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Impact Assessment Agency of Canada Canada Place 9700 Jasper Avenue, Suite 1145 Edmonton, AB T5J 4C3

November 26, 2021

RE: Piikani Nation Review of the Summary of the Initial Project Description of the Horsefly Regional Emergency Spillway Project

To whom it may concern,

Please find below Piikani Nation's review of the initial project description for the Horsefly Emergency Regional Spillway Project and comments on the proposed project.

Kind regards,

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1.0 Introduction

1.1 Overview of proposed project

The Municipal District of Taber (the proponent) has proposed a project which would modify the existing Taber Irrigation District (TID) and St. Mary River Irrigation District (SMRID) canal infrastructure to allow for the development of an emergency spillway. This spillway referred to as the Horsefly Regional Emergency Spillway Project (the proposed project), would divert excess water from the SMRID Main Canal to the Oldman River, during significant (e.g., greater than 1 in 100 year) flood events. Specifically, water from the SMRID Main Canal southeast of Taber, Alberta, would be diverted initially through Horsefly Reservoir, via an expanded canal. Water would then continue Taber Lake, immediately east of the Taber. Finally, water would travel north then west via an expanded Big Bend canal and a natural coulee to discharge floodwaters to the Oldman River.

The Horsefly Regional Emergency Spillway Project was proposed as a measure to improve emergency stormwater management in the south Oldman River basin. Flooding events in 2010, 2011, 2013, 2014 and 2018, have demonstrated that the existing infrastructure primarily designed for irrigation and drainage, is not capable to handle severe storm events. Further, it is anticipated that as a result of climate change, there will be an increase in extreme storm events which may contribute to flooding.

By increasing the capacity of primarily existing infrastructure, Horsefly Regional Emergency Spillway is designed to alleviate concerns of limited capacity in the SMRID Main Canal, reducing the likelihood of flooding both above and below the town of Taber.

1.2 Review Scope

Shared Value Solutions (SVS) on behalf of the Piikani Nation Consultation office undertook a review of the IPD for the Horsefly Regional Emergency Spillway project. The objective of this review was to identify areas of initial concern in relation to potential impacts to Piikani Nation rights and interests as a result of the proposed project. As this IPD only provides a high-level overview of the project and its anticipated impacts, analysis of impacts to Piikani Nation's rights and interests must be considered as preliminary and incomplete.

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2.0 Piikani Nation Aboriginal and Treaty Rights and Interests Relevant to the Project

2.1 Piikani Nation

The Piikani Nation was once a larger group comprised of the Aapatohsipiikani (North Piikani or Piikani, also known as Peigan) and the Amsskapipiikani (South Peigan or Blackfeet Nation). However, the Nation became divided into two separate groups through the imposition of the international boundary between Canada and the United States (Piikani Nation, 2017). Piikani Nation's territory consists of the traditional homeland of the Niitsitaapi (Blackfoot) peoples (see Figure 3). Piikani Nation exercises its Aboriginal rights across the traditional homeland of the Blackfoot peoples and has a sacred duty as stewards to protect the ecological integrity, human health, traditional land use activities and cultural values it supports.

Throughout their history the Piikani Nation was often referred to by non-Indigenous settlers and traders as Peigans. On occasion in various documents, (Dempsey, 1997 and 2018; Reeves et al, 1994; National Historic Sites Service, 1973) there are instances of this name being spelled Peagan, hence Peagan Post, which will be discussed later. Following Confederation and implementation of the Indian Act, Peigan Nation used this name and spelling for their reserve, up until 2000. In 2001, the band council voted to change the spelling of their name to Piikani (Personal Communication, 2020). Throughout this submission Piikani and Peigan are used interchangeably.

Presently, Piikani Nation's membership consists of approximately 3,600 registered members. Of this number 60% live on the Piikani reserve while the remaining 40% live off reserve in urban centres that surround the Nation (Yellowhorn, n.d.). Piikani citizens often leave our community to access post-secondary education, employment, and housing (Yellowhorn, n.d.).

Piikani Nation has a land mass of 46,677.8 hectares and two reserves. The hamlet of Brocket, Alberta is located in the 147a reserve and a timber reserve is located in 147b (Yellowhorn, n.d.). Piikani Nation's members engage in a number of activities that are connected to the land (in addition to those outlined in Section 2) including ranching, agriculture, spiritual ceremonies, and recreational activities (Yellowhorn, n.d.).

Economic development is a key priority for Piikani Nation and as a result the Nation established Piikani Resource Development Ltd. (PRDL). PRDL is a corporation that is wholly owned by the Nation and facilitates community members' access to opportunities and promotes Piikani Nation's economic development (PRDL, 2018).

