for forests***
- ***Sarah Shapiro-Hurley for wildlife***
- ***Jack Sullivan for fish***

After questions from PN and BH, DV said that general trend lines for temperature and precipitation are feasible outputs, and while solar radiation data are available, they have high variances.

PM: At SEA Grant we have a visualization project where we take visualization maps and pair it up with precipitation data or impacts on Green Bay or urban areas and that would be useful. JK noted that there is a state radiation network that has been recording radiation, but he is not sure how many stations are still operating.

Action Item: JK will find out what radiation information is available throughout the state.

Collaboration with Other UW Research Activities

DL and JM posed that there are currently research activities underway that are related to climate change in Wisconsin and that WICCI should work together with these projects to find support for graduate students researching related issues, share data, etc.

Participants discussed the following programs, organizations, and research activities:

- Nelson Institute
- SAGE (which is mostly concerned at a global scale)
- Center for Climatic Research (which is both regional and global)
- SEA Grant
- Long Term Ecological Research project (LTER) (funded by NSF)
- Great Lakes Consortium
- Studies related to wildlife and disease
- Human health research like JP's
- Center for Global Health
- Agricultural groups
- Hydrologic data
- Construction

JM suggested doing a word search and compiling a list that way, and LG offered to work with KG to come up with a strategy to compile these links.

Action Item: KG and LG will work together to create a list and taxonomy of potential collaborators at UW.

General Budget Issues

DL said that he and his colleagues at DNR are looking to obtain an annual budget of \$200,000 to support "a well-oiled climate study."

JS and LG discussed the potential to receive funding from the biennial state budget. A proposal has been submitted to support state climate change research for \$1 million per year to study the impacts of climate change. They noted that *if* this proposal is approved, the money will not arrive for 4-6 months. But there should be “cautious optimism” because of the Governor’s Task Force on Global Warming, which has given the issue of climate change political momentum.

There are also climate change proposals currently underway through US Geological Survey (USGS) and the US Fish and Wildlife Service.

DZ and SSH pointed out the complexities in acquiring state funds, like the Forest Service grants only supporting data that can be applied at the national scale and the multi-million dollar shortage of the state budget.

As a strategy, LG suggested presenting WICCI activities as “gathering a group of scientists who are already together,” rather than as a budget reallocation, which is sure to meet resistance. Funding a graduate student could be an opportunity for leverage.

Participants further discussed working more closely with the State Climatology Office, which could be a way to establish closer ties with the state, increase the potential for funding, and start to associate activities with the Governor’s Task Force.

Action Item: PN will discuss collaboration issues with one of the deans at CALS.

DW said that he could bring up these issues that were discussed with the Focus on Energy group. JM proposed starting a steering committee to talk about funding and collaboration proposals with state agencies. The members who volunteered were DL, DV, CK, JK, and DW.

Action Item: DL, DV, CK, JK, and DW will meet as the climate science steering committee to produce a draft of a proposal that they will present to the Science Council.

Organizing a Consortium to Fund Climate Change Research

SP, PN, DL and JM had met to discuss this as a strategy for funding research related to climate change. The broad idea would be to gather a group of agencies that could give their endorsement to WICCI and/or contribute a certain amount of funds to work towards investigating issues of common concern. Here are some of the organizations recommended for this body:

- Council on Forestry (probably no funds, but likely endorsement)
- Groundwater Coordinating Council (funds priority issues)
- Insurance Industry (excellent opportunity for funding)

PM noted that government agencies would not support climate change research for at least another year, so WICCI should accrue credibility, stability, and products that would be

valued by decision makers before asking them for money. This would ensure that a long-term consortium could materialize.

Action Item: SP will prepare a strategy memo for the organization of a consortium that could lend support to WICCI activities.

Working with the Governor's Task Force

Participants discussed the opportunity to work with the Governor's Task Force on Global Warming since it has so much financial and political clout.

JM suggested lobbying to inserting 2-3 paragraphs of language in Task Force documents to the effect of: "...because we only dealt with mitigation, we can make these recommendations..." With this kind of language, the Task Force can maintain its focus on mitigation while endorsing the activities of WICCI – or a body similar to WICCI. Participants agreed that this would be a good tactic, stressing the need to monitor meteorological data and to establish long-term goals to complement the short and medium-term goals of the Task Force.

Action Item: LG will work with Tia Nelson to include this language in the Task Force's report.

Proposed Agenda Items for Next Meeting

Members decided that even though the Earth Day Conference was taking place in April, there should still be a Science Council meeting.

Members posed possible agenda items:

- A more thorough discussion on BH's proposal
- Some more things from KP
- Some preliminary feedback on what came up from the DNR researchers
- Update from the Milwaukee working group
- PM will bring a speaker from SEA Grant to present coastal data models
- Discussion of what information was asked of the climate group
- KP suggested discussing economic data that would be needed to push the discussion of adaptation to climate change in the state

Action Item: PM will arrange for a speaker from SEA Grant to present at the next Science Council meeting.

DZ noted that he has been organizing some groups towards creating a forest working group, but if DNR is going to be in charge of coordinating these issue, this process will take more time.

Action Item: DV will send out a format for how others should frame climate data requirements.

[Adjourned 2:44]

Appendix

Meeting Agenda

12:00 1. Welcome and Call Meeting to Order

12:05 2. Introductions and call for new business.

12:15 3. Approval of Minutes from February 4, 2008 meeting

12:20 4. A strategic discussion of funding ideas for WICCI climate science

12:30 5. What short-term Wisconsin climate data products can be developed based on existing funding (i.e., \$25K for 4 months)? The answers suggested should be based on what climate data products already exist.

1:00 6. What other UW research activities would benefit or be enhanced from future Wisconsin climate data? What types of arrangements would have to be established in order to create these collaborations?

1:30 7. What other state or federal agencies would benefit or be enhanced from future Wisconsin climate data? What types of arrangements would have to be established in order to create these collaborations?

2:00 8. Can a consortium be put together that would fund the modeling analyses to predict Wisconsin's changing climate? This consortium would likely be comprised of organizations concerned about future impacts from climate change where the organizations would each contribute a small amount of overall funding needs.

2:30 9. Are there opportunities for the Governor's Task Force to make recommendations that could support WICCI upon completion of the Task Force responsibilities? This would include the possibility of developing coalitions that would support state line item funding for WICCI.

3:00 Adjourn