Stoney Nakoda Nations

Review of Spring Bank Off-Stream Reservoir Project Environmental Impact Statement, March 2018.

Prepared by Stoney Consultation
March 26, 2021

Project Overview

Alberta Transportation (AT or the Proponent) is proposing the construction of the Springbank Off-Stream Reservoir SR-1 (the Project) that includes a storage reservoir, diversion channel, dam structures and outlet structures. The proposed Project is located approximately 18.5 kilometers west of Calgary, Alberta; along Highway 22 and south of Highway 1 (Figure 1) (IAAC 2021). The aim of the Project is to mitigate flood impacts to the City of Calgary. The proposed Project would be located in a floodplain of the Elbow River and its tributaries and is anticipating a peak diversion flow of 600 cubic meters per second during flood events. The proposed Project is a dry dam, meaning that the Project area will remain dry until a flood event occurs and would store up to 77,771,000 metres cubed of diverted water at maximum capacity (IAAC 2021). Diverted water would be gradually returned to the Elbow River once flooding has subsided.

The proposed Project will be assessed under CEAA 2012 and the Alberta Environmental Enhancement and Protection Act. The Impact Assessment Agency of Canada (IAAC) is required to undertake a federal environmental impact assessment (EA) as the proposed Project entails, “the construction, operation, decommissioning and abandonment of a new structure for the diversion of 10 000 000 m3 per year or more of water from a natural water body into another naturalwater body” (CEAA 2012). Concurrently, the proposed Project will be subject to a provincial environmental assessment under the Alberta Environmental Enhancement and Protection Act.

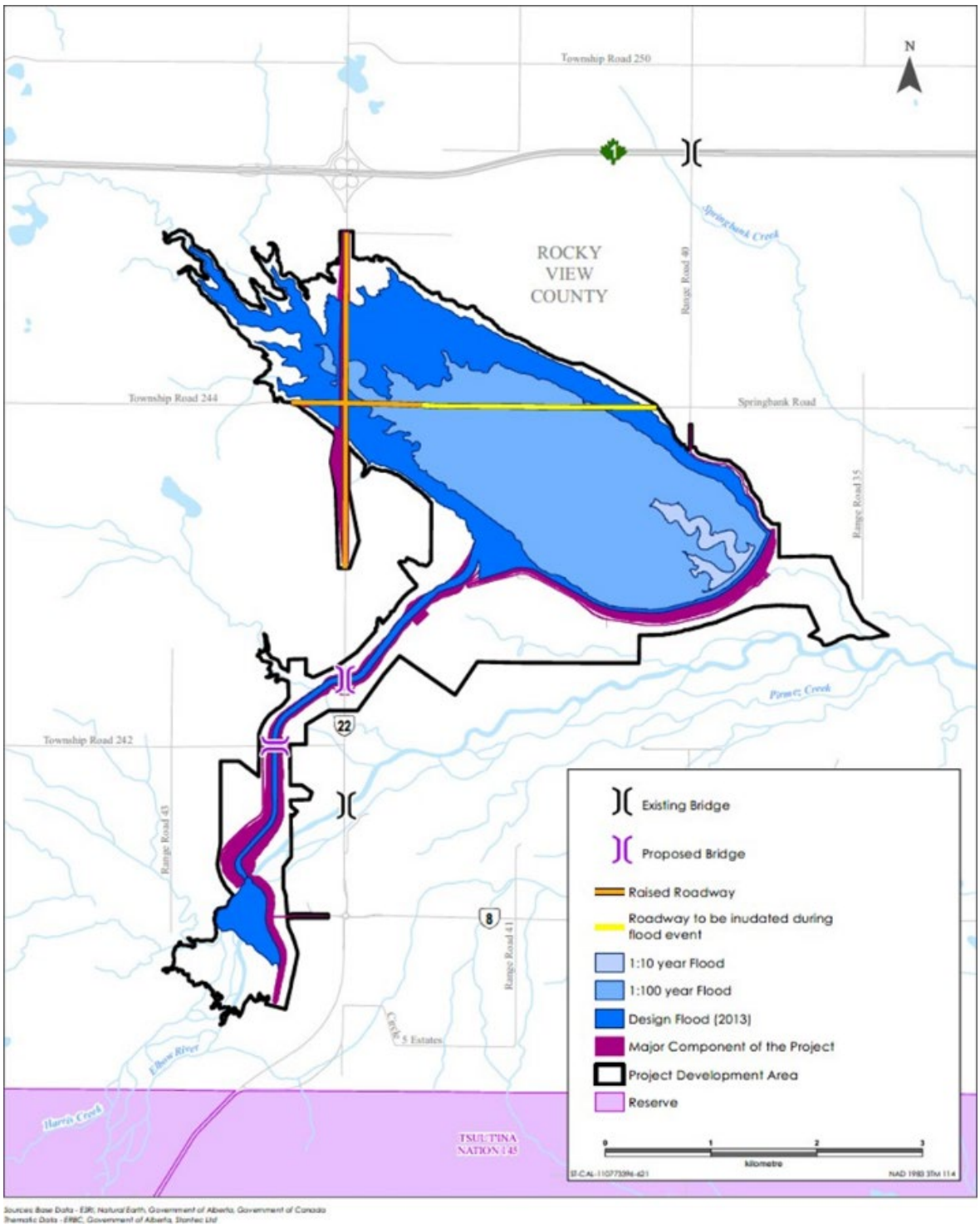

Figure 1 Map showing the proposed Project area and infrastructure during different flood scenarios (IAAC 2021: Figure 2).

Methodology of the Review

Alberta Transportations, Springbank Off- Stream Reservoir Environmental Impact Statement, 2018 (EIS) was reviewed for quality, content, and accuracy. Project effects and mitigation measures were considered within the context of Stoney Nakoda perspectives on the conclusions and inferences made by the Proponent regarding the potential Project impacts to Stoney Nakoda rights and interests.

It should be noted that the comments contained herein do not represent a comprehensive review as the work was limited by time, funding resources, and capacity constraints related to the COVID-19.

Overarching Concerns

Throughout the consultation process for the proposed Project there have been consistent concerns expressed by the Stoney Nakoda to Alberta Transportation. These include:

- The proposed Project is located within Stoney Nakoda Territory, concerns were expressed surrounding Stoney Nakoda cultural practices, current use of the proposed Project area, lands, and resources.

- The Stoney Nakoda have and continue to undertake activities within the proposed Project Area including hunting, trapping, fishing, plant harvest, ceremonial and spiritual practices.

