



2018 AQUAHACKING CHALLENGE SUMMARY

WHAT IS AQUAHACKING?

We believe that innovative clean technologies developed by the rising generation is one of the important elements that can play a major role in solving North America's freshwater issues.

Our vision is that:

- All North American communities have sustainable access to clean water and treat it as an irreplaceable resource.
- Innovative technology solutions developed by the rising generation are leveraged to amplify efforts around water quality improvement across North America.

WHAT WE DO

We mobilize the rising generation and tech community to create innovative solutions to advance the water quality improvement efforts across North America. We do this by:

- o Championing emerging clean-tech innovation and entrepreneurship in water through a hacking challenge
- o Leveraging local ecosystems to ensure solutions are embedded and lasting local impact
- o Making the AquaHacking tech-challenge available through an open-source replication model

HOW WE DO IT

Each year, over several months, we engage with and recruit multi-disciplinary teams of hackers, engineers and water experts from various university campuses to collaborate and develop environmentally sustainable engineering, web and mobile solutions to water issues affecting the Great Lakes and St. Lawrence Basin.

AquaHacking's goal is to create solutions that have a market and answer a true need. We therefore engage with key stakeholders, such as eNGOS and water experts, to help define the water issues that will be tackled to ensure the solutions developed are practical and directly connected to implementing agencies, ensuring tangible results.

→ **Expected results: Functional, marketable solutions that have a realistic and measurable impact in solving water issues.**

WHO IS IT ADDRESSED TO?

Anyone 18 or older is welcome! We are looking for committed and creative minds, whatever their field of expertise, but especially students, water researchers, developers, digital designers, programmers, engineers, technology enthusiasts, entrepreneurs and people who want to save the world!



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WHAT ARE THE KEY DATES?

With a focus on Lake Ontario, the Challenge will take place in Toronto, Ontario.

- February 8th: information webinar **for participating university facilitators only**
- Late March (tbc): Official launch event in Toronto + Teams register online to participate
- March to May: 3 workshop sessions + Choice of an issue statement to solve + development of solution + Teams will have access to mentors and water experts
- May: Semi-finals: 5 teams will be selected to go to the Finals
- June: Weekend-long Lake Ontario watershed expedition for the teams to engage with various stakeholders to better understand the issues facing Lake Ontario - **mandatory**
- June-October: Teams will have access to mentors and water experts
- October 24: Finals will be held during Ontario's Water Innovation Week

WHAT ARE THE PRIZES?

The Great Lakes are under threat. In addition to cleaning up a vital water source and making the world a better place, there's also \$50,000 in prizes, spots at local high-tech accelerators/incubators and more up for grabs!

WHAT KIND OF DATA WILL I HAVE ACCESS TO?

All challenge statements will have been validated to ensure there is a market need and access to information for teams. End users who defined the challenge statements will supply access to relevant data and a point person to speak to the data provided. Expertise on the issue will also be provided to teams who require deeper understanding of the threats.

AquaHacking will also provide general data on its website, vetted by our advisory committee and end users to ensure its relevance.

All data is open to teams, however in some cases end users may require participants to sign a confidentiality agreement to keep the information from been shared outside of the AquaHacking Challenge.

WHAT KIND OF MENTORSHIP WILL BE PROVIDED?

We firmly believe that mentoring is the key to achieving the best results from our Challenge. Each team will have access to experts in the issue they have chosen to tackle, as well as water, development, engineering, design, data analysis and business strategy mentors. We are also currently working on having mentors in VR/AR, video gaming, mobiles apps and AI.



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WHAT IS THE SELECTION CRITERIA TO PARTICIPATE?

- Participants needs to be 18 years and older.
- Proposed solutions must never have been previously published, exhibited publicly, or submitted in any hackathon, exhibition, or similar competition, contest, or event.
- All proprietary code used in the proposed solutions must be developed during the Challenge period, though we allow teams who have previously started work on design, wireframes, or mock-ups.

WHO INITIATED AQUAHACKING AND WHY FRESHWATER?

The de Gaspé Beaubien Foundation spearheaded the AquaHacking initiative. Founded in 1990, the Foundation is a family-run philanthropic organisation that employs an approach known as *entrepreneurial philanthropy* in its aim to support individuals, enterprising families, and organisations in becoming responsible agents of positive and sustainable change within their communities.

Believing that family values are powerful levers for social change, the de Gaspé Beaubien grandparents mentored their grandchildren to find their voices as future philanthropists.

- In 2012, the fourth generation of this family chose freshwater conservation as their primary cause because they felt freshwater had been under protected by past generations.
- Together, they launched AquaHacking to mobilize the rising generation and the tech community to develop tech solutions to protect freshwater in North America.

WHY ARE THE GREAT LAKES AND THE ST. LAWRENCE BASIN SO IMPORTANT?

- The Basin is the largest system of fresh surface water on earth, containing 21% of the world's fresh water.
- The Basin is the primary drinking water source for over 40 million people.
- The region would rank as the third largest economy in the world if it were a country.
- The region provides 46 million jobs.

WHAT ARE THE MAIN ISSUES THREATENING THE GREAT LAKES TODAY?

- Nutrients and algae
- Emerging pollutants
- Micro-plastic pollution
- Invasive species (flora and fauna)
- Chemical run-off from industry and agriculture
- Climate change and declining water levels

KEY ACCOMPLISHMENTS SINCE 2015:

- Development of over 40 mobile/web applications (2015-2017)
- 9 technological and engineering solutions currently in development or on the market;
- Winning teams offered spots with recognized incubators, to develop and pressure test their start-ups (2015-2017)
- 2017 Winner SIM Labs were Invited to present their solution to the Honourable Catherine McKenna, Minister of Environment and Climate Change