

Bow River Working Group

Update - May 2018

The Bow River Basin has had a long and successful history of diverse user groups coming together and working collaboratively to solve issues related to water management in the basin. The Bow River Working Group (BRWG) was yet another example of collaboration that generated excellent discussion and achieved good results, culminating in a series of recommendations that were presented to Alberta Environment and Parks.

The following is intended to provide an update to the BRWG of the Government's progress with regards to the recommendations from the Bow River Water Management Project.

Recommendations:

1. Build on the 2016 GoA Modified Operations Agreement with TransAlta to put in place the prerequisite needed in the upper Bow system: a long-term flexible watershed agreement between the Province and TransAlta.

UPDATE: Because the current agreement does not expire until 2021, negotiations and considerations of expanding the current agreement will begin in 2019.

2. Implement the relatively quick wins, which can be considered while larger projects are being assessed.
 - Drought storage in expanded Glenmore Reservoir

UPDATE: The Glenmore Dam, owned and operated by the City of Calgary, is currently undergoing spillway gate upgrades, partially funded through the Alberta Community Resilience Program (ACRP), that will increase the overall capacity of the facility and provide for more water management flexibility once completed.

- Increase diversion rate of the Carseland Canal *

UPDATE: The Carseland diversion is currently being operated within its design parameters and meets all operational requirements. Without an analysis and significant upgrades, increasing the diversion rate may have adverse effects on the infrastructure. Recently, upgrades were completed that increased the capacity of the system by 25 per cent (from 41 cms to 51 cms).

- Carseland Canal debris deflector

UPDATE: Conceptual studies have been completed that detail several options and cost estimates, the lowest cost and best value option has been tentatively selected for further action, moving towards preliminary design. The preferred option is to install a floating trash boom from the existing sluiceway wing wall to a new anchor point on the right bank – simple yet effective. Conceptual cost estimate was \$300,000.

- Raise winter carryover in downstream reservoirs (e.g., Travers, McGregor) *
- Fill downstream reservoirs earlier (e.g., Travers/Little Bow) *
- Extend Kananaskis System water shortage mitigation operations agreement (2016 agreement)

UPDATE: New negotiations have not been scheduled

- Operate McGregor Reservoir at the design Full Supply Level (FSL) preliminary *

* AEP engages key stakeholder groups annually and as needed as it relates to the operation of provincially owned water management infrastructure projects. Discussions around operations factor in intended objectives of the projects, antecedent conditions and dam safety considerations each season as well as issues related to the overall safe operation of the dams, reservoirs and conveyance systems. The department continues this valuable interaction with stakeholders with the understanding that the department is ultimately accountable for both the delivery of water from their headworks as well as the safe operation and maintenance of this infrastructure. This interactive process is on-going.

3. Complete conceptual assessments and feasibility studies of the minor infrastructure schemes within 1 year.

- Increase Ghost Reservoir drawdown rate

UPDATE: On May 1st, 2018 Minister Phillips announced funding to explore increasing the drawdown rate of Ghost Reservoir, in partnership with TransAlta. The project will be carried out in three phases:

- Phase 1: Initial Data Review
- Phase 2: Site Investigation and Design
- Phase 3: Construction

Phase 1: Initial Data Review and Investigative Design is currently underway.

- Increase diversion rate of the Carseland Canal and construct debris deflector

UPDATE: An assessment of the current debris collection system is currently underway as mentioned above.

4. Complete conceptual assessments of the 3 major infrastructure flood schemes within 2 years to determine which to advance to feasibility study.

- New Glenbow reservoir
- New Morley reservoir
- Expand Ghost Reservoir

UPDATE: On May 1, 2018, Minister Phillips announced a study to assess the three potential upstream storage options identified in the Bow River Water Management Project report. The project will be carried out in four phases:

- Phase 1: Conceptual Design
- Phase 2: Feasibility Study
- Phase 3: Detailed Design and Engineering
- Phase 4: Construction

Each phase of the project will require a discreet decision, by government, to progress to the next phase.

Phase 1: Conceptual Design is currently underway. A Request for Proposal is currently being prepared and will go out to tender soon.

- The intent is to study all three options so that a reasonable comparison can be made that will inform the next phase of the project, the Feasibility Study, which will lead to a recommendation as to which option is considered best.

- The conceptual assessment will include the following:
 - Hydrology study
 - Conceptual engineering design
 - High-level geotechnical investigation
 - Table top environmental scan
 - Stakeholder overview and pre-engagement

5. Ensure full risk management, feasibility, cost–benefit, and triple bottom line assessments are completed in subsequent steps as the schemes and scenarios are advanced.

UPDATE: These recommendations will be considered at the appropriate time.

6. Balance the system to mitigate the increased drought risk from the 2016 GoA Modified Operations Agreement with TransAlta and do not implement further flood mitigation schemes without implementing the accompanying schemes to balance the system and improve its adaptive capacity.

UPDATE: Water management options currently consider both flood and drought management through the Trans Alta 5-Year Agreement and are reviewed seasonally for effectiveness. Operations in the Kananaskis system consider seasonal conditions and can supplement flows in the main stem of the Bow during high stress periods in the river, usually later on in the operating season

7. Continue to invest in natural watershed functions, floodplain protection and local mitigation.

UPDATE: Within the 2018-19 fiscal year, the Watershed Resilience and Restoration Program (WRRP) awarded \$5.84 million to be paid out to 13 grant recipients over 3 years for projects that increased and restored the natural ability of the province’s watersheds to reduce the intensity, magnitude, duration and effects of flooding and drought through watershed mitigation measures.

Since 2014-15 the program has awarded approximately \$23 million to 67 grant recipients, with most of these projects still underway.

11. Commit to a continual collaborative process with stakeholders and policy makers for advancing and implementing these schemes as part of the water management strategy in the Bow River Basin.

UPDATE: Commitment has been made to involve the BRWG through an updated Terms of Reference that outlines the expectations of the group as we study the Bow River Flood Mitigation Infrastructure schemes recommended in the report. This Terms of Reference is currently being finalized.

12. Review and strengthen where possible the current water management operational protocols of both public and private operators.

UPDATE: Discussions around operational efficiencies are an on-going process and are refined based on lessons learned historically and over the previous operating season. Operational protocols must consider numerous factors, which sometimes contradict each other, including water management objectives, snowpack, anticipated weather trends as well as dam safety and structural considerations of the infrastructure. These discussions will continue and will consider the BRWG recommendations as part of the on-going discussions.