- The Project area contains Stoney Nakoda habitation sites, oral history and narrative sites, human and animal corridors and trail, ceremonial and sacred sites, culturally significant plant, animal, fish and bird habitat and ranges, hunting and harvesting areas, archaeological and historical sites. All of this will be impacted or destroyed by the proposed Project.

- While the proposed Project area is generally found on private land, the Stoney Nakoda have deep seeded relationships with the current landowners who have and continue to provide access to the Stoney Nakoda to exercise their *Section 35* rights.

- The proposed Project will impact Stoney Nakoda Treaty and Aboriginal rights.

- The proposed Project is anticipated to impact and destroy a significant amount of critical habitat, resulting in the direct and indirect loss of habitat, wintering grounds, mating and calving landscapes for animals, fish and birds of cultural significance.

- The proposed Project will act as a barrier to the migration of wildlife and fish, causing significant habitat fragmentation.

- Acknowledging that this proposed Project will act as a barrier, the Stoney Nakoda have continuously requested the development of adequate wildlife crossings to facilitate migration and movement through the proposed Project infrastructure and over Highway 22 and Highway 8.

- There is a significant lack of emergency preparedness and emergency response planning for the proposed Project.

- While a preliminary TLRU/ TLUA survey was undertaken, a wildlife and fish assessment and oral histories and Elder consultation on the Project area have not been completed. The Stoney Nakoda feel a Cultural Use Study, a Hydrology Assessment, and a Wildlife Impacts Study are required for the Project area.

- The Stoney Nakoda have expressed concerned about the hydrology of the Project area. In particular, the Elbow River and any groundwater impacts the Project will have. Water and water sources are culturally significant and sacred to the Stoney Nakoda. The Stoney Nakoda have requested an assessment of the proposed Project in conjunction with a hydrology assessment of the Bow River; this has not been completed.

- The Stoney Nakoda have expressed concerns that the fences that would be built around the Project site might impact wildlife passage through the area.

TLRU Field Work Limitations and Conditions

In addition to the concerns expressed above, Stoney Nakoda believe that the opportunity provided by Alberta Transportation to undertake a TLUA for the proposed Project was inadequate and deficient. This is the result of the time of year the survey was undertaken, the limited area accessible for survey, as well as the actions and views expressed by representatives from Alberta Transportation and DEMA Lands who facilitated the survey.

Field work was conducted over a period of 11 consecutive days between October and November 2016. Temperatures during field work were consistently below freezing, with snow flurries occurring. Ground visibility was moderate to low, and vegetation and animal identification was limited; factors that greatly impacted the detection and documentation of Stoney Nakoda sites and site areas. During field work it was felt that there was a bias in the locations visited and surveyed because Alberta Transportation and DEMA Lands were directing the field work.

The Stoney Nakoda Elders and field team felt uncomfortable throughout their time in the field, felt that they were unable to visit the areas that they wished to survey, and that their process was not respected by the representatives facilitating the field work. The Elders did not feel open to discussing culturally significant and restricted information during their time in the field, and as a result, some Stoney Nakoda site areas were not recorded and

documented. At one point during field work, tensions and frustrations were elevated to a point that one of the Stoney Nakoda Elders asked the Alberta Transportation representative to give the field team space, so that they can undertake the appropriate protocols and documentation of Stoney Nakoda sites without being rushed and hovered over.

In addition to the limitations noted above, it was felt that the Elders' needs were not accommodated and respected. In many instances the distance required to walk to survey specific areas was viewed as excessive. On many occasions the Stoney Nakoda field team attempted to mitigate additional stress on the Elders by finding alternate and closer access points, but their attempt and suggestions were not used. As temperatures during the 11 days in the field consistently were below freezing, many of the Elders were unable to complete the entire TLUA field survey due to cold and exhaustion. It is important to note that the Stoney Nakoda do not view the TLUA work undertaken for the proposed Project as completed and comprehensive documentation of Stoney Nakoda sites that are present within the Project area.

Presented below are the Stoney Nakoda Nations comments on the EIS document.

Comments on Alberta Transportation, Spring Bank Off-Stream Reservoir Project Environmental Impact Statement, March 2018.

Prepared by the Stoney Nakoda Nations (Bearspaw First Nation, Chiniki First Nation, and Wesley First Nation).

February 26,2021

Volume 2: Assessment Approach	
EIS Reference	Comments / Questions
Volume 2, pg. 1.2	The Proponent states, "this EIA will focus on specific environmental components (called valued components or VCs) that are typically selected for assessment, based on regulatory issues, guidelines, and requirements; consultation with regulatory agencies, the public, stakeholder groups and Indigenous peoples; field reconnaissance; and the professional judgement of the study team" (Volume 2, pg. 1.2). While the Proponent claims that the EIS is inclusive of valued components identified by Indigenous peoples, it is unclear how this is incorporated and where that is reflected. For example, in Table 5-1, the rational for valued components selected does not reference any culturally significant landforms, waterways, species, vegetation, and land use identified by the Stoney Nakoda, but rather provides generalized impacts to generalized values. The Stoney Nakoda requests that the EIS be revised to ensure that Stoney Nakoda valued components, traditional knowledge and traditional use are incorporated into the assessment, and that the Proponent includes an explanation of how traditional knowledge and traditional use is incorporated, including in: • The selection of valued components.

Volume 2: Assessment Approach	
EIS Reference	Comments / Questions
Volume 2, Section 5.1.1, pg. 5.1	The Proponent states, "Project description, concerns made and issued identified by the public (Section 6) and Indigenous people (Section 7) are summarized below" (Section 5.1.1 pg. 5.1). This is followed by a summary of the concerns expressed during public and Indigenous groups consultation from pages 5.1- 5.3. What is important to note is that the summary presented by the Proponent in these sections omits many of the concerns expressed by the Stoney Nakoda that are included in Section 7 of Volume 1. These concerns include the destruction of cultural (archaeological and historical) heritage, the impact of traditional land use sites, increasing limitations placed on Indigenous people when accessing areas within their traditional territories to exercise their *Section 35* rights, destruction of ceremonial, spiritual and harvesting sites, the impact of the Project on traditional trails and corridors of human movement, and continued and unimpeded access to landscapes continuously used for harvesting, hunting and fishing; in addition to many of those listed. The Stoney Nakoda request that the EIS be revised to ensure that the concerns expressed in Section 7 of Volume 1 are reflected in this document to guarantee all issues and concerns are given a fair weighting within this impact assessment.
Volume 2, Table 5-1, pg. 5.4	In Table 5-1 "*Rationale for Valued Component Selected,"* dam safety is noted by the Proponent as not included as a valued component, as it is "addressed in the Project description. Dam failure is discussed in the accidents and malfunctions and the effects of the environment on the Project." Throughout the engagement and consultation process, the Stoney Nakoda have made it clear to the Proponent that dam safety, emergency response planning and disaster preparedness is a value component for their communities. A Stoney Nakoda Reserve (Morley) is located ca. 28 km from the Project area, and members of the Stoney Nakoda use the Project area for recreation and to exercise their *Section 35* rights. Clearly communicating safety procedures and plans, in both English and Stoney Nakoda is important.

