

Attention: Ms. Laura Friend

Dear Ms. Friend:

We appreciate the opportunity to provide a submission to the Natural Resources Conservation Board March 22 hearing and receive answers to the questions we raise from Alberta Transportation.

Topic 1: Project Need and Justification:

a) Project purpose and need

The stated purpose of the Springbank Off-Stream Reservoir Project is given as: “The purpose of the Project is to reduce the effects of future extreme flood events on infrastructure, water courses and people in the City of Calgary and downstream communities”.

However, following the 2013 flood which caused catastrophic damages to Calgary and approximately 32 other river communities – including Tsuut’ina and Siksika - extensive damage to highways, roads, Kananaskis Country recreation areas, river parks and picnic areas, and almost causing the Bassano Dam, which is so vital to our Eastern District irrigation district, to be breached, the Alberta Government commissioned many expert panels to advise government on possible flood mitigation measures.

According to the Springbank Off-Stream Reservoir Resources website:

<https://www.alberta.ca/resources-springbank-off-stream-reservoir.aspx> - the first advisory panel to submit a report in October 2013 was the 2013 Community Flood Mitigation Advisory Panel who commissioned Stantec Consulting Ltd., on behalf of the Government of Alberta, “to address the Elbow River, Sheep River and Highwood River basins with the design objective being mitigation of a flood event identical to that of June 19-21, 2013.”

1. Initial Priority: To focus on Mitigation in Elbow and Highwood and Sheep Basins, forming an **Initial Segment of an overall system.**
2. Expanded Mandate: To broaden the review of the Panel, by integrating an examination of the mitigation measures on the Bow River Basin into the overall system.

Page 24/120. `` 6.0 Closure:

Five dry dam sites are proposed for the upper watersheds of the Elbow River, Sheep River and Highwood River basins to mitigate potential future flooding damages to private property and increase public safety. Two sites on the Elbow River will reduce the estimated 2013 flows at Bragg Creek by 60%. One site on the Sheep River will reduce the estimated 2013 flow at Black

Diamond by about 60% and two sites on the Highwood River will reduce the estimated 2013 flows at High River by nearly 60%.

These dry dams will not result in permanent loss of habitat or impacts to fish or wildlife due to the absence of permanent water behind the dams. Construction of dry dam structures themselves will temporarily impact only a small percentage of local vegetation which will be mitigated through landscaping of the fill slopes.``

Re a): Project Purpose and Need, it seems that if the 2013 Community Flood Mitigation Advisory Panel`s recommendations, which took into the consideration the basin-wide need for management of our vital water resources from the Eastern slopes of the Rocky Mountains, which provide 75% of the region`s water supplies, had been adopted, we could have effective flood protection for all our river communities who suffered so terribly in 2013, in place by now.

The five dams would hold back the excessive spring high flow surges in the Elbow, Sheep and Highwood Rivers, enabling the six upstream dams on the Bow River to manage its flows so that the disastrous damages that resulted when the Elbow joined the Bow in Calgary, and the Sheep and Highwood joined the flooding Bow, downstream of Calgary and upstream of the Bassano Dam, would not occur in future. Droughts have been more frequent than floods in recent times in Alberta, and the five upstream dams could hold back excessive high flows for use when needed.

**QUESTION 1:** In the eight months between October 2013 and June 2014, how was the decision reached, by whom, and with what reasoning and supporting evidence, to consider only SR1 and the McLean Creek Dam for study by independent consultants for upstream infrastructure to protect all our river communities from catastrophic spring river flooding?

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b) Social and economic project costs and benefits.

The total opinion of Probable cost provided by the 2013 Community Flood Advisory Panel for construction for the five dams upstream on the Elbow, Sheep and Highwood Rivers, was \$430 million. These dams would offer the opportunity to fulfill the Initial Priority of the Advisory Panel "To focus on Mitigation in the Elbow and Highwood and Sheep Basins, forming an **initial** segment of an **overall** system."