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PRDL is involved in the management of various energy industry activities such energy generation, transmission, and distribution (PRDL, 2018).

Unemployment is a challenge still experienced by Piikani Nation which can be attributed to a variety of factors that have impacted community members (Yellowhorn, n.d.). "Despite challenges in economic development and unemployment Piikani Nation still maintains one of the highest post-secondary school graduation rates and as a result hosts a wide variety of professionals including lawyers, doctors, educators, scientists, RCMP and military personnel all of whom call Piikani home. The Piikani Nation remains a leader in various aspects of Aboriginal governance and have a rich history in shaping mainstream political movements in Canada that influence life on Aboriginal people" (Yellowhorn, n.d.).

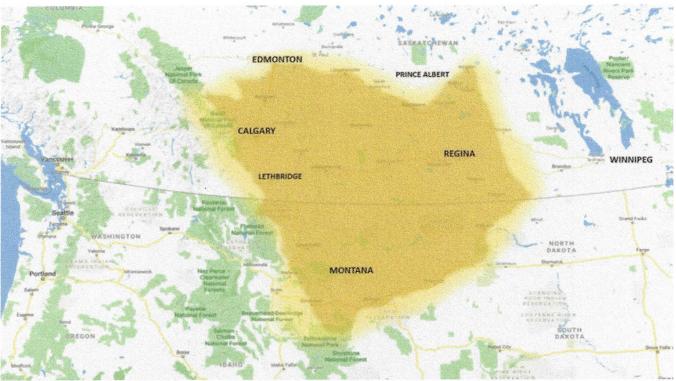


Figure 1 Blackfoot peoples & Piikani Nation Territory Map. Source: Piikani Nation

Note: The map depicting the boundaries of Piikani Nation's traditional territories should be interpreted as a snapshot in time of what is an evolving understanding of the landscapes our ancestors occupied. Maps are inherently colonial constructs that seek to delineate areas that "belong" to one group or another. This concept of distinct and separate territories with legal boundaries is one that has been imposed on First Nations like Piikani Nation by government authorities. Both in the past and presently, Piikani Nation shares the land with many First Nations throughout the northern plains and into the Rocky Mountain landscape.

Piikani signed on to the linii Treaty in September 2014 and the Protocol Agreement between the Government of Alberta and the Blackfoot Confederacy for the Discussion on Matters of Mutual Concern which came into effect in March of 2017. Piikani Nation is also an active member in various initiatives with the Blackfoot Confederacy, Treaty

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7, the Rocky Mountain Tribal Leaders Council, and other Aboriginal groups (Yellowhorn, n.d.).

2.2 Piikani Nation Consultation Policy

Since March 2017, Piikani Nation has had a consultation policy (see Appendix B) in place to be utilized by Piikani Nation, the Crown, government, and industry proponents. The policy establishes fundamental guiding principles that ensure Piikani Nation is meaningfully engaged and consulted. The Piikani Nation Consultation Policy seeks to protect and preserve Blackfoot Territory by determining Piikani's culturally and ecologically significant sites and protecting them from being disturbed (Piikani Nation, 2017).

Piikani Nation's consultation policy sets out a process for how the Nation wishes to be consulted and accommodated including articulating the roles and responsibilities of proponents, the Crown, and of Piikani Nation. As part of this policy Piikani Nation also shares what is called Piikanissini, meaning the values and principles of Piikani Nation.

Piikanissini was enacted by Chief and Council in 2002 and includes key declarations regarding "the wish of the Piikani to maintain their unique language, spirituality and culture as a people, while sustaining their family and social relationships, and traditional governmental systems; a desire to enhance their lives by advancing the political interests of the Piikani, which includes protecting the Aboriginal and Treaty Rights of the people, while promoting health, education, social and economic interests and programs that benefit the people; and most importantly, the intent of the Piikani in their pursuit of such endeavors, to always strive to ensure that the values, principles and integrity of the Piikani is preserved in the process" (Piikani Nation, 2017).

Piikanissini also outlines the territory of the Piikani people and tells the relationship that Piikani has with Ihtsipaitapiyopa (Source of Life), the Siksikatsiitapiwa (the Blackfoot Confederacy, comprising Piikani, Sisksika and Blood Tribe), and the Amsskapipiikani (South Piikani, located in Montana) (Piikani Nation, 2017).

Piikani Nation's future aspirations coming out of this policy are to break the cycle of dependence and become an economically viable and self-sufficient nation. Piikani Nation believes that proper use of the lands and resources in Piikani territory could support this goal when projects are carried in a way that the health, educational, social, economic, and cultural conditions in the community are enhanced by the project (Piikani Nation, 2017). In practice, fully realizing these benefits from projects can take on a variety of forms for Piikani Nation, including:

- Meaningful consultation;
- Developing mutually agreed upon accommodation and mitigation measures;

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- Revenue sharing agreements;
- Impact Benefit Agreements; and
- Equity participation in development projects.