Volume 2: Assessment Approach	
EIS Reference	Comments / Questions
	The Stoney Nakoda request that the EIS be revised to include dam safety as a valued component and that the Proponent consult the Stoney Nakoda on a safety plan that is specific to the Stoney communities.
Volume 2, Section 5.3.1, pg. 5.12, 5.3.2, pg. 5.13 and 5.4, pg. 5.13	In addition to comments stated above regarding the identification of valued components, it is also unclear how the identification of spatial and temporal boundaries (see Section 5.3.1 and 5.3.2), the characterization of residual effects (see Section 5.4) and pathways, as well as the cumulative effects assessment (Section 7) incorporates Stoney Nakoda input, values, traditional knowledge, and perspectives. The Stoney Nakoda requests that the EIS be revised to ensure that Stoney Nakoda traditional knowledge and traditional use are incorporated into the assessment, and that the Proponent includes an explanation of how traditional knowledge and traditional use is incorporated, including in: • Choice of spatial and temporal boundaries. • Selection of mitigation measures. • Characterization of effects and thresholds. • Characterization of pathways and cumulative effects.
Volume 3: Effects Assessment	
Section 9.0 Terrain and Soils	
Volume 3A Section 9.0 Terrain and Soils (Construction and Dry Operations)	
EIS Reference	Comments / Questions
Section 9.0, General Comments.	Within this section of the document the Proponent attempts to undertake an effects assessment on terrain and soils during construction and dry operations of the proposed Project. Below are questions that arose during Stoney Nakoda's assessment of the document. The Stoney Nakoda request that the Proponent provide a response to the questions below to improve the transparency of the EIS process.

Volume 3A Section 9.0 Terrain and Soils (Construction and Dry Operations)	
EIS Reference	Comments / Questions
Section 9.0, Table 9-1, pg. 9.2.	Can the Proponent please more clearly define and provide the models/illustrations used to identify what potential bank erosion there will be during construction and dry operation of the proposed Project? Can the Proponent also identify what the projected bank erosion is during times when there is dam failure and water is restricted from flowing down the Elbow River. The reduction of waterflow is as erosional as an increase of water flow due to flooding events.
Section 9.0, Table 9-1, pg. 9.3	Can the Proponent please identify and model the amount of dust anticipated during construction and dry operation? How far will airborne particulates travel? And what is the potential for airborne contaminates to reach the Stoney Nakoda reserves during a day where the wind is blowing towards to the west?
	It is unclear if the dry reservoir area will be cleared and graded? Can the Proponent please address this?
	Soil compaction generally impacts the potential for the re-establishment of native grasses. Can the Proponent please describe how they will avoid soil compaction within the Project area during construction and dry operation.
Volume 3B Section 9.0 Terrain and Soils (Flood and Post-Flood Operations)	
EIS Reference	Comments / Questions
Section 9.0 General Comments.	Within the section of the document the Proponent attempts to undertake an effects assessment on terrain and soils during flood and post-flood operations of the proposed Project. Below are questions that arose during Stoney Nakoda's assessment of the document. The Stoney Nakoda request that the Proponent provide a response to the questions below to improve the transparency of the EIS process.
	Can the Proponent please identify and better illustrate how potential contamination will be monitored and contained during flood and post flood operations?
	Can the Proponent please clarify how long will it take after a flooding event to reclaim vegetation and what will soil quality and quantity be like after said event? Are there any comparable case studies and if so, could these be provided to the Stoney Nakoda?
	Can the Proponent please identify if, after flood events, the proposed Project is returned to a dry state and left to dry, would this area be populated with invasive weeds? How will this be managed and monitored?

Volume 3B Section 9.0 Terrain and Soils (Flood and Post-Flood Operations)	
EIS Reference	Comments / Questions
Section 9.0 General Comments.	The Stoney Nakoda Nations are concerned about the lasting negative effects of the project on the wetlands and intact native grassland that will be lost during construction and post flood events that involve sediment deposition and activities to remove the sediment after a flood. Can the Proponent please clarify how they will be addressing this issue.
Section 9.0 General Comments	Can the Proponent please clarify how soil degradation will impact native upland and wetland habitats? In Section 9, a loss of agricultural or non-native lands is anticipated, can the Proponent please address if there will be off-set lands provided for native upland and wetland areas?
Section 10.0 Vegetation and Wetlands	
Volume 3A Section 10.0 Vegetation and Wetlands (Construction and Dry Operations)	
EIS Reference	Comments / Questions
Section 10.0 General Comments	Within the section of the document the Proponent attempts to undertake an effects assessment on vegetation and wetlands during construction and dry operations of the proposed Project. Below are questions that arose during Stoney Nakoda's assessment of the document. The Stoney Nakoda request that the Proponent provide a response to the questions below to improve the transparency of the EIS process.
Section 10.2.2 pg. 10.3 Section 10.3 pg. 10.28	The Proponent states that, "after draining of the reservoir, water may be present at or near the ground surface of the reservoir for a period of time as water evaporates or infiltrates into the soil. The amount of time needed to return the soil water content back to baseline conditions after a flooding event would be dependent on evapotranspiration (the rate of evaporation plus plant transpiration of water that occurs during photosynthesis) and soil type (see Section 9.2). Flooding may also deposit sediment that could bury or suffocate plants. This seems to contradictory to this statement, "residual project effects to community diversity, traditional plant use and wetland functions are not anticipated because plant communities are expected to recover post-flood."

Volume 3A Section 10.0 Vegetation and Wetlands (Construction and Dry Operations)	
EIS Reference	Comments / Questions
	Can the proponent please explain how native plants are anticipated to recover in impacted areas after a flooding even? Reclaimed areas are not the same when it comes to supporting wildlife.
Section 10.1.4.1, pg. 10.7	Can the Proponent please better describe how vegetative clearing during construction will change the existing wetlands?
Section 10.4.4.2 pg. 10.51, Springbank Off-Stream Reservoir Project Environmental Impact Assessment Volume 1, Project Description, Indigenous Engagement Program. Table 7-5, pg. 7.42.	Construction would alter habitat for traditionally used plants, and it is unclear how the Proponent will mitigate impacts to culturally significant plants to the Stoney Nakoda. Can the Proponent please describe how traditional and medicinal plants will be avoided during construction? How much notification time will be given to the Stoney Nakoda for harvesting? How much time will Stoney Nakoda have to harvest? Who will coordinate access for harvesting purposes?
	Can the Proponent please describe how seeds from traditional and medicinal plants will be collected, stored, and used during reclamation? Who will identify and collect these seeds and who would store them? Stoney Nakoda would like to see cultural protocols considered in the process of seed collection and during reclamation activities.
	Can the Proponent please describe what the reclamation program will look like after construction? How long will this process take before ecological communities will re-establish and wildlife and bird species will return?

