Analysis Report

WHETHER TO DESIGNATE THE **TENT MOUNTAIN MINE REDEVELOPMENT PROJECT** IN ALBERTA AND BRITISH COLUMBIA PURSUANT TO THE *IMPACT ASSESSMENT ACT*

June 2021

Contents

Purpose

The Impact Assessment Agency of Canada (the Agency) prepared this report for consideration by the Minister of Environment and Climate Change Canada (the Minister) in deciding whether to designate the Tent Mountain Mine Redevelopment Project (the Project) pursuant to section 9 of the *Impact Assessment Act* (the IAA).

Project

Montem Resources Alberta Operations Ltd. (the Proponent) is proposing to redevelop and expand the Tent Mountain Mine for the extraction of the remaining metallurgical (steelmaking) coal within the existing mine permits for export to international markets. Tent Mountain Mine ceased operation in 1983. The Project is located approximately 16 kilometres west of the town of Coleman, Alberta (Figure 1) and would conduct physical activities in both Alberta and British Columbia (B.C.) (Figure 2).

Context of Requests

In March 2021, the Minister received requests to designate the Project from Blood Tribe/Kainai and Siksika Nation. Subsequent designation requests were submitted by Wilson Laycraft Barristers & Solicitors representing four ranchers; the Member of Parliament for Edmonton Strathcona; Canadian Association of Physicians for the Environment Alberta Regional Committee, Alberta Wilderness Association; Backcountry Hunters and Anglers – Alberta; Ktunaxa Nation Council; Ecojustice on behalf of Niitsítapi Water Protectors, Canadian Parks and Wilderness Society - Southern Alberta, and Livingstone Landowners Group; Yellowstone to Yukon; Ermineskin Cree Nation; the Tribal Councils of the Confederated Salish and Kootenai Tribes and the Kootenai Tribe of Idaho; the Mountain Child Valley Society; and numerous other non-governmental organizations. The Agency also received considerable correspondence from members of the public, including through letter writing campaigns. On May 21, 2021, the Agency received input from the United States Environmental Protection Agency (U.S. EPA) Region 8.

On March 10, 2021, the Agency sent a letter to the Proponent notifying them of the designation request and requesting information. In addition, the Agency requested information from the Alberta Energy Regulator, British Columbia Environmental Assessment Office, and the following federal authorities: Environment and Climate Change Canada; Indigenous Services Canada; Natural Resources Canada; Fisheries and Oceans Canada; Transport Canada; Health Canada; Employment and Social Development Canada; and, Woman and Gender Equality Canada. The Agency also sought advice from potentially affected Indigenous groups.

The Proponent responded on March 30, 2021, with information about the Project, its potential adverse effects, proposed design and mitigation measures, and its view that the Project should not be designated.

Additional information was provided on April 26, 2021. On May 19, the Agency suspended the time limit for a period of 30 days at the request of the Proponent.

The Agency received responses from provincial and federal authorities, the Stoney Nakoda Nations (Bearspaw Nation, Chiniki Nation, and Wesley Nation), Louis Bull Tribe, and Samson Cree Nation. Two of the Indigenous group responses explicitly requested or expressed support for designation of the Project and all of these Indigenous groups noted concerns about the proposed Project's potential to impact the local and regional environment, sites of cultural heritage significance, traditional use resources including food and medicines, and access to land for the practice of Section 35 rights. The Agency also sought input from Foothills Ojibway First Nation, Métis Nation British Columbia – Region 4, Métis Nation of Alberta – Region 3, Montana First Nation, Piikani Nation, and Shuswap Band but did not receive a response. Tsuut'ina Nation met with the Agency on May 11 to discuss the Project and indicated that they intend to provide a formal submission at a later time. The Tribal Councils of the Confederated Salish and Kootenai Tribes and the Kootenai Tribe of Idaho independently and jointly requested designation based on the potential long-term, cumulative impacts of coal mining on their resources and territories. An organization of some members of Piikani First Nation, the Mountain Child Valley Society, wrote to support designation. The Elk Valley Metis Nation shared that they expect the Project to have impacts on their members, but do not support federal designation, as the Proponent has been meaningfully engaging the Nation and the Project is likely to have long-term benefits from the proposed reclamation that may not be realized if the Project does not proceed.

A list of concerns are included in Appendixes I and III. The requests generally expressed concerns about:

- effects to the local and regional environment including cumulative effects;
- effects to fish and fish habitat including fish species at risk;
- effects to other species listed under the *Species at Risk Act*;
- impacts on Indigenous peoples and their established Aboriginal and Treaty rights;
- the scale of the Project in relation to the thresholds in the *Physical Activities Regulations* (the Regulations);
- potential transboundary effects;
- water scarcity, water quality, and effects on drinking water;
- contribution to global greenhouse gas (GHG) emissions; and,
- provincial processes and policies, including consultation.

Project Context

Project overview

The Project proposes restart and expansion of metallurgical coal mining operations at the former Tent Mountain Mine, which ceased operation in 1983 due to market conditions at the time. Upon cessation of operations, buildings were decommissioned and removed and the mine disturbance was left in a care and maintenance state. Some areas received provincial reclamation certificates. Large areas of the mine remain disturbed and unreclaimed and infrastructure remains, such as access and haul roads, water

catchments, and rock dumps. The Project will process 4,925 tonnes per day of raw coal for 14 years and include a 39 per cent increase in the area of mining operations. The proposed Project includes a new rail loadout facility to be situated across the Alberta - B.C. border to export coal via an existing Canadian Pacific Railways terminal. The majority of the Project is located in Alberta. The Project would use and recycle water that has been captured in an existing pit and does not propose additional water requirements.

Subject to applicable approvals, construction and mining operation are anticipated to commence in 2022. First product shipment is anticipated for the first half of 2023. Reclamation is anticipated to be completed by 2039 with closure monitoring to follow.

Project components and activities

The Project will operate as a conventional open pit, truck-and-shovel mine. Mining will take place primarily in Alberta with approximately 12 per cent of the footprint in B.C.

Site Access: Access to the area of mining operations is via two existing roads, both branching off Provincial Highway #3. One road is a haul road that runs north-south connecting the coal loadout area to the coal handling processing plant (CHPP) and the Mine Infrastructure Area (MIA). Portions of this road need to be upgraded to allow for all-weather transport of coal by truck. The other road is the general access road that branches off the main haul road and heads east towards the town of Coleman. Employees will be bussed from an area near the town of Coleman containing light vehicle parking, lockers, shower rooms, potable water treatment plant and sewage facility.

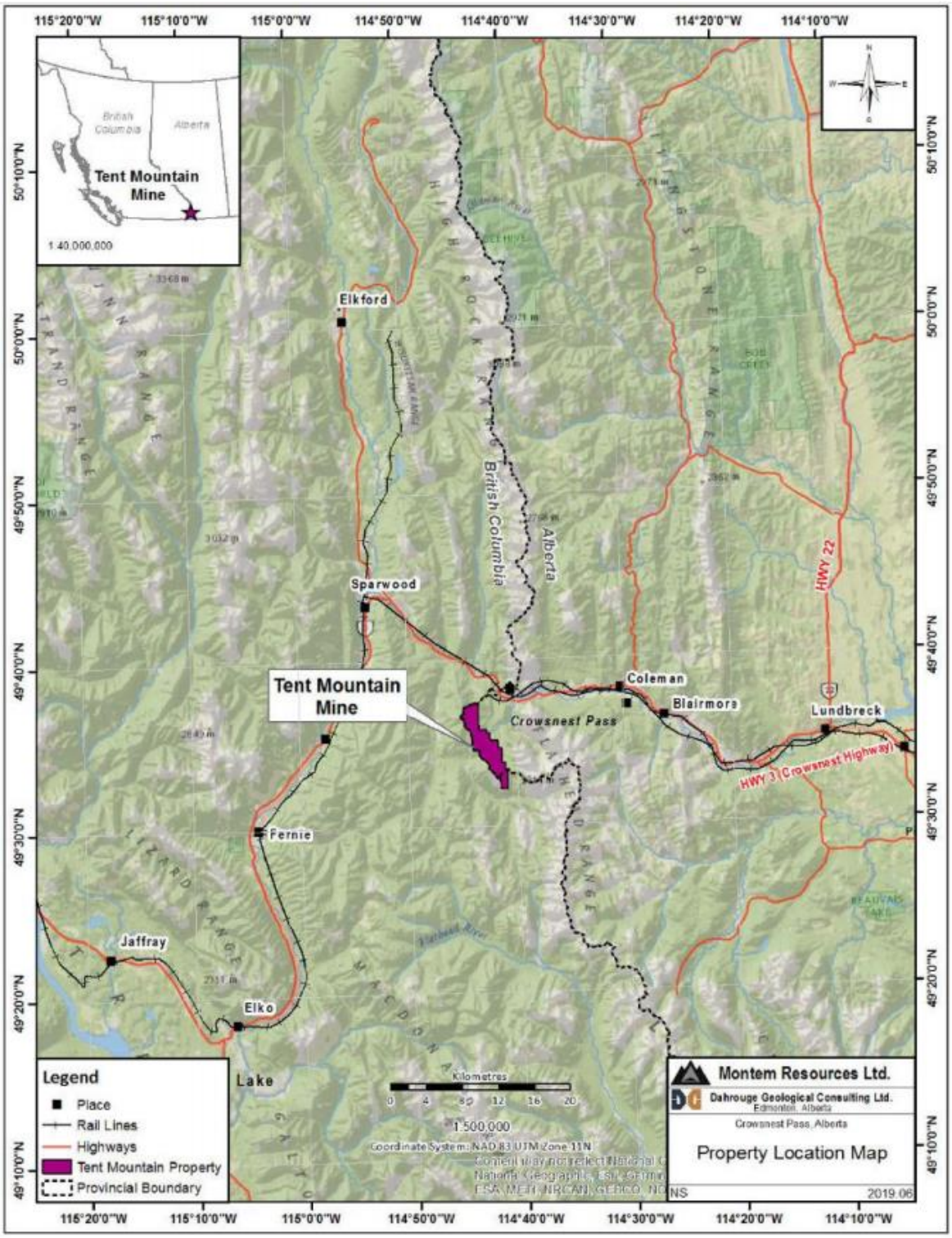
Mining areas: Project mining areas include previous mining operations (two underground mines, five open mine pits, 40 mine trenches) and other existing disturbances on site (associated waste rock dumps, roads and other mining infrastructure). The existing area of mining disturbance is 373 hectares and the proposed Project will expand this area by 144 hectares. The Project will use the approximately 4.5 million cubic metres of water that has been captured on site as a result of previous mining activities for coal processing. As mine phases are completed, the mine pits will be back-filled with waste rock or used for water storage for the progression of the next mining phase.

