

# MOBILIZING INTERDISCIPLINARY TEAMS

One of our key strengths is our capacity to organize and conduct interdisciplinary research with leading water partners around the world to support sustainable water use and management. Some of the research projects supported by the Water Institute include:



## GLOBAL WATER FUTURES

Positioning Canada as a global leader in water science for cold regions, addressing the strategic needs of the Canadian economy in adapting to change and managing risks of uncertain water futures and extreme events.



## QUEEN ELIZABETH SCHOLARS – ADVANCED SCHOLARS

Activating young, global leaders and addressing linkages between climate change and water security.

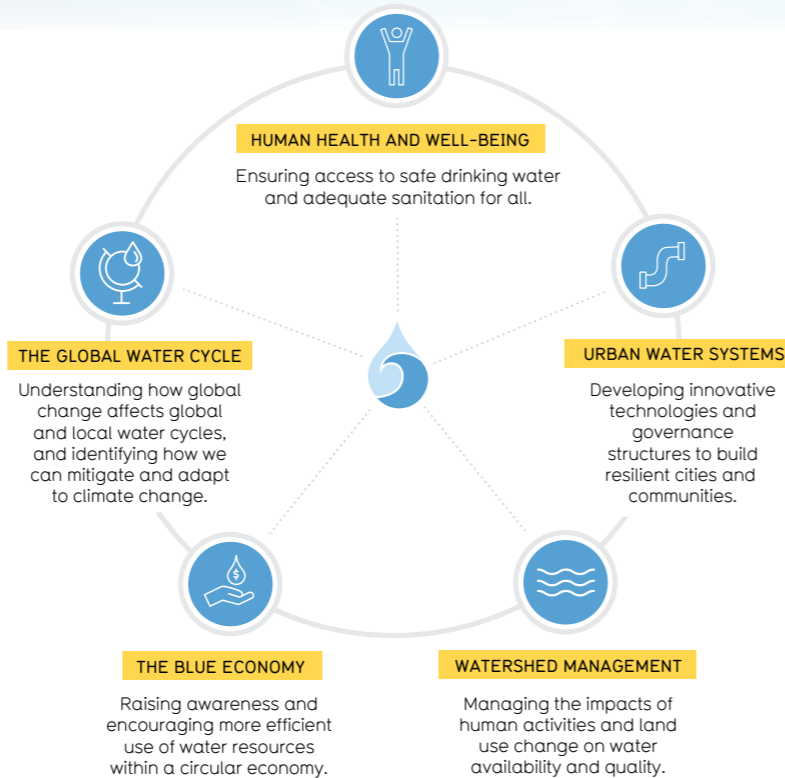


## forWATER NETWORK

Providing new knowledge on the impacts of different forest management strategies on drinking water source quality and treatability.

# WATER DISREGARDS BOUNDARIES. SO MUST WE.

WE THINK BIG AND GO BEYOND TRADITIONAL SILOS, TACKLING THE WORLD'S WATER CHALLENGES THROUGH FIVE INTERDISCIPLINARY THEMES.



Together we can advance the **sustainable use and management of water** for the benefit of the environment, economy and society.

Connect with a researcher, find a graduate program, subscribe to our publications and more.

[uwaterloo.ca/water-institute](http://uwaterloo.ca/water-institute)



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# THE WATER INSTITUTE

A GLOBAL LEADER IN INTERDISCIPLINARY WATER RESEARCH AND EDUCATION

[uwaterloo.ca/water-institute](http://uwaterloo.ca/water-institute)



Committed to solving water challenges through innovation and collaboration.



PLEASE RECYCLE C016446

# WATER AT CANADA'S MOST INNOVATIVE UNIVERSITY

Named Canada's most innovative university by Maclean's magazine for 26 years in a row, the University of Waterloo goes beyond the laboratory, to the research that empowers businesses, organizations and society. Located in the heart of Canada's technology hub, we shape the future by working beyond disciplines and building bridges with industry, governments and communities.

When it comes to water research and education at the Water Institute, we open the door to innovation and walk boldly through. The following are some recent projects led by our researchers.

## A LABORATORY IN THE PALM OF YOUR HAND

Detecting pathogens and contaminants in water with an intelligent lab-on-chip device.

## ADDRESSING RISKS FROM EXTREME WEATHER

Working with homeowners, businesses and governments to identify and reduce the impacts of extreme weather and climate change, such as flooding.

## DRONES AND SATELLITES MONITORING WATERSHEDS

Developing and testing new sensor technologies for ground-based, airborne and space-borne use to deliver environmental data from multiple scales.

## CLEANING WATER WITH A STEEL BY-PRODUCT

Designing an adaptable, sustainable water treatment system that uses slag to effectively and inexpensively remove phosphorus from water.

## IMPROVING HEALTH RESPONSES IN ZAMBIA

Using satellite imagery and geographic information systems to predict floods and malaria "hot spots" in near real-time.

## USING ARTIFICIAL INTELLIGENCE TO HELP CITIES DETECT EXPENSIVE WATER LEAKS

Combining sophisticated signal processing techniques and artificial intelligence software to identify telltale signs of leaks carried via sound in water pipes.

The sustainable management of the world's water resources requires the collaboration of experts. Our 150-plus faculty members form a network of experts, each contributing specialized knowledge. Together, we are uniquely poised to examine issues from all angles, sparking innovative solutions.

**150+**  
**FACULTY MEMBERS**  
**23** schools/  
departments  
in all 6  
Waterloo  
faculties

**300+** GRADUATE STUDENTS

# BUILDING BRIDGES WITH LEADING INTERNATIONAL WATER PARTNERS

As there is virtually no region on Earth that will remain untouched by water challenges, we are spearheading research programs with partners from every continent. Together are committed to finding lasting and viable solutions.

Current partners include organizations from:

USA • Brazil • Netherlands •  
France • Germany •  
Switzerland • Uganda •  
Kenya • Zambia • Israel •  
Pakistan • China •  
Singapore • Australia



**ONE OF THE TOP 10**  
water research  
institutions in the world  
*Lux Research Inc. Top Academics and  
Institutions in Water Research, 2013*

# TAKING STUDENTS OUTSIDE THEIR COMFORT ZONE, WHERE ANYTHING IS POSSIBLE

## COLLABORATIVE WATER GRADUATE PROGRAM

*"This is a flagship example in Canada, and around the world, of a truly interdisciplinary water graduate program."*

**the most INTERDISCIPLINARY**  
graduate water program in Canada

**ROB DE LOË**, DIRECTOR COLLABORATIVE WATER PROGRAM

Our students become trained experts in their fields, while learning to think broadly and communicate across disciplines. Supported by the Water Institute, this program allows students to choose from 23 master's and doctoral programs.

*"I cannot stress enough how important this program is. Working with students from many other disciplines has challenged many of my perspectives and has been a big contributor to my growth as an individual, professional and academic."*

**ELAINE HO**, PhD CANDIDATE IN SOCIAL AND ECOLOGICAL SUSTAINABILITY (WATER), FACULTY OF ENVIRONMENT

Learn more about the Collaborative Water Program advantage

[uwaterloo.ca/collaborative-water-program](http://uwaterloo.ca/collaborative-water-program)