Volume 3A Section 10.0 Vegetation and Wetlands (Construction and Dry Operations)	
EIS Reference	Comments / Questions
	The assessment has not included consideration of the habitat fragmentation effects on wild plant species and pollinator communities, nor were their interactions (i.e., pollination of plant species and seed production, pollination, and reproductive success of plant species) considered. Can the Proponent please describe how landscape and community diversity can be assessed without considering the impacts of habitat fragmentation on pollinators? Given the severe decline of wild pollinators such as honeybees and bumblebees in recent years, from a vegetation diversity viewpoint, what efforts will AT employ to gain an understanding and mitigate the influence of fragmentation effects on wild pollinators?
Section 10.4.3 and 10.4.4	Can the Proponent identify if the effects assessment considered the impact of soil compaction (e.g., reduced soil aeration, reduced soil microbial biomass, and diversity) because of construction activities and potential impacts to vegetation regrowth, species, and community diversity?
Section 10.4.3, pg. 10.45	Tree clearing operations: it is unclear in the document what time of year the tree clearing activities will be undertaken, and if these operations will be undertaken with mitigation measures in place to limit impacts to birds (i.e., outside of the bird window). It is also unclear how the trees be cleared, and what kind of ground impacts will happen due to clearing, and how the trees will be disposed of? Will they be chipped up and used in landscaping within the county or will they be burnt or taken to a landfill?
Section 10.0 general	From a cultural perspective, local and regional spatial and temporal boundaries considered as important for the assessment of wildlife and biodiversity often differ from western viewpoints, as the boundaries are based on a different set of values it is unclear whether AT considered Stoney Nakoda in the determination of spatial and temporal boundaries for the effect's assessment. Can the Proponent please respond?
	There is no mention of the inclusion of Indigenous perspectives and values in the follow up and monitoring programs. This omission is a deficiency in the program design as industry based environmental inspection processes do not typically take cultural perspectives into account. Can the Proponent please identify how AT will consider traditional knowledge and cultural perspectives in the monitoring program?
	Can the Proponent please identify how AT considered input from Stoney Nakoda in their determination of the magnitude of Project effects on traditional use plants? How did AT consider Stoney Nakoda perspectives in the determination of significance?

Volume 3A Section 10.0 Vegetation and Wetlands (Construction and Dry Operations)	
EIS Reference	Comments / Questions
	Effects on landscape diversity are noted as irreversible in areas of permanent Project disturbance. Can the Proponent identify and describe how conservation offsets were considered to mitigate these Project effects?
	Alberta Transportation has indicated that traditional land and resource use information was considered during the preparation of all aspects of the EIS, including both methodology and analysis. AT further explains that TLRU information was not included in the consideration of significance but was included in the effects assessment. The Stoney Nakoda would like AT to describe, in replicable detail, the process by which Stoney Nakoda were consulted and how that information was considered in the effect's assessment of vegetation and wetlands?
Volume 3B Section 10.0 Vegetation and Wetlands (Flood and Post-Flood Operations)	
EIS Reference	Comments / Questions
Section 10 General Comments.	Within the section of the document the Proponent attempts to undertake an effects assessment on vegetation and wetlands during flood and post-flood operations of the proposed Project. Below are questions that arose during Stoney Nakoda's assessment of the document. The Stoney Nakoda request that the Proponent provide a response to the questions below to improve the transparency of the EIS process.
	Can the Proponent please speak to weed and silt management during post flood events. For example, after the reservoir is drained, what is the weed management plan and what happens to all the silt? There is a concern that it will just get blown away.
	Can the Proponent please clarify how long the water will sit stagnant in the reservoir area and if the temperature will be monitored before it is released back into the river?
	The Stoney Nakoda note that there are key knowledge gaps in the way the Proponent has assessed how the Project will affect abundance and taxonomic richness of freshwater organisms and invertebrates. Further, habitat degradation through flow modification is a persistent threat to freshwater biodiversity. Can the Proponent identify if AT considered the threat of flood and post flood operations, landscape fragmentation and habitat degradation on freshwater biodiversity?

Volume 3B Section 10.0 Vegetation and Wetlands (Flood and Post-Flood Operations)	
EIS Reference	Comments / Questions
	Can the Proponent please identify if the recovery of traditional and medicinal plants that occur within wetland areas will be monitored after the flooding event? The Stoney Nakoda would like to see serious consideration for the inclusion of cultural perspectives into long term monitoring efforts.
	Can the Proponent please clarify its assessment on the impact of wetland contamination after flooding event? Will the sedimentation be removed after the reservoir is drained and where will it be transferred to?
	Fish, such as bull trout, and fish habitat are of great cultural importance to Stoney Nakoda. Can the Proponent please identify what measures will be taken to protect culturally significant fish and fish habitat in the wetland area post flood?
Section 11.0 Wildlife and Biodiversity	
Volume 3A Section 11.0 Wildlife and Biodiversity (Construction and Dry Operations)	
EIS Reference	Comments / Questions
Section 11.0 General Comments	Within the section of the document the Proponent attempts to undertake an effects assessment on wildlife and biodiversity during construction and dry operations of the proposed Project. Below are questions that arose during Stoney Nakoda's assessment of the document. The Stoney Nakoda request that the Proponent provide a response to the questions below to improve the transparency of the EIS process.
Springbank Off-Stream Reservoir Project Environmental Impact Assessment Volume 1, Project Description, Indigenous Engagement Program, Table 7-3, pg. 7.25.	Construction is likely to cause sensory disturbance to wildlife, which could result in changes to migratory patterns and behaviour especially for Elk. Further, the Proponent notes that, "a total of approximately 117 ha of high and 377 ha of moderate winter elk feeding habitat will be affected by the Project," (Table 7-3, pg. 7.25). Could the Proponent please identify if heavy machinery be outfitted with noise abatement equipment to dampen the noise and how will any diminished Elk habitat be restored?

