

Bow River Reservoir Options

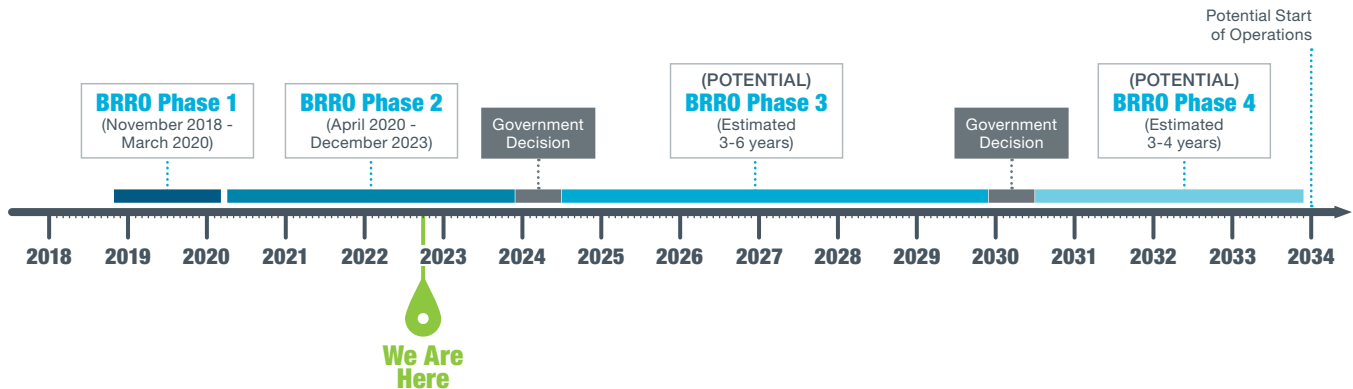
Phase 2: Feasibility Study

October 2022 Update

Thank you for your continued interest in the Bow River Reservoir Options initiative. As part of our commitment to provide regular updates on the initiative, this newsletter shares progress on the feasibility study with you, as well as work we are doing to assess potential alternatives to a dam and reservoir. We have also included information about the Water Infrastructure Operations Branch (WIOB) with Alberta Environment and Parks and how this branch plays a key role in the management of water within the province of Alberta.

You can find more information on the Bow River Reservoir Options initiative including feasibility study updates and engagement opportunities at: <https://www.alberta.ca/bow-river-reservoir-options.aspx>.

We look forward to continuing our discussions with you, The Bow River Reservoir Options Study Team



Field study update

Since our July 2022 newsletter, the study team has completed vegetation and wetlands surveys for the Glenbow East and Relocated Ghost Dam options. Vegetation surveys consist of observing and documenting rare plants and weeds in both the spring and summer. Wetland surveys are undertaken in the summer and use indicators such as vegetation, soil and hydrologic characteristics to confirm the presence, type and permanence of wetlands. These surveys will help us evaluate the potential environmental impacts of each reservoir.

For both the Glenbow East and Relocated Ghost Dam options, study team archaeologists visited parcels of Crown land to walk the land and observe landforms to confirm the results of desktop work. No intrusive archaeological site investigations were completed given that a single preferred option, if any, has not yet been selected.

The study team also completed geophysical surveys near the potential dam site for the Relocated Ghost Dam option while surveys for the potential dam site for the Glenbow East option were completed last fall. The ground-based geophysical surveys consisted of seismic refraction lines and Electrical



A picture captured while conducting vegetation surveys

Learn more at: <https://www.alberta.ca/bow-river-reservoir-options.aspx>
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Captured while conducting geophysical surveys

Resistivity Tomography. These geophysical surveys were undertaken to obtain continuous information of subsurface soils present (for example, to distinguish sands versus clays), groundwater levels and depth to bedrock between, and beyond, a limited number of geotechnical boreholes. For more information regarding the methodologies used during these geophysical surveys visit the [Geophysical Survey Activity Sheet](#) under the Landowner information package in the Get Informed section on <https://www.alberta.ca/bow-river-reservoir-options-engagement.aspx>.

Our study team is now in the process of compiling and analyzing data collected from the geotechnical boreholes that we have drilled, geophysical surveys, and geological field mapping studies completed for the Glenbow East and Relocated Ghost Dam options. The field and laboratory data collected during these studies will help us characterize the soils, bedrock, and groundwater conditions so that we can complete feasibility-level engineering designs for each reservoir option, allowing us to compare the options.

No field studies have taken place for the Morley option as conversations between Stoney Nakoda Nations leaders and Government of Alberta leaders are ongoing.

Engagement Update

In Fall 2022, a meeting with property owners affected by the Glenbow East and Relocated Ghost options will be occurring.

Engagement on the reservoir options will continue into 2023. This engagement will provide information from field studies that have been completed. Additionally, our study team is reviewing all comments received to date from Indigenous groups, stakeholder groups and the public. Your feedback continues to be important to us and informs the feasibility study. We are also actively responding to inquiries from you.

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Classification: Public

Bow River Alternative Mitigation

Alberta Environment and Parks is launching the Bow River Alternative Mitigation (BRAM) conceptual assessment. The BRAM is designed to provide information to government on the viability, estimated costs and impacts of the most promising flood and drought mitigation options for the Bow River, that are alternatives to building a new dam and reservoir. This initiative will consider existing flood and drought mitigation measures and identify any additional measures that may collectively provide a comparable level of mitigation to a new reservoir. It will also serve as a framework for formal investigation into alternatives if the Bow River Reservoir Options initiative progresses to the next phase, as it may be required by federal legislation.

Spotlight on Dam and Reservoir Operations

In this Spotlight, we would like to introduce you to the Water Infrastructure Operations Branch (WIOB) with Alberta Environment and Parks. The WIOB provides a key role in the management of water within the province of Alberta and is responsible for water management infrastructure that includes more than 200 water management systems. The infrastructure includes on-stream and off stream storage reservoirs, dams, diversion head works and main canal systems to provide a secured water supply for municipal, industrial, agricultural, and recreational use as well as fish and wildlife habitat, some flood control, and erosion protection systems.

There are many different teams within the WIOB. One of these teams is the Dam Safety team. The Dam Safety team provides policy direction for the Dam and Canal Safety Regulation in the Province of Alberta. The purpose of the dam and canal safety regulatory framework is to ensure safety of dams and canals in the province to prevent loss of life and to minimize potential environmental and economic losses in the event of a potential dam failure or emergency. The safety of dams and canals is administered through the implementation of Part 6 of the Water (Ministerial) Regulation and the Alberta Dam and Canal Safety Directive. This ensures that dams and canals are designed, constructed, operated, maintained and decommissioned in a safe manner using best available technologies and best applicable practices. The dam safety team also provides technical support to operations teams of WIOB regarding assessment and evaluation of safety of its infrastructure.

