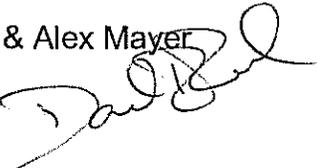

TO: Noel Urban & Alex Mayer  **DATE:** 4.27.11
FROM: David Reed
RE: Renewal of the Center for Water and Society

The Center for Water and Society (CWS) has been renewed. Following is the approved changes to the center:

- CWS is approved as an individual research center, and will no longer be associated as a sub-center of the Sustainable Futures Institute.
- The directorship of the center will change from Alex Mayer to Noel Urban.
- The center is renewed through December 31, 2015.
- IRAD returns currently in place for existing CWS awards will remain in effect until the end of the project.
- IRAD returns for new CWS awards will follow the current IRAD distribution formula.

As a recognized research center you will be required to submit an annual report to the VP for Research at the end of each academic year as outlined in the Procedures for Establishment and Review of Michigan Tech Research Centers and Institutes located on the Research Centers and Institutes website: <http://www.mtu.edu/research/administration/vpr-office/centers-institutes/>

Congratulations to everyone who is contributing to the success of this research center.

Proposal to Renew the Michigan Technological Center for Water and Society

February 7, 2011

Statement of Purpose. The purpose of the Michigan Technological University Center for Water and Society (CWS) is to enhance the ability and the visibility of MTU personnel to solve water-related problems of local, regional, and international interest.

Mission Statement. The mission of the CWS is to promote research, education, and outreach in all disciplines at Michigan Tech related to water issues. The objectives of the CWS are

- to serve as a focal point for instructional and research activities in water-related fields and water-related outreach activities across the Michigan Tech campus;
- to provide an organizational structure that supports continuing growth in water-related fields and outreach activities and encourages interdisciplinary projects;
- to support interdisciplinary graduate and undergraduate education and research in water related fields;
- to pursue external funding opportunities to support these objectives and to facilitate CWS participating faculty to obtain external support; and
- to enhance the visibility of MTU and CWS as centers of expertise and cutting-edge research in water-related fields.

Description of Proposed Activities. We anticipate continuing the following activities over the next five years.

1. Serve as a focal point for water-related activities at Michigan Tech by:
 - maintaining a web page and other media to showcase water-related research, educational and outreach efforts at Michigan Tech,
 - serving as a point of contact for developing water related initiatives with outside organizations and Michigan Tech faculty, students, and staff
 - sponsoring lectures and related events offered by guest speakers with interests relevant to the CWS faculty and student community, and
 - organizing the yearly CWS colloquium.
2. Support graduate and undergraduate students' research and educational activities related to water resources topics by :
 - offering student travel and research grants;
 - maintaining the Graduate Certificate in Sustainable Water Resources Systems; and
 - pursuing funding opportunities for graduate education in interdisciplinary water-related fields.
3. Support the research enterprise related to water topics at Michigan Tech by supporting the development of interdisciplinary funding proposals and proposals to large funding programs through
 - helping to alert faculty of and coalesce interdisciplinary teams to apply for large funding programs;

- providing assistance (support staff) for the preparation of proposals involving significant numbers of CWS participants;
 - providing matching funds for acquisition of equipment/facilities to be used for CWS-member research; and
 - providing cost share funds for proposals for projects involving significant benefits to CWS participants.
4. Support K-12 and community education/outreach water-related activities at Michigan Tech by:
- funding outreach efforts and
 - connecting faculty and students to K-12 teachers and programs and community organizations and programs.
5. Enhance the visibility of water-related expertise, research, and outreach at MTU by
- providing funding for CWS personnel to represent CWS in important state, regional, national and international meetings related to water when research funding is unavailable or inappropriate;
 - disseminating information gathered for the annual report to members, state government personnel, and alumni using printed or electronic media;
 - promoting regular interaction between CWS and key state or federal groups (e.g., SeaGrant, NOAA GLERL, EPA, MI DNRE);

In addition to continuing these activities, CWS will focus on the following new initiatives

1. actively participate in the development of the Great Lakes Research Center, due to open in 2012;
2. actively participate in the Michigan Tech Strategic Hiring Initiative on water, to take place in 2011-2012
3. sponsor events for the CWS faculty and student community to exchange ideas and develop collaborations;
4. provide cost share funds for research efforts that have a broad appeal to the CWS community;
5. provide funds for start-up packages for new faculty joining Michigan Tech and CWS; and
6. investigate the development of new multidisciplinary degree programs in water resources management.

