



Alberta Innovates Water Innovation Priorities

Water Research Centre Partnership

April 29, 2026

Alberta Innovates Family



**CONVENOR &
CONNECTOR**

**PARTNER &
COLLABORATOR**

**FUNDER & SERVICE
PROVIDER**

Alberta Innovates Family



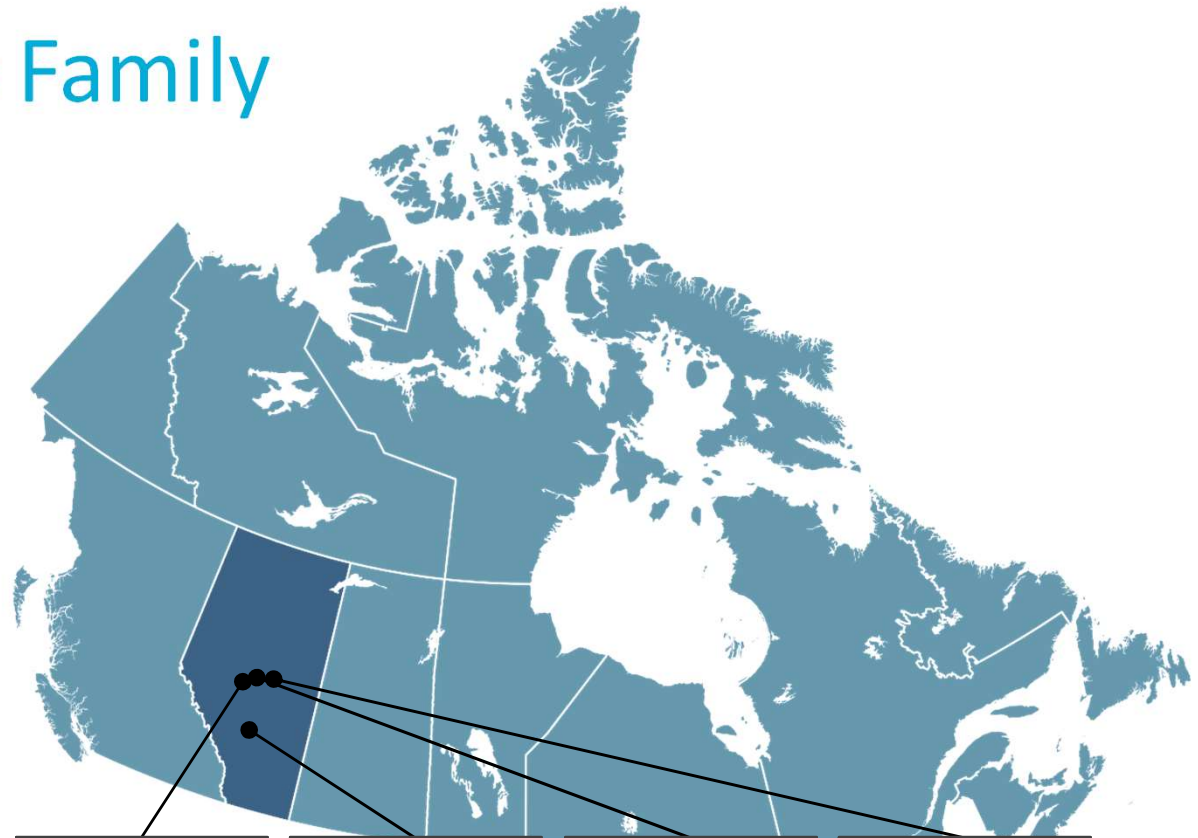
11 Locations
1+ million sq ft lab space
600+ acres of farmland



Employees
500+ FTEs
Including 70+ PhD



Operating Budget
\$200+ million



DEVON



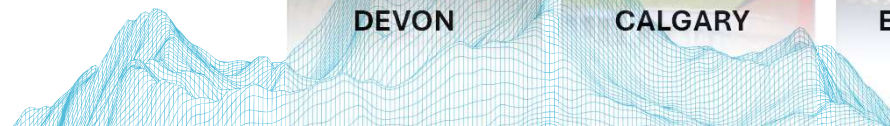
CALGARY



EDMONTON



VEGREVILLE



Alberta Innovates and the WRC

Why are we a Partner?

