



# **Rain It In Student Competition**

## **Winter 2025 Competition Guidelines**

*Hosted in partnership with:*

**The City of Peterborough**

## Introduction

Rain It In is a competition that challenges post-secondary students to develop climate resilient solutions that have a focus on mitigating intense rainfall and flooding. The competition provides a unique experiential learning opportunity for students to apply their knowledge and skills to a real-world problem affecting communities.

For each competition, Rain It In partners with a municipality that is experiencing climate change related flooding events and challenges students to develop novel solutions. The project scope for Rain It In's Winter 2025 Student Competition has been generously provided by **The City of Peterborough**.

The Rain It In Winter 2025 Student Competition will take place from February 3 to April 3, 2025. Participants will be required to submit a detailed report and deliver an engaging presentation. The winning team will receive a \$500 cash prize. Registration closes on February 2, 2025, and project deliverables are due by March 16, 2025. The top five teams will be invited to showcase their solutions in a virtual presentation on April 3, 2025.

## About the Sponsor

Peterborough, Ontario, is a vibrant city nestled in the heart of the Kawartha Lakes region, approximately 125 kilometers northeast of Toronto. Known as "The Electric City" due to its early adoption of hydroelectricity, Peterborough boasts a rich history and a dynamic present. With a population of about 85,000 residents, the city strikes a perfect balance between urban amenities and small-town charm. It is home to prestigious educational institutions like Trent University and Fleming College, which contribute to its youthful and innovative atmosphere.

The Peterborough Lift Lock is a remarkable feat of engineering and a significant landmark in the city. Built in 1904, it is the highest hydraulic lift lock in the world, rising 19.8 meters (65 feet). Located on the Trent-Severn Waterway, this National Historic Site of Canada uses a unique counterbalance system to lift boats between the upper and lower sections of the canal. The Lift Lock not only serves as a crucial part of the waterway but also stands as a testament to early 20th-century innovation and continues to be a source of pride for Peterborough residents.

The city's natural beauty is one of its defining features, with the Otonabee River flowing through its center and numerous parks and trails dotting the landscape. Peterborough is renowned for its cultural scene, hosting various festivals, museums, and art galleries that celebrate both local and international talent. The city's commitment to sustainability and outdoor recreation is evident in its extensive network of cycling paths and conservation areas. With its blend of history, education, culture, and nature, Peterborough offers a high quality of life for residents and a memorable experience for visitors, making it a gem in Ontario's crown.

July 2024 marked the 20<sup>th</sup> anniversary of a major flooding event which impacted many areas of the City. The 2004 Flood served as a key turning point in how the City of Peterborough proceeded to address the inherent risks related to Stormwater Management, putting the City on the pathway of long-term climate adaptation.

## The Problem

Jackson Creek, the largest subwatershed in Peterborough, meanders towards its confluence with Little Lake as a tributary of the Otonabee River. Situated in downtown Peterborough, Little Lake is a vibrant hub for both locals and visitors, offering a variety of recreational activities such as fishing, swimming, and boating, as well as hosting special events. Unfortunately, Jackson Creek and Little Lake are grappling with significant environmental challenges, that are being exacerbated by climate change such as erosion, declining water quality, and pollution. These issues encompass debris, sediment buildup, excessive phosphorous and nitrogen levels, and harmful algae blooms. Consequently, public access to these waters has been increasingly restricted due to frequent beach closures, and the risks to the local ecosystem and fresh water sources.

## The Challenge

What can the City of Peterborough do to improve the health of Jackson Creek and Little Lake through restoration, public access, and policy?

## Timeline

The competition will be facilitated virtually from **February 3 – April 3, 2025**. The time commitment is estimated to be 10-15 hours. It should be noted that the dates are given only as a guideline and may be adjusted.

### Important Dates

January 23, 2025	1:00 PM - 2:00 PM	Informational webinar
February 2, 2025	11:59 PM	Registration closes
February 13, 2025	1:00 PM – 3:00 PM	Mentorship workshop
March 6, 2025	1:00 PM – 2:00 PM	Skills development workshop
March 16, 2025	11:59 PM	Submission deadline for deliverables
March 23, 2025 - Notification of top five teams to participate in final pitch event		
April 3, 2025	1:00 PM – 3:00 PM	Final pitch event for top five

*All times are presented in Eastern Standard Time*

The top five teams selected to present virtually on **April 3, 2025**, will be notified by email no later than **March 23, 2025**. At the conclusion of the event, the winning team will be announced, and a photo will be taken with the team alongside representatives from the City of Peterborough. Teams who did not make it to the top five are allowed and encouraged to attend as it is a great opportunity to learn about the diverse solutions and hear the insightful questions from the judges.

