

The Government of Alberta is responsible for identifying and submitting projects to the Government of Canada for the Investing in Canada Infrastructure Program (ICIP). This Expression of Interest (EOI) Form is the first stage in the application process. The form will be used by the Government of Alberta to determine eligibility and identify which projects will be submitted to the federal government for review and approval. Projects will be evaluated against a prioritization criteria, which includes the project's alignment with Government of Alberta priorities and project readiness.

This form is for expressing interest in the Green Infrastructure; Community, Culture and Recreation; and Rural and Northern Communities streams.

After submission, applicants will be notified by Alberta Infrastructure staff on the status of their application. Selected project applicants will be invited to complete the federal application form for ICIP funding. Further details on this next stage of the federal application process will be shared with selected applicants. Please note that projects are not approved for funding until the federal application form is submitted and Infrastructure Canada approves the project.

Projects with total eligible costs over \$10 million and select Green Infrastructure projects will require climate assessments as part of the project submission process. This includes a Greenhouse Gas Mitigation Assessment and the Climate Change Resilience Assessment. Applicants shortlisted by the Government of Alberta that meet the threshold will be advised to secure a vendor to conduct the required assessments.

If approved, projects with total estimated eligible expenditures of \$25 million dollars or more will be required to report on community employment benefits provided to at least three (3) of the federal target groups: apprentices, Indigenous peoples, women, persons with disabilities, veterans, youth, new Canadians, or small/medium-sized enterprises and social enterprises. Applicants should consider how this reporting requirement will be addressed by their projects, if applicable.

Please email questions or concerns to [alberta.icip@gov.ab.ca](mailto:alberta.icip@gov.ab.ca)

Contact Information	
Project Applicant Organization Name Town of Drumheller	
Project Contact Name and Title Darryl Drohomerski, Chief Administrative Officer	
Primary Contact Number 403-823-1339	Corporate Registry Number (if applicable)
(1) Project Applicant Type	
Select the Project Applicant Type from the eligible applicants listed below:	
<input checked="" type="checkbox"/> Municipality <input type="checkbox"/> A public sector body that is established by or under provincial statute or by regulation or is wholly-owned by Alberta, or a municipal government (e.g. crown corporation). <input type="checkbox"/> Not-for-Profit Organization <input type="checkbox"/> A band council within the meaning of Section 2 of the <i>Indian Act</i> <input type="checkbox"/> A First Nation, Inuit or Métis government or authority established pursuant to a self-government agreement or a comprehensive land claim agreement between Her Majesty the Queen in Right of Canada and an Indigenous people of Canada, that has been approved, given effect and declared valid by federal legislation. <input type="checkbox"/> A First Nation, Inuit or Métis government that is established by or under legislation whether federal or provincial that incorporates a governance structure. <input type="checkbox"/> A Not-for-Profit Organization whose central mandate is to improve Indigenous outcomes, working in collaboration with one or more of the Indigenous entities referred to above, a municipality, or Alberta. <input type="checkbox"/> A For-Profit Organization, working in partnership with another eligible applicant. Not eligible under the Community, Culture and Recreation funding stream of the program.	

**(2) Project Information**Project Title *(provide a title that describes the project)*

Drumheller Flood Mitigation and Climate Change Adaptation System

Project Location *(Municipality/Community)*

Drumheller, AB

Email Address

DDrohomerski@dinosaurvalley.com

Does the applicant or will the applicant own the asset?  Yes  No

If 'No', please provide details regarding ownership.

**Funding Stream**

Select all applicable funding stream(s) and outcome(s)

Funding Stream	Immediate Outcome
<input checked="" type="checkbox"/> Green Infrastructure - Climate Change Mitigation	<input type="checkbox"/> Increased capacity to manage more renewable energy <input checked="" type="checkbox"/> Increased access to clean energy transportation <input type="checkbox"/> Increased energy efficient buildings <input type="checkbox"/> Increased generation of clean energy
<input checked="" type="checkbox"/> Green Infrastructure - Adaptation, Resilience and Disaster Mitigation	<input checked="" type="checkbox"/> Increased structural capacity to adapt to climate change impacts, natural disasters and extreme weather events <input checked="" type="checkbox"/> Increased natural capacity to adapt to climate change impacts, natural disasters and extreme weather events
<input type="checkbox"/> Green Infrastructure - Environmental Quality	<input type="checkbox"/> Increased capacity to treat and manage wastewater and stormwater <input type="checkbox"/> Increased quality of potable water <input type="checkbox"/> Increased capacity to reduce or remediate soil and air pollutants
<input checked="" type="checkbox"/> Community, Culture and Recreation Infrastructure	<input checked="" type="checkbox"/> Improved access to and increased quality of community, cultural and recreational infrastructure
<input type="checkbox"/> Rural and Northern Communities Infrastructure	<input type="checkbox"/> Improved food security <input type="checkbox"/> Improved and more reliable transportation access <input type="checkbox"/> Improved broadband connectivity <input type="checkbox"/> More efficient and secure energy <input type="checkbox"/> Improved education and health facilities (specific to Truth and Reconciliation Commission)