Piikani Nation's Consultation Policy aims to provide all parties involved with an understanding of the various elements of consultation, how to apply them effectively, and an understanding of Piikani Nation's rights, interests, and values to allow for meaningful consultation and accommodation with Piikani Nation throughout the lifecycle of a development.

As an addition the Consultation Policy, Piikani Nation is in the process of establishing a Guardian Program to monitor environmental and cultural heritage resources within Piikani Nation's territory. Piikani Nation sees a role for itself in the environmental and cultural heritage monitoring of the Project through training and employment of Piikani Nation Guardians or monitors to assist in monitoring requirements. The terms "Guardian" and "monitors" are used interchangeably throughout this Submission.

ABORIGINAL RIGHTS

Piikani Nation's ancestors have occupied the lands of current day Alberta and beyond since time immemorial. Piikani Nation has always had a very close connection to and reliance on the lands and waters. Additionally, Piikani Nation has established Aboriginal and Treaty Rights and Interests in the area, protected under Section 35 of the Constitution Act, 1982.

The proposed Project will have significant adverse impacts on Piikani Nation's Aboriginal and Treaty rights. The Aboriginal and Treaty Rights of Indigenous peoples in Canada are protected and affirmed by Section 35 of Canada's Constitution, by international law to which Canada must adhere, and by the laws of the Piikani Nation Peoples themselves. Any regulatory process and outcome must adhere to such rights.

2.3 The Blackfoot Treaty (No.7) and Piikani Nation Territory

Piikani Nation is a signatory to Blackfoot Treaty of 1877 (commonly referred to as Treaty No. 7). This Treaty was signed by Piikani Nation ancestors along with Siksika, and the Blood Tribe and the Crown explicitly on a Nation-to-Nation basis. Minor signatories of the Blackfoot Treaty were the Stoney-Nakoda and Tsuut'ina.

Through the treaty making process the ancestors of Piikani Nation pursued the protection of traditional lands and livelihoods while working to secure adequate assistance to transition to a new way of life in an equitable manner (Hall and Albers,

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2017). These objectives were in direct conflict with the goals of the Canadian government to assimilate Indigenous People and as a result of these competing objectives, there are still unresolved issues to this very day regarding the respecting and upholding of Treaty Rights.

A Treaty Right is, generally, either a continuation or modification of an inherent/Aboriginal Right or a form of right that is compensation or trade for giving something else to the Crown. The circumstances under which the First Nations were asked to sign Treaty No. 7 are controversial and there are still a number of outstanding issues regarding the fulfilment of terms laid out in Treaty No. 7.

The Siksikatsiitapiwa have passed down teachings of Treaty No. 7 through oral tradition and maintain that Treaty No. 7 was established as a Peace Treaty not a surrender of land (Piikani Nation, 2017). The Siksikatsiitapiwa interpret the Treaty as an agreement to share the land with European settlers in exchange for equitable living standards achieved through benefits including education, medical assistance, and annuity payments (Piikani Nation, 2017).

Siksikatsiitapiwa and Piikani Nation maintain that the true spirit and intent of Treaty No. 7 as a Peace Treaty has not been fulfilled nor upheld by the Crown (Piikani Nation, 2017). Although the Crown has not upheld the honour of their treaty, Piikani Nation continues to protect our interests and exercise territorial jurisdiction over our ancestral and treaty lands.

Piikani Nation has asserted repeatedly to agencies of the Federal Crown that, as per Treaty No. 7, Piikani Nation has the following rights to the use and enjoyment of our territory:

- As beneficiaries of Treaty No.7 treaty rights including the right to hunt, trap and harvest natural resources within our Piikani territory, to our way of life, to the use, enjoyment and control of lands reserved for us and the right to a livelihood and cultural and spiritual practices from our traditional lands;
- While the Crown has the ability to "take up" lands for pipelines, mining and other purposes pursuant to Treaty No. 7, this right is limited by Piikani Nation's right to sufficient lands, and access to them, within our territory, of a quality and nature sufficient to support the meaningful exercise of our treaty rights.