Coal Handling and Processing Plant (CHPP): The previous mine operation at Tent Mountain trucked the coal to a processing plant in the town of Coleman, while the current proposal will have a CHPP located adjacent to the mining operations (Figure 2). The CHPP will implement technologies that reduce water usage and the need for tailings impoundments.

Rail loadout facility: The loadout facility will have a product stockpile capacity of 45,000 tonnes where coal blending will occur for export to achieve quality specifications on a train-by-train basis. The facility will have a reclaim feeder and conveyor system with a capacity of 1,200 tonnes per hour. The conveyor will load coal into train loadout bins at a rail yard that will be constructed adjacent to the Canadian Pacific Railway (CP) Crowsnest main line and CP will configure the trains for the loading of coal. The loadout facility is proposed to contain five tracks for the loading of 152 rail cars.

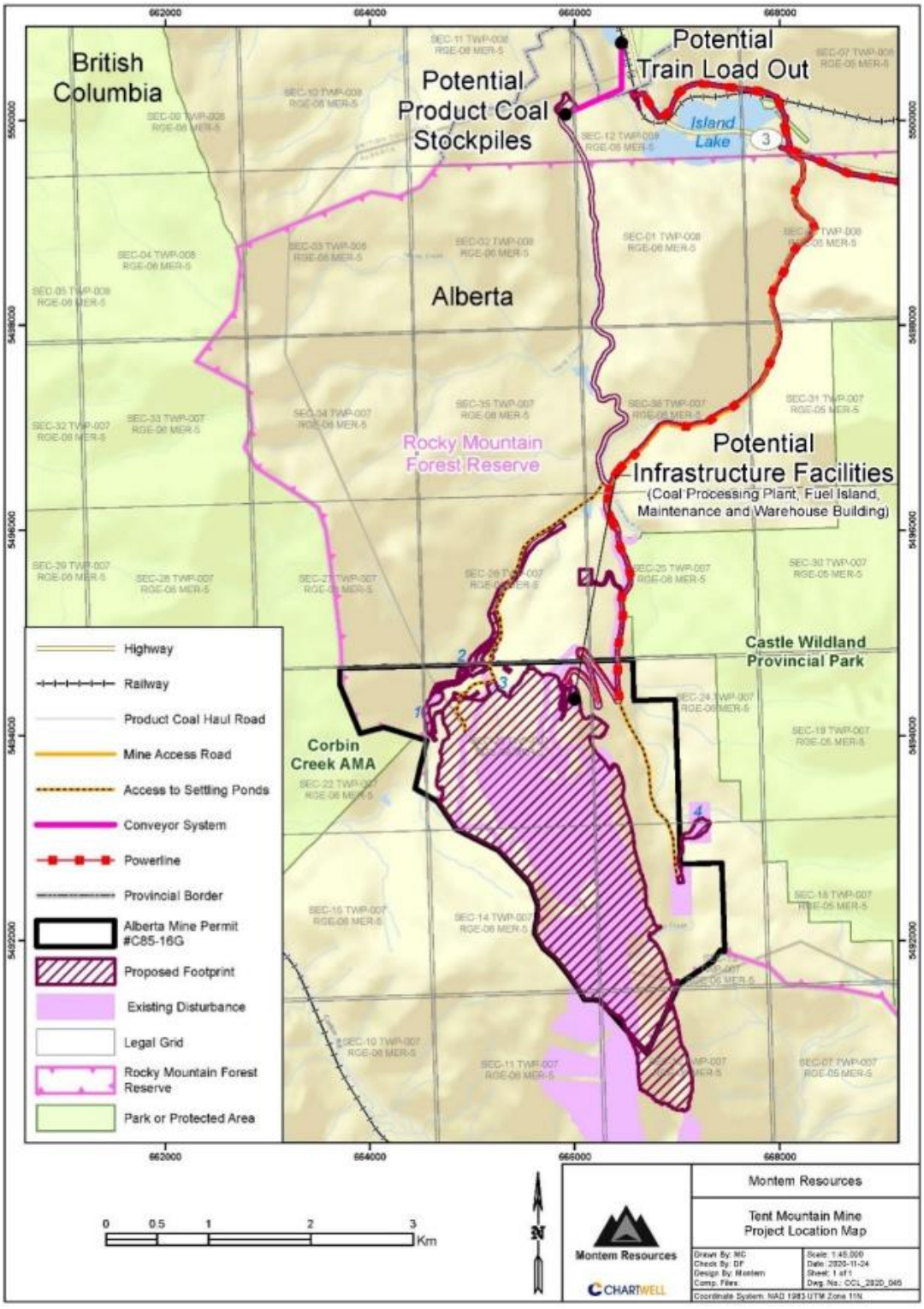
Other components include a power distribution line; workshop for the maintenance of such as heavy equipment and light duty vehicles; site administration office; magnetite storage shed; and fuel storage and refueling station.

Figure 1: Project Location



Source: Montem Resources Limited - Technical Assessment Report for the Tent Mountain Mine Re-start Project, British Columbia, Canada

Figure 2: Tent Mountain Mine Redevelopment Project



Source: Montem Resources Limited - Input for Designation Request

Analysis of Designation Request

Authority to designate the Project

The Regulations of the IAA identify the physical activities that constitute designated projects. The Project, as described in the information provided by the Proponent and as understood by the Agency, is the expansion of an existing coal mine with a daily raw coal production of 4,925 tonnes per day and an increase of the area of mining operations by 39 per cent, and as such, does not meet the thresholds in the Regulations[1].

The Project also requires a rail loadout facility that includes a new siding rail and a five-track rail loading yard additional to the existing CP Crowsnest rail facility. The rail loadout facility is within the existing CP right of way and is of a size that does not meet thresholds in the Regulations[2].

Under subsection 9(1) of the IAA the Minister may, by order, designate a physical activity that is not prescribed in the Regulations. The Minister may do this, if, in the Minister's opinion, the physical activity may cause adverse effects within federal jurisdiction or adverse direct or incidental effects, or public concerns related to those effects warrant the designation.

The carrying out of the Project has not begun and no federal authority has exercised a power or performed a duty or function that would permit the Project to be carried out, in whole or in part.[3]

Given this understanding of the Project, the Agency is of the view that the Minister may consider designating this project pursuant to subsection 9(1) of the IAA.

Potential adverse effects within federal jurisdiction

The potential for adverse effects within federal jurisdiction, as defined in section 2 of the IAA, would be limited through project design and by application of standard mitigation measures. The potential changes in the environment that would cause effects within federal jurisdiction may not be fully managed through existing legislative mechanisms.

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[1] Regulations s 19, the expansion of an existing coal mine must increase daily production by 5 000 t/day or more and increase the area of mine operation by 50 per cent or more.

[2] Regulations s 55, the expansion of an existing railway yard, if the expansion would result in an increase of its total area by 50% or more and a total area of 50 ha or more.

[3] The Minister must not make the designation if the carrying out of the physical activity has substantially begun, or a federal authority has exercised a power or performed a duty or function in relation to the project (subsection 9(7) of the IAA).

There are no federal lands in the immediate vicinity of the Project. The nearest *Indian Act* reserve lands (Piikani Nation) are approximately 50 kilometres east of the Project. Dominion Coal Blocks are federal land approximately 10 kilometres west of the Project.

Appendix I provides a summary table of the potential adverse effects and associated public concerns, mitigation measures proposed by the Proponent, and relevant legislative mechanisms if the Project proceeds. Appendix II lists the applicable regulatory mechanisms.

Fish and Fish Habitat

The Agency considered information provided by the Proponent, Fisheries and Oceans Canada, Environment and Climate Change Canada (ECCC), the U.S. EPA, the requesters, and Indigenous groups and, based on available information, is of the view that the Project has the potential to cause adverse effects to fish and fish habitat including through potential release of deleterious substances. These effects are anticipated to be limited due to the distance of the Project from (vertebrate) fish-bearing waters and critical habitat, proposed mitigation measures, and existing regulatory and legislative frameworks, although ECCC notes that there is currently insufficient information available to determine the scope and extent of these potential adverse (direct or incidental) effects.

In Alberta, the Project area is located within the headwaters of the Crowsnest River which forms the part of the Oldman River Basin. Two species, westslope cutthroat trout (Saskatchewan–Nelson Rivers population) and bull trout (Saskatchewan–Nelson Rivers populations), listed as Threatened under the *Species at Risk Act* in Alberta, have critical habitat within the Crowsnest river watershed and Recovery Strategies for these species are currently established[4,5]. In B.C., the Project area is within the Elk River watershed of the Columbia River Basin. The westslope cutthroat trout (Pacific population) is listed as Special Concern under the *Species at Risk Act*. Bull trout (Pacific population) is not considered at risk.

The Proponent has identified that once water quality guidelines are met, any releases from the Project will be to the Crowsnest Creek or its tributary, East Crowsnest Creek. The Alberta Wilderness Association writes that these creeks are considered "fishless" by the province of Alberta[6] and the Proponent has indicated that neither creek is fish-bearing. ECCC notes that the proponent may have taken an overly narrow view of what is considered "fish" for the purposes of the scope of federal jurisdiction that arises under the *Fisheries Act*, as the definition also includes a range of other aquatic organisms (i.e. crustaceans

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[4] Fisheries and Oceans Canada. 2019. Recovery Strategy and Action Plan for the Westslope Cutthroat Trout (Oncorhynchus clarkii lewisi) Alberta population (also known as Saskatchewan-Nelson River populations) in Canada. Species at Risk Act Recovery Strategy Series. Fisheries and Oceans Canada, Ottawa. vii + 61 pp + Part 2. https://wildlife-species.canada.ca/species-risk-registry/virtual_sara/files/plans/RsAp-TruiteFardeeOuestWestslopeCutthroatTrout-v00-2019-Eng.pdf

[5] Fisheries and Oceans Canada. 2020. Recovery Strategy for the Bull Trout (Salvelinus confluentus), Saskatchewan-Nelson Rivers populations, in Canada [Final]. Species at Risk Act Recovery Strategy Series. Fisheries and Oceans Canada, Ottawa. viii + 130 pp. https://wildlife-species.canada.ca/species-risk-registry/virtual_sara/files/plans/Rs-BullTroutOmblesTetePlateSaskNelson-v00-2020Sept-Eng.pdf

[6] See also: Alberta Fisheries and Wildlife Information Management System https://www.alberta.ca/access-fwmis-data.aspx

and shellfish). East Crowsnest Creek flows into Crowsnest Creek, which contains a waterfall that is thought by the Proponent to be a fish barrier and forms a tributary of the Crowsnest River. Based on information presented in the Recovery Strategies and from the Proponent, the Agency understands that critical habitat for bull trout is identified approximately 40 kilometres downstream from the Project in the Crowsnest River. Critical habitat for westslope cutthroat trout is identified in other tributaries of the Crowsnest River, but not to date in the river itself. Public concern was raised in relation to the Castle River watershed in Alberta, which is located to the south of the Crowsnest River watershed. As the Alberta portion of the Project is located within the Crowsnest watershed, any potential effects are anticipated to be limited to within that river watershed and not likely to occur in the neighbouring Castle River watershed. The B.C. approved discharge point is Corbin Pond that currently collects and manages all surface run-off from the previous mining operations on the B.C. side of the Project. Corbin Pond discharges to Michel Creek, a tributary of the Elk River, and currently operates significantly below the approved discharge capacity. All discharges from Corbin Pond, including selenium levels, are accounted for in the current Elk Valley and Koocanusa Reservoir water management plans and monitoring systems. No additional water is planned to be directed to Corbin Pond as a result of the Project.