**Project Description****(4) Please describe the project, rationale (need), and scope. Please include how the project will impact/benefit the community and/or region and address stakeholder needs.**

The Drumheller Flood Mitigation and Climate Change Adaptation System combines long established structural features with policies and preparedness. The structural mitigation measures are rail embankments, provincial highways and bridges, provincial dyking, and existing municipal roads and trails with the natural systems of the badlands river valley topography, riparian areas, and flood plains to create a river confinement facility while providing room for the river at high flow. Operational measures, emergency preparedness, and policies are integral to create a Flood Mitigation System and strategy today - and well into the future to ensure adaptation to the changing climate and provide a truly resilient approach. Detailed flood control efforts conducted in the 1980s of structural and non-structural resiliency methods were incorporated, in part, to the community. Due to the Canada-Alberta funding stopping in the 1990s, some permanent structural measures were not completed. In terms of scope, new dykes will be constructed in selected critical areas to an elevation that protects against the 1640 cms river flow rate and existing dykes built by the province will be augmented to match this. The overall system is intended to provide a permanent solution that can adapt to climate change. The new dykes have been designed

with resiliency in mind. In the future, they can be enhanced to withstand a higher flow of up to 2000 cms and the system will be integrated where practicable, with the Badlands River Park Trails System providing an opportunity to educate a flood resilient populace (also considering the 450,000 who visit Drumheller annually) through nodal kiosks stations. This system would be reinforced with river monitoring tools to support constant communications with the Town of Drumheller as well as the Dickson Dam to immediately execute any necessary emergency protocols and/or emergency dyke enhancements as events happen.

**(5) Describe how the project provides benefits to an Indigenous population off-reserve, if applicable.**

An aspect of the system is to restore the natural channel conveyance of the Red Deer and Rosebud Rivers. Any off-reserve indigenous populations who benefited from the rivers being at a natural state would benefit from the project as well. In a safety perspective, the off-reserve indigenous population in Drumheller are clearly under the same threat within the Town if a flood event were to happen. The project is a comprehensive strategy to protect all in the Town of Drumheller.

**(6) Does this project address the physical and/or structural condition of an existing facility?  Yes  No**

If 'Yes', please describe the current condition of the facility and any planned improvements to address the facility condition including any safety concerns.

The structural element to the Drumheller Flood Mitigation and Climate Change Adaptation System is the augmentation of existing dykes to an elevation that protects against the 1640 cms river flow event and building new dykes where existing dykes aren't present but are necessary. Taking climate change into consideration, these dykes will be augmented in a way such that they can be easily enhanced with local materials to protect against the 2000 cms flow event. The majority of the existing dykes are in usable condition, as such, the improvements are not necessarily repairs but rather, upgrades to establish a resilient system.

**(7) Describe the economic benefits of the project (e.g. enhanced employment opportunities).**

The 2005 flood events in Alberta resulted in thousands of evacuations and about forty (40) municipalities identified infrastructure damage. An effective flood mitigation program would be an economic investment for the province and Canada. A comprehensive program in Drumheller would also create job opportunities to keep the system in operation. For example, upon the integration of the new dyking and modification of the former dykes with the Badlands River Parks Trail System, multiple opportunities ranging from guided tours through to flood patrols may be possible. The system would also require regular landscaping maintenance. The system will be leveraged into an educational opportunity to the Town in the topic of flood mitigation, historical events, and emergency practices. This is intended to be initiated by having informative nodal kiosks along key locations of the Town of Drumheller. Furthermore, the project will be the impetus to reform a flood advisory committee to hold public educational sessions as required. This public advisory committee may help spur on economic investment in portions of the community well outside of the flood plains. Prospective commercial and industrial investments into the community will improve when the reputation of the Town demonstrates effective policies and preparedness and structural mitigation measures that enhance the natural river channel.

