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Testimony of Dr. Jon Bartholic, Director
Institute of Water Research, Michigan State University
Before the House Committee on Natural Resources
on House Bill 5043
March 15, 2016

Good morning Madam Chair and Members of the Committee, I am Jon Bartholic, Director of the Institute of Water Research (IWR) at Michigan State University and I am pleased to be here in support of House Bill 5043. The mission of the IWR is to develop science-based technology, research, educational programs, and partnerships to help understand and address critical water issues. We are part of a nationwide network of fifty-four similar institutes created under federal law. With me today are Laura Young, a Research Associate at IWR, and Frank Ruswick, an IWR consultant. Frank is a former Senior Policy Advisor for the Department of Environmental Quality and Deputy Director of the Department of Natural Resources and Environment.

HB 5043 would facilitate an activity we call "crowd hydrology" by exempting the placement of simple stream gages in lakes and streams from Part 301 of the Natural Resources and Environmental Protection Act. I brought such a gage here with me today so you can see exactly what it is we are talking about. The concept of crowd hydrology is to engage citizens in the collection of scientifically useful information on lake and stream water levels. Gages such as this are appropriately placed, with minimal environmental impact, in a lake or stream by a watershed organization, local government, citizen's group, or even a private landowner. Then, anyone coming by the gage can record the water level at a given date and time and submit the information into a statewide database.



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The compiled information can be useful in a number of ways: First, it can inexpensively supplement the existing, very limited network of 155 stream and 13 lake gages administered by the United States Geological Survey. Second, it can help build a record of changes in water level over time, particularly in the face of changing precipitation patterns. Third, the data could help identify locations where additional, more sophisticated agency monitoring would be appropriate because of, for example, declining water levels. Crowd hydrology has the additional notable benefit of directly involving citizens with measuring and recognizing changes to the environment and the application of scientific principles to management decisions.

Because of both the scientific and social benefits, the IWR first became interested in facilitating crowd hydrology in 2014. At that time we secured funding to support crowd hydrology by providing stream gage kits and training to interested citizen organizations. Although the kits were in demand and the training well attended, there simply have been very few gages installed; we believe because of the current regulatory requirement for a permit under Part 301.

Since that time we have been working with the Department of Environmental Quality to minimize the burdens of the permit requirement. We want to acknowledge and thank the DEQ for the significant steps they have taken to do so. But the bottom line is that there is no way around the fundamental requirements of obtaining a permit: a \$50 permit fee and, no matter how simplified, what can still be a daunting application process to citizens unaccustomed to governmental paperwork and processes.

We respect the DEQ's concern that a permit exemption, no matter how limited in scope and effect as this one is, may still jeopardize Michigan's delegation of authority to implement Section 404 of the Federal Clean Water Act, especially in conjunction with other recent exemptions that are broader and more impactful. But the point is that the United States Corps of Engineers already authorizes the placement of such gages without an application or permit fee, and seven states (Wisconsin, New York, Pennsylvania, Iowa, Nebraska, Utah, and Oregon) have done likewise.

Therefore, we urge you to support HB 5043.

Thank you. We would be happy to answer any questions you might have.