Fisheries and Oceans Canada note that if the Project results in the harmful alteration, disruption or destruction of fish habitat and/or the death of fish and impacts to aquatic species at risk, a *Fisheries Act* authorization would be required. There is currently insufficient information available to determine whether such an authorization would be required or if proposed mitigation measures would be sufficient to address concerns. If required, *Fisheries Act* authorizations would include mitigation and offsetting measures to address potential impacts to fish and fish habitat (including water withdrawal). Provided the Proponent engages with Fisheries and Oceans Canada through the regulatory processes for review, the Agency is of the understanding this would be sufficient to address potential impacts that could arise from such activities.

Selenium is a known issue downstream of coal mines such as the Elk Valley in B.C. (west of the Project) and tributaries upstream of the McLeod River in Alberta (north of the Project). The target coal bearing formation – the Mist Mountain Formation – is enriched in selenium and the Proponent indicates that a layered selenium management system will be put in place, including saturated backfill, nutrient-enhanced backfill bioreactor treatment, and passive wetland attenuation. It is unknown to the Agency at this time if the wetland could be considered fish-bearing under the breadth of the *Fisheries Act* definition of fish. As the Project will exclusively use water on site, downstream flow volume should not be adversely affected. Environment and Climate Change Canada and the U.S. EPA note that while the Proponent's project design includes measures to reduce the levels of selenium and other potential harmful substances in proposed effluent releases, there is insufficient information to be able to predict with certainty the effectiveness of the proposed mitigations, particularly over the long term.

While the creeks located in the project area that could receive treated mine water are provincially considered fishless, indirect adverse effects to fish and fish habitat may result from changes to surface water quality such as increased contaminants or sediments from project activities.

The Proponent indicates that the mine water management strategies planned (See Appendix I for details) are sufficient to eliminate potential adverse effects to fish and fish habitat from the discharge of deleterious substances by ensuring that any water discharged off site would meet all relevant surface water quality guidelines and comply with limits under the proposed Coal Mining Effluent Regulations including prior to coming into force. The Project will include upgrading the existing water management from the previous mine operations and, as indicated by the Proponent, would improve the overall ambient water quality

downstream of the Project. ECCC noted that information is not available about predicted selenium concentrations in mine water prior to or after treatment mitigation. Similarly, the U.S. EPA notes that the potential impacts to quantity, quality, and nature of the water resources in B.C. warrants further exploration, related to the potential impacts to Lake Koocanusa and the Kootenai River via the Elk Valley. Saturated rock backfill is a nascent technology and although short-term effectiveness has been shown, there is uncertainty around the level of attenuation that would actually be achieved and the effectiveness over the long time periods associated with mine operations and post-closure.

Alberta's South Saskatchewan Regional Plan includes the Surface Water Quality Management Framework that manages the cumulative effects to water quality in South Saskatchewan River Basin. Currently, selenium is a secondary indicator due to the high proportion of values below the method of detection; however, under the framework, selenium will be continually monitored for inclusion based on the data and knowledge increases[7]. In B.C., the Proponent holds the permit for the existing water discharge point at Corbin Pond and any changes to mining activities would be reviewed to confirm if changes would be needed to the permit under the *Environmental Management Act.*

Environment and Climate Change Canada noted that the Project's releases of deleterious substances to water frequented by fish would be subject to the *Fisheries Act*. Proposed Coal Mining Effluent Regulations under the *Fisheries Act* are in development by ECCC. As proposed, these regulations would, for this Project, include effluent quality standards for selenium and other harmful substances that would apply at the point of discharge to water frequented by fish. ECCC advises that the Project's releases of deleterious substances to water frequented by fish have the potential to cause adverse effects to fish and fish habitat.

Migratory Birds

The Agency considered information provided by the Proponent, Environment and Climate Change Canada, the requesters and Indigenous groups and is of the view that the potential for adverse effects to migratory birds due to the Project is expected to be limited.

Environment and Climate Change Canada indicated that mining activities generally carry the risk of potential adverse effects to migratory birds and their habitat due to large-scale land clearing; potential for exposure to harmful substances on or off-site; changes to regional water quality; sensory disturbances; and potential collisions with mining infrastructure.

The Agency understands that measures to avoid adverse effects to migratory birds, including to any listed species under the *Species at Risk Act,* have been incorporated into the planning and design Project (see Appendix I for proposed mitigations by the Proponent). Potential adverse effects would be appropriately managed through project design, standard mitigation measures, and adherence to applicable legislation such as the *Migratory Birds Convention Act*, *1994* and the *Species at Risk Act*.

[7] Alberta Environment and Sustainable Resource Development. 2014. South Saskatchewan Region surface water quality management framework: for the mainstem Bow, Milk, Oldman and South Saskatchewan Rivers (Alberta). https://open.alberta.ca/publications/9781460118603

Indigenous Peoples of Canada

The Agency considered information provided by the Proponent, Fisheries and Oceans Canada, Department for Women and Gender Equality, Indigenous Services Canada, Environment Climate Change Canada, Health Canada, Employment and Social Development Canada, the requesters, Blood Tribe/Kainai, Siksika Nation, Stoney Nakoda Nations (Bearspaw Nation, Chiniki Nation, and Wesley Nation), Ktunaxa Nation Council, Ermineskin Cree Nation, Louis Bull Tribe, Samson Cree Nation, Tsuut'ina Nation, the Elk Valley Metis Nation, and the Mountain Child Valley Society and is of the view that the Project may result in adverse effects to traditional and cultural use of lands, and the health, social or economic conditions of Indigenous peoples of Canada. The Project is situated on both provincial crown and freehold land in Alberta, with the crown lands identified in the Livingstone Public Land Use Zone, and is within Treaty 7 territory and Métis Nation of Alberta–Region 3. The proposed mining area within B.C. is within privately-held lands. The project is primarily located within land previously disturbed by historical mining operations, although Ktunaxa Nation Council identifies that some land classified as disturbed has experienced regrowth. The Elk Valley Metis Nation shared that they expect the Project to have impacts on their members, but do not support federal designation due to projected long-term benefits of improved reclamation.

Indigenous groups indicated that in the absence of directed traditional land use studies related to the Project footprint and potential effects, they cannot provide Project footprint-specific input until such studies could be undertaken, so their concerns identify their use and the importance of lands in the region that may be affected by the Project.

Indigenous groups have raised concerns regarding potential adverse effects of the Project to traditional and cultural use of lands and potential impacts to health, social and economic conditions including:

- the Project may compromise the ability to maintain the relationships that Indigenous peoples have with the land including seasonal pilgrimages and gathering expeditions, access to sites of ceremonial and spiritual significance, and the subsequent impacts on the intergenerational transfer of knowledge;
- concerns about the Project impacting the ability to pick and gather a variety of plants for food and medicinal purposes;
- changes in downstream quality of drinking water that could impact health;
- impacts to habitat for culturally important species like bighorn sheep and impacts to important wildlife corridors that support the movement of culturally important species that may in turn impact health or social conditions or the traditional practices of Indigenous peoples. Bighorn sheep habitat lies on both sides of the Rocky Mountains and grizzly bear habitat lies on both sides of the Rocky Mountains and into Montana;
- changes to current use of land for traditional purposes and the cumulative loss of areas for traditional use in the Crowsnest Pass, Elk Valley, and upper Oldman River Valley;
- the creation of increased access contributing to increased hunting pressure by recreational land users, impacting the ability to practice Treaty hunting rights;
- loss of access to traditional foods (through contamination, at-risk populations, extirpations and extinctions) and loss of food security;

- continued loss and development of Indigenous traditional territory and the mental distress for Elders and youth as a result; and,
- damage sites of cultural heritage and adversely impact availability of traditional use resources.

Ktunaxa and the Blackfoot Elders concur that in pre-contact occupancy times, the Crowsnest Pass and Elk Valley area was a transitional space of encounter for hunting, trade, diplomacy and in some cases war[8]. To this day, the area remains highly important for many different Indigenous peoples to carry out their traditional practices and exercise Aboriginal and Treaty Rights. The responses from all Indigenous groups indicated strong concern over the potential impacts of the Project on the environment at the site and downstream and these practices and generally supported or requested that the Project be subject to a federal impact assessment. The cumulative effects of loss of land available to exercise these rights was emphasized. Several Indigenous groups indicated that they have not had the opportunity to undertake a fulsome assessment of the Project footprint or potential impacts to date and are therefore limited at this time in understanding the scope and scale of any Project-specific impacts that may occur.

The Agency understands that potential effects to fish and migratory birds, as noted above, or other wildlife species of importance could adversely effect the current use of lands and resources for traditional purposes by Indigenous peoples. Due to the proximity of Indigenous communities to the project, potential effects to the health of Indigenous peoples could occur from project-related changes to air quality, water quality, noise, and country foods. Further information is needed to fully understand the potential for such Project-related health effects, and other effects to Indigenous peoples such as to social or economic conditions or impacts on physical and cultural heritage, or impacts on any structure, site or thing that is of historical, archaeological, paleontological or architectural significance.

The Proponent is of the view that because the Project is to be located within the previously approved mine site in its entirety, that no new potential adverse impacts have been identified to current Indigenous use, physical or cultural heritage, historical or archaeological interests or health, social or economic conditions. The Proponent indicated that Indigenous communities have expressed interest in employment and business opportunities as well as the opportunity for Indigenous input into the final reclamation such that it provides greater access and use of the area for the exercising of the land for traditional purposes.