Volume 3A Section 11.0 Wildlife and Biodiversity (Construction and Dry Operations)	
EIS Reference	Comments / Questions
	While black bears are not recognized as a threatened or at-risk species, they are a culturally important and significant species to the Stoney Nakoda. Human activities and variation in habitat quality can influence migration and space use patterns of many species. However, within the EIS, there is little discussion of the potential Project impacts to the behavioural responses of black bears to changes in landscape features associated with the Project development. Could the Proponent please discuss the potential Project impacts to black bears.
	Grizzlies are a species of great cultural and spiritual significance to the Stoney Nakoda. Can the Proponent identify how AT will monitor impacts to grizzly bear movement, behavioural health and habitat use? Are the cumulative regional impacts of development (forestry, pipeline development, increase urban development) being considered by AT in their assessment of the Project effects on grizzly populations?
	Stoney Nakoda members stress the significance of wildlife overpass crossings (as opposed to underpasses) as a means of mitigating habitat fragmentation and animal-vehicle collisions due the imposition of movement barriers such as roads and other human made structures. Can the Proponent please identify how and when cultural perspectives and traditional knowledge will be included in the consideration of mitigative options for construction activities and structures?
	In the EIS it is suggested that when ungulates encounter sections of riprap the animals will be deflected to crossable sections of land within the diversion channel covered with topsoil and grass. Can the Proponent please discuss how this deflection will take place and how will the effectiveness of the soil/grass covering for movement be monitored? Can the proponent also present case studies showing this mitigation measure was successful to facilitate the movement of ungulates?
	The Stoney Nakoda have expressed concerns regarding wildlife, fish, and birds, and that the Project will drive away these animals further east; this will impact access to certain species hunted for food and harvested for ceremonial purposes. Can the Proponent identify how AT will ensure that the Project will not affect Stoney Nakoda continued access to wild game and other culturally important animals?

Volume 3A Section 11.0 Wildlife and Biodiversity (Construction and Dry Operations)	
EIS Reference	Comments / Questions
	Wire fencing associated with highways and pastures is a major source of mortality for moose, deer, elk and other wildlife species. Can the Proponent please identify how fence configuration around the proposed Project will allow for the safe passage of wildlife such as moose, elk, deer and bears (grizzly and black bears)?
	The Stoney Nakoda have expressed concerns for eagle nesting in the Project area and eagle territorial occupancy with increased human disturbance. Can the Proponent clarify how AT will mitigate impacts to eagle nesting and territorial occupancy?
	Can the Proponent please identify how AT includes cultural perspectives and traditional knowledge in seasonal surveying of key habitat and habitat features before and after construction?
	Can the Proponent please identify how AT will mitigate the Project effects to the migratory patterns and game trails for wildlife?
	Can the Proponent please clarify how monitoring for impacts to wildlife movement will take place at the off-stream dam?
Section 11.4.5.3 pg. 11.66	The Proponent notes, “shrubland and grassland would be reduced by up to 20.8% and 21.1% in the LAA, respectively, during construction (see Table 11-12). Reclamation after construction would result in an additional 91 ha of grassland habitat in the LAA during dry operations, a 21% increase from existing conditions”. Can the Proponent please explain how it is anticipated that additional grassland to form, and how the seed mix used in this reclamation process can be considered the same as undisturbed native grassland habitat that supports culturally significant wildlife when there are known issues surrounding the nutritional value and functionality of using seed mix?

Volume 3A Section 11.0 Wildlife and Biodiversity (Construction and Dry Operations)	
EIS Reference	Comments / Questions
Section 11.4.3 pg. 11.45 Volume 3A, Table A-1 Summary of Project Residual Effects on Species at Risk during Construction and Dry Operations pg. A.1 – A.18	The Proponent states, "temporary clearing of vegetation is expected to remove 223 ha of upland and 29.5 ha of wetland during the construction phase (Table 10-12). Permanent project disturbances would result in the permanent clearing of vegetation and wetlands". According to the South Saskatchewan Regional Plan intact native grasslands should remain untouched (SSRP 2018: 70, 3.7 "Implement guidelines to avoid conversion and maintain intact native grasslands on public land" (see Appendix G - Grasslands)). Can the proponent please specify how much undisturbed native grassland will be lost? Furthermore, as there are species at risk within the project footprint that rely on native grasslands, can the proponent describe how the habitats of culturally significant animals will be sustained? This question arises from statements also found in the South Saskatchewan Regional Plan surrounding Species at Risk habitat, which states that, "no conversion is generally permitted as habitat needs to be sustained as part of government programs for species recovery (as required under federal and provincial legislation) (SSRP 2018: 70). Also, within SSRP (2018: 135) under *Appendix E: Integrated Approach for Subregional and Issue-Specific Planning* it is also suggested that "areas with high biodiversity value such as areas important for connectivity and areas that are "intact" would benefit from remaining in a less disturbed condition such as intact native grasslands". Can the Proponent please respond?
	According to Alberta Parks, only five percent of the Region's natural vegetation remains (Alberta Parks 2016). As there are native grasslands within the proposed project area and numerous policies, plans and guidelines identify that they should not disturbed by development, can the Proponent identify why this is acceptable, when the construction of the proposed project is in direct contravention of many stewardship policies.

Volume 3B Section 11.0 Wildlife and Biodiversity (Flood and Post Flood Operations)	
EIS Reference	Comments / Questions
Section 11.0 General Comments	Within the section of the document the Proponent attempts to undertake an effects assessment on wildlife and biodiversity during flood and post flood operations of the proposed Project. Below are questions that arose during Stoney Nakoda's assessment of the document. The Stoney Nakoda request that the Proponent provide a response to the questions below to improve the transparency of the EIS process.
Volume 1, Project Description, Indigenous Engagement Program, Table 7-4 pg. 739.	The Stoney Nakoda have expressed continuous concerns regarding wildlife passage through the Project area following construction, explicitly in regard to Highway 22 and Highway 8. The Proponent has not addressed why there will not be a wildlife crossing built over Highway 22 or Highway 8. Can the Proponent please address how and when cultural perspectives and traditional knowledge will be included in the consideration of mitigative options to counter barriers to wildlife movement that will take place as a result of the Project development?
	Can the Proponent clarify what is going to happen to the debris left after a flood? Will it be burnt or how will it be managed? Will the debris damage bird habitat, or pollute it? Has that been assessed during the EIS process?
	The Project may cause loss of wintering ungulate habitat and increase habitat fragmentation. Can the Proponent please clarify the research and modelling it has undertaken to address the concern of habitat fragmentation?
	The Stoney Nakoda are concerned about the effect on migratory bird nests and reduction of wetland habitat for breeding and nesting as a result of the proposed Project. Can the Proponent please identify how this concern was address and what models and data was used to identify mitigation measures.
	The Project footprint is within a Key Wildlife Biodiversity Zone and the impacts to native grasslands have adverse effects on the wildlife that use that area: grizzlies, elk, migratory birds, cougars, etc. Can the Proponent please clarify the mitigation measure identified to reduce impacts to these animals, and how Stoney Nakoda perspectives were incorporated.
	Can the Proponent please clarify what will happen with the pipeline relocations? And what is the timeframe for these relocations?