## Resources

As part of the competition, an informational webinar will be hosted in partnership with the City of Peterborough on **January 23, 2025 from 1:00 PM – 2:00 PM EST**. The purpose of this webinar is to provide additional information about the problem and to answer questions. Students are encouraged to attend the webinar live, but if they are unable to attend, a recording will be made available afterwards. The City of Peterborough has compiled relevant resources that may be helpful for students to review. These resources will be made available on the website and will also be shared directly with registered teams.

Rain It In will host a virtual mentorship workshop on **February 13, 2025 from 1:00 PM – 3:00 PM EST** to help connect students with industry professionals who will provide mentorship on their project ideas and share information about different career opportunities. Rain It In will also host a virtual skills development workshop on **March 6, 2025 from 1:00 PM – 2:00 PM EST** to teach students the fundamentals of how to give an effective pitch.

In addition to the resources provided by the City of Peterborough and Rain It In, student teams are allowed and encouraged to do their own research and make their own connections with industry professionals as needed.

## Project Deliverables

The project will culminate in two primary deliverables:

1. A Comprehensive Report
2. An Engaging Presentation

## Report

Students are required to submit a detailed report for evaluation, which should encompass the following key elements:

- a) Team Composition:** Introduce team members, highlighting the multidisciplinary nature of your group.
- b) Problem Statement:** Provide a concise overview of the issue at hand.
- c) High-Level Solution:** Outline the proposed solution and explain its functionality.
- d) Detailed Solution Walkthrough:** Offer an in-depth exploration of the solution, including relevant data, visuals, and policy considerations as applicable.
- e) Implementation Location:** Identify the most suitable location for the solution and justify your choice (e.g., standalone homes, apartment complexes, parks, etc.).
- f) Target Audience:** Define the primary audience for the solution, explaining why this group was selected and how you plan to effectively engage them with the solution.
- g) Work Plan:** Develop a structured work plan detailing the sequence of steps for creating, implementing, marketing, and maintaining the solution.
- h) Budget:** Present a clear financial outline for the project.

- i) **Timeline:** Create a timeline that details key milestones and deadlines.
- j) **Expected Results:** Describe environmental benefits (e.g., rainwater harvesting, pollutant reduction, etc.) and other social, economic, and operational impacts.
- k) **Challenges and Mitigation Strategies:** Analyze potential implementation and performance challenges and propose strategies to mitigate these challenges to ensure successful execution and sustainability of the project.

There is no expectation for the length of the report (though the reports submitted previously have been 15-20 pages long). Be sure to provide comprehensive but concise explanations of the key elements listed above.

## Presentation

Students are also required to submit a recording of an engaging presentation that summarizes the key elements of their report for evaluation.

There are no specific file type requirements for the presentation recording, and student teams are not expected to produce a high-quality video. They will not be assessed on technical aspects; however, it's important to ensure that the audio and visual quality is clear. The video should be no longer than five minutes.

The top five teams will have their recordings showcased at the event on April 3, 2025, followed by a live Q&A session. The Q&A session will be determined by the number of questions from the judges but will be capped at around 15 minutes. Teams who are invited to the final event will be notified on March 23, 2025 and must be present for the full event.

We encourage everyone to attend the full session to support all participating students. It's a great opportunity to learn about the diverse solutions and hear the insightful questions from the judges. We will also announce the winning team and take a photo with them and our representatives from the City of Peterborough.

While you are working on your report and presentation, we strongly encourage you to review the evaluation criteria found on pages 8 and 9 and to connect with industry experts for feedback.

All project deliverables should be submitted to the Google Drive for evaluation by **March 16, 2025 at 11:59 PM EST**. A unique link will be provided to each student team after registration closes to use for submission.

## Team Registration

- Registration is open to registered full-time or part-time students at a college or university (undergraduate or graduate) in Canada
- There is no entry fee
- There are no travel requirements as all aspects of the competition will be hosted virtually

- Teams should consist of a minimum of three (3) and a maximum of six (6) students
- As climate change is a multi-sectoral problem, we recommend participants build diversified teams across various programs and majors to gain different perspectives and skills useful for developing a successful solution to the challenge
- Students do not need to be attending the same educational institution to be on the same team

## Judging and Evaluation

The judging panels will be comprised of individuals from a variety of backgrounds which could include municipal, academic, engineering, regulatory, conservation, communications, public education, and outreach. The number of judges and their affiliations will be shared throughout the competition.