The legislative and regulatory processes that are applicable to the Project in B.C. and Alberta include consultation requirements for Indigenous groups, depending on the scope of the Project or permit amendment. The Agency understands that Alberta regulatory processes would not specifically require consultation with B.C. groups and vice versa, however the Proponent is engaging with the majority of the Indigenous groups that the Agency presently considers to be potentially affected. The B.C. and Alberta portions of the mine will be assessed separately under the respective jurisdictions.

[8] A Review of the Literature on Blackfoot Use and Occupancy of the Crowsnest Pass & East Kootenays May 2020 Prepared for Blood Tribe/Káínai and Siksika Nation By Dermot O'Connor, Oak Road Concepts Inc

Transboundary Effects

Consideration of transboundary effects under federal jurisdiction includes transboundary waters, greenhouse gas and other air emissions, and climate change. The majority of the Project is to take place in Alberta, with limited mining and the majority of the rail loadout facility to be located in B.C.

The Agency considered information from the Proponent, Environment and Climate Change Canada, provincial authorities, the U.S. EPA, requesters and Indigenous groups and is of the view that Project activities may result in adverse effects into other provinces or into the U.S.A. via B.C., although effects would be limited through project design and subject to provincial and federal regulatory and legislative mechanisms.

The Agency understands from the Proponent that no water would be exchanged between the two provinces in which the Project is located. Within B.C., the Elk Valley drains to the south into the Koocanusa reservoir, which in turn crosses the Canada-U.S.A. border into Montana. In B.C., permits would include requirements for water management and monitoring that are consistent with the Elk Valley Water Quality Plan and that align with the management of the Elk Valley Area[9], and provincial water quality and quantity regulations. As such, any potential effects to the U.S.A. via B.C. are expected to be limited. However, the potential for transboundary effects to water quality remains uncertain and the U.S. EPA and U.S. Tribes believe that a federal impact assessment is warranted.

In Alberta, the Project is located in the headwaters of the South Saskatchewan River watershed and concerns have been raised surrounding water quality and quantity into Saskatchewan and beyond if the Project proceeds. The Agency understands that coal processing for the Project will use only water that is presently captured on site and will implement a layered water quality management system. The Proponent does not anticipate that the Project would contribute to water scarcity or reduced quality in the South Saskatchewan River Basin. The Proponent also anticipates the closure landscape to return surface drainage to the watershed in a manner that improves water quantity and quality compared to existing conditions.

The Project is expected to contribute to Canada's greenhouse gas (GHG) emissions. The Proponent has estimated that the Project would contribute 84,114 tonnes of carbon dioxide equivalent units (CO2e), which equates to 0.03 per cent and 0.012 per cent of the annual provincial and federal inventories respectively. The main source of these emissions are from the operation of diesel machinery and fugitive emissions of coal bed methane release during open pit mining. The Proponent indicates that the Project will utilize low emissions equipment and vehicles that meet United States EPA Tier 4 emission standards and that emissions can be further mitigated by implementing programs such as regular maintenance, minimizing idling time, and efficient use of equipment. Compared to the previous mining operations, GHG emissions are reduced by using more efficient modern equipment and reduced hauling by moving the CHPP from the town of Coleman to on-site. The processing of coal will not include a dryer which will further reduce the potential GHG emissions. The Project will be subject to federal greenhouse gas emissions reporting requirements, pursuant to the *Canadian Environmental Protection Act, 1999*, if it emits 10 kilotonnes or more of greenhouse gas emissions, in carbon dioxide equivalent units per year. Given the global nature of

[9] British Columbia Ministry of Environment. 2019. Permit 3986 Transfer Section 17. Available at https://j200.gov.bc.ca/pub/ams/Default.aspx?PossePresentation=DocumentSearch

greenhouse gases and climate change, the Agency considers effects from their release to be transboundary in nature.

The Proponent is currently conducting air modelling to include both B.C. and Alberta limits and parameters to ensure the most stringent limits are achieved. Dust mitigation plans are in development and anticipated to be addressed through the Alberta environmental impact assessment. The Proponent has indicated that at the rail siding, each rail car, once full, will be dosed with a dilute dustbinder chemical to seal and mitigate dust emissions during the journey from mine to port.

Other Considerations

Cumulative Effects

Cumulative effects were a prominent concern of requesters, Indigenous groups, and the public and the Agency considered this information in addition to that from the Proponent and Environment and Climate Change Canada and the U.S. EPA.

Concerns have been raised regarding the cumulative effects on the environment from coal mining on both sides of the Alberta - B.C. border and the industrial use of water on the availability of water for use downstream of the Project. The Agency understands that the Project will contribute to cumulative effects to the environment. However, 373 hectares (~72 per cent) of the Project are disturbed by previous mining activities and opportunities exist to enhance previous site closure activities through modern reclamation processes. The Project proposes to use water captured on site from previous mining activities that currently does not contribute to the quantity of water available downstream of the Project. The proposed Alberta environmental impact assessment terms of reference requires the assessment of cumulative effects on water losses/gains resulting from the Project operations as well as cumulative effects to the watershed. Over recent decades, the selenium levels downstream of the Project have been substantially below Alberta's alert threshold[10].

Because of the spatial and temporal extent of potential effects compared to other ongoing and proposed activities as well as the Proponent's commitment to improving the current status of the site from the mining activities, the Proponent indicates that the Project could result in an overall improvement in the current environmental setting in the area. Continued public and Indigenous consultations are expected to provide input into the Proponent's cumulative effects assessment.

Cumulative effects concerns were also received regarding other industrial activities and anthropogenic impacts within the eastern slopes of Alberta on the ability of Indigenous peoples to use the land for traditional purposes and on the health of Indigenous peoples as identified by Health Canada (see "Indigenous Peoples of Canada" above). In Alberta, cumulative effects are considered in the environmental impact assessment and managed through the relevant Land-use Frameworks: the South Saskatchewan Regional Plan and the Livingstone-Porcupine Hills Land Footprint Management Plan (sub-regional plan). The Alberta *Water Act* also includes a Water Management Plan for the South Saskatchewan River Basin to consider cumulative effects on the aquatic environment. In B.C., the cumulative effects are identified and

[10] Alberta Environment. 2007. Analysis of Water Quality Conditions and Trends for the Long-Term River Network: Oldman River, 1966-2005. https://open.alberta.ca/dataset/00204623-8a96-46dd-8171-0d25112f7fd6/resource/95f67137-f221-40d0-bd68-58a0497baa8c/download/7806.pdf

considered under the Elk Valley Cumulative Effects Management Framework. Given the existing cumulative effects of coal mining on water resources in the Elk Valley and downstream to U.S. water resources, the U.S. EPA and the Tribal Councils of the Confederated Salish and Kootenai Tribes and the Kootenai Tribe of Idaho indicated the potential for the Project to contribute to cumulative effects in the Koocanusa Reservoir.

Species At Risk

The Agency understands that there are 18 wildlife species listed on Schedule 1 of the *Species at Risk Act* whose ranges overlap with the Project area (Table 1). Project overlap with the species range does not assume that suitable habitat for the species is present. To the Agency's knowledge, no critical habitat is located within the mine footprint. While these species are listed under federal legislation, it is the view of the Agency that the potential adverse effects to species at risk would be limited through project design and proposed mitigations and existing legislative mechanisms. The Project has the potential to affect wildlife population connectivity during the 14-year mining life. The Proponent has indicated that the closure landscape will likely provide improved recovery habitat for species at risk and other wildlife.

The Proponent, as part of an ongoing assessment, has identified that whitebark pine and little brown myotis, both species listed as endangered on Schedule 1 of the *Species at Risk Act,* have been identified in the study area and the former within future active project areas. With respect to little brown myotis, cracks on the mining site have the potential to be used as hibernacula. The Proponent has indicated that mitigation plans are currently under development.

Grizzly bear is a species of special concern listen of Schedule 1 of the *Species at Risk Act.* The Crowsnest pass is identified by the Alberta Wildlife Association and Yukon to Yellowstone as an important travel corridor for grizzly and other species between Alberta, B.C. and Montana. The Project is located within the Alberta Bear Management Area 6 which extends from the United States Border to the B.C. border in the Crowsnest pass, where the Project is located.

Table 1 – Wildlife Species Listed under the SARA Whose Range Overlaps with the Project Area

Endangered	Threatened	Special Concern
American Badger	Olive-Sided Flycatcher	Pale Yellow Dune Moth
Whitebark Pine	Barn Swallow	Western Toad
Gypsee cuckoo bumble bee	Bank Swallow	Wolverine
Awene Borer	Common Nighthawk	Short-Eared Owl
Little Brown Myotis	Rocky Mountain Tailed Frog	Yellow Rail
	Western Bumble Bee	Monarch Butterfly
		Grizzly Bear

Note: Wildlife species do not include fish listed under the Species at Risk Act, which are discussed in the Fish and Fish Habitat section of this report

Potential adverse direct or incidental effects

Direct or incidental effects refer to effects that are directly linked or necessarily incidental to a federal authority's exercise of a power or performance of a duty or function that would permit the carrying out, in whole or in part, of a project, or to a federal authority's provision of financial assistance to a person for the purpose of enabling that project to be carried out, in whole or in part. The Project is not in receipt of federal funding.

The Project may require the exercise of powers, duties, or functions to proceed, such as a *Fisheries Act* authorization. Therefore, direct or incidental effects are possible. Additional information would be required to understand the potential effects. Potential federal authorizations or approvals are listed in Appendix II.

Public concerns related to effects within federal jurisdiction

The Minister must consider if the public concerns related to effects within federal jurisdiction warrant the designation of the Project.

The concerns expressed by the requesters, the general public, and Indigenous groups that relate to effects within federal jurisdiction are noted above in the relevant section and in Appendix I.

The predominant concerns related to federal jurisdiction include:

- Project and cumulative effects to aquatic ecosystems (fish and fish habitat) from the potential release of contaminates such as selenium and total suspended solids including threats to the populations of threatened westslope cutthroat trout and bull trout;
- potential effects to wildlife, including migratory birds;
- potential effects to species that are either identified as of Indigenous importance or SARA-listed, including grizzly bear, mountain goat, bighorn sheep, and whitebark pine;
- GHGs and the effects of climate change in the Crowsnest Pass including shifting weather patterns and increasing wildlife frequency and intensity; and,
- cumulative anthropogenic impacts to available lands for traditional practices within the traditional territory of the Blood Tribe/Kainai and Siksika Nation and other Indigenous groups including agriculture, municipal expansion, land transfers, tourism and unregulated recreation, and industrial activities including coal mining.

Public concerns were also received specific to potential impacts on Aboriginal and Treaty rights, and these are detailed in the section below.