In addition to the rights identified above as per Treaty 7, Piikani Nation also has the following rights, which flow from statutory and constitutional obligations:

• The right to hunt for food in all seasons pursuant to the *Natural Resources Transfer Agreement* (being schedule 2 of the Constitution Act, 1930);

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- The right to be consulted and accommodated with respect to potential adverse effects on our rights and the interests secured by these rights;
- The right to use and enjoyment of our reserve lands pursuant to section 18(1) of *the Indian Act* (R.S. 1985, C. I-5);
- The statutory right to hunt, fish and trap on Crown lands pursuant to the *Hunting*, *Fishing and Trapping Heritage Act* (S.A. c. H-15.5).

3.0 Summary of Piikani Nation's Concerns

Piikani Nation understands the need for a flood management project such as what is proposed, to limit property damage and improve public safety. However, the Crown has a duty to address Piikani Nation's concerns in relation to the project that must be addressed prior to the Project's construction and throughout its operation. The following sections highlight some of our overarching concerns, however, a full table detailing our concerns and recommendations at this stage of the project can be found in the Appendix A. Piikani Nation wishes to engage bilaterally with the Municipal District of Taber and build a meaningful relationship to resolve concerns and collaboratively engage in the development of this project.

3.1 Review Findings - Knowledge Gaps and Project Description

The Initial Project Description (IPD), is intended to provide an overview of the project, but includes sufficient information about the construction and operation within the local and regional environment, such that its impacts can only be assessed at a preliminary level. In the review of the IPD, we note several instances where information is insufficient to either understand the project description or the possible impacts of the project. Specifically, it is requested that additional maps or figures be provided, outlining all potential pathways for Phase 1, 2 and 3 as well as all relevant infrastructure within the scope of this project. Additionally, it is requested that where supporting evidence is described in the IPD, these reports or documents be referenced and either appended to the IPD or otherwise be made accessible to Piikani Nation.

3.2 Impacts on Water Quality, Riparian and Fish Habitat

The Oldman River is held sacred by the Piikani Nation. Our members both contemporarily and since time immemorial have been stewards of the Oldman River, as it provides a source of fish, is an important riparian habitat for wildlife important to Piikani, and is our principal source of water. As a result, this project must be designed in a method that protects the Oldman River for all.

Piikani Nation is concerned that the full impacts of this project on water quality, fish and riparian habitat have not yet been contemplated. Specifically, as constructed, the TID and SMRID canals, while artificial, allow for fish passage between the Oldman

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River, Taber Lake and Horsefly Reservoir. Insufficient information is provided in the IPD to assess whether the canals constitute fish habitat themselves, however, observations of northern pike, yellow perch, walleye, and other smaller fish in Taber Lake and Horsefly Reservoir suggests that a complex fishery exists. As a result, it is expected that the construction and operation of the spillway, is likely to result in the destruction of fish habitat within the spillway route, and possible ongoing habitat or water impacts both in the spillway and downstream Oldman River in the future. Additional information including a fish habitat assessment is necessary to adequately assess the impacts of this project on fish and fish habitat.

Piikani Nation is also concerned about the potential impacts that the Project presents to delicate riparian habitat along the Oldman River. This habitat over the past few decades has been significantly altered as a result of damming and water use for irrigation. This has led to inconsistent flows and significant changes to the riverbanks and riparian habitat that many species of importance to Piikani, rely on. The IPD makes little mention of the potential impacts to riparian habitat downstream from the Project and the incremental cumulative effects the Project represents to the overall health of the Oldman River.

3.3 Impacts to Cultural and Heritage Resources

The IPD mentions that within the Project area, there are several sites that have historic resource values that may require avoidance. One of these sites is within the project footprint and two others are within 100 m of the Project footprint. These sites are evidence of our ancestors 'historic use and occupation of these lands and require that Piikani Nation has an opportunity to conduct adequate protocol to mitigate any potential impacts to these sites.

3.4 Cumulative Effects Within the South Saskatchewan Watershed

The Oldman River is a major tributary of the South Saskatchewan River. Both the Oldman and South Saskatchewan Rivers are heavily impacted throughout their watersheds by agricultural activity, industry and municipal takings and discharge. As a result, cumulative effects greatly influence water quality and quantity, impairing their use and natural processes. The impacts of the Horsefly Regional Emergency Spillway Project cannot be viewed in isolation and must consider contributions to downstream cumulative effects.

3.5 Engagement with Piikani Nation

To date, a relationship between the Municipal District of Taber and Piikani Nation has not yet been established and this review provides the first instance of an opportunity for Piikani to provide comment on the project. It is important to recognize that a lack of meaningful engagement to date does not imply that Piikani Nation is not affected or

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interested in this project. Indeed, quite the opposite is the case. This project will take place in the heart of Piikani Nation's ancestral territory. Piikani Nation is concerned that the IPD implies that since no impacts have been raised by Piikani Nation or other Indigenous Nation as of yet, that further concern is unlikely. A Traditional Knowledge and Land Use assessment of the Project site and the surrounding area has not yet been conducted, as a result, Piikani Nation is not yet positioned to determine the potential impacts to our interests. It is expected that the regulatory process for the Project would include capacity funding to support Piikani Nation in conducting an appropriate Traditional Knowledge and Land Use study for this project, and the results of this assessment incorporated into the detailed planning for the Project.

