



To: Michigan Tech Center for Water & Society Advisory Committee
From: Alex Mayer, Director, Michigan Tech Center for Water & Society
Date: March 3, 2006
Subject: March 2, 2006 Michigan Tech Center for Water & Society Advisory Committee Meeting

Attachments: Meeting agenda
Proposed Governance Structure
Proposal for symposium "Role of Water in Michigan's Economy"

The March 2006 meeting of the Michigan Technological University Center for Water & Society (MTCWS) Advisory Committee (AC) was held March 2, 2006, 9:00 to 10:00 am in the Dow Environmental Engineering & Sciences room 427. The purpose of this memo is to describe the results of the meeting.

Present were: Alex Mayer, Director
Kathy Halvorsen, representative, Social Sciences
Noel Urban, representative, Civil & Environmental Engineering
Nancy Auer, representative, Biological Sciences
Joan Chadde, representative, Western Upper Peninsula Center for Science, Mathematics & Environmental Education
Linda Nagel, representative, Forest Resources & Environmental Science
Chris Anderson, representative, Educational Opportunity
Carol Asiala, CWS administrative assistant

CWS Advisory Committee

Regular Meetings

It was agreed that the MTCWS Advisory Committee will meet every 2 weeks on Thursdays from 9:00 – 10:00 a.m. in the Dow Environmental Engineering & Sciences Building, room 427. The next meeting will be Thursday, March 16, 2006.

Advisory Committee Members

Tom Merz is going on sabbatical, and Mark Roberts will be invited by Kathy Halvorsen to be the AC representative for the School of Business and Economics

Craig Waddell (Humanities) and MaryAnn Beckwith (Fine Arts) will be asked to either confirm their interest and support of the MTCWS or recommend someone from their departments to replace them on the AC.

Sarah Green (Chemistry) will be encouraged to remain on the Advisory Committee and to take a more active role in the AC.

John Gierke (GMES) will be invited to represent the Geology Department on the AC to avoid any issues with the director being a representative for any one department.

CWS Governance document

There were no objections to the draft of the CWS Governance Document which is attached to these minutes. The final document must be approved and submitted to the Research Office by April 1, 2006.

Subcommittees

Alex Mayer will coordinate the subcommittee meetings.

Seminar and Symposia: Kathy Halvorsen, Joan Chadde, Noel Urban

This committee will meet to perform 2 major tasks:

1. Find and publicize any seminars and activities concerning water already scheduled and taking place on campus.
2. Make a plan and procedure to set up or co-sponsor new seminars through the MTCWS and find speakers for these events.

Degree Program: Kathy Halvorsen, Joan Chadde, Nancy Auer

Will work on considering plans for a new degree program

Recent and near future CWS activities

Michigan Environmental Education Curriculum (MEEC): Joan Chadde is presenting the official release of the MEEC in Lansing, Michigan on March 3, 2006. MTU had a significant contribution to the development of the curriculum, which has a potential audience of 770,000 middle school students in Michigan.

The Michigan Environmental Education Curriculum consists of the five unit topics as follows: Air Quality, Ecosystems, Energy and Resources, Individuals' Impact on the Land, and Water Quality. The curriculum will be focused on grades four through eight, and will include enough variety that educators will be able to use it with other grade levels. All curricula were carefully developed to support Michigan's curriculum framework.

Sea Grant pre-proposal has been submitted on and Integrated Assessment of the Manistique Watershed, with Kathy Halvorsen as PI and Nancy Auer and Alex Mayer as co-PIs

Huron Creek watershed management plan proposal will be submitted by March 9, 2006. This has been a coordinated effort between two courses: Geological Engineering Senior Design project (Department of Geological Engineering & Mining & Sciences) and Environmental Decision-Making (Social Sciences).

Role of Water in Michigan's Economy symposium: The Advisory Committee supports the release of the attached document entitled "Water in Michigan's Economy: Toward Sustainable Future" to potential partners. It was suggested that each release be individualized to the receiving potential partner, and that each potential partner be given a list of all recipients.