Instead of having the above five dams in place providing protection to all our Bow Basin river communities from spring floods we are, after six years, spending massive amounts on SR1. These costs include amounts already billed by Stantec, costs to the Federal, Provincial and Municipal governments for preparation and review of the thousands of pages of reports in relation to the Environmental Impact Assessment, amounts paid to First Nations and

landowners relating to their “Directly Affected” status, costs of berms that would not be required if headwater protection from floods was provided, cost of the National Research Council model of SR1, the amounts paid to purchase land for a project not yet approved, millions of dollars paid to Tsuut’ina Nation and Rockyview Council - who then withdrew their strong objections to SR1.

**QUESTION 2.** When was the required triple bottom-line cost assessment for SR1 provided and where can this Report be found?

Note: Annual operating and maintenance costs for SR1 are assessed at \$1.8 million.

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c) Alternatives considered.

CEAA 2012 stipulates that environmental assessments of designated projects take into account alternative means of carrying out the project. From our research we have found that independent, professional studies conducted by experienced environmentalists, hydrologists, geologists and engineers have not been commissioned by the Government of Alberta to properly research the alternative means proposed in various reports.

The 2013 Community Flood Mitigation Panel recommended upstream dams in the Elbow River Basin be considered for flood and drought management.

The January 2014 Watersmart-Elbow-River-historical-detention-and-diversion-sites/file (Page 15/19) advises: Reservoir Site D/ EC1 – Mitigates for flood upstream of Bragg Creek and City of Calgary. Natural topography of the area suits the construction of a reservoir and Reservoir Site D mitigates for drought. On Page 7, rough estimates were given for a 21 metre dam – 2,097,440 m<sup>3</sup> capacity, and for a 30 metre dam – 4,935,152 m<sup>3</sup> capacity.

Reservoir Site F – Mitigates for flood upstream of Bragg Creek and City of Calgary. Natural topography of the area suits the construction of a reservoir and mitigates for drought. Rough capacity estimates are” With an 18 metre dam – 1,628,600 m<sup>3</sup>. With a 30 metre dam – 4,379,948 m<sup>3</sup>.

The Bow Basin Flood Mitigation and Watershed Management Project Report (Page 70) suggests:

“Multiple small detentions instead of one: Possible small detention sites in the Elbow system are shown in Figure 37 labelled Dry Dams 1-5. ... Five dry dams in series, totalling 100,000 cdm storage, with the storage capacity of each increasing as they proceed downstream. .... The concept behind this option of multiple dry dams or off-stream detention sites was to improve resilience against varying sources of rainfall and runoff during future floods. Operating them in sequence can reduce the size of any single detention site and may reduce the environmental footprint of

mitigation compared to a single large dry dam. As with other options, **additional review and detailed evaluation would be needed prior to any decision to proceed with any or all of the conceptualized sites and sizes of each**".

The Stantec August 7 2015 – Appendix IR520

Hydrotechnical\report\hydrology\probable\_maximum\_flood\rpt\_sr1pmf\_201 – P.26 noted:

As can be seen in Table 17, most of the 2013 runoff in the Elbow Basin was generated from the mountainous part of the watershed (W200, W350, W400, W450 and W500) upstream of Bragg Creek. The sub-basins downstream of Bragg Creek contributed less runoff in comparison. As with the 2005 calibration, this is attributed to two factors; first, the heaviest rainfall in 2013 occurred in the upper watershed, and, second, the rainfall losses are less in that portion of the watershed due to the high percent of rock outcrop. As opposed to the 2005 storm, the 2013 storm was centered further to the west and sub-basin W450 provided an even greater portion of the watershed runoff."

The Science Media Centre of Canada – [www.sciencemediacentre.ca/smc/docs/SMCC-BowRiver.pdf](http://www.sciencemediacentre.ca/smc/docs/SMCC-BowRiver.pdf) reported under "Where are Flood Waters Generated?" that 80% of Flood Waters are Generated in the Mountains! Rainfall in the Rocky Mountains is the primary cause for flooding in Calgary. Rain hits the hard mountain surfaces and moves quickly from the mountains into the rivers. FLOODING OCCURS QUICKLY AND WITH LITTLE WARNING because of the short, steep distance the rivers travel from the mountains to Calgary."