Section 12.0 Land Use Management	
Volume 3A Section 12.0 Land Use Management (Construction and Dry Operations)	
EIS Reference	Comments / Questions
Section 12 General Comments.	The Proponent does not expect residual effects impacting land use management to be significant despite noting that, “the purpose and intent of the Project is not consistent with the vision of Rocky View County MDP and Land Use Bylaw, which protects agricultural land use in the region, Part 17 Division 1 of the MGA (2017) states that authorizations granted by the AEP and NRCB would prevail over compliance with the MDP Bylaw” (Section 12.1.1.3 pg. 12.4); and in spite of the fact that the South Saskatchewan Regional Plan (SSRP) has a, “a long-term vision for the region, which includes supporting a growing population through economic diversification, including agriculture; opportunities for oil and natural gas production; renewable energy; forestry; and tourism...”, while maintaining headwaters and freshwater sources, managing air quality, biodiversity, the preservation and promotion of the region’s unique cultural and natural heritage, and strengthening communities (AEP 2017 and see Section 12.1.1.2, pg. 12.2); all elements that will all be lost and destroyed if the proposed Project is approved. In spite of this, the Proponent concludes that “the end land use of the PDA complies with outcomes and strategic directions outlined in the SSRP... therefore, residual effects on land use and management during construction and dry operations are predicted to be not significant” (Section 12.5, pg. 12.39). The Stoney Nakoda argue that these statements illustrate that the proposed Project does not comply nor support the strategic direction outlined in the SSRP or other Land Use Plans and is in direct contradiction of their proposed outcomes and intent. The Stoney Nakoda request that this be noted in the EIS and request that the proponent further clarify this statement as it appears contradictory.

Volume 3A Section 12.0 Land Use Management (Construction and Dry Operations)	
EIS Reference	Comments / Questions
Section 12.1.2	In this section the Proponent claims, "TLRU information contributed to the understanding of existing land uses, was used to identify lands that are used traditionally, and informed the assessment of potential Project effects" (Section 12.1.2, pg. 12.6), although it is not clear, how, what, and where this has informed the assessment. Additionally, the spatial extent of the LAA and RAA for this section is outside of the TLRU/TLUA area where the Stoney Nakoda were permitted to survey and as a result are unable to provide their perspective of land use management outside of the PDA, which is a gap in the analysis of effects. It is also important to note that the land use management identified herein does not include Indigenous land management or knowledge, nor does it appear to include Stoney Nakoda perspectives within its assessment criteria or outcome.
	The Stoney Nakoda requests that the EIS be revised to ensure that Stoney Nakoda traditional knowledge and traditional use are incorporated into the assessment, and that the Proponent includes an explanation of how Stoney Nakoda traditional knowledge and traditional use is incorporated within the Land Use Management assessment of potential effects. The Stoney Nakoda also request that additional TLRU/ TLUA surveys are undertaken in the LAA and RAA to better understand any change the proposed Project will bring in land use management within these areas will impact their Aboriginal and Treaty rights, culturally significant species, and site areas.
Section 12.2.2.1, pg. 12.19	Throughout this section the Proponent states it draws on information found, "in primary and secondary sources reviewed for the Project..."(Section 12.2.2.1, pg. 12.19), although this statement is never correctly referenced or cited to accurately represent which sources were reviewed. The Stoney Nakoda request that the Proponent provide proper citations to the information presented within this document and any future documents reviewed by the Stoney Nakoda. This allows for the Stoney Nakoda to contextualize and offer an accurate and expedited review of the document.

Volume 3A Section 12.0 Land Use Management (Construction and Dry Operations)	
EIS Reference	Comments / Questions
Section 12.4.2.2, pg. 12.34, pg. 12.35	The Proponent notes, “mitigation measures to limit change in land use and management during construction and dry operations include, AEP will develop a management plan for the PDA that may allow for recreation in Area A during dry operations. Area A will be naturalized, and access will not be restricted, although development of recreation infrastructure is not planned”, and, “integrated landscape management policies will be implemented in the PDA through management of areas with primary and secondary land uses. Area A will become a conservation area and be naturalized at the completion of construction. Access to Area A would not be restricted; however, access (e.g., parking lots, hiking trails) would not be developed in Area A. Areas B, C, and D will be restricted to public access using barbed wire fencing, gates, and signs indicating “Danger” and “No Trespassing”. Area B and some of Area D will be revegetated at the completion of construction and would remain vegetated through dry operations. Grazing may be permitted on Area C. A management plan for the PDA will be developed by AEP in consultation with land users and the public” (Section 12.4.2.2 pg. 12.34, pg. 12.35). The mitigation measures listed above are a complete alteration of the current land use management within the Project area. Throughout the consultation process the Stoney Nakoda have continuously expressed the significance of and continuous use within the proposed Project area to the Proponent; stressing that this landscape is still used for hunting and harvesting by Stoney Nakoda people with the current landowner’s permission. This has been overlooked within this section of the document. This section also does not accurately represent or acknowledge the impacts that the change in proposed land use management will have on the Stoney Nakoda, and as a result does not accurately mitigate any of the concerns expressed by the Stoney Nakoda communities regarding access to the Project area. This section of the EIS also overlooks any potential impacts the proposed mitigation measures will have on the Stoney Nakoda, including the possibility of avoidance behaviour developing. The proposed mitigation measures are not adequate and do not mitigate concerns surrounding continuous land access to the Project area expressed by the Stoney Nakoda.