**(8) Describe the environmental benefits of the project (e.g. improved air, soil or water quality, reduced GHG emissions, climate change mitigation).**

A vulnerability and risk assessment regarding climate change adaptation has been performed using the principles of the PIEVC (Public Infrastructure Engineering Vulnerability Committee) protocol to establish climate change mitigation elements into the overall system. The intensity of a climate event and its impact on the structural performance, functionality, and operations & maintenance of assets is reviewed to ensure the designed system is resilient to projected climate changes. To ensure aspects of sustainability and environmental benefits are considered throughout the execution of the project, a preliminary Envision screening has been performed to rate the project against the concepts of quality of life, leadership, resource allocation, natural world, and climate to identify areas to focus on and develop.

**(9) Describe the social benefits of the project (e.g. serves a vulnerable population, enhances quality of life, heritage preservation, social supports or community building).**

The Drumheller Flood Mitigation and Climate Change Adaptation System aims to bring forth an impactful and positive change in the social perceptions of the safety within the Town of Drumheller. A significant non-structural mitigation strategy evolves around providing education to the general public with regards to historic floods,

severity of events, and emergency protocols. The intent is to spread well understood awareness of flood mitigation concepts and the implemented system to integrate the community into the resiliency program in a holistic fashion. One of the objectives of the project would be to instill confidence into the general public that a flood mitigation plan is strongly established in their community. As previously mentioned, pillars of the conducted Envision screening include quality of life and leadership which pertain to the social benefits of a project.

**(10) Describe relevant consultations and/or engagement activities that have or will take place with targeted and/or impacted communities.** Consider describing the diversity of views and participants that have been/will be sought.

Consultations and engagement activities with surrounding communities has taken place and will continue throughout the duration of the project implementation. For example, a letter has been sent to Mr. Stacy Doore, the Director of Emergency Management for the Siksika Nation to invite him to the Advisory Committee that is to be re-established. The Drumheller Institution and the Royal Tyrrell Museum of Palaeontology have sent letters of endorsement to Mayor Heather Colberg in support of the Drumheller Flood Mitigation project. The residents of Drumheller have been fighting off flood events for the past century. They are resilient and tough and are in support of a comprehensive and resilient system that will start an era of effective long-term flood event control system. No concerns have yet to be received.

**(11) Is your organization working in partnership with other organization(s) on this project?**  Yes  No

If 'Yes', please list the organizations and describe the nature of the partnership.

The Government of Canada - Funding.

The Government of Alberta - Funding, Approvals, Advisory.

**(12) Will this project mitigate compliance issues related to federal/provincial legislation, regulations and/or standards?**

Yes  No

If 'Yes', describe how.

Implementation of the system will comply to Federal and Provincial legislations, regulations, and standards (see attached appendices package - question 15).

### Project Management

**(13) Does your organization have experience managing a similar project?**  Yes  No

If 'Yes', describe the similar project.

If 'No', describe how you will manage/complete the project to mitigate for this level of experience.

The Town of Drumheller has been partnering with the Government of Alberta for decades in creating policy, preparedness, and structural mitigation measures to deal with flooding. The Town has successfully managed projects of significant size in terms of geography and budget - on their own accord, as grant recipient and as agent of the Province.

**(14) Please provide high level details/milestones on the Project Schedule.**

1. Planning and Design (July 2018 - December 2018);
2. Tender and Establishment of Contracts (January 2019 - February 2019);
3. Approvals (March 2019);
4. Construction and Integration (April 2019 - March 2022).

**(15) Please provide a description of project readiness including status of: risk mitigation plans, asset lifecycle costs, design drawings, and climate change impacts and mitigation measures, etc.**

In the appendices you will find an asset management plan - ISO 55001, a Public Infrastructure and Engineering Vulnerability Committee (PIEVC) of Engineers Canada screening for Climate Adaptation, as well as an Envision Screening report through templates of the Institute of Sustainable Infrastructure. A project overview and other strategic documents well demonstrate the shovel readiness of this project.

<b>(16)</b> <input checked="" type="checkbox"/> Forecasted Construction Start Date: Date (yyyy-mm-dd)	<input checked="" type="checkbox"/> Forecasted Construction End Date: Date (yyyy-mm-dd)
<input type="checkbox"/> Actual Construction Start Date: 2019-04-02	<input type="checkbox"/> Actual Construction End Date: 2022-03-31

**(17) Project Funding**

**Has your organization applied for any provincial funding (e.g. Capital Plan or provincial grants)?**  Yes  No

If 'Yes', please provide details below.

Eight (8) projects of the Drumheller Flood Mitigation and Climate Change Adaptation System have been deemed eligible for funding under the ACRP (Alberta Community Resilience Program) for a total of \$19.1 M. Three (3) of these have been funded to \$6.3 M Provincial dollars. The Town is using its MSI grant funding as a source of revenue in its Long Term Financial Strategy to the extent possible and has had to supplement this MSI grant with borrowing.