In August 2018, the Canadian Environmental Assessment Agency (now IAAC) directed that the Tri-River Joint Reservoir (TRJR) and the Micro-Watershed Impounding (MWI) proposals receive further study as follows: "Evaluate whether the Tri-River Joint Reservoir and the Micro-Watershed Impounding Concept are feasible alternative means of meeting the Project's purpose. Consider potential environmental effects of each alternative in this evaluation.

The TRJR proposal was first submitted to the new NDP Premier Notley and Minister of the Environment Phillips in early July 2015. Premier Notley had advised that she favored the McLean Creek Dam proposal when she was campaigning, but she would consider all alternatives to SR1 and make a decision based on Science. The TRJR proposal was forwarded to Mr. Andrew Wilson, Director, Strategic Integration and Projects, Environmental and Sustainable Resource Development (ESRD), for reply. The first sentence in his reply, dated July 10, 2015, stated: "At this time we do not intend to proceed further with the proposal..... This is a high level document and there are many details that would need to be addressed before this proposal could be considered. These details include: cost and benefits...." Further reasons given showed Mr. Wilson had not understood the White Paper proposal, so further attempts were made to contact him, on the advice of the Environment Minister, without success. After the election of Premier Kenney, we again sent the TRJR proposal to the Premier and the new Minister of Environment and Parks, and we were again advised to contact Mr.

Wilson, who again rejected the project, but this time advised that a “high level” assessment had been made – but he did not provide details even after we made requests for it.

When we raised questions regarding the safety of SR1 at Information Sessions and Open Houses, we were advised to contact our MLA’s and government representatives, so it was very discouraging to see that a decision of such importance to the safety of citizens and the management of our priceless water resources was being left to bureaucrats in the Environmental and Sustainable Resource Development department.

The Room for the River Pilot in the Bow River Basin – [www.open.alberta.ca/download/room-for-the-river-in-the-Bow-Basin-pilot-2015-02-07.pdf](http://www.open.alberta.ca/download/room-for-the-river-in-the-Bow-Basin-pilot-2015-02-07.pdf). (P40/70) 3.1.8. Elbow River Segment 4. Segment 4 of the Elbow River (Figure 10) extends from Paddy’s Flat campground up to the confluence with Quirk Creek, a distance of about 11 km. ... Table 13: Initial Scan of Room for the River Opportunities for the Elbow River. 5. Water Storage. Identify areas that could be used for storage .... Not recommended for further study by GOA in this reach.

**QUESTION 3:** Why was the decision made to avoid flood mitigation upstream of Paddy’s Flats on the Elbow River when evidence shows that destructive damage to riverbanks, highways, trails, picnic and camping areas from the flow surge in 2013 occurred because there were no storage areas upstream of Paddy’s Flats?

The assessment of TRJR provided by Alberta Transportation/Stantec to the regulators was biased and unprofessional. No independent study was commissioned. If the “high level” study mentioned by Mr. Andrew Wilson in his letter of November 24, 2015, had been done, why was this report not used to assess TRJR when requested by CEAA (now IAAC) instead of the “Preventing Alberta Floods” website?

From submissions publicly available, we see that the Micro-Watershed Impounding proposal submitted by Mr. Charles Hansen, an engineer with expertise received working for the US Army Corp. of Engineers, was summarily dismissed just as TRJR was. Both these projects would provide the necessary protection from the destructive current surge resulting from water pouring down the steep, impervious granite mountains that are so close to Calgary.

Despite it being acknowledged by AT/Stantec in submissions to the Regulators in 2015 that SR1 must be built to the “Extreme” hazard rating, and the design capacity of SR1 was much lower than required by this Extreme Rating, no other Alternative Means have received a proper professional evaluation, except for MC1 which would also require the “Extreme” rating but has 1/3 less design capacity than SR1.