Volume 3A Section 12.0 Land Use Management (Construction and Dry Operations)	
EIS Reference	Comments / Questions
	The Stoney Nakoda requests that the EIS be revised to identify that the proposed plan for land use management will change the Stoney Nakoda use of the Project area and is not inclusive of the concerns identified by the Stoney Nakoda, nor does it address any potential impacts the mitigation measures will have on the Stoney Nakoda communities. The EIS should be revised to include Stoney Nakoda perspectives on the integrated landscape management policies and management plans for the Project area prior to identifying any mitigative land use strategies.
Volume 3B Section 12.0 Land Use Management (Flood and Post Flood Operations)	
EIS Reference	Comments / Questions
Section 12.3 pg. 12.12	The Proponent notes that, “residual effects on change in land use during flood and post-flood operations are predicted to be not significant” (Section 12.3, pg. 12.12). This is noted despite land access becoming limited for a time period exceeding 40 days during and post flood events, a change in access will occur to the LAA and PDA for a significant period of time following a flood event due to the potential flooding of roadways, and the limited understanding of the diachronic change presented within the document that illustrates detailed information on the actual impacts flood events will have on the vegetation, animal habitat and migration, bank stability and subsequent impact to cultural and historical resources within the PDA and LAA including upstream and downstream. Also unclear is the level of reclamation that will be required to mitigate these impacts, elements that will influence the use of this landscape in perpetuity. The Stoney Nakoda request that the Proponent clarify the potential for residual effects of the aforementioned impact to Stoney Nakoda land use (focusing on culturally significant species, site areas, and trails/travel corridors) during and post flood events, as well as address how the potential mitigation measures identified to reduce these impacts could elevate avoidance behaviour within the Stoney Nakoda communities, and how that could be mitigated.

Volume 3B Section 12.0 Land Use Management (Flood and Post Flood Operations)	
EIS Reference	Comments / Questions
	The Stoney Nakoda also request that the Proponent provide capacity funding to support the development of a communication plan and communication protocols specific to the Stoney Nakoda communities in order to appropriately convey all impacts to land use, and any mitigations measures that will be undertaken in post flood scenarios. This plan should clearly address the concern of the Stoney Nakoda and be provided in English and Stoney.
Section 13.0 Historic Resources	
Volume 3A Section 13.0 Historic Resources (Construction and Dry Operations)	
EIS Reference	Comments / Questions
Section 13.0 Historic Resources General Comments.	Throughout this document there is language used and a tone that implies that approvals will be given for this Project despite the concern shown by stakeholder groups, the historic resources that were identified within the areas, and notwithstanding the fact that the assessment of impacts to historical resources have not been completed. This is concerning to the Stoney Nakoda as it shows disregard to the Stakeholder groups and implies that consultation and this assessment was not meaningful on this subject. The Stoney Nakoda request that this be corrected.
Section 13.5, 13.6 and 13.7.	The Proponent states that there are no residual effects to Historic Resources within the Project area, and the Project effects on historical resources, “are assessed as not being significant” (Section 13.5, pg. 13.17). This despite the identification of 22 archaeological sites within the Project area (IAAC 2021; Porter 2017), and that “the HRIA field studies required for ACT for archaeology and palaeontology have been completed except for deep testing...and HRIA studies for archaeology in some areas for which landowner access could not be obtained” (Section 13.7, pg. 13.17). After a review of the EA (IAAC 2021) and the HRIA (Porter 2017) by archaeologists, it appears that the statement by the Proponent surrounding residual effects to historic resources has been made prematurely; as there is still a significant amount of Historical Resources Assessment that needs to be undertaken within the Project area and as such, it is impossible to accurately assess impacts and effect the Project will have on Historic Resources until this is completed.

Volume 3A Section 13.0 Historic Resources (Construction and Dry Operations)	
EIS Reference	Comments / Questions
	In the EA (IAAC 2021) and the final report completed for the HRIA (Porter 2017: 143-145), it is noted that at minimum ca. 40 square meters of archaeological excavation could be required at site areas that will be impacted by the proposed project, identifies that deep testing is still required in six sections of land, identifies four gap areas where the PDA was revised to include new areas containing archaeological potential, and as previously noted, identifies that survey and subsurface testing is still required in areas where land access was not permitted. Additionally, Alberta Culture has not yet released their approvals and mitigation requirement for the Project area (13.6, pg. 13.17), as such, an assessment of the Project effects on historic resources is not inclusive of these findings and cannot be completed. The Stoney Nakoda request that this section of the EIS be re-written after the completion of the HRIA in its entirety to better identify and present Project effects on this valued component.
Section 13.1.5, pg. 13.7	The Proponent states that there will be no residual environmental effects to historic resources, “since Project-specific environmental effects on historical resources are continually mitigated to the standards established by ACT, after implementation of the required mitigation measures, and Aboriginal consultation” (Section 13.1.5, pg. 13.7). The Stoney Nakoda request clarity on how and when the Proponent is planning to undertake consultation with Aboriginal groups.

Volume 3A Section 13.0 Historic Resources (Construction and Dry Operations)	
EIS Reference	Comments / Questions
	Additionally, despite calls from the Stoney Nakoda for transparency within the HRIA process, the Proponent has continuously limited the dissemination of information of the findings of the HRIA citing that they cannot release them on account of the Historical Resource Act. It should be noted that requests to provide confidential archaeological information can be made to the Archaeological Survey assuring that the third party receiving this information signs their own confidentiality agreement. The statement above identifying that Indigenous consultation will be undertaken on this subject seems in contradiction to the actions and statements made by the Proponent throughout this section and throughout consultation undertaken for the proposed Project. Additionally, the Proponent notes that current mitigation measures for historic resource sites are limited to avoidance or mitigation. Mitigation involves the excavation and removal of the archaeological or historic material and is considered a destructive action, as the site area is removed or destroyed through systematic excavation. What has failed to be considered is how the mitigation measures proposed are also an impact to the Stoney Nakoda, as Historic Resources are highly significant to them. The Stoney Nakoda request that the Proponent identify how mitigation options identified through Indigenous consultation, outside of avoidance and mitigation through excavation, will be included within the measures applied to Historic Resources impacted by the proposed Project, and how they plan to manage the perspectives of the Stoney Nakoda with the requirements identified by Alberta Culture Multiculturalism and the Status of Women.

Volume 3A Section 13.0 Historic Resources (Construction and Dry Operations)	
EIS Reference	Comments / Questions
Section 13.1.2, pg. 13.4	Within this section the Proponent states, “the Stoney Nakoda Nations noted “The elders said they do not camp in the river valleys”.” (Section 13.1.2, pg. 13.4). The Stoney Nakoda request that the Proponent identify in what context and by whom this was stated, and for it to be removed from the EIS and struck from the record as it is incorrect and does not accurately represent Stoney Nakoda land use, both in the past or currently.
Section 13.1.5, pg. 13.7	The Proponent states when assessing the residual effects characterization for historic resources, “the value of historical resource is not only measured in terms of the individual artifacts or fossils that the sites contain, but in terms of the information about the past that can be obtained by studying the materials and the spatial context within the sited and landscape. Of particular importance is the relationship of the archaeological materials to the soils in which they are found, and fossils to their strata... With proper scientific study, historical resource mitigation provides invaluable information about the past that cannot be otherwise obtained” (Section 13.1.5, pg. 13.7). This statement grossly overlooks the significance of Indigenous traditional knowledge within the understanding of historical resources, including archaeological and historical sites, and overemphasises the use of scientific study as the only way to mitigate impacts to these resources. There is extensive archaeological and historical literature that emphasises the value of incorporating Indigenous knowledge within archaeological and historical investigation. To solely rely on scientific knowledge during site mitigation would be to disregard a significant avenue of knowledge and to bias the outcome through exclusionary investigation approaches. The Stoney Nakoda requests that the EIS be revised to ensure that Indigenous traditional knowledge is incorporated into the assessment and characterization of residual effects on historic resources, and any mitigation of historic resources that is required by the Archaeological Survey under the Historic Resource Act. The Stoney Nakoda also request that the Proponent include an explanation of how traditional knowledge and traditional use information is included in the assessment and characterization of impacts on these resources, and that consultation and engagement is undertaken to ensure that the appropriate protocols and ceremonies are conducted.

