

### **3. Key Stakeholders & Public Participation in Plan Development**

#### **3.1. Initiation of the Watershed Management Plan**

In the 20<sup>th</sup> century, Huron Creek and the surrounding watershed were recreational resources for local residents. Commercial development in the watershed during the period 1970 to the present has detracted from the attractiveness of the creek as a recreational and ecological resource. The Houghton Waterfront Park, located at the mouth of the creek is valued as a recreational area, but the local community has expressed a desire for improving the creek in the Waterfront Park. The City of Houghton Planning Commission is currently evaluating the current use of the commercial corridor on Highway M-26 as well as new residential expansion in the watershed. Specific water quality issues, such as leachate emanating from a landfill adjacent to the creek and potential contamination from decaying septic tanks near the creek, have raised concern in the community. The City of Houghton has implemented solutions to address the landfill leachate problem. Portage Township is considering expanding its sewer system to include the houses that presently utilize septic systems.

Particular attention to the creek was focused in summer 2003, when a local business (Wal-Mart) announced plans to expand its facilities. The expansion involved moving a portion of the creek channel and covering wetlands through which the creek flowed. The City of Houghton applied for and obtained approval for a wetlands fill permit, which allowed the expansion plans to move forward. The permit also contained measures for replacing the eliminated wetlands (mitigation). The expansion was completed in summer 2004.

The creek and watershed has been the center for a range of educational activities over the last decade. Students from the Houghton-Portage School District and Michigan Technological University have used the creek and the watershed as a “laboratory,” where approximately 200 secondary and 100 university students have studied land use impacts on water quality in the watershed. The Western Upper Peninsula Center for Science, Mathematics and Environmental Education has used the watershed as a training ground for over 50 secondary school teachers on integrating watersheds into natural and social science classroom activities.

The proposal to fund this management plan was formulated by students from Michigan Technological University, supervised by Professor Alex Mayer, director of Michigan Tech’s Center for Water & Society (CWS) over the period September 2005 to March 2006 (see Appendix A for a copy of the proposal). The proposal was submitted in March 2006 to the Michigan Environmental Quality’s Watershed Management Planning funding program. Community support for the proposal was secured by obtaining letters of support from several community organizations, as indicated in Table 3.1.

**Table 3.1 Organizations Attaching Letters of Support to MDEQ Proposal**

<b>Organization</b>	<b>Role in Watershed</b>
City of Houghton	Municipality encompassing ~ 33% of watershed and majority of residential-commercial activity
Moyle Construction, Inc.	Largest landowner and developer
B-H-K Child Development Board	Agency involved in childhood education and major landowner
Copper Country Chapter of Trout Unlimited	Organization dedicated to preserving habitat for fish
Copper Country Mental Health Services	Located directly on stream, user of stream for recreation
Friends of the Land of Keweenaw	Local non-governmental organization with environmental interests
Houghton Keweenaw Conservation District	Michigan conservation district encompassing watershed
Houghton Rotary Club	Organization with local representatives from business and community organizations, active in improving stream
Houghton-Portage Township Schools	Local school district, already use stream in science and social studies classes
Keweenaw Land Trust	Land conservancy organization
Keweenaw Memorial Fitness Center	Active in wide range of outdoor recreation in community, future site location next to stream
National Resource Conservation Service office	Local office responsible for resource management issues, including soil and water resource protection
Portage Township	Municipality encompassing ~67% of watershed
Wal-Mart	Largest business in watershed, located directly next to stream
Western UP Health Department	Agency responsible for protecting public health in area, including issues related to water quality

The proposal was funded in July 2007, with Professor Alex Mayer of Michigan Technological University Center for Water & Society as the principal investigator. The proposal included three primary project goals, given in the list below along with the objectives required to achieve each goal.

Goal 1: Monitor water quality to identify pollutants and critical areas in the Huron Creek Watershed:

- gather data and create maps of watershed bio-physical characteristics;
- identify critical areas and prioritize in terms of threat to water quality; and

- screen previous monitoring data, develop monitoring plan including an approved Quality Assurance Project Plan (QAPP), perform stream monitoring, and develop sustainable monitoring system

Goal 2: Improve water quality in the Huron Creek Watershed by addressing areas that are contributing pollutants to the creek:

- research Best Management Practices (BMPs) for improvement of water quality in critical areas need to be developed, including both physical improvements and policies for water quality protection;
- identify and describe alternative BMPs for improvement of water quality, including preliminary designs, costs, and descriptions of pros and cons for each alternative BMPs ; and
- complete watershed management plan for approval by DEQ.