Proposals submitted affiliated with center: Six proposals have been submitted under the MTCWS. One has been rejected, and the status of the others is currently unknown.

Ongoing projects affiliated with center: There are currently three projects affiliated with MTCWS.

If current projects are identified by March 20, 2006 to be affiliated with MTCWS, then Research Accounting can allocate OH return for quarter ending 3/31/06. If there are projects that should have been in MTCWS last year, Julie Seppala will check with Dave Reed to see if she can back date the OH returns for quarters ending 9/30/05 and 12/31/05.

To affiliate a project with MTCWS:

Send title, MTU proposal number, index number, and abstract to Alex Mayer. If approved by the director, Research Accounting will be notified.

Carol Asiala will request a report from the Research Office of all projects where the PI or co-PI is a member of MTCWS and the ending project date is greater than 1/1/2002. This report will be used for the following purposes:

1. The director may be able to identify current projects that could be affiliated with MTCWS and will contact the PI to verify this and check if the PI is in agreement. If a project is already affiliated with another center or institute, it should not be moved under the MTCWS.
2. Carol will be able to list projects of water interest on the Research page and on Faculty Profile pages on the internet after obtaining PI permission to release project data.
3. The report will be helpful in compiling data for the Annual Report that will be prepared for the center.

Web Page Development: Carol is compiling more faculty profiles and will be making more requests to faculty for more information and the approval to release what has been compiled.

MTCWS Co-Sponsored Seminars:

Dave Dempsey, Visiting Lecturer

"On the Brink - The Great Lakes in the 21st Century"

Thursday, October 27, 2005 at 3:00 p.m.

Willett Kempton,

University of Delaware College of Marine Studies

"Cape Cod Wind Farm Proposal"

(more details coming from Kathy Halvorsen)

CW&S Advisory Committee Meeting
3/2/06
Agenda

1. CWS Adv. Comm
 - Regular meetings- when?
 - Members
 - Kathy Halvorsen
 - Linda Nagel
 - Tom Merz ?
 - Craig Waddell ?
 - Joan Chadde
 - Mary Anne Beckwith ?
 - Noel Urban
 - Sarah Green ?
 - Nancy Auer
 - Alex Mayer – need geo rep?
 - Chris Anderson
2. CWS governance
 - See governance draft (attached).
 - Due no later than April 1, 2006
3. Subcommittees
 - “Seminar and Symposia”
 - “Degree Program”
 - Meetings – when?
 - Others subcommittees
4. Recent and near future CWS activities
 - MEEC
 - Sea Grant pre-proposal submitted
 - Huron Creek watershed management plan proposal
 - Role of Water in Michigan’s Economy symposium
 - Proposals submitted affiliated with center
 - Ongoing projects affiliated with center
 - Web page development
 - Co-sponsoring seminars

Governance Structure

1. General

The CWS is to be administered as a Michigan Tech Research Center, under the Vice President for Research and the Procedures for Establishment and Review of MTU Research Centers and Institutes (<http://www.admin.mtu.edu/research/vpr/documents/centinstint.pdf>). The CWS is a center under the Sustainable Futures Institute (SFI).

2. Membership

Membership in the CWS is open to any academic faculty, research faculty, research staff, or outreach staff member of the Michigan Tech who has an interest in water-related fields or outreach activities. Prospective members submit a simple statement of interest to the CWS Director and the Office of the Vice President for Research. Once approved, membership is reevaluated every five years. Undergraduate and graduate students are offered student membership, which provides eligibility for CWS student grants and fellowships. Student membership is maintained until graduation or withdrawal from the university.