**Has your organization received any provincial funding (e.g. Capital Plan or provincial grants)?**  Yes  No

If 'Yes', please provide details below.

The Drumheller Flood Mitigation and Climate Change Adaptation System deemed eligible under the ACRP as above.

**Has your organization applied for any federal funding?**  Yes  No

If 'Yes', please provide details below.

This application is concurrent to a DMAF (Disaster Mitigation and Adaptation Fund) application.

**Has your organization received any federal funding?**  Yes  No

If 'Yes', please provide details below.

**Has your organization applied for other contributions for this project? Is your organization currently engaged in fundraising for this project (e.g. donations, charitable foundation, municipal, etc.)?**  Yes  No

If 'Yes', please provide details below.

**Has your organization received any other contributions for this project? Is fundraising completed** (e.g. donations, charitable foundation, municipal, etc.)?  Yes  No

If 'Yes', please provide details below.

**(18) Estimated Project Finances**

Provide sources of funds and amounts below.

Source of Funds	Applied/Pending	Received	Amount (\$)
Total Project Costs			55,000,000
Total Eligible Costs			55,000,000
Requested Federal ICIP Contribution	<input checked="" type="checkbox"/>	<input type="checkbox"/>	22,000,000
Provincial Contribution	<input checked="" type="checkbox"/>	<input type="checkbox"/>	28,000,000
Ultimate Recipient ( <i>Project Applicant</i> ) Contribution	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5,000,000
Other Contribution (Specify, one row for each source)	<input type="checkbox"/>	<input type="checkbox"/>	

**Additional Project Information**

**(19) Will/Have you engaged any third parties to deliver on the project** (e.g. Request for Proposals (RFPs) have been developed, consultations with contractors, contracts have been awarded)?  Yes  No

If 'Yes', please provide details below.

Stantec Consulting Ltd. has been engaged to assist with the grant preparation.

**(20) Will any contracts be sole sourced? (This may impact funding eligibility.)**  Yes  No

If 'Yes', please provide details below.

Procurement of Services will be in accordance with the New West Partnership Trade Agreement and Town Policies.

**(21) Have any project costs already been incurred or do you expect any costs to be incurred within the next few months?** Any costs incurred before federal funding approval are ineligible, except for costs associated with completing the climate lens assessments.

Yes  No

If 'Yes', please provide details below.

**(22) Have any contracts already been signed that would make any of the requested projects costs be ineligible?** Any costs related to contracts signed before federal funding approval are ineligible, except for costs associated with completing the climate lens assessments.  Yes  No  
 If 'Yes', please provide details below.

**Climate Lens**

**(23) Does this project lead to reductions in greenhouse gas emissions in Alberta?** (e.g. green improvements, solar panels, wind turbines, geothermal, biofuels, public transit system, etc.)  Yes  No  
 If yes, please provide details below (e.g. Direct or indirect reductions, quantity if known, ability to measure, etc.). If not known or not applicable, please indicate.  
 The Drumheller Flood Mitigation and Climate Change Adaptation System carries with it aspects of green improvements. The GHG reductions in Alberta will come in part from the avoidance of repeated emergency dyking being required for flows less than the 1:100 event. There is an immense amount of fuel used to transport the earth required to build/demolish the temporary dyking. Further opportunity to reduce GHG emissions is provided by the dyking systems being used as walkways or trails for the half a million annual visitors to Drumheller who chiefly arrive in private vehicles, to explore the valley - and be informed about dinosaurs, flooding and climate change. All this while avoiding GHG emissions by using the walkways as opposed to driving.

**(24) Does this project help Albertans to adapt to, and/or become more resilient to, anticipated climate change impacts?** (e.g. drought, extreme temperature, flooding, fires, pests/invasive species, snow and ice, storms and water/food scarcity)  Yes  No  
 If yes, please provide details below. If not known or not applicable, please indicate.  
 The Drumheller Flood Mitigation and Climate Change Adaptation System will consider the studies performed in the Climate Change Assessment. The project in essence is to establish a resilient system for the future regarding flood events. It is key to note that this is not only achieved through the construction of physical structures (dykes) that can be augmented and enhanced for ever larger events, but also the system will create exposure and education to Albertans (Drumheller residents plus ~450,000 visitors per annum) of general public awareness and knowledge regarding flood mitigation and local history. Ultimately, this will lead to stronger adaptation, stronger resiliency, and stronger communities.

**Authorization**  
 As the individual submitting this form, I have the authorization of the organization to submit this Expression of Interest Form on its behalf.  Yes  No

**Verification**  
 As the individual submitting this form, I certify that the information provided is correct.  Yes  No