4.0 Summary and Recommendations

As mentioned, Piikani understands the need for the Project. However, given the Project's location within Piikani Nation's ancestral territory and the fact that the construction of the Taber Canal predates current standards of consultation with Indigenous Nations and therefore excluded, a greater effort must be made by the proponents and the Crown to involve Piikani in a meaningful way. Piikani's preference would be for this project to be designated to an impact assessment as this would ensure that capacity would be made available for Piikani to conduct a Traditional Knowledge and Land Use study of the Project area and an opportunity to weigh in on the design of the Project to ensure it avoids to the extent possible, any sites of cultural or historical significance. Furthermore, because the project has the potential to impact areas under federal jurisdiction, including migratory birds and fish habitat, an impact assessment would provide Piikani with an opportunity to conduct an independent analysis on the potential contributions of the Project to cumulative effects in the region, including any further impacts to important fish and riparian habitat within the Oldman River watershed. Lastly, because the Project represents potential impacts to the health and viability of downstream fisheries and as such, should trigger Department of Fisheries and Oceans (DFO) authorizations, Piikani requests that it be involved in further assessments conducted by DFO associated with the Project's construction.

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Appendix A: Comment Tracking Table

Table 1: Comment Tracking Table

Comment #	IPD Section Reference	Issue	Question/Recommendation
1	Section 1.0 Figure 1.1 and Figure 1.2	Figures providing an overview of the proposed project do not provide sufficient resolution of the proposed route for Phases 1, 2, and 3. Figure 1.2 only describes Phase 2 of the project and features found between Horsefly Reservoir and Taber Lake	The Proponent should provide maps identifying proposed routes of Phase 1, 2 and 3, as well as any relevant features described in the IPD (e.g. rail or roadway crossings, turndown structures, Coulee to Oldman River).
2	Section 1.0 Figure 1.2	Figure 1.2 labelled as figure 12.2	Please revise using consistent figure labelling convention.
3	Section 1.0 Figure 1.2	It is difficult to interpret the map depicted in figure 1.2 as a north arrow and scalebar are absent.	Please revise the map to illustrate the appropriate north arrow, scale bar, and projection.
4	Section 3.0 Engagement with Jurisdictions or Agencies	The Proponent describes members of the Southern Regional Stormwater Drainage Committee. Notable there are no Indigenous representatives, as a result, it implies that no Indigenous representation was engaged directly in the development of the project plan or the evaluation of project alternatives.	Piikani Nation exercises Aboriginal and Treaty rights within the Oldman River watershed. As a result, the Proponent must ensure adequate engagement and consultation of Indigenous rights holders, and where interest is identified, ensure mechanisms exist for engaging Indigenous rights holders in the review and evaluation of project plans moving forward.
5	Section 3.0 Engagement with Jurisdictions or Agencies	The Proponent notes that three public open houses were held in 2014 and that another public open house to discuss the Horsefly component of the overall stormwater management plan is to be held in Autumn 2021 in Taber.	Please advise Piikani Nation of the proposed date and location for the open house. Additionally, it is recommended that additional site tours be conducted either as part of this open house or in addition to it.

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6	Section 4.0 Engagement with Indigenous Groups	The Proponent notes that they will respond to any enquiries from Indigenous groups concerning the proposed project.	This passive approach to engagement with Indigenous rights holders is insufficient. Piikani Nation requires that the proponent follow Piikani's established consultation protocol outlined in Section 2.
7	5.0 Regional Assessments and Relevant Environmental Studies	The IPD notes that a regional Traditional Knowledge and Land Use study was conducted for the Montana Alberta Tie Ltd transmission line but there is no mention of whether this assessment was considered for the Project.	Given the lack of Indigenous input into the original construction of the Taber Canal and exclusion of knowledge of the Project's potential impacts to Aboriginal and Treaty Rights, Piikani requires that a Traditional Knowledge and Land Use study for the project areas be conducted prior to the Project's approval.
8	8.0 Physical Activities Regulation	Piikani Nation agrees with the analysis from the Impact Assessment Agency of Canada, that given this project has the potential to divert nearly 10,000,000 m3 of water during a 1 in 100-year flood event, and more during an even more extreme, yet feasible event, that this project as proposed is subject to Section 61 of the <i>Physical Activities Regulations</i> . Although the proposed project outlines flow capacity for each of the three phases of the canal works as being 40 m³/s it is unclear what the	Piikani Nation recommend that the Proponent provide a synopsis of the return period of the maximum flood event the project as proposed could handle under its expected design constraints.
9	Section 9.1 Project Phases	return period for an event that would result in flow rates of 40 m³/s The Proponent reference figure 1.2, which only provides a map for Phase 2 of the proposed project.	The Proponent must provide detailed maps of each phase including all relevant structures used to operate the spillway. These maps should illustrate all features which will be constructed, removed or