The scoring sheets on pages 8 and 9 have been designed for the judges to use to evaluate the project submissions.

## Penalties

Participating teams that do not comply with the guidelines set forth in this document may be subject to penalties. Penalties will be reflected as points against the team's total score. Penalties include the following:

- Failure to have a minimum of one team member attend the mentorship workshop may result in a **5-point penalty** being assigned to the team's total score
- Failure to have a minimum of one team member attend the skills development workshop may result in a **5-point penalty** being assigned to the team's total score
- Failure to submit a project pitch recording on time may result in a **2-point penalty per day, including weekends, up to a maximum of seven days**
- Teams who are invited to the final pitch event must be present at the beginning of the virtual competition and remain through to the completion of the event. Failure to do so may result in a **5-point penalty** being assigned to the team's final score

Teams will be notified of the penalties they have received. The above penalties may be modified by Rain It In. If this is the case, the teams will be notified of any changes.

## Disqualification

A participating team may be disqualified from Rain It In's Winter 2025 Student Competition, even if they have fully completed the challenge, if any of the following conditions apply:

- The team does not submit their project report by the set deadline
- Any member of the team is not a registered full-time or part-time student at a college or university in Canada
- A non-student, such as a working professional, completes or provides significant input into the project

- The team is found to have engaged in plagiarism
- The team is found to have engaged in an act that, in the sole opinion of Rain It In and/or the project sponsor, is regarded as unethical or disgraceful

Disqualification will prevent a team from winning Rain It In's Winter 2025 Student Competition.

## Awards

Awards will be presented to the winning teams participating in Rain It In's Winter 2025 Student Competition based on the evaluation criteria below. The awards are subject to change at the discretion of Rain It In:

### First Place

- A cash prize worth \$500.00
- Recognition in at least one industry publication as well as on Rain It In's website and social media channels
- An award recognition certificate for each team member

### Second Place

- A cash prize worth \$300.00
- Recognition in at least one industry publication as well as on Rain It In's website and social media channels
- An award recognition certificate for each team member

### Third Place

- A cash prize worth \$200.00
- Recognition in at least one industry publication as well as on Rain It In's website and social media channels
- An award recognition certificate for each team member

All students who complete the challenge in full will receive a participation certificate

## Report Evaluation Criteria

Criteria	Poor	Fair	Good	Very Good	Excellent
<b>Delivery</b>					
The report demonstrates a high level of professionalism including formatting, logical organization of report, spelling and grammar, and sentence structure. The report has a title page, table of contents, appendices (if applicable) and APA style referencing.	1	2	3	4	5
<b>Content</b>					
The report includes all of the required information and demonstrates sufficient research and knowledge of each component.	2	4	6	8	10
There is simplicity in the implementation of the solution, including the solution being self-sustaining and requiring limited operational involvement.	2	4	6	8	10
The budget is cost effective, comprehensive and realistic.	2	4	6	8	10
The implementation timeline includes important milestones and is realistic.	2	4	6	8	10
How effective the solution is on a short term, long term and seasonal basis.	2	4	6	8	10
The potential challenges have been thoroughly explored and effective mitigation strategies have been identified.	2	4	6	8	10
The solution provides additional benefits for the community beyond mitigating the immediate problem.	2	4	6	8	10

Total Score:        /75



## Presentation Evaluation Criteria

Criteria	Poor	Fair	Good	Very Good	Excellent
<b>Delivery</b>					
Presenters are professional and confident. Voices are well projected and clear while speaking at a good pace. Dialogue is natural and not read off a script/screen. The presenters have followed the timing requirement of 5 minutes for their presentation.	1	2	3	4	5
<b>Content</b>					
The presentation effectively summarizes the key elements of the report.	2	4	6	8	10
<b>Visual Aids</b>					
The team has effectively showcased how their solution works through live demonstration, photos, videos, etc.	1	2	3	4	5
<b>Questions and Answers*</b>					
Presenters are responsive to questions.	1	2	3	4	5

\* Only applicable for the top five teams invited to present on April 3, 2025.

Total Score:            /25