Potential adverse impacts on the rights of Indigenous peoples

The Agency considered all submissions from Indigenous groups and any relevant advice from federal and provincial authorities. The Project is on Alberta provincial Crown and freehold land within Treaty 7 and Métis Nation of Alberta–Region 3 and on privately-held land in B.C., within the territory of the Ktunaxa Nation and where other Indigenous peoples exercise their Aboriginal and Treaty rights. The Project has the potential to cause adverse impacts on the rights of the Indigenous peoples of Canada that are recognized and affirmed by section 35 of the *Constitution Act, 1982* (section 35 rights).

Concerns were expressed by Indigenous groups specific to potential impacts of the Project to the exercise of their section 35 rights, including camping, fishing, gathering, and effects to the habitat of culturally important species such as bighorn sheep and the Project could result in reductions in opportunities and the ability of Indigenous Nations, including Elders, to transmit knowledge and skills to younger generations.

Potential adverse effects within federal jurisdiction that could impact section 35 rights for the Project are anticipated to be localized due to limited extent of new disturbance as a result of the Project and the understanding that effects to downstream water quality and quantity would be limited. The Project is on lands largely disturbed by previous mining and regionally there is various industrial operations and areas of freehold land. The Proponent has indicated that engagement with Indigenous groups was initiated in March of 2017 with all Treaty 7 First Nations in Southern Alberta, Métis Nation of Alberta, Métis Nation of BC, Ktunaxa Nation Council, Shuswap Indian Band, and Foothills Ojibway First Nation.

The Alberta consultation program administered by the Aboriginal Consultation Office (ACO) is aimed to meet the province's duty to consult on required permits on crown land including the Alberta *Environmental Protection and Enhancement Act*, *Water Act*, and *Public Lands Act.* The Proponent began consultations as prescribed by the ACO in June 2019. The ACO-established crown consultation requirements for the Project includes five Indigenous groups of Treaty 7. The Proponent has expanded beyond the Indigenous groups identified by the ACO to include those engaged in neighbouring coal project assessment(s). The Alberta Energy Regulator has a responsibility to consider the potential adverse impacts of energy resource applications on the existing rights of Indigenous peoples as recognized and affirmed under Part II of the *Constitution Act, 1982* within its statutory authority under the *Responsible Energy Development Act*. The purpose of the ACO is to ensure that Alberta's duty to consult is met by working with regulators such as the Alberta Energy Regulator. Ktunaxa Nation and Louis Bull Tribe raised concern that the ACO does not require the Proponent to consult with them and assert that the ACO cannot be relied upon to fulfill the Crown's constitutional duty to consult with and accommodate, as appropriate.

B.C. passed the *Declaration on the Rights of Indigenous Peoples Act* that provides a legislative framework for reconciliation and recognition of the constitutionally protected rights of Indigenous peoples in alignment with the United Nations Declaration on the Rights of Indigenous Peoples. As the Proponent has not yet submitted their application(s) for permit(s) or permit amendment(s), the scope of these applications is not known to inform the level of consultation requirements that the province of B.C. may require.

Regional and strategic assessments

There are no regional or strategic assessments pursuant to sections 92, 93 or 95 of IAA that are relevant to the Project.

Conclusion

During its review, the Agency identified the potential for transboundary effects, lack of a single assessment that includes consultation with all Indigenous groups, and concerns regarding the potential for effects to fish and fish habitat. The Agency notes the significant public concern that the production capacity for the Project is just below the threshold of 5,000 tonnes per day described in the Regulations, but recognizes that the production capacity is limited by the Project design and related constraints and is also below the 50 per cent threshold for an increase in the area of mining operations.

Due to its location straddling the Alberta - B.C. border, the Project will result in transboundary effects to air quality that are not likely to be fully captured by the Alberta environmental assessment, as it focuses on effects within the province. The Agency acknowledges that there is uncertainty related to the efficacy of the proposed selenium abatement at this time, and that transboundary effects and effects to fish and fish habitat may be anticipated.

Further, the Agency considered the potential for the Project to cause adverse impacts on the rights that are recognized and affirmed by section 35 of the *Constitution Act, 1982* and acknowledges that the entire Project is not captured in a single assessment. Both provincial regulatory regimes include requirements to consult with Indigenous peoples to address potential impacts on rights and related concerns. In part due to the transborder location of the Project, neither province requires consultation with all the potentially affected groups on both sides of the border, however, the Proponent has committed to engaging with the Indigenous groups that the Agency presently considers to be potentially affected.

APPENDIX I

Appendix I: Analysis Summary Table

Area of Federal Jurisdiction	Effects and Mitigation (Information from Proponent , Federal and Provincial Authorities, Public, Indigenous groups)	Relevant Legislative Mechanisms
A change to fish and fish habitat, as defined in subsection 2(1) of the *Fisheries Act*	**Context:** In Alberta, westslope cutthroat trout and bull trout are both listed as Threatened under the *Species at Risk Act.* Bull trout has critical habitat approximately 40 kilometres downstream of the Project. In B.C., westslope cutthroat trout downstream of the Project are listed as Special Concern. The Project does not directly intersect with any fish-bearing waters. **Proponent:** The mine area will not directly affect fish and fish habitat as there are no fish-bearing water bodies that overlap with the mine footprint. Waterbodies, such as Island Creek, that are near/adjacent to other mine components (access road, haul road, coal load-out) have not had potential adverse effects identified by the Proponent's analysis. As a result, the Proponent does not anticipate any direct effects to fish or fish habitat resulting from the Project. The targeted coal-bearing formation, the Mist Mountain Formation, is enriched in selenium – a substance known to have adverse effects to fish. Other constituents of concern include total suspended solids (TSS) and other metals associated with runoff. The historical mine site is releasing waters to the environment where the potential of effects currently exists. The Proponent is of the view that with upgrades to the current water management as a result of the Project, it is expected that the Project would improve the water quality parameters at the current downstream compliance monitoring point and subsequently reduce potential effects to aquatic habitats from the current state. The Proponent's water quality modelling shows that the planned water management is anticipated to be sufficient to meet applicable water quality criteria in Alberta. The multi-tiered water management plan and proposed mitigations to address potential effects of selenium on downstream water quality include: • Saturated backfills – backfilling waste rock into mined out pits and allowing them to be covered with water – creates an anoxic environment that	Impacts to fish and fish habitat and aquatic species at risk are prohibited unless authorized under the *Fisheries Act* and *Species at Risk Act*. A *Species at Risk Act* authorization is required if there are impacts to an aquatic species at risk, any part of their critical habitat or the residences of their individuals where affecting the species is incidental to the carrying out of the activity. The Recovery Strategy for the Bull Trout (*Salvelinus confluentus*), Saskatchewan-Nelson Rivers populations, in Canada (2020) under the *Species at Risk Act* determine critical habitat for bull trout. The Recovery Strategy and Action Plan for the Westslope Cutthroat Trout (*Oncorhynchus clarkii lewisi*) Alberta Population (also known as Saskatchewan-Nelson River Populations) in Canada (2019)

Area of Federal Jurisdiction	Effects and Mitigation (Information from Proponent , Federal and Provincial Authorities, Public, Indigenous groups)	Relevant Legislative Mechanisms
	prevents the release of selenium from the overburden to the environment and promote selenium attenuation (assumed 95 per cent attenuation). • Nutrient enhanced biochemical reactor to treat selenium impacted surface water (assumed 95 per cent attenuation). • Natural wetlands in settling ponds from previous mining activities (Pond 3 and Lower Pond) to provide natural attenuation of selenium in surface water (assumed attenuation of 68 per cent) Discharge of water to the environment will meet the requirements under the Alberta *Environmental Protection and Enhancement Act* and the Proponent is committed to meeting or exceeding the proposed Coal Mining Effluent Regulations under the *Fisheries Act,* including prior to coming into force. For the B.C. portion of the Project, the proponent currently holds Water Release Permit 3986 (Corbin Pond) under the *Environmental Management Act.* Any changes to water discharge will require an amendment and the proponent has indicated that applications for discharge changes will be required for resumed operation in B.C. and engagement with provincial authorities in B.C. has commenced. The proponent will be required to meet the clauses of that permit and all discharges from Corbin Pond, including selenium levels, are accounted for in the current Elk Valley and Koocanusa Reservoir water management plans and monitoring systems, and therefore release of deleterious substances under subsection 36(3) of the *Fisheries Act* is not anticipated for the Project. **Federal Authorities:** Fisheries and Oceans Canada (DFO) has noted that the Project could result in the harmful alteration, disruption or destruction of fish habitat, including and impacts to aquatic species at risk and resultantly may require authorization under the *Fisheries Act*. At this time, the information provided is insufficient to determine whether a *Fisheries Act* authorization would be required, or if proposed mitigation measures would be required. Provided the Proponent engages with DFO through the regulatory processes for review, this would be sufficient to address potential impacts to fish and fish habitat. DFO recommended that the Proponent submits Request for Review forms to review the Project under the *Fisheries Act* and the *Species at Risk Act*.	under the *Species at Risk Act* determine critical habitat for westslope cutthroat trout. Fisheries and Oceans Canada advised that *Fisheries Act* paragraph 35(2)(b) authorization would be required if the Project is likely to cause the harmful alteration, disruption, or destruction of fish habitat. Fisheries and Oceans Canada advised that *Fisheries Act* paragraph 34.4(2)(b) authorization would be required if the Project is likely to result in the death of fish. Deposition of deleterious substances into waters frequented by fish, unless authorized by regulations or other federal legislation, is prohibited under the *Fisheries Act*. ECCC is developing a proposed regulatory approach for coal mines under the *Fisheries Act*, the proposed Coal Mining Effluent Regulations. Alberta Energy Regulator environmental assessment and regulatory process apply (Alberta *Environmental Protection and*