**QUESTION 4:** Why are the Regulators not demanding that independent, professional consultants with the expertise to evaluate the five upstream dams in the headwaters of the Elbow, Sheep and Highwood Rivers, the TRJR proposal and the MWI proposal be commissioned to do these assessments? \$42 million dollars was promised to buy approval

from Tsuut'ina and Rockyview Council to drop their opposition to SR1 (they had raised legitimate concerns), but no funds have been made available to assess any upstream projects that offer the opportunity to provide safe downstream flood protection plus conservation of high spring flows for use when river flows are low?

**QUESTION 5:** Why has the Alberta Government refused to consider any mitigation project in the headwaters of the three rivers that, according to the 2014-2024 South Saskatchewan Regional Plan, supply 75% of the water resources for Southern Alberta and Saskatchewan? “A Policy for Resources Management of the Eastern Slopes (Eastern Slopes Policy” .... Provides the foundation for the province’s Integrated Resource Plans at sub-regional and local levels within the eastern slopes and sets WATERSHED MANAGEMENT AS THE HIGHEST PRIORITY IN THE OVERALL MANAGEMENT OF THE EASTERN SLOPES..... Watershed Management and headwaters protection is the top priority for both water supply and water quality. To the east and south, southern Alberta must continue to meet its transboundary obligations under the Master Agreement on Apportionment and the Boundary Waters Treaty”.

We have recently learned that the Alberta Government has granted coal leases in the Eastern Slopes of the Rocky Mountains – along the valleys where flood mitigation sites have been recommended. There is private land and an abandoned coal mine in the Sheep River Valley.

**QUESTION 6:** Why did the Environmental and Sustainable Resource Development choose to place the value of coal above the value of water by refusing to consider best water management projects for the Eastern Slopes and instead make the Eastern Slopes available to coal mining?

**QUESTION 7:** Why did the Government of Alberta prefer to expropriate downstream heritage ranch lands for SR1 instead of upstream private land in the valley recommended by experts for flood protection projects?

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d) Crown Engagement with Public.

The 2013 flood was a disaster that had life-changing effects on many whose homes and businesses were flooded. But citizens in Bragg Creek, Redwood Meadows, Tsuut'ina Nation, Springbank and Calgary worked together to help each other. Generators were brought to Calgary by ranchers to help pump water from homes. People from all over Calgary and outskirts swept silt from homes, businesses and the Stampede Grounds so the Greatest Show on Earth could go ahead as scheduled a few weeks after the flood. Service Clubs organized aid to those who had lost so much in the floods along the Elbow River, including those at Tsuut'ina Nation. It was wonderful to see the great community spirit.

However, the actions of three successive Provincial Governments and the City of Calgary since the 2013 flood, by choosing only the SR1 for the Elbow River flood protection, have destroyed all this wonderful community spirit. People upstream of SR1 believe their communities are being sacrificed on behalf of Calgary communities. Calgary communities downstream of the Glenmore Dam are being led to believe their homes and the downtown City of Calgary will be protected from the next large flood by SR1, so landowners should be willing to sacrifice their lands for the greater good. First Nations, some as far away as Montana and Shuswap in B.C. have received hundreds of thousands of taxpayer dollars to voice their concerns regarding SR1, then have received millions more to persuade them to withdraw their complaints against it.

In the Environmental Impact Assessment, thousands of pages have been devoted to the effects on First Nations' rights concerning fish, wildlife and plants, while the concerns of those who know SR1 is a very bad decision and will actually suffer disastrous impacts if it goes ahead, are not being heard and see that First Nations are receiving highly preferential treatment.

If the priority of our governments had been to cause division and resentment among those who had worked together over the last century to build a great province, they could not have found a better way to do it.

**QUESTION 8:** Why have those who have contributed hundreds of hours of work and research, voluntarily at their own expense, to help ensure that our river communities, infrastructure, tourist and recreation areas in the mountains, municipal river parks and picnic areas are protected from the next extreme flood when it occurs, been denied full Intervener Status and Intervener Funding to obtain a lawyer to represent them at the March 22 hearing of the NRCB?