Goal 3: Educate local citizens and landowners about water quality issues in the Huron Creek Watershed:

- form a self sustaining watershed advisory committee (WAC), and
- develop and implement watershed publicity program

### **3.2. Formation of Watershed Advisory Council**

In anticipation of the development of a watershed management plan, Professor Hugh Gorman directed students in his spring 2006 Environmental Decision-Making course at Michigan Technological University to formulate a Watershed Advisory Council, in cooperation with Professor Alex Mayer. The students generated a list of critical stakeholder categories, e.g. businesses, government agencies, NGOs, and residents, and identified relevant organizations and individuals in each category. As a result, about 50 individuals were invited to a public information meeting on the watershed on March 21, 2006. The public meeting was attended by 36 people, including a reporter from the local newspaper, the *Daily Mining Gazette*. Discussions and small group brainstorming sessions were held to generate ideas on the most important issues associated with the watershed. In the small groups at this meeting, the comments reflected a variety of different perspectives, such as:

- “One of the biggest concerns I have for the creek is the storm water runoff that is channeled from parking lots and streets.”
- “Maintaining and protecting the natural landscapes that are left in Houghton is very important.”
- “The greatest challenge facing Huron Creek is educating the community.”

A second meeting was held on April 22, 2006. The meeting began with an interactive tour of the creek, with stops at locations of interest and discussions of different issues at each location. The meeting ended at the Houghton Waterfront Park, where attendees were divided into small groups, and asked the question “if you had a million dollars to improve the watershed, what would you spend it on?” The answers to this question can be grouped into the following categories.

- Improve creek at the waterfront park
- Improve water quality

- Improve the aesthetics of the creek
- Improve access to creek
- Improve use as habitat
- Educational opportunities

At the end of this meeting, the role of a Watershed Advisory Council (WAC) was discussed and attendees were asked if they were willing to be members of the Council. The general purpose of the WAC was described as guiding the Michigan Tech Center for Water & Society in the development of a Watershed Management Plan. This meeting was also covered by a reporter from the *Daily Mining Gazette*. As a result of this meeting, individuals volunteered to be members of the WAC. Table 3.2 indicates the WAC members and associated organizations. The list of members in Table 3.2 includes individuals who participated in the WAC at this meeting and over the next seven months.

**Table 3.2 Watershed Advisory Council Members and Associated Organizations**

Members	Organization
Glen Anderson	Western UP Health Department
Jim Baker	Copper Country Chapter of Trout Unlimited
Bruce Belmas	Houghton Middle School
Kristine Bradof	City of Houghton
Ron Cavallaro	Hitch Engineering
Joan Chadde	Western Upper Peninsula Center for Science, Mathematics & Environmental Education
Steve DeLong	Keweenaw National Historic Park
Kevin Geschel	Moyle Real Estate and Development
Hugh Gorman	Michigan Tech Center for Water & Society
Don Kreher	Copper Country Chapter of Trout Unlimited
Katherine Kruse	Baraga-Houghton-Keweenaw Head Start
Jim Luoma	Houghton Middle School
Pete & Leslie Manderfield	Resident
Matt Manderfield	Resident
Alex Mayer	Michigan Tech Center for Water & Society
Jeff Moyle	Moyle Construction
Melanie Needham	U.P. Engineers and Architects
Ray Niemi	Houghton County Drain Commission
Bruce Peterson	Keweenaw Land Trust
Dave Rulison	Friends of the Land of Keweenaw
Jeremy Shannon	Copper Country Chapter of Trout Unlimited
Terry Smythe	Keweenaw Memorial Rehab and Fitness Center
Alice Soldan	Friends of the Land of Keweenaw
Ted Soldan	Friends of the Land of Keweenaw
Fred Zenner	Resident
Bob Zimmerman	Portage Township

A series of WAC meetings occurred over the next 12 months, with the purpose of identifying the critical areas and recommended measures for improvement to be included in the watershed management plan. Table 3.3 gives a list of the meetings and the principal topics of each meeting. The meetings included the development of a vision for the creek and watershed, discussions of geographically-distinguished stream segments with common environmental characteristics with respect to the vision, and discussions of relevant watershed planning topics. Each meeting was covered by the *Daily Mining Gazette*. The last meeting (4/28/07) was advertised to the public and involved presentations on the recommended measures for improvement to be included in the watershed management plan.

