



Minutes

Friday, February 15, 2019

1:00 pm

Pine Room – District Municipality of Muskoka
70 Pine Street, Bracebridge, Ontario P1L 1N3

Present

Kevin Trimble (Chair)
Will Barbour
Vincent Evans-Lucy
Pete LeMoine
Peter Sale

Nancy Alcock
Javier Cappella
Lou Guerriero
Michael Peppard
Andrew Struthers

Patricia Arney
John Cooper
Caroline Konarzewski
Geoff Ross

MWC & DMM Staff

Christy Doyle
Jamie Delaney
Stu Paul (until 2:05 pm)

Rebecca Willison
Breeanna Campbell

Christiane Masters
Graham Good (until 2:05 pm)

Presenters

Fred McGarry
University of Waterloo - COMAP
Nicholas Keast
Greenland Group

Mark Palmer
Greenland Group

Trevor Boston
Greenland Group

Welcome

MWC Chair Kevin Trimble called the meeting to order at 1:05 pm with roundtable introductions. He introduced new appointments for municipal representatives and noted that MWC is planning to undertake a municipal roadshow this spring.

Confirmation of Minutes

MOTION by Peter Sale, seconded by Caroline Konarzewski

THAT the minutes of the Muskoka Watershed Council meeting dated January 18, 2019 be approved.

CARRIED

Correspondence

None.

Presentations

[Integrated Environmental Monitoring and Modelling Using Web-based Platforms](#) – Fred McGarry on behalf of the University of Waterloo, Computer Systems Group together with the Greenland Consulting Engineers Team

The Greenland Group works with multiple environmental research teams with a goal to provide researchers from multiple disciplines with the ability to access and share environmental data with common presentation facilities, while also sharing monitoring, modelling and other analysis tools.

iEnvironment is a web-based, distributed data management platform and user gateway for integrated environmental monitoring and modelling (IEMM) related to aspects of surface water. The platform supports access to and sharing of data from multiple distributed heterogeneous data sources, as well as monitoring and modelling tools to enable researchers to perform complex analysis easily. By abstracting away details about the complexities and variations of the data sources and the compute and storage jobs, the platform supports researchers in performing complex and computationally expensive data analyses. The platform also can capture results from previous analyses to show cumulative effects.

The iEnvironment platform is working with over 50 partners in universities, water management authorities, other NGOs, governments at all levels and the development industry to advance environmental research and practice and develop the technology and processes behind environmental data sharing and IEMM. The project involves research teams consisting of surface water researchers in numerous disciplines including: geomorphologists, hydraulic engineers, biologists, environmental scientists, as well as computer scientists and software developers. iEnvironment has been developed by the University of Waterloo Computer Systems Group (UWCSG) and the Centre for Community Mapping in consultation with these environmental partners to understand the needs of the environmental research and consultant communities. iEnvironment is built using the Web Informatics Development Environment (WIDE) toolkit developed by UWCSG and to be commercialized by WIDE Software Systems Corp.

Following a question and answer period, Kevin thanked the member of the Greenland Group for their presentation.

[Quantifying Cumulative Stress and Cumulative Effects](#) – MWC member Will Barbour, Riverstone Environmental Solutions Ltd.

Drawing mostly from his MSc work, Will discussed an approachable framework for objectively conceptualizing cumulative effects. Will reviewed historical changes in the Great Lakes, highlighted some large lakes around the world that have been substantially changed by human impacts, and looked more closely at cumulative stress, cumulative effects and metrics of a watershed as seen from the lake. He explained how MWC's work is consistent with his findings, specifically around climate change, salt and hydrology. You can read his thesis at https://atrium.lib.uoguelph.ca/xmlui/bitstream/handle/10214/10466/Barbour_William_201705_Msc.pdf?sequence=1&isAllowed=y

Following a question and answer period, Kevin thanked Will for his presentation.

MWC Working Group

The next meeting is Thursday, February 28th from 2-4 pm in the Birch Room at the District of Muskoka administration building offices. Geoff highlighted the current projects.

- Algonquin Park Management Plan – Mike Peppard will be touching base with Friends of Algonquin Park.
- Hydrology – Kevin Trimble
Kevin reported that the Working Group discussed the goals and objectives of a hydrology project at its last meeting. A meeting will be set up in the near future with a number of relevant organizations and volunteers to narrow the focus of the project and take stock of who is doing what.
- Road Salt Working Committee – Rob Atfield will replace Kevin Trimble as the MWC representative on the Working Committee. Christy highlighted the activities of the Committee,

including a certification workshop scheduled for March 26th. MWC plans to assist with public awareness and education. Jamie Delaney indicated that he is in the process of pulling together a number of data sources into a single dataset to determine when chloride levels peak in area streams and lakes.

- Organization of the 2019 Muskoka Stewardship Conference is underway. Christy highlighted the discussion about topics and speakers at the last Working Group meeting. She noted the Dorset Environmental Science Centre Science Day taking place on May 29th at the Active Living Centre in Huntsville. The Global Lake Ecological Observatory Network (GLEON) Conference in November will also be held in Muskoka.
- Algae Sub-committee – *Peter Sale*
The Algae Sub-committee met on February 11th and continues to develop a pilot project for 2019. There was great discussion around methods for monitoring algae and equipment that may be suitable for use in Muskoka. Kevin noted all of the assistance the Ministry of the Environment, Conservation and Parks scientists have been providing.

Updates & New Business

None.

Next MWC Meeting

Friday, March 22, 2019 from 1-3 pm in the Council Chambers at the District of Muskoka administration building, located at 70 Pine Street in Bracebridge.

Adjournment

Kevin Trimble adjourned the meeting at 3:10 pm.