Topic 2: Crown Consultation and Land use.

c) Future land use and land use plan for the project development area.

The 2013 Community Flood Mitigation Advisory Board recommended (Page 114/120) that "land ownership was considered as it was thought that in order to complete the facilities in a timely manner, it was best if they were located on Public Land".

This recommendation was ignored in the AT/Stantec in their 20200407 2<sup>nd</sup> EIS Sufficiency review (Page 3125/3256) where they stated: "The conversion and management of a dry reservoir presents a unique opportunity with the conversion of PRIVATE land to CROWN land. If the proposed project is approved, upon commissioning the Springbank dam and diversion, Alberta Environment and Parks (AEP) will be responsible for land management and operation of the infrastructure and management of the associated Crown land for the reservoir".

Another submission 20191217 AT SIR to Agency re Information Request Round 1, Part 2 (Page 391/694) stated:

“The construction and management of the off-stream reservoir presents a unique opportunity with the conversion of PRIVATE land to CROWN land for future use by First Nations and stakeholders. Through the engagement process that included feedback from Indigenous groups, a draft principles of future land use for the Project has been developed. The primary use of lands within the PDA is for flood mitigation. In light of the primary use, the safety of anyone with access or land users will be an overriding factor. Secondary uses for traditional activities, including the exercise of treaty rights such as hunting will be allowed to occur within the designated Land Use Area (LUA). Alberta Transportation invites Erminiskin Cree Nation to participate in the engagement process for the LUA”.

The same arrangement was made with the other thirteen First Nations included in the process, some as far away as Montana and British Columbia.

**QUESTION 9.** Do our government leaders, decision makers and regulators believe that Albertans would agree that it is a Canadian value and fair practice to arbitrarily expropriate private property in order to take over management themselves and then use that land to entice others to provide the support needed to accomplish this?

Alberta WaterSmart 2014/12/19 “Room for the River Pilot in the Bow River Basin Advice to Government of Alberta Report (Page 45/70) states: Develop a long term purchase program budget and process that enables buyouts whenever flood zone residential properties come on the market to gradually make more room for the river in high hazard areas”.

Unfortunately, riverfront homeowners who are members of the Calgary River Communities Action Group (CRCAG) do not seem to be aware that SR1, by not being designed to provide protection from future extreme floods, is enabling the WaterSmart recommendation to the Alberta Government to buyout homes along the river in order for AEP to take over management of them.

We were at a CRCAG meeting which Minister Larivee (NDP) attended, and homeowners were dismayed that the government had allowed sixteen damaged riverfront homes, which they had purchased with millions of taxpayer dollars, to deteriorate to the point where they had to be knocked down, leaving vacant, uncared for lots which homeowners feared would ruin their neighbourhood.

**QUESTION 10:** Is it fair to the homeowners downstream of the Glenmore Dam to be led to believe that SR1 will protect their properties from future floods as large as the 2013 event when it is obviously not the government’s intention to protect them but instead to de-value their homes and buy them as they come on the market?



From our attendance at most of the flood mitigation information sessions, City of Calgary Council meetings, and talking to those attending TRJR presentations, we have concluded that anyone who has the time to learn about the proposed SR1 project objects to it strongly. The GOA are aware of the objections raised by citizens of Bragg Creek, Redwood Meadows, Springbank and Rockyview Council and Bowness, but continue to tell them that SR1 is the only option they will consider.

The reports on flood mitigation that are reported in the media advise the public that the “experts” in three governments chose SR1 as the best option for flood mitigation infrastructure.

**Question 11:** Who are the “experts” who will put their signatures on a “Sign-Off” sheet for SR1, thereby accepting **full responsibility** for damages or costs of any kind, if any, suffered by the public when the SR1 fails to protect them from the next extreme flood?

Thank you for your attention. We look forward to receipt of replies to our questions.

Respectfully,

David & Noelle Read,

Members of the Flood and Water Management Council.

