

iPosters Transcript

A monitoring-management framework considerate of cumulative effects for the lower Grand River and nearshore Lake Erie

Elaine Ho, Simon Courtenay and Andrew Trant

My name is Elaine and I am a PhD Candidate at the University of Waterloo. This research focuses on the design of water monitoring programs, using the lower Grand River and nearshore Lake Erie as a case study. The background section of this poster delineates the study area and describes some relevant cultural history. For example, the Haldimand Tract demonstrates the historical authority of Indigenous groups in the watershed, who are currently not engaged in many important monitoring and management processes.

The method box provides a high-level outline of the various aspects of community-based participatory action research that were taken in this work. A summary of results is found in the Research Outcomes section. A separate part of this research was to consider ways of engagement that are not currently practiced in this area. Lessons that can be applied to any context of research or practice are presented in a 10-minute video in the section titled *Meaningful engagement in research and practice*. Finally, a brief summary of the proposed monitoring framework is presented in the box titled *Moving forward*.

From our exploratory research in the Muskoka River Watershed, we learned that questions around what to measure regarding the health of watersheds are often dependent on whose perspectives are included or excluded. For example, when determining the priorities for monitoring and management, whose priorities are we talking about? We designed a process for short-listing or selecting monitoring priorities and indicators that was proven to change the resulting decisions compared to conventional monitoring processes. The brief publication describing this method and how it was tested is linked below the corresponding visual.

Key informant interviews highlighted the disconnect between monitoring and decision-making, as well as the lack of multiple forms of inquiry as two key aspects for improvement in monitoring. These informants helped identify programs they felt exemplified the best of water monitoring and management, from which a review of 22 criteria was carried out. This review confirmed a lack of Indigenous knowledge in water monitoring, the need to clarify roles of collaborating organizations and that existing partnerships and partnership capacity have the potential to fill a great many needs – with some improvements.

Public opinion showed that current water monitoring does not adequately measure the things community members are most concerned with, although several priority areas do overlap to

some degree. For example, one of the tangible issues raised was plastics pollution, which is a relatively new phenomenon compared to monitoring priorities that were in many cases generated more than a decade ago.

Indigenous youth have highlighted the incredibly rich and different ways in which young Indigenous persons experience water. Their artwork and related stories, teachings and priorities are compiled in the Grand Expressions virtual tour, which is linked in this poster. The exhibit was meant to be live at multiple locations, but has been postponed due to COVID-19.

Finally, the main goal of this research is to propose a process framework for water monitoring in the estuary of the Grand River and nearshore Lake Erie. This is summarized at a very high level in a visual under *Moving Forward*. Keep in mind that the process described in this visual is quite simplified, as each of the smaller bullet points has its own larger description backed by research. As this framework is not yet complete, since we have yet to engage water managers to finalize it, the final framework will not be presented publicly until next year, in early 2021.

Any information produced in this research can be found on our research website, www.granderiestudy.ca. Alternatively, you can contact me using the 'Contact Author' button on this poster, or email me directly at e23ho@uwaterloo.ca. Please note, a link to download the written transcript for this narration is available in the *Background* box.