

Agriculture & Environment

Environmental Innovation Program

Water Innovation Focus Area

FUNDING DETAILS

Watershed-Climate Experimental Research Facility (W-CERF)

This project enhances the infrastructure at the Advancing Canada's Water Assets (ACWA) facility, increasing access to diverse wastewater streams. The upgraded platform will support plug and play pilot testing, enabling the development and evaluation of innovative wastewater treatment technologies. These advancements will facilitate investigations into scaling challenges and the customization of treatment approaches tailored to the needs of diverse communities - including urban, rural and remote - and environments.



RECIPIENT:
University of
Calgary, Dr. Kelly
Munkittrick



PARTNERS:
Advancing Canada's
Water Assets (ACWA)



Figure 1. Oblique aerial view of Calgary's Advancing Canada's Water Assets (ACWA) facility where project will be implemented.



PROJECT DATES:
MAR 2023 – OCT
2025



TOTAL BUDGET:
\$ 800,000



AI FUNDING:
\$ 400,000

APPLICATION

The research infrastructure expansion will enhance technology testing capacity at the globally unique ACWA facility and provide the foundation for pilot testing and demonstration of novel wastewater technologies including those supporting rural, remote and Indigenous communities.



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PROJECT GOALS

The W-CERF infrastructure upgrades include the following three milestones:

- Construction design, work scheduling, safety plan to support mobilization and site preparation.
- Civil, mechanical and electrical site work. These activities prepare the site for future pilot testing and demonstration of novel community wastewater treatment technologies.
- Testing and commissioning of the new infrastructure using the first of many wastewater treatment technologies.

BENEFITS TO ALBERTA

This facility will serve as a test bed for small, portable, and locally relevant technologies, assessing their performance under Alberta’s climate conditions. It will create opportunities to test plug-and-play and mobile platforms while leveraging ACWA’s analytical capabilities. This will help bridge the gap between conventional and cutting-edge technologies, offering solutions for small rural systems and Indigenous communities.



2 publications



10 HQPs trained



1-3 policies / practices influenced



5 knowledge mobilization events

CURRENT STATUS

Jan 2025 – In progress

Completed initial construction design, component final design, work scheduling, safety plan, and mobilization and site preparation plan.

Civil, mechanical and electrical work on site should commence in July 2025.