3. Advisory Committee

The responsibilities of the CWS Advisory Committee will include

- (a) strategic planning
- (b) setting policy
- (c) budget administration
- (d) modifying governing structure
- (e) developing and administering degree programs, minors, or certificates that are housed within CWS

The Advisory Committee consists of one designee from each participating department or administrative unit. A participating department or administrative unit is defined as a department or unit with at least one CWS member. CWS members in each department or unit are responsible for selecting a representative to the Advisory Committee once each academic year. The process of selecting representatives must include communications to all CWS members in the participating department or unit.

The Advisory Committee will have subcommittees for managing particular aspects of the Center. Participation on subcommittees would not be limited to Advisory Committee members, but the Advisory Committee reserves the right to approve subcommittee participants. Initially, the subcommittees will consist of a "Seminar and Symposia" subcommittee and a "Degree Program" subcommittee. Subcommittee members are responsible for calling meetings as necessary. The CWS director should attend subcommittee meetings, where possible.

4. Director

The Director's responsibility is to ensure that the CWS functions effectively in fulfilling its mission under the guidance of the Advisory Committee. The Director will be responsible for managing the day-to-day details of administering the Center, but will consult with the Advisory Committee on any significant matters under the Advisory Committee's purview (see Item 3.). The Director will have the primary responsibility for supervising the work of CWS staff and for interacting with SFI administration.

The Director will be selected by the Advisory Committee from members of the Advisory Committee or CWS members nominated by Advisory Committee members. The candidate Director selected by the Advisory Committee will be subject to approval by the Vice President for Research. The position of Director is meant to be rotated among Advisory Committee members or other particularly active CWS members. The Director's term will be a minimum of one year and a maximum of four years. The new Director is to be determined at least a month before the end of the old Director's term, to allow an orderly transition.

5. External advisory boards

Two external advisory boards will be formed. The purpose of the "local" advisory board would be to assist the CWS in prioritizing local issues that require the expertise of the CWS. The "local" advisory board would consist of local government officials, representative from relevant county and state agencies, representatives from NGOs with a local focus and interested community members. The "local" sphere would include Houghton-Hancock, the

Keweenaw Peninsula, the UP, and the state of Michigan. The purpose of the “general” advisory board would be to advise the CWS in prioritizing regional, national, and international issues; to assist CWS in securing large-scale funding; and to promote CWS at the regional, national, and international level.

6. Review and Evaluation.

The CWS will submit an annual report to the Vice President for Research at the end of each academic year, as described in the Procedures for Establishment and Review of MTU Research Centers and Institutes. It is expected that the CWS will be authorized for five-year terms. In the spring of the fifth year, the CWS will conduct an internal review. As long as the results of the review indicate the CWS is making progress toward meeting its objectives, the CWS Advisory Committee will develop a plan to renew and continue the CWS into the next five-year term.

Water in Michigan's Economy: Toward a Sustainable Future

Executive Summary

Michigan Technological University's Center for Water and Society seeks partners and co-sponsoring organizations for an initiative to identify, quantify, and promote public and policymaker awareness of the potentially valuable role that water resources and water-related businesses and industries can play in Michigan's economic future. Surrounded by the Great Lakes, Michigan is an ideal state to research, develop, and implement the water conservation, treatment and management technologies that will be increasingly in demand globally during this century.

To begin this initiative, we propose to hold a workshop or series of workshops on the potential role of water in Michigan's economy. The goals of the workshops will be shaped as we gather partners for this initiative and identify workshop partners, but expectations of what might result from the workshops could include

- * proposals for state government investments in or incentives for water-related growth industries;
- * proposals for legislation to attract and retain water-related technology industries;
- * cooperative higher education research and training programs to prepare students for jobs in water-related growth industries; and
- * frameworks for quantifying the benefits of maintaining or restoring water resources, to support decision and policy making on issues that could affect the availability of clean water in Michigan.

Our immediate need is to assemble a list of organizations and individuals that would be interested in partnering with us and to help us begin to shape the agenda for the workshop(s). If you or your organization is interested, please contact Alex Mayer, Department of Geological & Mining Engineering & Sciences, Michigan Technological University, Houghton, MI 49931; phone: 906-487-3372; email: asmayer@mtu.edu.