- Long history of collaboration
- Encourage trans-disciplinary/integrated approaches
- Support access to multiple funders through one window
- Facilitate knowledge transfer from academia to water industries

Our Role

- Member of the Management Committee and Scientific Advisory Committee
- Support application and review process
- Evaluate project relevance, feasibility and impact
- Provide funding that is available through the WRC process
- Evaluate project progress and outcomes

Vision and Drivers for Innovation

Land, water and climate solutions for a sustainable future

Water is critical for our economy, communities and environment

- Growing population and economy, uncertainty in future supplies

Climate change requires climate adaption

- Building water and land resilience

Natural resource industry heavily reliant on broad access to the provincial land base and water resources

- Land and water access often constrained by competing uses and values



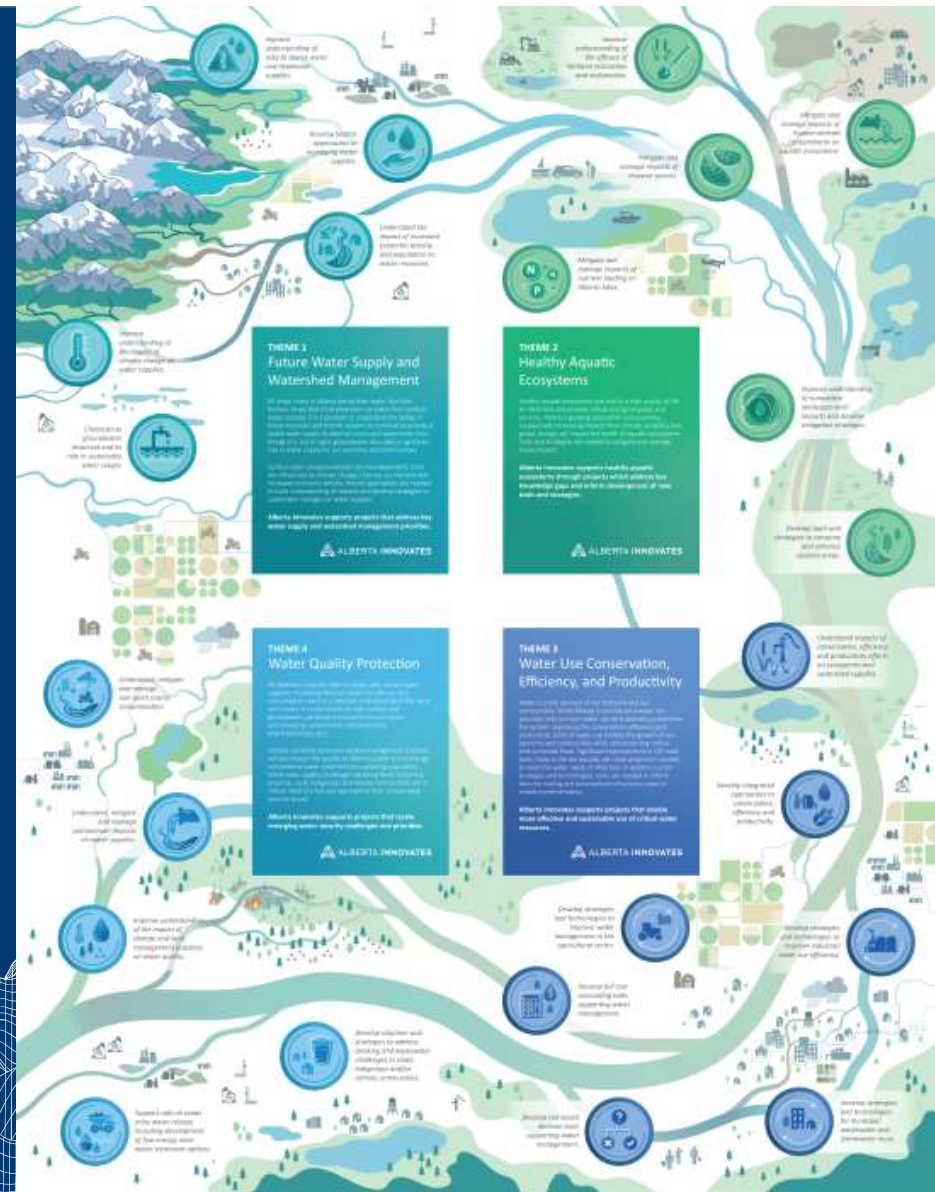
Water Innovation

Established in 2004.

Advancing knowledge & technologies in support of Alberta's Water for Life Strategy.

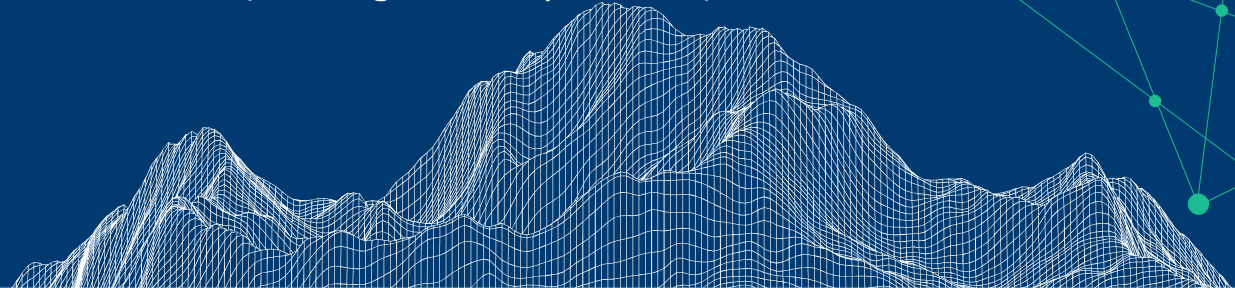
Four themes:

- Theme 1: Future Water Supply and Watershed Management
- Theme 2: Healthy Aquatic Ecosystems
- Theme 3: Water Use Conservation, Efficiency and Productivity
- Theme 4: Water Quality Protection



Key Project Considerations

