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## AQUAHACKING LAKE WINNIPEG CHALLENGE SUMMARY

### WHAT IS AQUAHACKING?

AquaHacking is an 8-month start-up competition designed to support technology and business development addressing environmental problems related to freshwater.

Launched by the de Gaspé Beaubien Foundation, the AquaHacking Challenge has been running in the Great Lakes and St. Lawrence region since 2015 resulting in 18 new start-ups. This year, the International Institute for Sustainable Development (IISD)—an independent think tank with expertise in freshwater science and policy—is hosting one of three regional AquaHacking initiatives which will focus on Lake Winnipeg and its watershed.

Between February and October 2020, AquaHacking will engage students and young professionals to team up and develop innovative solutions to problems plaguing the Lake Winnipeg watershed, such as algal blooms, pharmaceuticals, and microplastics. With guidance and support from expert mentors in water, tech, and business, the multidisciplinary teams will compete to win \$50,000 in cash prizes and incubator space.

### HOW DOES IT WORK?

AquaHacking provides a structured process and ample support for young innovators to develop sustainable solutions. The goal is to create solutions that have a viable market and answer a genuine need. We therefore engage with key stakeholders, such as eNGOS and water experts, to define the water issues and ensure the solutions developed are directly connected to implementing agencies and will have measurable results.

The Challenge kicks off by providing all participants with water expert webinars outlining the science, relevant data, and end-users for each water issue. Throughout the challenge, teams have access to a variety of workshops and resources, as well as a dedicated group of mentors to help them develop their solutions and refine their pitches. The top five teams will be determined at the AquaHacking Semi-Final in June 2020 after which they will continue working on their solutions and go on a team-building expedition to IISD's Experimental Lakes Area in Ontario. The winning team will be determined at the Dragon's Den-style Final in October 2020.

### WHO CAN PARTICIPATE?

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, designers, scientists, programmers, engineers, technology enthusiasts, entrepreneurs and people who want to save the world! Participants may register with a team or as free agents. Free agents can team up with other hackers through the registration platform.

Other registration criteria include:

- Proposed solutions must never have been previously published, exhibited publicly, commercialized, 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 welcome teams who have previously started work on design, wireframes, or mock-ups.
- Teams can participate in-person or virtually for the bulk of the Challenge, but representatives from each team must be physically present for all the Expedition and Final (travel costs will be covered).

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## WHAT ARE THE PRIZES?

- 1<sup>st</sup> Place: \$20,000
- 2<sup>nd</sup> Place: \$15,000
- 3<sup>rd</sup> Place: \$10,000
- 4<sup>th</sup> Place: \$2,500
- 5<sup>th</sup> Place: \$2,500

Each of the top five teams also wins a spot at a local business incubator to continue developing their solutions!

## WHAT ARE THE KEY DATES?

- **NOVEMBER 22, 2019:** Informational webinar **for participating university facilitators only.**
- **EARLY-MID JANUARY:** Registration opens and information sessions will be held for potential AquaHacking participants at various university and college campuses.
- **LATE JANUARY:** Official launch event in Winnipeg, MB where the specific Water Issues are announced.
- **FEBRUARY-MAY:** Teams select the water issue they want to solve and begin work on their solutions with the support of expert mentors and skill-building workshops.
- **JUNE:** The hacker teams present their solutions in a science-fair style expo at the International Association for Great Lakes Research (IAGLR) 2020 conference in Winnipeg, MB. Judges score each solution and the top 5 teams are selected.
- **JULY - OCTOBER:** Teams continue to refine their solutions and develop their pitches with the support of mentors and water experts.
- **AUGUST:** The top 5 teams go on a team-building expedition to Lake Winnipeg and IISD's Experimental Lakes Area in Ontario.
- **OCTOBER:** The top 5 teams present their pitches to a panel of expert judges and the winners of the 2020 Challenge are announced!

## WHY IS THE LAKE WINNIPEG WATERSHED SO IMPORTANT?

- Lake Winnipeg is the 11<sup>th</sup> largest lake in the world and the sixth largest lake in Canada.
- Its watershed spans four Canadian provinces (Alberta, Saskatchewan, Manitoba, and Ontario) and three U.S. states (North Dakota, South Dakota, and Minnesota).
- The Lake Winnipeg watershed is nearly 1,000,000 km<sup>2</sup> and is home to more than seven million people.

## WHAT ARE THE MAIN ISSUES THREATENING LAKE WINNIPEG TODAY?

- Nutrients and algae
- Emerging pollutants
- Micro-plastic pollution
- Invasive species (flora and fauna)
- Climate change and declining water levels

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