

# INNOVATING SOLUTIONS TO ADDRESS WATER CONTAMINATION IN CANADA

## WATER SCIENTISTS ARE

Developing solutions, grounded in our understanding of Canadian agriculture, lakes and environment, to control nutrient export and bloom risk

Assessing legacy impacts from Canada's energy industry and proposing new methods to protect the nation's groundwater

Characterizing links between groundwater and surface water, including the speeds at which groundwater contaminants are transported to surface water bodies, to better protect our water supplies

Understanding how Canada's changing water cycle will affect drinking water treatability

Developing improved, cost-effective, socially acceptable strategies for managing mine wastes and mitigating contamination

Providing new knowledge regarding the impacts of different forest management strategies on drinking water source quality and treatability to assess their suitability for source water protection across the major ecological/forest regions of Canada

## EXAMPLE PROJECTS

Funded by the Natural Sciences and Engineering Research Council of Canada, the Lake Pulse program is working to address the question "What is the health status of Canadian lakes, how has it changed, and how will it likely change in the future?"

The forWater program, funded by the Natural Sciences and Engineering Research Council of Canada is designing and deploying forest management technologies across Canada's major ecozones, studying their impacts on water quality and quantity at watershed scales, and evaluating their direct and indirect environmental, social and economic costs versus benefits

Catalyzed by long-term monitoring of Environment and Climate Change Canada, Agricultural Water Futures (funded by the Global Water Futures program) has demonstrated that targeted efforts to control phosphorus inputs can have immediate benefits to water quality without impacting crop yields

Global Water Futures' Old Meets New project is examining impacts to groundwater from the oil and gas industry and will allow for better protection of groundwater resources and prioritizing of remediation projects

The Improved Source Water Protection project, with federal and local funding, at the University of Guelph is applying advanced high resolution characterization and monitoring techniques to prevent municipal groundwater supplies from contamination

---

## WATER DAY ON THE HILL

The Office of the Chief Science Advisor of Canada and the Global Institute for Water Security are jointly organizing 'Water Day on the Hill' in March 2020. For more information, please contact:

Sara Daniels  
sara.daniels@usask.ca

This note was prepared by the  
Global Institute for Water Security,  
University of Saskatchewan