Area of Federal Jurisdiction	Effects and Mitigation (Information from Proponent , Federal and Provincial Authorities, Public, Indigenous groups)	Relevant Legislative Mechanisms
	Environment and Climate Change Canada (ECCC) has noted that the construction, operation, and decommissioning of mines can result in the emission of contaminants such as sulfur oxides (SO_x), nitrogen oxides (NO_2), volatile organic compounds (VOCs), and fine particulate matter ($PM_{2.5}$). These air contaminant emissions can result in contamination of nearby land and waterbodies and affect fish and fish habitat. SO_x and NO_x can also lead to acidification and potential exceedance of ecosystems' critical loads. ECCC submits that there is insufficient information available to support the Proponent's conclusion that there will be no adverse effects to fish or fish habitat and that it is reasonable to expect that the Project could have levels of selenium and other harmful substances in its effluent that would likely have adverse effects on fish and fish habitat. The scope and extent of these potential adverse effects on fish and fish habitat are difficult to determine without more information and analysis. The definition of fish under the *Fisheries Act* includes all stages of the life cycle of fish (e.g. from egg to adult) and includes a range of other aquatic organisms, and is not limited to fish that are aquatic species at risk. ECCC's review states that Montem has estimated the attenuation efficacy of selenium in their load balance models for proposed mitigation measures (saturated rock fill in ex-pit waste rock deposits; passive wetland treatment; biochemical reactors). However, there is no indication as to what the anticipated concentrations of selenium and other contaminants will be, resultant from each operation or treatment process, and at the point of final discharge. They add that there is also uncertainty as to the effectiveness of the mitigation measures proposed, as saturated rock fill or backfill zones are nascent technologies. Additionally, if Montem intends to use existing wetlands for their passive water treatment, it should be noted that such water bodies may themselves be fish bearing waters, as defined under the *Fisheries Act.* **Requester and Indigenous Concerns:** Concerns include effects to fish and fish habitat from changes to water quality resulting from runoff water from mine operations and corresponding increases in constituents such as selenium and metals in the Crowsnest and Oldman river basins, lentic habitats such as Crowsnest Lake downstream, and B.C. receiving waters such as Michel Creek. In the experience of Blood Tribe/Kainai and Siksika	*Enhancement Act*, *Water Act*, *Coal Conservation Act*, and the *Public Lands Act*). Westslope cutthroat trout and bull trout are listed as endangered species under the Alberta *Wildlife Act* Authorization under Alberta's *Water Act* is required for temporary disturbances to wetlands including marshes, for the temporary diversion of water, and access and use of water. The approved water management plan for the South Saskatchewan River Basin enabled under Alberta's *Water Act* includes considerations of water quality in the enhancement of aquatic life. Cumulative effects to water quality and quantity are managed through the South Saskatchewan Regional Plan, including the South Saskatchewan Surface Water Quality Management Framework enabled under the Alberta *Land Stewardship Act.*-

Area of Federal Jurisdiction	Effects and Mitigation (Information from Proponent , Federal and Provincial Authorities, Public, Indigenous groups)	Relevant Legislative Mechanisms
	Nation, modern water management and mitigation of these constituents has not been effective in the region and have had effects downstream of projects such as to benthic invertebrate communities. Indigenous responders have also noted concern about the potential physical destruction or degradation of fish habitat in the event of stream bed and bank alteration from trenching and land clearing. Indigenous concerns note that other proposed mines in the area have been determined to have detrimental effects on high-value habitat of the westslope cutthroat trout and other fish species of importance. Examples provided include projects in the B.C. Elk Valley watershed where declines in westslope cutthroat trout populations have been observed. While water management plans are required, uncertainty remains around the ability for modern management approaches to address concerns surrounding the release of selenium and the resulting effects to fish. Requester concerns were raised with respect to the Castle River watershed as one of the most significant watersheds for both westslope cutthroat and bull trout species in Alberta. Concerns highlight mining, as identified in the recovery strategies, as an activity likely to destroy critical habitat. Concerns with respect to selenium in this watershed on fish have been highlighted to include debilitating deformities. While the Project is not anticipated to directly affect critical habitat for westslope cutthroat trout, the Alberta Wildlife Association indicates that the current recovery strategy for westslope cutthroat trout notes that critical habitat is only partially identified at this time and further habitat assessment is required. Concerns have also been raised with respect to whether selenium released by the Project will effect critical habitat downstream of the Project. The Alberta Wilderness Association notes Project would prevent the stocking of a 10 kilometre section of Crowsnest Creek upstream of a waterfall that is considered fishless and has been proposed as a potential stocking area of a “pure strain” of westslope cutthroat trout. This creates concerns on the ability for species recovery in the area if the Project proceeds, as this potential westslope cutthroat trout habitat will not be available for recovery of the species.	B.C. Ministry of Environment and Climate Change Strategy may require reviews under the *Environmental Management Act* and *Mines and Minerals Act* for changes to existing mine permits. The *Environmental Management Act* regulates industrial and municipal waste discharge, pollution, hazardous waste and contaminated site remediation. EMA provides the authority for introducing wastes into the environment, while protecting public health and the environment.

Area of Federal Jurisdiction	Effects and Mitigation (Information from Proponent , Federal and Provincial Authorities, Public, Indigenous groups)	Relevant Legislative Mechanisms
	There are concerns around the cumulative effects of aquatic species at risk in the region. The Project was excluded from the Grassy Mountain Mine cumulative effects assessment and therefore the cumulative effects on westslope cutthroat trout from coal mining in the area is of concern. Concerns were raised that effects to the regional ecosystem from the Project may have a negative effect on numerous game fish and limit the ability for Indigenous and recreational land users to enjoy the area. **Proposed Terms of Reference for the Alberta EIA:** It is a requirement to describe and map the fish, fish habitat (e.g., aquatic and benthic invertebrates) of the lentic and lotic ecosystems, including intermittent and ephemeral water bodies. The Proponent must describe the species composition, distribution, relative abundance, movements and general life history parameters including their use and potential use of habitats. Provide the methods used and rationale for the baseline data collection. As part of the baseline information, it is required to describe any aquatic species: • listed as “at Risk, May be at Risk and Sensitive” in the General Status of Alberta Wild Species (Alberta Environment and Parks); • identified by the *Alberta Wildlife Act* as ‘Endangered’, ‘Threatened’, or ‘Species of Special Concern’; • listed in Schedule 1 of the federal *Species at Risk Act*; • listed as “at risk” by COSEWIC; and • traditionally used species The parameters above include westslope cutthroat trout and bull trout. It is also required to describe and map aquatic habitat including critical or sensitive areas. The mapping is to include habitat disturbances that are related to proposed Project and existing and approved projects overlain on surface hydrology.	

Area of Federal Jurisdiction	Effects and Mitigation (Information from Proponent , Federal and Provincial Authorities, Public, Indigenous groups)	Relevant Legislative Mechanisms
	Input from B.C. Environmental Assessment Office: The Proponent currently has a permit for the previously-authorized water discharge point at Corbin sediment pond. Any changes to mining activities would require a review of the permit. **Input from the United States Environmental Protection Agency Region 8 (U.S. EPA):** The U.S. EPA raises concern over potential effects to aquatic resources in Canada and the application of a new technology whose long-term effectiveness has a high degree of uncertainty. According to the *Technical Assessment Report for the Tent Mountain Mine Re-start Project, British Columbia, Canada* (SRK 2020), Montem AB is proposing the use of saturated rockfill technology (SRF), semi-passive biochemical reactors, and wetlands to treat contact water that is expected to be contaminated with selenium and nitrates resulting from mining and waste rock disposal operations. EPA has been involved in reviewing SRF technology, in coordination with B.C. While SRF has shown short-term effectiveness at treating selenium, its effectiveness and permanence is unproven over the long time periods (decades of operation and post-closure) that would be required. While the EPA hopes that this technology will be effective, it has not been demonstrated that it will achieve selenium water quality objectives and standards over long time periods.	
A change to aquatic species, as defined in subsection 2(1) of the *Species at Risk Act*	See fish and fish habitat section. No adverse effects to marine plants are anticipated, as there is no interaction between the Project and the marine environment.	See fish and fish habitat section.
A change to migratory birds, as defined in subsection 2(1) of	**Proponent:** Significant pre-existing disturbance and clearing on the Project site as well as use of pre-existing infrastructure such as roads will reduce the risk to migratory birds. The Proponent does not expect any adverse project effects on migratory birds through	Compliance with the *Migratory Birds Convention Act, 1994* and *Species at Risk Act* are required.

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the *Migratory Birds Convention Act*, *1994*	the application of standard mitigation measures to ensure compliance with the *Migratory Birds Convention Act*, *1994*. Mitigation measures proposed include planning vegetation clearing outside of the breeding bird period, conducting pre-disturbance nest searches, and implementing the progressive conservation and reclamation proposal that promotes the development of habitats required for migratory birds. Workers will be bussed from a staging area closer to the town of Coleman to the mine site. The reduction in traffic will reduce vehicle collisions with birds. **Federal Authorities:** Environment and Climate Change Canada has noted that the exploration and construction of mines and associated infrastructure usually contributes to large-scale land clearing activities, which leads to the destruction, disturbance and fragmentation of habitat, habitat avoidance, sensory disturbance, and the inadvertent destruction of individuals, nest and eggs of migratory birds and species at risk. There is a higher risk for severe effects for migratory birds that are also species at risk or where there is already a high degree of cumulative effects, but restoration of the existing legacy mine footprint may reduce cumulative project adverse environmental effects. In addition, there is potential for harmful substances to enter the receiving environment and negatively harm migratory birds and their habitat, and birds that land on and/or frequent waste waters have the potential to come into contact with toxic substances, resulting in on and off site mortality. Migratory birds at risk could be impacted by such sensory disturbances as lights, vibrations, and presence of workers; for example, attraction to lights may cause birds to collide with lit structures or cause disorientation while circling a light source, leading to exhaustion and death. The amount, duration, frequency, and timing of noise are important to understand potential effects from this type of disturbance. **Requester and Indigenous Concerns** Concerns were raised about the potential effects to migratory birds, including concerns about leaching of selenium in the receiving environment and the negative	

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	effect this can have on the health of migratory birds. Adverse effects to migratory birds may impede the ability of Indigenous peoples to carry out their harvesting rights.	
A change to the environment that would occur on federal lands	**Proponent:** No adverse environmental effects on federal lands are anticipated, as there are no federal lands in the immediate vicinity of the Project. The nearest *Indian Act* reserve lands (Piikani Nation) are approximately 50 kilometres east of the Project. Dominion Coal Blocks are federal land approximately 10 kilometres west of the Project.	A determination under section 82 of the IAA would be required for projects on federal lands but is not applicable to the Project.
A change to the environment that would occur in a province other than the one in which the project is being carried out or outside Canada	**The Proponent:** Greenhouse gases (GHGs): With respect to GHGs, the volume of emissions likely from the Project, given its size and proximity to market, would be low in magnitude accounting for an estimated 84,114 tonnes of carbon dioxide equivalent units (CO2e), or 0.03 per cent and 0.012 per cent of the annual provincial and national emissions inventories, respectively. The Project emission is estimated to be only 23 per cent of the neighboring Grassy Mountain Mine. GHGs will be mitigated by ensuring all diesel equipment and vehicles will have low engine emissions meeting United States EPA Tier 4 emissions standards. The coal handling and processing plant will not utilize a dryer resulting in less energy consumption. Previous mine operations trucked coal to a processing plant in the town of Coleman, Alberta. The Proponent indicated that moving the coal handling and processing plant adjacent to the mining area will decrease overall emissions from past operations. Air quality: The proponent recognizes that high winds experienced in the area, and proposes best management practices form international jurisdictions and compliance with Canadian regulations to mitigate the potential influence of air quality reduction or dust events at the loadout and the mine site. Air quality modelling is underway and includes both B.C. and AB limits and parameters to ensure the most stringent limits are achieved. Dust mitigation plans are in development and will be addressed in the Alberta environmental impact assessment. At the rail siding, each	The *International River Improvement Act* may be triggered if there are impacts to the B.C. watershed on the west side of the hydrological divide, or if the hydrological divide itself undergoes any alteration. The Project would be subject to federal GHG reporting, pursuant to the *Canadian Environmental Protection Act, 1999*, if it emits 10 kilotonnes or more of GHG emissions, in carbon dioxide equivalent units per year.