Background

Most would agree that water plays an important role in Michigan's economy. If water is thought to be important, then state government and businesses should support efforts to preserve and restore water resources. In light of high unemployment rates and other signs of a declining economy in Michigan, water resources policymaking has stalled in Michigan seemingly because an underlying principle of the debate holds that what is good for the water resource is bad for the state's economy.

Overcoming this problem will require a factual demonstration that water protection and conservation are growth opportunities for Michigan's economy, both directly and indirectly. Such a demonstration requires analyses and case studies. Based on the foundation that Michigan's water resources are valued not only for human uses, e.g. drinking water, agriculture, shipping, recreation, aesthetics; but also are a vital component of natural habitats, the following premises need to be evaluated.

- 1) Urban and rural planning to prevent water resource degradation is cheaper than restoration.
- 2) Reducing water needs and wastewater production saves money for both businesses and governments.
- 3) Michigan's water resources are an asset for attracting new jobs in the 21st century economy.
- 4) Proposed infrastructure repair and water resource restoration efforts in Michigan will boost the economy by providing jobs and income to Michigan businesses.
- 5) Water diversions outside of the Great Lakes basin have the potential to detract from, rather than enhance, Michigan's economy.
- 6) The sector of Michigan businesses engaged in providing and protecting water resources are already contributing to the state's economy and have a great potential to expand.
- 7) State and local (and federal) laws and regulations governing the relationships between development and water resources in Michigan should be designed to simultaneously strengthen the economy and protect the environment.
- 8) The worldwide need for improved water and waste treatment technology suggests a research and development opportunity for Michigan as it seeks to diversify its economy.

Proposal

We propose to hold a series of workshops to assess the current state of knowledge regarding these premises and to identify the work needed to encourage state government and businesses to adopt these premises as practical strategies. Workshop attendees would come from two general groups: 1) expert scientists and engineers, such as environmental economists and policy analysts, economic development analysts, hydrologists, and environmental engineers and 2) representatives from stakeholders such as state and local government planning, economic development and environmental agencies; the governor's and state legislative offices; businesses including manufacturers, land developers, farmers, and mineral extractors; and non-governmental organizations.

The product of the workshops will be two reports. The first document will be prepared for government, business leaders and other stakeholders will identify cases where protecting and restoring water resources has provided economic benefit and how future development can be guided to both enhance water resources and local economies. It will also attempt to quantify current and potential job creation associated with protecting and restoring water resources in Michigan. The second document will identify research needs and a policy agenda to further bolster our understanding of the connection between water and economy. Both reports will include specific recommendations for state and local governments, among other institutions.

The proposed workshops and ensuing documents will build upon at least two major recent efforts. First, the Michigan Land Institute's 2005 report "Water Works: Growing Michigan's Great Lakes Opportunities" makes the case that, "ultimately, what is good for water is good for business and the economy" Second, the Wege Foundation's "Healing our Waters- An Agenda for Great Lakes Restoration" suggests that "Taking care of the environment and ecology of an area to prevent sickness and create health can save billions of dollars." Both of these efforts advanced several ideas to support these notions and called for business and government to heed these notions. What is needed next is a more focused effort to assess the link between the health of our waters and the state's economic competitiveness.

Michigan Technological University's Center for Water & Society and Sustainable Futures Institute are interested in hosting the workshops and producing the documents associated with the workshops. We are seeking interest from organizations with a stake in Michigan's water resources and economy. We are

also seeking funding to offset the costs associated with holding the symposium and producing the symposium documents. The physical location of the workshops would be at Michigan Tech, but if there is enough interest, the workshops could be broadcast interactively to locations around the state.

For more information, please contact Alex Mayer, Department of Geological & Mining Engineering & Sciences, Michigan Technological University, Houghton, MI 49931; phone: 906-487-3372; email: asmayer@mtu.edu.