			modified under the scope of the proposed project.
10	Section 9.1. Project Phases	It is unclear how proposed channel expansion activities to be carried out under Phase 1- 3 will impact the existing footprint of the canal.	Additional information about the approximate maximum width and depth of the canal must be provided to understand the project scope.
11	Section 9.1.3 Phase 3	It is unclear what the footprint of the expanded wetland will be at the inlet of Taber Lake. Additionally, it is unclear how this will integrate with the wetland feature which is already under construction.	The Proponent should provide preliminary plans for the proposed wetland footprint at the inlet of Taber Lake.
12	Section 9.1.3 Phase 3	Insufficient information is projected by the Proponent to assess the physical scope of Phase 3. As the Proponent has not provided adequate maps of the proposed route features identified in the Phase 3 description cannot be adequately located geographically or assessed.	Additional information describing project features that are to be constructed, removed or modified within the scope of this project must be provided. This included location information of described features which can either be cross-referenced with an appropriate site map or coordinates of feature location be provided.
13	Section 9.1.3 Phase 3	It is unclear what the footprint of the expanded wetland will be at the inlet of Horsefly Reservoir. Additionally, it is unclear how this will integrate with the wetland feature which is already established.	The Proponent should provide preliminary plans for the proposed wetland footprint at the inlet of Horsefly Creek.
14	Section 9.2.1 Construction	The Proponent identifies that wetlands will be constructed at the inlet of Horsefly Reservoir and Taber Lake respectively, as a method of improving water quality. Wetlands are to have a footprint of 20-30 ha.	Please provide supporting information and rationale for how a footprint of 30-40 ha was determined to be sufficient to meet water quality objectives.
15	Section 9.2.1 Construction	Wetlands are only to be constructed at the inlet of Taber Land and Horsefly Reservoir, however, as	Provide a summary of water quality management and mitigation features that could be employed to manage

	The state of the s		
		identified there is concern regarding the overall impacts of the project on the water quality of the Oldman River.	the water quality of the spillway before discharge to the Oldman River.
16	Section 9.2.1 Construction	The Proponent notes: "Control structures will have chain link fencing and the canals will have barbed wire fencing to control access and for safety purposes"	Piikani Nation agrees that there is a need to ensure access to the control structure is limited for public safety reasons. However, the control structure should be designed in a manner that will allow the natural passage of fish and wildlife.
17	9.2.2 Operation	It is unclear from the description of the canals' function under flood conditions what the expected operating limits are. Specifically, the Proponent notes that for events of 1 in 100 years or greater, the turndown structure will allow water passage from the canal into the Oldman River, via the spillway. However, the description also notes that the SMRID Main Canal is designed to handle 1 in 100-year events, with excess water overtopping the canals and flooding the adjacent lands, while water is being diverted via the spillway. Further, the proposed project will allow the flow rates through the spillway canals to handle up to $40 \text{m}^3/\text{s}$.	As incongruent measures of flooding scale are provided (e.g. flow rate for the spillway, and event return period for the entire system), the Proponent should provide further analysis and discussion on what scale of flooding event (minimum and maximum event return period) the spillway is expected to operate under.12
18	12.1.1 Southern Regional Stormwater Management Plan	The Proponent references the Southern Regional Stormwater Management Plan (SRSMP), which examined drainage issues in the south Oldman River drainage basin and considered six options for flood control. This plan provides important context to the driving factors for flooding and the rationale used to examine project alternatives.	Given the importance of the SRSMP, it is requested that the proponent provide the plan either as an appendix to the IPD or as a link, to better understand whether the proposed project indeed represents the most feasible and effective option for flood mitigation.