1. Is there a clearly defined Alberta knowledge or technology gap?
2. Does the proposed project address the identified gap?
3. Is there an innovative/de-risking element?
4. Is there a problem owner or end-user that has indicated interest in the project outcomes?
5. Has the end-user confirmed their interest/support in writing (letter of support)?
6. Are the required resources available (funding, team, space, etc)?



Learn About our Funded Projects

Project Library

Public summaries and final reports from ongoing and completed projects.

<https://albertainnovates.ca/impact/funded-projects/>

Impact Stories Funded Projects Annual Reports, Business Plans & Publications Showcasing Innovation Research & Thought Leadership

Home > Impact > Funded Projects

Funded Projects

As Alberta's innovation engine, it's our job to support projects that benefit all Albertans. In the spirit of accountability and transparency, here is an example of some of the innovative projects we've funded.

Sort by: Alphabetical A - Z

Search for a project or program name

Filters

Sectors

- Agriculture & Forestry
- Clean Technology
- Emerging Technology & Data Science
- Energy
- Entrepreneurial Investment
- Environment
- Health & Life Sciences

Programs

- Accelerating Innovations into CarE (AICE)
- Accelerating Innovations into CarE (AICE) - Tech for Healthy Aging

2025 AquaHacking Prairies Challenge

Centre for Indigenous Environmental Resources, Prairies Economic Development Canada