Volume 3B Section 13.0 Historic Resources (Flood and Post Flood Operations)	
EIS Reference	Comments / Questions
Section 13.1, pg. 13.2	The Proponent notes, "reservoir draining would, however change the hydrodynamics of the Elbow River from the low-level outlet downstream to Glenmore Reservoir. These changes could affect the integrity of historical resource sites in this area. The effects of the June 2013 flood on historical resources in southern Alberta were considerable. In response Alberta Culture and Tourism (ACT) sponsored a series of post-flood impact assessment studies on the Bow River, Kananaskis River, Jumpingpound Creek, Fish Creek, Highwood River, Sheep River and Tongue Creek (Bohach and Frampton 2015; Bohach 2016; Boland and Langemann 2015; Leyden et al. 2016; Meyer et al. 2016; Porter et al. 2015; Vivian 2014; Vivian and Amundsen-Meyer 2016). Together, these studies have revealed a rich record of threatened archaeological and palaeontological sites of high heritage value under ongoing impact because of natural, flood related erosion. To date, no flood impact assessment has been conducted for the Elbow River, so the existing conditions on the Elbow River downstream of the Project are not known" (Section 13.1, pg. 13.2). As there is a significant possibility that the proposed Project could change hydrodynamics of the Elbow River and could affect the integrity of historic resource sites along the banks of the river, the Stoney Nakoda request that the Proponent provide capacity support and fund an assessment by the Stoney Nakoda of the Elbow River to document archaeological, historic, cultural and traditional land use site areas to function as a baseline dataset which to track diachronic change to this landscape. This request is to address the impact of flood events, but also events where the proposed Project might limit or restricts water flow, as there is substantial evidence indicating that low water flow has extensive, if not more extreme impacts to bank stability than high velocity flood events which impacts significant site areas that are contained within.

Section 14.0 Traditional Land and Resource Use	
Volume 3A Section 14.0 Traditional Land and Resource Use (Construction and Dry Operation & Volume 3B (Flood and Post Flood Operations)	
EIS Reference	Comments / Questions
Section 14.0 General Comments	Within Section 14 of Volumes 3A and 3B of the EIS, the Proponent attempts to mitigate impacts to Traditional Lands and Resource Use within the Project area during construction, dry operation, flood and post flood operations. It is unclear how pathways, effects, and mitigation measures that are presented within these sections of the assessment reflect or respect the perspective of the Stoney Nakoda, as the Proponent generally refers to the Regulators to guide and provide mitigation measures (rather than the Nations), or, in other instances, the valued components identified by the Nations are minimized or not mitigated appropriately by avoiding traditional perspectives. In many cases the Stoney Nakoda provided clear ways to mitigate impacts effecting Stoney Nakoda values, which in turn were not included in the EIS. The way in which mitigation of impacts to Traditional Land and Resource Use within these sections of the document is undertaken is viewed as deficient of Aboriginal input and perspectives, especially those of the Stoney Nakoda.

Volume 3A Section 14.0 Traditional Land and Resource Use (Construction and Dry Operation & Volume 3B (Flood and Post Flood Operations)	
EIS Reference	Comments / Questions
	The purpose of this EIS assessment is to demonstrate that all aspects of the Project have been examined and planned in a careful and precautionary manner to avoid significant adverse environmental impacts. The EIS, as it is currently written, presents Traditional Land and Resource Use as individual and separate elements, siloing environmental, cultural, and historical values and ignoring their interconnectivity within the landscape. Because of the individual weighting of the VC's it is difficult for the Stoney Nakoda Elders and community to identify if potential effects can and are being mitigated by this EIS as Stoney Nakoda heritage, culture and lifeways are interwoven with human-environment interconnectivity and as a result cannot be siloed and detached from one another. They are essentially an entwined matrix of intangible and tangible elements that form the cultural landscape. The assessment and the overall EIS process overlooks this interconnectivity and as a result cannot mitigate significant impacts of the Project to the Stoney Nakoda culturally significant value components. Additionally, while the Proponent presents what appears to be an extensive consultation record with the Stoney Nakoda Nations, engagement and consultation during this Project is viewed as deficient and incomplete. This is the result of the time of year the TLRU survey was undertaken, the limited area accessible for survey, as well as the actions and views expressed by representatives from Alberta Transportation and DEMA Lands who facilitated the survey. The process in which consultation was undertaken was felt as extractive (see Baker and Westman 2018) and disrespectful of traditional protocols and perspectives, as a result, the Stoney Nakoda do not view these sections as complete and adequate, and do not believe that Section 14 in Volume 3A and 3B present mitigation measures that avoid significant adverse cultural and environmental impacts.

Volume 3A Section 14.0 Traditional Land and Resource Use (Construction and Dry Operation & Volume 3B (Flood and Post Flood Operations)	
EIS Reference	Comments / Questions
Volume 3A Table 14-7, pg. 14.79	Additionally, throughout this section the Proponent contradicts themselves within their proposed mitigation methods. For example, in Table 14-7 the Proponent notes, "Alberta Transportation will follow heritage resource protection methods as mandated by ACT and verify archaeological results with Indigenous groups," followed in the next row of the table by the statement, "Alberta Transportation will participate in discussions with ACT and Indigenous groups regarding further investigation of identified sites located within the designated construction site boundary" (Table 14-7, pg. 14.79). It is unclear how and when the Proponent will include Indigenous perspectives within mitigation strategies and how that can be balanced with those mandated by AC. The Stoney Nakoda request that the Proponent clarify these statements and identify when consultation surrounding mitigation and investigation measures for current use sites will take place, and how mitigation and investigation options identified through Indigenous consultation, outside of avoidance and excavation will be included within the measures applied to Historic Resources and cultural sites impacted by the proposed Project, and how the Proponent plans to manage Stoney Nakoda perspectives with the requirements identified by Alberta Culture.

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