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19	12.1.2 Preferred Alternative	The proposed project was selected as the preferred alternative, in part because it provides the shortest route from the SMIRD Main Canal to the Oldman River. What storage capacity do Taber Lake and Horsefly Reservoir provide to the spillway? If storage capacity is negligible, does the location of Taber Lake and Horsefly Reservoir represent a threat to the safety of the town of Taber, as their likelihood of flooding may increase due to the increased inputs?	Taber Lake and Horsefly Reservoir represent hydraulic obstacles in draining the SMIRD Main Canal to the Oldman River, as the flow will slow-moving through these water bodies. Where reservoirs have excess storage capacity this can be viewed as a benefit, allowing a buffering capacity between the source and receiving bodies. As it appears Taber Lake and Horsefly Reservoir do not have a meaningful about of excess storage capacity, they may create a bottleneck, resulting in localized flooding, which given their proximity to the Taber townsite, increases the threat to infrastructure and public safety, compared to simply allowing the SMIRD Main Canal to flood. The proponent should provide additional discussion on the implications of Taber Lake and Horsefly Reservoir as hydraulic bottlenecks in the emergency drainage to the SMIRD Main Canal.
20	13.0 Geographic Location	The proposed project provides two options for Phase 2. One option would route the canal connecting Horsefly Reservoir and Taber Lake in a straight line that traverses the Lantic Inc. industrial complex. A second option would route the canal connecting Horsefly Reservoir and Taber Lake to the immediate east of the Lantic Inc. industrial complex. Of concern is that under Option 1, the canal would pass directly beside storage lagoons. Given the nature of the products Lantic Inc. manufactures (sugar), the proximity of the canal represents a significant concern, as these lagoons are assumed to contain process or wastewater with significantly high levels of nutrients and constituents	The Proponent should describe additional flood mitigation infrastructure (e.g. berms, dykes) in place to ensure that floodwater overtopping the spillway canal between Horsefly Reservoir and Taber Lake would not be able to infiltrate and mix lagoons at the Lantic Inc. industrial complex. Additional risk assessment should be conducted to examine the chemical constituents stored on the site of the Lantic Inc. industrial complex, which should inform routing options of the spillway.

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		which contribute to Biological Oxygen Demand (BOD). In a flooding event where the spillway is overtopped, the proximity of the canal to these lagoons could allow for floodwaters to easily mix and become contaminated. If released to the environment, this contaminated water could have a significant detriment to the health of aquatic life downstream.	
21	14.1 Project Environmental Setting	The fish inventory conducted in support of all three phases of the proposed project notes the presence of significant fish communities and habitats in Taber Lake and Horsefly Reservoir. It is unclear whether the fisheries field program examined the presence of fish or fish habitat in the connecting channels. As there are only limited barriers to migration between the Oldman River and the SMIRD Main Canal, it is expected that fish would be present in the current connecting canals and could exist in the future modified spillway canals.	The proponent should clarify if fishery studies were conducted in the connecting canals between the Oldman River and the SMIRD Main Canal, and if so whether fish are present. The Oldman River contains fish that are of cultural importance to Piikani Nation, as a result, it is of utmost importance that if fish are utilizing the canals which connect the Oldman River and the SMIRD Main Canal, construction is conducted in a manner that avoids, minimizes, and mitigates risks of impacts on fish habitat. Additionally, the Proponent must design the spillway to provide adequate habitat for local fish populations. It is expect that the proposed project will be designed, constructed and operated to meet or exceed all relevant provincial or federal fisheries protection legislation.
22	15.0 Health, Social and Economics of MD of Taber	The project is expected to generate 30-40 jobs during the construction of each phase.	Provide additional information on proposed scheduling, and whether each phase will be constructed in parallel or sequentially. Piikani Nation requests that it be notified of any labour or contracting opportunities to be generated through this proposed project.

23	19.1 Overview of Environmental Effects	The IPD references a turndown structure that will be closed when the canal from Taber Lake is at capacity. It is unclear from the information provided the location of this and other turndown structures used in water management.	Please provide revised maps of the project outlining the proposed route(s) and all referenced facilities and infrastructure.
24	19.1 Overview of Environmental Effects	The Proponent suggests that the failure of spillway control structures could result in overtopping of the Project canals and flooding of the adjacent lands. The environmental effects would be similar to a flood without the Project. It is unclear whether this analysis is correct, as the spillway routes water towards the Taber townsite and several industrial complexes. While a significant enough flood may result in widespread flooding such as is described by the Proponent, the route of the proposed Project would alter the direction of flow.	More information on various contingency flooding scenarios is required to perform an adequate risk assessment. It is recommended that the Proponent provide the SRSMP which outlines possible project alternatives, and conduct a risk assessment on the potential impacts of the various project options.
25	19.1 Overview of Environmental Effects Table 19.1 Potential Environmental Effects and Mitigation Measures	The impacts of construction on water quality are expected to be much more severe than described in Table 19.1, as vegetation loss and excavation of the canal itself will allow for soils to be disturbed and mobilized during and after construction.	A robust sediment control strategy aimed at minimizing the movement of sediments must be developed. Additionally, the proponent should outline the framework for a water quality monitoring program examining a range of water quality/chemistry parameters in the proposed spillway, Horsefly Reservoir, Taber Lake and downstream Oldman river. The proponent should also develop an adaptive management protocol for water quality impacts.
26	19.1 Overview of Environmental Effects Table 19.1 Potential Environmental	The Proponent suggests that if work is required at the outlet to the Oldman River, DFO will be notified and any requirements from them will be adhered to.	Piikani Nation requires the Proponent to consult with DFO regarding the entirety of the proposed project and implement environmental protection and

