



## International Association for Great Lakes Research

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The Right Honourable Stephen J. Harper  
Prime Minister of Canada  
Langevin Building,  
80 Wellington Street,  
Ottawa ON K1A 0A6

June 8, 2012

Dear Prime Minister Harper:

As President of the International Association for Great Lakes Research (IAGLR), I am writing this open letter to express serious concerns of our board of directors regarding the recent decision to close the Experimental Lakes Area (ELA). IAGLR is a major international organization focused on the study of large lakes. We publish a scientific journal, regularly issue press releases on breaking news relevant to the Laurentian Great Lakes and other large lakes, and hold an international conference annually, alternating between Canadian and U.S. sites. In our accord with our bylaws, our board consists of Canadian and U.S. members, and the position of President alternates between the U.S. and Canada. Our most recent conference was held at the Nav-Center in Cornwall, Ontario and attracted ~650 participants.

The IAGLR Board is in support of the continued operations of ELA and requests that your government re-think and reverse the decision to close ELA. The science done at the ELA has informed policy and advanced science and made important contributions that have translated to the Laurentian Great Lakes. We are concerned with both the losses of the critical and unique capabilities and contributions of this facility, and more generally that this may signal part of a general move away from science-based environmental decision making by the Canadian government. We recognize that there are many pressing budgetary issues facing the Canadian government, and in this context we hope to summarize evidence for why it is worth investing in the ELA, and more generally in the environmental sciences. Some key points we bring to your attention:

The ELA has a critical and unique capacity for whole-lake experiments. Whole system experiments are essential for accurate prediction of the consequences of human actions. ELA is one of the few places where scientists can manipulate natural lakes, complete with the organisms that live there (fish, plankton, insects, plants), and nowhere else is there such an extensive suite of lakes with little background human impact. While laboratory work is important, extrapolating solely based on laboratory studies has often failed. Studying lakes already affected by human activity has much more limited capability for identifying how the activity has changed things than experimental manipulation of lakes. Such experiments involve perturbing some lakes but not others, and collection of “before” and “after” data. While the lakes used at ELA are small, they include all the components of larger ecosystems. Experiments done at the scale used in the ELA have proven highly predictive of what happens in other lakes, including in the Laurentian Great Lakes, where such experiments would not be possible. The whole-lake experiments at ELA have proven to be a cost-effective approach to developing knowledge needed to improve the environmental quality of aquatic systems including the Great Lakes.

ELA has and is providing guidance for government policies regarding pollution and nutrient inputs and in some cases may have saved billions of dollars avoiding unnecessary actions. Some examples include:

ELA studies of nutrient dynamics have led to scientifically-based approaches to nutrient inputs. This means improved water quality through restricting phosphorus in laundry detergents and avoiding unneeded limits on other inputs.

Work at ELA showed that lakes can recover from acidification caused by acid rain if acid rain were reduced. This supported the Canada–USA Air Quality Agreement, that limits air pollution by acid rain causing sulphur dioxide and nitrogen oxide.

ELA studies demonstrated that the economic benefits associated with reduced mercury in fish could be achieved by reducing mercury emissions from fossil fuels.

ELA studies have provided key information on emerging pollution issues specifically relevant to the Great Lakes as well as other aquatic systems. This includes work on the effects of pollution by nanosilver and endocrine disrupting chemicals and the environmental fate of brominated flame retardants.

ELA studies have provided critical information needed for fisheries management of two of the most important fish species in the Great Lakes. Studies for both lake whitefish and lake trout at the ELA provide rare information on these species in unfished situations and clear evidence of how they respond when fishing is initiated. Information on non-fishing mortality and recruitment dynamics from these studies is essential to ongoing fish stock assessment across the Laurentian Great Lakes.

The ELA facility has been very productive scientifically given a modest budget, and much will be lost that cannot easily be replaced if the facility closes. The science done at ELA relies on long-term studies, access to lakes that are only lightly impacted by humans, and a collaborative network based on the stellar reputation of ELA. This includes over 1000 publications of various types (journal articles, book chapters, student theses), numerous scientific awards and positive external review. ELA is not a facility that can be “moth-balled” for a few years and then opened up again and expected to perform as it once did. Experiments that had been underway will need to be restarted or new ones begun with results only coming years later. New scientists would need to be found and become familiar with the facility and systems, and they would need to establish new relationships and develop scientific collaborations that rely on collaborators who trust that there will be follow-through on long-term plans.

ELA has and continues to play an important role in development of top scientists. ELA has been an important field ground of a large number of students. Many past students who did their work at ELA are now working in both the public workforce and the private sector. ELA is a reactor not only producing high quality science but also high quality professionals, thus enhancing Canada’s deserved excellent reputation aquatic sciences.

In closing, the IAGLR board of directors believes that the ELA has provided valuable science that has supported governmental actions that have improved the quality of life in Canada, the US, and around the world. We hope the information we summarized here will lead to careful further consideration of the recent decision to close the ELA. We have yet to see any analysis demonstrating that ELA is an unwise investment or would be better administered outside of the federal government. We believe any transition in its status needs to carefully consider the

negative consequences of disruption of long-term research done there, and should fully involve those most fully familiar with that research. We are concerned that the planned closure of ELA may signal a move away from the partnership of science and governmental policy that has worked so well in the past. Our concerns are heightened because there have been many other recent cuts to federally funded environmental programs in Canada and many proposed changes to existing legislation such as the Fisheries Act, the Navigable Waters Protection Act, the Species at Risk Act, and the Canadian Environmental Protection Act that may further weaken the science-policy partnership. The IAGLR Board of Directors views the work done at ELA as a clear example of the ideal of scientific research informing public policy in a positive way.

Sincerely,

A handwritten signature in blue ink that reads "James R. Bence". The signature is written in a cursive style with a large initial 'J'.

James R. Bence

President, International Association for Great Lakes Research

cc: The Honourable Peter Kent, Minister of Environment; The Honourable Keith Ashfield, Minister of Fisheries and Oceans; As an open letter this is posted on the IAGLR web site and may be subsequently distributed to others.