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September 22, 2009

Mr. Tom Skinner, Chair
NOAA's Hydrographic Services Review Panel
c/o NOAA Office of Coast Survey (N/CS)
1315 East West Highway
Silver Spring, Maryland 20910

Subject: Great Lakes Hydrographic Survey Needs and Assessment

Dear Mr. Skinner:

Thank you for the opportunity to address the Hydrographic Services Review Panel. I would like to bring attention to the work that Northwestern Michigan College (NMC) along with Michigan Sea Grant Extension and several private industry partners have been conducting regarding hydrographic surveys in Grand Traverse Bay and Northern Lake Michigan during the summers of 2009 and 2010.

We have developed this partnership through the need and necessity of investigating our waters through research, education and outreach opportunities. The Great Lakes continue to be challenged by both natural and man induced stressors, including the interaction with the changing climate, past industrial use and Areas of Concern (AOC's), continued introductions of non-indigenous invasive species and lake level fluctuations. Alone or collectively, these challenges have dramatically altered the Great Lakes ecosystem, our near shore waters and nearly all of our navigable waters and harbors. The economic impact of these issues is conservatively estimated in the billions of dollars. Existing bathymetric data for our region is outdated and does not accurately reflect how the ecosystem has changed and where impacts are the greatest.

The Grand Traverse Bay Hydrographic Survey Project (GTBHS) represents the first time our waters have received advanced hydrographic survey information. This project is providing key scientific information about our waters while also developing students with technical competencies and educational opportunities. The Water Studies Institute of Northwestern Michigan College (NMC) has developed the first Freshwater Studies Associates Degree program anywhere in the United States and this activity will play a major role in our curriculum experience. The Great Lakes Maritime Academy, also located at NMC, is the only training academy on the entire Great Lakes and this program will offer a unique experience for the cadets within the program with direct hands-on training of these technologies. The integration of these

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two programs along with other college departments as part of the GTBHS provides an extremely unique and rewarding opportunity for students, scientists and the general public.

We seek support and technical assistance from NOAA's National Ocean Service units for identifying and mapping our cultural resources as part of our continuing efforts; providing key data for environmental impact assessments; updating commercial navigation charts; and supporting fisheries and management activities throughout the region. Such support could include: water level and benchmark reference stations throughout our region, properly planning our surveys and assistance with processing the collected information. There are numerous potential users of this information with great benefit to a broad audience. We want to collect the information once and make it accessible to many.

We have the required physical assets in place to make this happen including; a dedicated vessel on station in the Grand Traverse Bay; precision hydrographic survey equipment from Kongsberg Underwater Technology, Inc (KUTI); and survey software (HYPACK Inc.) and positioning systems (C&C Technologies) to deliver a high quality data set.

This proof of concept project for precision, high resolution hydrographic surveys in the Grand Traverse Bay region would be a starting point for gathering support and funding for such a capability within the Great Lakes. It is our hope that this activity can be supported by NOAA's National Ocean Service, the Office of Coast Survey, and other appropriate units.

Sincerely,

A handwritten signature in black ink, appearing to read 'Hans W. Van Sumeren', written in a cursive style.

Hans W. Van Sumeren
Director, Water Studies Institute
Northwestern Michigan College