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	rail car, once full, will be dosed with a dilute dustbinder chemical to seal and mitigate dust emissions during the journey from mine to port. Transboundary waters: The Proponent indicates water used and captured on site will not be transferred across provincial boundaries and that water quantity would not be adversely affected. Transboundary Species at risk: The proponent notes the existence of a significant wildlife corridor to the north of the Project area and indicates that there is already significant, historical effects due to the current linear disturbance and other activities. The proponent indicates that additional protective measures will be in place to avoid significant additional impacts to local and regional wildlife over the current impact of the existing infrastructure however details or specifics with respect to potential effects to species at risk are not described. The proponent also indicates that transboundary effects to wildlife will be assessed through the Alberta environmental impact assessment and will be addressed through project design or the application of standard mitigation measures. Some species at risk have been identified within the Project area. **Federal Authorities:** Greenhouse gases (GHGs): Environment and Climate Change Canada confirms that the Project has the potential to generate GHGs and because the Project is expected to operate for 14 years, there is the potential for the Project to be affected by climate change through climate related accidents and malfunctions. If the project was to undergo a federal impact assessment, the Strategic Assessment of Climate Change must be taken into account. Air quality: Environment and Climate Change Canada has indicated that mining can result in adverse effects on air quality, such as the emission of SO_x, NO_x, VOCs and $PM_{2.5}$. These air contaminants can result in local or regional degradation of ambient air quality. The deposition of these contaminants (such as metals or polycyclic aromatic compound emissions) may result in elevated concentrations of these contaminants in water, soil, flora and fauna. In addition, the combustion of fossil	

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	fuels to power rail engines, on-road vehicles and off-road machines will result in the emissions that can negatively impact ambient air quality. Transboundary waters: Environment and Climate Change Canada has noted that the *International River Improvement Act* (IRIA) may be triggered if the Project were to significantly impact the B.C. watershed on the west side of the hydrological divide. In addition, any significant alteration to the hydrological divide itself may trigger the IRIA as that would permanently change the amount of water flowing into the United States. Transboundary Species at risk: Environment and Climate Change Canada notes that the nature of effects to wildlife is based on a number of factors and that habitat that supports movement could be important for wildlife species. Mines may impact wildlife directly or indirectly including impacts to habitat, introduction of harmful substances, and sensory disturbances. Sensory disturbances include project noise, lights, and vibrations from mining activities and may result in adjacent habitats being unsuitable for use by wildlife or cause avoidance of certain areas. **Requester and Indigenous Concerns:** Greenhouse gases (GHGs): Concerns included GHG emissions from mine operations such as fugitive methane, the subsequent effects of climate change, and that the GHG emissions from the Project would hinder Canada's ability to meet its Paris Agreement commitments and 2050 net-zero ambitions. Transboundary waters: Concerns included transboundary effects to water quality and quantity. The Alberta Wilderness Association indicates that the province of Saskatchewan is highly reliant on water flowing from Alberta including the Crowsnest and Oldman Rivers in which the Project is at the headwaters. Water quality concerns included elevated selenium levels downstream into Saskatchewan and impacts to the Kootenai watershed that flows across Montana and Idaho. The currently approved discharge point in B.C. is Corbin Pond upstream	

Area of Federal Jurisdiction	Effects and Mitigation (Information from Proponent , Federal and Provincial Authorities, Public, Indigenous groups)	Relevant Legislative Mechanisms
	of Michel Creek which eventually reaches the transboundary Koocanusa reservoir. Concerns have been identified surrounding increasing selenium from coal projects in the area into the Koocanusa reservoir. Transboundary Species at risk: Concerns were raised with respect to wildlife that rely on travel corridors such as grizzly bear (Special Concern) that rely on healthy, intact landscapes in B.C., Alberta, and Montana, and the ability of the provinces to consider effects to the movement across provincial border. **Input from B.C. Environmental Assessment Office:** The Proponent currently holds a water release permit under the *Environmental Management Act* for the use of Corbin Pond (sediment pond). The Proponent has informed B.C. that the Project would not impact water quality or quantity in B.C. Any changes to the mining site would require a review under this permit to confirm if changes to the permit are required. **Input from the U.S. EPA:** The U.S. EPA understands that drainages and discharges from the Project would primarily be to the Crowsnest River via Crowsnest Creek in Alberta. However, due to the location of the Project in Alberta, at the border with British Columbia (B.C.), the EPA understands that some discharges would also be to B.C. in the Michel Creek basin which flows into the Elk River. The Elk River then discharges to transboundary Koocanusa Reservior approximately 100 km downstream. Due to the potential for the project to have direct and cumulative impacts to U.S. waters that are already being impacted by existing and historical coal mining in the Elk Valley, the U.S. EPA believes that a federal impact assessment is needed. The project has the potential to cause adverse effects that fall within federal jurisdiction, including impacts to the environment both inside and outside of Canada. The proposed Project is located approximately 150 km upstream of Lake Koocanusa. Direct and cumulative impacts from coal mining in the Elk Valley have resulted in impacts to Lake Koocanusa and the Kootenai River water quality, fish, and fish habitat in the United States. While only a portion of the total project wastewaters will be discharged to the Elk River, the extent of Project information	

Area of Federal Jurisdiction	Effects and Mitigation (Information from Proponent , Federal and Provincial Authorities, Public, Indigenous groups)	Relevant Legislative Mechanisms
	currently available to EPA has not clarified the potential quantity, quality, or nature of water resources impacts to the Elk River watershed and therefore warrants further exploration. EPA is concerned that new projects will increase pollutant loading to Lake Koocanusa and the Kootenai River. ECCC and IAAC are aware of these concerns through our ongoing conversations and input from EPA during our reviews of other proposed coal mines in the Elk Valley. EPA is also concerned about impacts to aquatic resources in B.C that are under federal jurisdiction and could extend to downstream Lake Koocanusa resources.	
With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on physical and cultural heritage	**Proponent:** The Proponent is completing field studies and developing impact reports and management plans to mitigate impacts to Indigenous groups and community concerns. An Indigenous consultation program is ongoing and the Proponent has informed the Agency that they are consulting beyond the requirements established by the Alberta Aboriginal Consultation Office. **Federal Authorities** Indigenous Services Canada noted that the Project's proximity to the headwaters of the Saskatchewan, Missouri, and Columbia watersheds could mean that fish harvesting may be impacted in case of an accidental release of deleterious substance and, consequently, food security may be impacted. As such, steps to ensure the mitigation of such possible adverse effects, such as ensuring impacted Indigenous groups are engaged and that information is shared, is important. **Requester and Indigenous Concerns:** Indigenous groups have expressed that areas around Tent Mountain have been historically used for travel, trade harvesting and ceremonial purposes and continue to be an important area for cultural practices. The Blood Tribe/Kainai submit that much of their traditional territory has been taken up by activities that are inconsistent with the practice of their culture. A variety of plants for food and medicinal purposes are harvested in the area by Indigenous Nation members. Continued access to locations in the area where cultural practices, traditions and customs can persist and	The Alberta Energy Regulator has a responsibility to consider the potential adverse impacts of energy resource applications on the existing rights of Indigenous peoples as recognized and affirmed under Part II of the *Constitution Act*, 1982 within its statutory authority under the *Responsible Energy Development Act.* Adequacy of consultation is determined by the Alberta Aboriginal Consultation Office and the Alberta Energy Regulator must receive advice from the Aboriginal Consultation Office with respect to the adequacy of consultation and potential adverse impacts on existing rights of aboriginal peoples as recognized and affirmed under Part II of the *Constitution Act, 1982* or traditional uses as defined in the Consultation Policy prior to making

Area of Federal Jurisdiction	Effects and Mitigation (Information from Proponent , Federal and Provincial Authorities, Public, Indigenous groups)	Relevant Legislative Mechanisms
	where knowledge can be passed onto the younger generations is central to the maintenance of unique Indigenous cultures. Indigenous concerns were raised about the potential adverse impacts to Bighorn sheep and other species of cultural importance. **Proposed Terms of Reference for the Alberta EIA:** Baseline historical resources studies and impact assessment on physical and cultural heritage including cabin sites, spiritual sites, cultural sites, graves, traditional trails and resource activity patterns are required. EIA also considers access to traditional lands and Indigenous views on reclamation.	a decision in respect of energy applications. The Project will be required to comply with the Alberta *Historical Resources Act*. According to Alberta guidance *Listing of Historic Resources: Instructions for Use* (Minister of Culture, Multiculturalism and Status of Women, 2020), projects requiring an EIA always require a Historical Resources Application.
With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on current use of lands and resources for traditional purposes	**The Proponent:** The Proponent is completing field studies and developing impact reports and management plans to mitigate impacts to Indigenous groups and community concerns. The Proponent has not provided any details with respect to potential changes to the environment that may impact the current use of lands and resources for traditional purposes. The site has been subject to extensive past disturbance from open pit mining. The Proponent recognizes that previous mining activities have impacted the ability for Indigenous groups to access land for traditional purposes. The Proponent has committed to continually engaging Indigenous groups in reclamation planning to mitigate effects to the use of land for traditional purposes. The Proponent describes opportunities to complete outstanding site closure and reclamation as well as improving upon previously reclaimed land that has been certified by the province of Alberta. The Proponent is of the stance that the Project provides opportunity to leave the historical mining site in a better ecological state that will benefit Indigenous communities.	The Alberta Energy Regulator has a responsibility to consider the potential adverse impacts of energy resource applications on the existing rights of Indigenous peoples as recognized and affirmed under Part II of the *Constitution Act*, *1982* within its statutory authority under the *Responsible Energy Development Act.* Adequacy of consultation is determined by the Alberta Aboriginal Consultation Office and the Alberta Energy Regulator must receive advice from the Aboriginal Consultation Office with respect to the adequacy of consultation and potential adverse impacts on existing rights of aboriginal peoples as recognized and