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	Effects and Mitigation Measures	While our minimum expectation is that DFO is consulted where work is required at the outlet of the Oldman River, from the description of the existing canal and reservoir system, it is anticipated that the entire system may constitute fish habitat.	mitigation measures to minimize impacts on fish and fish habitat.
27	19.1 Overview of Environmental Effects Table 19.1 Potential Environmental Effects and Mitigation Measures	Whirling Disease is of great concern in Alberta. While it has not yet been observed in the Oldman River downstream of Taber, it is found within the Oldman River watershed.	The Proponent must develop a decontamination protocol for all equipment to come into contact with the canals or water flowing into them.
28	19.2 Summary of Effects	The Proponent suggests that the "Project will provide the benefit of flood control, the environmental effects of developing this benefit are not significant". To date, the full impact of this project on the environment has not been considered. As a result, the Proponent should not consider environmental effects as being insignificant.	The Proponent should remove the statement "the environmental effects of developing this benefit are not significant" until the Proponent can provide evidence to support this assertion.
29	19.3 Fish and Fish Habitat	The Proponent suggests that "effects on fish and fish habitat are expected to be minor to negligible". The full impacts of this project including direct impacts to fish, fish habitat and water quality, have not been fully considered or qualified.	The proponent must conduct a fish habitat assessment on the full scope of the project and consider the impacts of habitat loss and water quality during both construction and operation, on fish health within the spillway as well as the downstream Oldman River. Water quality modelling must be performed to understand the potential contributions of this project to the Oldman River.
30	19.3 Fish and Fish Habitat	The Proponent suggests that upgrades to Horsefly Reservoir will be carried out in the canal and therefore no work will be carried out in the reservoir. However, they	A fish habitat assessment must be conducted on the entirety of the spillway, including for Horsefly Reservoir. A protection plan

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		previously described in Section 9.1.3 that the existing wetland at Horsefly Reservoir will be expanded and enhanced to improve water quality. The wetland and reservoir should not be considered as separate features. As a result, the Proponent must consider the impacts of wetland expansion on the fish habitat provided both by the existing wetland and reservoir.	including impact avoidance, minimization and mitigation must be developed for the Horsefly Reservoir.
31	20.0 Potential Extra- Provincial and Federal Impacts	The Proponent suggests that the effects of this project will be confined to Alberta. The Oldman River is a tributary of the South Saskatchewan River which has headwaters in British Columbia and flows through Alberta, Saskatchewan and Manitoba. The South Saskatchewan River is heavily impacted by agriculture, oil and gas, and municipal takings and effluent discharge. These impacts are compounded through the South Saskatchewan River watershed.	Given the already significant and cumulative nature of effects in the South Saskatchewan River watershed, this project cannot be viewed as not having any impact beyond the borders of Alberta. An analysis must be conducted on the impacts to water quality and quantity on the downstream environment as a result of the construction and operation of this project.
32	21.0 Impacts to Indigenous Groups Including Traditional Land Use, Physical and Cultural Heritage, and Historical, Archaeological and Paleontological Resources.	The Proponent notes that "Communication with Indigenous groups has not identified any Project effects on physical or cultural heritage, or structures or sites of historical, archaeological, paleontological or architectural significance to Indigenous peoples." While this statement may characterize a snapshot of what the Proponent has heard to date, Piikani Nation has not been meaningfully engaged by the Proponent to date. As a result, the Proponent's characterization of impacts to Piikani Nation are accurate.	The Proponent must engage directly with Piikani Nation and support it in the identification and determination of all impacts of this project on the rights and interests of Piikani Nation.

33	23.0 Greenhouse	The Proponent considers the	It is recommended that the
	Gas Emissions	greenhouse gas emissions directly	Proponent consider the full impacts
	Associated with the	associated with the construction and	of the project including those both
	Project	operation of the proposed project,	positive and negative derived from
		however, does not provide adequate	modifications to natural ecosystem
		consideration for potential emissions	processes.
		or storage capacity which will be	
		provided by the limnological and	
		wetland processes (e.g. expansion of	
		wetlands).	