Sector: Agriculture & Forestry

Sector: Clean Technology

Sector: Environment

Program: Agriculture & Environment Program

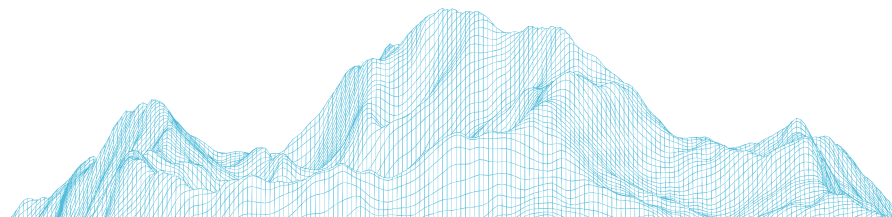
Nov 1, 2024 - Apr 15, 2026

A Business Case Blueprint and Framework for Providing Value to the Agri-Food Supply Chain Through Water Stewardship

WaterSMART Solutions Ltd.

Sector: Clean Technology

Sector: Energy





Thank you

Vicki Lightbown

Executive Director, Environmental Innovation

Vicki.Lightbown@albertainnovates.ca

780-394-5913



Theme 1: Future Water Supply and Watershed Management

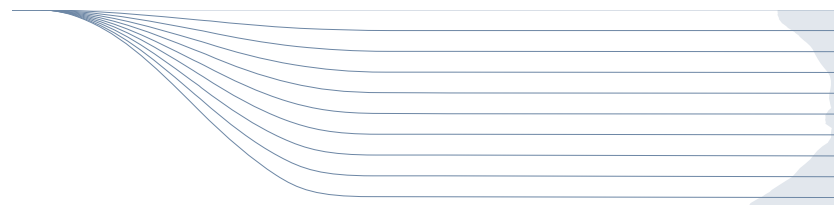
- | | |
|-----|---|
| 1.1 | Improve understanding of the impact of climate change on water supplies (including development of adaptive strategies) |
| 1.2 | Characterize groundwater resources and its role in sustainable water supply (including development of best management practices) |
| 1.3 | Understand the impact of increased economic activity and population on water resources (including development of adaptive strategies) |
| 1.4 | Improve understanding of risks to source water and headwater supplies (including development of management strategies) |
| 1.5 | Develop holistic approaches to managing water supplies (consider land-use, groundwater and surface water, water-energy-food nexus) |



Theme 2: Healthy Aquatic Ecosystems

Mitigate and manage:

- | | |
|-----|---|
| 2.1 | <ul style="list-style-type: none">• impacts of nutrient loading on Alberta lakes |
| 2.2 | <ul style="list-style-type: none">• impacts of invasive species |
| 2.3 | <ul style="list-style-type: none">• impacts of human-derived contaminants on aquatic ecosystems |
| 2.4 | Improve understanding of cumulative landscape-level impacts and develop mitigation strategies |
| 2.5 | Develop tools and strategies to conserve and enhance riparian areas |
| 2.6 | Improve understanding of the efficacy of wetland restoration and reclamation |



Theme 3: Water Use Conservation, Efficiency and Productivity

Develop strategies and technologies

- 3.1 • municipal wastewater and stormwater reuse
- 3.2 • industrial water use efficiency (focus on south AB & areas w/ restricted water use)
- 3.3 • water management in the agricultural sector
- 3.4 Develop integrated (cross-sector) approaches to CEP (consider water-energy-food nexus)
- 3.5 Develop risk-based decision tools supporting water management
- 3.6 Develop full cost accounting tools supporting water management
- 3.7 Understand impacts of CEP efforts on aquatic ecosystems and watershed supplies



Theme 4: Water Quality Protection

4.1

Develop low-cost solutions and strategies to address drinking water and wastewater challenges in small, Indigenous and/or remote communities

Understand / mitigate / manage:

4.2

- non-point source contamination

4.3

- contaminant impacts on water supplies (focus on emerging contaminants)

4.4

Improve understanding of the impact of climate variability and land management practices on water quality (including development of best management practices)

4.5

Support safe oil sands mine water release (including development of low-energy mine water treatment options)