Participating Faculty, Staff, and Students. Appendix 1 lists participating faculty and staff who are currently affiliated with the CWS. In addition, as of January 2011, approximately 90 students were affiliated with CWS.

Justification. Faculty, student and staff activities in CWS are significant. Appendix 1 indicates that 57 faculty and staff at Michigan Tech are affiliated with CWS. In the five fiscal years since the inception of CWS in 2005, CWS faculty and students have produced 191 peer-reviewed publications and made 304 presentations. Table 1 indicates the funding awards made for projects affiliated with CWS in the five fiscal years since the inception of CWS in 2005, the

accompanying incentive return to CWS, and the number and funding amounts requested for proposals submitted through the CWS.

Table 1: CWS Funding History

	FY 2006	FY2007	FY2007	FY2009	FY2010
Number of New Awards	3	6	10	4	12
New Award Amounts	\$ 225,380	\$ 405,327	\$1,904,601	\$ 194,997	\$3,336,873
Number of Ongoing Awarded Projects	3	7	18	19	20
Research Expenditures Associated with Ongoing Projects	\$ 130,181	\$ 224,630	\$ 453,218	\$ 504,036	\$ 739,168
Incentive Return to CWS	\$ 1,492	\$ 3,300	\$ 9,372	\$ 15,858	\$ 17,060
New Proposals Submitted	12	23	18	14	36
Amount Requested in New Proposals Submitted	\$6,723,339	\$ 8,085,642	\$ 4,578,560	\$ 4,401,827	\$ 13,487,264

Relationship to Other Michigan Tech Institutes and Centers. Considerable research, educational and outreach efforts concerning water issues occur at other institutes and centers at Michigan Tech, such as the Earth, Planetary, and Space Sciences Institute and the Ecosystem Sciences Center. The CWS is not meant to compete with the efforts associated with these institutes or centers. Any efforts of the CWS that might overlap with other institutes or centers will be conducted in cooperation with those units.

Relationship to Michigan Tech Strategic Plan (July 16, 2009 version, <http://www.mtu.edu/stratplan/>). The CWS contributes to the Michigan Tech Strategic Plan through

- providing outstanding professional environment for the Michigan Tech community,
- providing dynamic discovery-based learning that integrates instruction, research, and innovation in undergraduate and graduate programs,
- improving Michigan Tech’s stature as a research university and Ph.D. granting institution, and
- promoting economic and social development and innovation in Michigan the nation, and the world.

Governance Structure. The CWS is established 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.

1. 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. Once approved by the Director, membership is reevaluated every five years. Undergraduate and graduate students can be nominated by faculty for CWS student membership, which provides eligibility for CWS student grants and fellowships. Student membership is maintained until graduation or withdrawal from the university.

2. Advisory Committee

CWS Advisory Committee members are charged with representing their respective academic units in the activities of the 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. The term of the Advisory Committee members is two years, but Advisory Committee members can continue on the committee indefinitely. CWS members in each department or unit are responsible for selecting a representative to the Advisory Committee every two years. The process of selecting representatives must include communications to all CWS members in the participating department or unit.

The responsibilities of Advisory Committee members include (a) advising the CWS Director on CWS policy, strategic planning, and budget decisions; (b) promotion of CWS by seeking new faculty and student members for CWS, and solicitation of advice on CWS activities in the advisory committee member's respective academic unit, (c) approval of any changes to the CWS priorities or governing structure, (d) evaluation and approval of reports related to the CWS, and (e) evaluation and approval of any changes to degree programs, minors, or certificates that are housed within the CWS. The Director will consult with the advisory committee or subcommittees regarding budget decisions involving more than \$5,000.

Subcommittees of the Advisory Committee are formed to promote and make decisions regarding the most important CWS activities. Advisory committee members volunteer to fill the subcommittees. The subcommittees consist of at least three members, including the CWS director. These subcommittees include the following.