**Table 3.3 Watershed Advisory Council Meetings**

<b>Date</b>	<b>Principal Topics</b>
May 23, 2006	<ul style="list-style-type: none"> <li>• purpose of watershed management plan</li> <li>• answers to “million dollar improvements “question</li> <li>• organize meetings</li> </ul>
June 26, 2006	<ul style="list-style-type: none"> <li>• vision statement</li> <li>• waterfront park interpretive sign</li> </ul>
July 25, 2006	<ul style="list-style-type: none"> <li>• state of the stream: Sharon Avenue to Frog Pool segment</li> <li>• landscape architecture</li> </ul>
August 22, 2006	<ul style="list-style-type: none"> <li>• state of the stream: Portage Canal to Canal Road segment</li> <li>• principles of macro-invertebrate community assessment</li> </ul>
August 26, 2006	<ul style="list-style-type: none"> <li>• field demonstrations of macro-invertebrate community assessment</li> </ul>
September 11, 2006	<ul style="list-style-type: none"> <li>• state of the stream: Canal Road to Sharon Avenue segment</li> <li>• stormwater management and low impact development</li> </ul>
October 24, 2006	<ul style="list-style-type: none"> <li>• state of the stream: Frog Pool to former Huron Lake segment</li> <li>• City of Houghton development plans</li> <li>• Moyle Inc. development principles and plans</li> </ul>
November 14, 2006	<ul style="list-style-type: none"> <li>• state of the stream: Huron Lake to Headwaters segment</li> <li>• categories of alternatives for watershed improvement <ul style="list-style-type: none"> <li>— stormwater management</li> <li>— water quality</li> <li>— education and heritage</li> <li>— vegetation and wetlands and</li> <li>— improving the waterfront park</li> </ul> </li> </ul>
January 30, 2007	<ul style="list-style-type: none"> <li>• formation of sub-committees to develop improvement alternatives</li> </ul>
February 20, 2007	<ul style="list-style-type: none"> <li>• development of improvement alternatives</li> </ul>
March 20, 2007	<ul style="list-style-type: none"> <li>• development of improvement alternatives</li> </ul>
April 28, 2007	<ul style="list-style-type: none"> <li>• public meeting on recommended actions</li> </ul>

Several other public outreach activities have been organized and conducted through the Center for Water & Society, including the following

- 5/20/07: Storm drain stenciling with 20 adults and children.

- 6/1/07: Installation of watershed information sign at Houghton Waterfront Park by Bridge school teachers and students.
- 6/10/07: Sponsoring of two Houghton High School students to attend Lake Superior outreach conference.
- 8/20/07: Watershed litter pickup day with 12 adults and children.
- 4/26/08: Watershed litter pickup day with 8 adults and children.
- 7/7/08: Public meeting presenting a draft of the watershed management plan document.

### **3.3. Watershed Management Plan Development**

The development of the Watershed Management Plan has been coordinated by Professor Alex Mayer. Linda Kersten, a Master's student in Environmental Engineering at Michigan Tech, is the principal writer of the plan. Ms. Kersten has also supervised students involved in the project. Bio-physical and socio-political information has been collected by more than 30 undergraduate and graduate students through the Engineering Senior Design, Environmental Decision-Making, and other classes at Michigan Tech from fall 2005 through fall 2008.

The development of the Watershed Management Plan culminated in a one-month public review period in which the public was invited to review and provide comment on the plan. The review period was announced in a press release in the local newspaper which described locations and dates a draft of the plan could be accessed. The draft was made available at the Houghton Public Library and on the web at from June 9th to June 30th 2008. Shortly after the public review period ended (July 7, 2008) a public meeting was held to present the main parts of the plan and to collect additional public comments. This document has been revised according to the comments received during this period. These comments are listed in Appendix U.