- Degree Programs and Education: responsible for developing, promoting, and maintaining new degree programs, certificates and minors, organizing and promoting the yearly CWS colloquium; and maintaining the student research and travel grants programs and approving applications to these programs.
- Seminars and Symposia: responsible for promoting seminars and symposia of interest to CWS participants, including approving requests for funding seminars and related activities.

3. CWS Director

The Director's responsibility is to ensure that the CWS functions effectively in fulfilling its mission. Responsibilities also include (a) establishing the CWS priorities in a manner consistent with the CWS Charter and the Advisory Committee's guidance; (b) directing the application and management of the CWS's resources, managing CWS programs and curricula; (c) directing

CWS staff; (d) seeking and promoting opportunities for funding for CWS participants, especially opportunities involving large funding programs and interdisciplinary research and education; (e) acting as a point of contact for new collaborative opportunities with other Michigan Tech centers and institutes and external organizations; (f) seeking opportunities to promote the visibility of CWS and MTU to international, federal and state personnel or agencies, or other groups involved in water-related activities and (g) overseeing CWS web pages, seminars, and other related functions.

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 existing Director can be appointed to multiple terms. 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.

Space and Facilities Requirements. No space and facilities are required at this time.

Budget. The CWS activities are supported through return of the indirect cost recovered from CWS-affiliated grants, as shown in Table 2. Enhanced indirect cost return is also provided to the PI to provide incentive for interdisciplinary research and CWS affiliation.

Table 2: Indirect Cost Return

Entity	Percent of Indirect Cost Returned
CWS	20.0
PI	10.0
Department (or Unit)	10.0
College	10.0

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 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.

Proposal to Renew the Michigan Tech Center for Water and Society

Approval Signatures

Alex Mayer, Director

Michigan Tech Center for Water and Society

Date

Chair(s)

Wayne Pennington, Chair

Department of Geological & Mining Engineering & Sciences

Date

William Bulleit, Chair

Department of Civil & Environmental Engineering

Date

Sarah Green, Chair, Department of Chemistry

Date

Mike Gibson, Chair, Department of Biological Sciences

Date

Pat Martin, Chair, Department of Social Sciences

Date

Dean(s)

Darrell Radson, Dean, School of Business and Economics

Date

Margaret Gale, Dean

School of Forest Resources & Environmental Sciences

Date

Tim Schulz, Dean, College of Engineering

Date

Bruce Seely, Dean, College of Arts & Sciences

Date

Administration

David Reed, Vice President for Research Date

Appendix I: List of Participating Faculty as of January 17, 2011

Biological Sciences

Nancy A. Auer
Susan T. Bagley
Casey J. Huckins
Charles Kerfoot
Amy Marcarelli

Chemistry

Sarah A. Green

Civil & Environmental Engineering

Martin T. Auer
C. Robert Baillo
Brian D. Barkdoll
Jennifer G. Becker
Kristine L. Bradof
Paul Doskey
Veronica Griffis
David W. Hand
Neil J. Hutzler
Alex S. Mayer
James Mihelcic
Kurtis G. Paterson
Judith A. Perlinger
Eric A. Seagren
Noel R. Urban
David W. Watkins
Qiong Zhang

Educational Opportunity

Christine S. Anderson

Geological & Mining Engineering & Sciences

Suzanne J. Beske-Diehl
Judith R. Budd
John S. Gierke
Essa L. Paterson
Alex S. Mayer
Wayne D. Pennington

Proposal for Establishment of Michigan Tech Center for Water and Society

William I. Rose

Humanities

R. Craig Waddell

Michigan Tech Research Institute (MTRI)

Colin Brooks

Liza Liversedge

School of Business & Economics

William S. Breffle

Gary A. Campbell

Christa L. Walck

School of Forest Resources & Environmental Science (SFRES)

Rodney A. Chimner

David J. Flaspohler

Margaret R. Gale

Kathleen E. Halvorsen

Martin F. Jurgensen

Linda M. Nagel

Blair D. Orr

Thomas G. Pypker

James M. Schmierer

Amy J. Schrank

Social Sciences

Hugh Gorman

Kathleen E. Halvorsen

Carol A. MacLennan

Patrick E. Martin

Susan R. Martin

Timothy Scarlett

Bruce E. Seely

Barry D. Solomon

Visual & Performing Arts

Mary Ann Beckwith

Western UP Center for Science, Mathematics & Env. Education

Joan F. Schumaker-Chadde