Area of Federal Jurisdiction	Effects and Mitigation (Information from Proponent , Federal and Provincial Authorities, Public, Indigenous groups)	Relevant Legislative Mechanisms
	Federal Authorities: Women and Gender Equality noted that resource extraction projects can have different positive and negative impacts on different groups of people from a range of groups and communities and further information would be required to determine whether mitigation is required. **Requester and Indigenous Concerns:** Traditional livelihood depends on the persistence of traditional food, water and land and continued and cumulative development in the Eastern Slopes of Alberta has adversely impacted this. Indigenous Nations have also noted that the Eastern slopes have long been critical to the practice of rights including harvesting, hunting, trade and spiritual practices. Concerns were raised that the Project could impact the ability for Indigenous groups to undertake traditional practices in the area, as well as sensory disturbance impacts to preferred places, species and resources. The increasing development in the area limits opportunities to use the land for traditional and cultural purposes. This includes potential for increased access by non-Indigenous users such as hunters, which may negatively impact traditional users in the area. Blood Tribe/Kainai expressed concern that the Project could result in potential impacts to the wintering range of the Bighorn sheep, which is a species of cultural importance. Samson Cree Nation noted that the creation of unwanted access to the area could contribute to increased hunting pressure by recreational land users, thereby impacting the ability for Samson members to practice Treaty hunting rights. In addition, Project impacts could potentially reduce the quality and health of vegetation, soils and medicinal plants. The ability to undertake traditional practices relies on sufficient quantity and quality of resources including water, fish, plants, spiritual sites and cultural landscapes. **Proposed Terms of Reference for the Alberta EIA:** As part of baseline data gathering, the Proponent is required to describe the current and potential use of the fish resources by Indigenous or recreational fisheries. The Proponent is required to “determine the impacts of the Project on traditional, medicinal and cultural purposes and identify possible mitigation strategies.”	affirmed under Part II of the *Constitution Act, 1982* or traditional uses as defined in the Consultation Policy prior to making a decision in respect of energy applications. Applications under the Alberta *Environmental Protection and Enhancement Act, Water Act,* and *Public Lands Act* require confirmation of adequacy of consultation from the Alberta Aboriginal Consultation Office prior to their approval or issuance. Authorization under the *Fisheries Act* may be required if the project is likely to cause the harmful alteration, disruption, or destruction to fish habitat or is likely to result in the death of fish. Deposit of deleterious substances into waters frequented by fish, unless authorized by regulations or other federal legislation, is prohibited under the *Fisheries Act*.

Area of Federal Jurisdiction	Effects and Mitigation (Information from Proponent , Federal and Provincial Authorities, Public, Indigenous groups)	Relevant Legislative Mechanisms
	The proposed Terms of Reference for the Alberta environmental impact assessment includes considering Indigenous views on land reclamation.	
With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on any structure, site, or thing that is of historical, archaeological, paleontological or architectural significance	**Proponent:** The Proponent is completing field studies and developing impact reports and management plans to mitigate impacts to Indigenous groups and address community concerns. Because the resumption of activities will occur entirely within the previously approved mine site and the existing level of disturbance on site from previous mining activities, the Proponent does not expect new adverse effects relating to things of historical, archaeological, paleontological or architectural significance. Archeological studies are underway as part of the biophysical assessments being conducted by the Proponent. A suite of biophysical assessments began in the summer of 2018. No impacts are anticipated because of the extent of previous disturbances in the project area and proposed project activities. **Requester and Indigenous Concerns:** Concerns describe how the Project may adversely effect sacred sites and may destroy sites of archaeological, historical, cultural, or spiritual significance. Areas at risk mentioned include Napi's Gambling Place, Oldman River, and Thunder Mountain. Several Indigenous Nations indicated that they have not had the opportunity to conduct a traditional land use study including the footprint, so Project-specific impacts are unknown at this time.	A submission of an Historic Resources Application under the Alberta *Historical Resources Act* is required for the Project. The Agency understands that authorizations or permits are required under the B.C. *Heritage Conservation Act* (regulated by Forests, Lands, Natural Resource Operations & Rural Development) which would require the Proponent to identify protected archeological sites that will be directly or indirectly disturbed and to follow protocols to protect any discovered archeological artifact or human remains.

Area of Federal Jurisdiction	Effects and Mitigation (Information from Proponent , Federal and Provincial Authorities, Public, Indigenous groups)	Relevant Legislative Mechanisms
	Alberta Historical Resource Mapping[11]: The Project is located on land that is mapped to have historical resource values of 4 (contains historic resource that may require avoidance) and 5 (high potential to contain a historic resource). Projects requiring a provincial EIA require the submission of a Historic Resources Application and may result in a Historic Resource Impact Assessment.	
Any change occurring in Canada to the health, social or economic conditions of the Indigenous peoples of Canada	**Proponent:** The Proponent is completing field studies and developing impact reports and management plans to mitigate impacts to Indigenous groups and community concerns. The Proponent has indicated that through their ongoing engagement and consultation, certain Indigenous groups have shown interest in potential employment and business opportunities resulting from the Project. Local and Indigenous contractors will be used to the extent feasible. There is not expected to be any significant changes to downstream water quality used for drinking water due to the small size of the Project and through mine planning, the ability for the Proponent to immediately control all mine water discharges. The Proponent is confident that water released under the water management strategies planned will be within the applicable water quality standards as regulated under the Alberta *Environmental Protection and Enhancement Act.* **Federal Authorities:** Health Canada notes the potential for adverse direct effects on human health of Indigenous peoples given the proximity of communities to the Project and would require further information to understand the extent of these potential effects from project-related changes to air quality, water quality, noise and country foods on Indigenous health. Furthermore, due to the proximity of several Indigenous communities within 100 kilometres of the Project and the amount of current and past coal projects in the area, Health Canada indicated that there may be cumulative health effects as relates to Indigenous peoples.	Deposit of deleterious substances into waters frequented by fish, unless authorized by regulations or other federal legislation, is prohibited under the *Fisheries Act*.

[11] Alberta Listing of Historical Resources Web Application: https://geoculture.maps.arcgis.com/apps/webappviewer/index.html?id=068e8b3b073d477caffdfcd7a9a52a92

Area of Federal Jurisdiction	Effects and Mitigation (Information from Proponent , Federal and Provincial Authorities, Public, Indigenous groups)	Relevant Legislative Mechanisms
	Health Canada indicated that, in partnership with the provinces and territories, it developed the Guidelines for Canadian Drinking Water Quality and the Guidelines for Canadian Recreational Water Quality and these guidelines form the basis of provincial drinking and recreational water quality requirements. Environment and Climate Change Canada also notes that the construction, operation and decommissioning of mines can result in adverse effects on water quality through acidification and the leaching of metals into the receiving aquatic environment. Surface water quantities can be changed by alteration of surface flows and the production of process-affected water has the potential for contaminants to enter groundwater through seepage from the tailings/rock disposal areas. Women and Gender Equality Canada indicated that coal extraction projects have different positive and negative impacts upon women, men and gender diverse persons from a range of groups (e.g. disability, income) and communities (e.g. different nations) that would be identified, monitored and mitigated across a variety of ways including: • economic and employment opportunities; • decision making, access and control of resources; • compensation or benefits and expanded investment in the local community; • access to services and programs that account for the perspective, knowledge and experiences of individuals and communities; • reinforce existing inequalities; • health and safety issues and risks, such as gender-based violence; and • where men gain employment and withdraw their labour from traditional subsistence activities such as hunting, fishing, gathering or trapping, this can create and exacerbate existing gender inequalities. Environment and Climate Change Canada has indicated that mining can result in adverse effects on air quality, such as the emission of SO_x, NO_x, VOCs and $PM_{2.5}$. These air contaminants can result in local or regional degradation of ambient air quality, with potential impacts on human health. The deposition of these contaminants (such as metals or polycyclic aromatic compound emissions) may	

Area of Federal Jurisdiction	Effects and Mitigation (Information from Proponent , Federal and Provincial Authorities, Public, Indigenous groups)	Relevant Legislative Mechanisms
	result in elevated concentrations of these contaminants in water, soil, flora and fauna. In addition, the combustion of fossil fuels to power rail engines, on-road vehicles and off-road machines will result in the emissions that can negatively impact ambient air quality and human health. **Requester and Indigenous Concerns:** Concerns were raised regarding risk of contamination, degradation and potential loss of access to traditional food systems leading to a loss of food security. Mining operations will open atmospheric, surface water, vegetation and wildlife pathways for contamination by dangerous chemicals in unanticipated ways. Indigenous groups raised concerns about the potential contamination of drinking water sources from the Project, such as through the leaching of selenium and other metals from runoff water. In addition, selenium contamination could result in negative impacts to the greater food-web and human health through biomagnification. Continued resource development without adequate cleanup has caused impacts to emotional and mental health. Loss of access to traditional foods (through contamination, at-risk populations, extirpations and extinctions) translates into a loss of food security for local Indigenous communities. Indigenous concerns also include a limited opportunity for Nation-owned businesses. **Proposed Terms of Reference for the Alberta EIA:** An impact assessment of air quality on health and documentation of health concerns identified by Indigenous communities or groups, specifically on their traditional lifestyle is required. Mitigations are required for each associated impact. The EIA requires a discussion on opportunities to work with First Nation and Métis communities regarding employment, training needs and other economic development opportunities arising from the Project.	
Adverse direct or incidental effects	**The Proponent:** The Site Safety Management Plan Rules for the rail loadout facility will require four handbrakes temporarily on each of the 30-car cuts for securement to be in compliance with Transport Canada regulations.	The following federal Acts apply. No authorizations are known to be required at this time. *Canada Transportation Act*

Area of Federal Jurisdiction	Effects and Mitigation (Information from Proponent , Federal and Provincial Authorities, Public, Indigenous groups)	Relevant Legislative Mechanisms
	The Proponent does not anticipate that any federal authorizations will be required. **Federal Authorities:** Authorizations pursuant to the *Fisheries Act* and the *Species at Risk Act* issued by Fisheries and Oceans Canada, may be required and the authorization process may include Indigenous consultation. Based on information provided, Natural Resources Canada is not likely to exercise a power or duty or function related to the project to enable it to proceed. Environment and Climate Change Canada (ECCC) does not expect to exercise a power or perform a duty or function related to the Project. However, depending on the scope of the Project, ECCC may need to issue permits related to the *Migratory Birds Convention Act, 1994* and the *Species at Risk Act*.	*Fisheries Act* *Species at Risk Act* *Migratory Birds Convention Act, 1994*
Effects on federally listed Species At Risk under the *Species at Risk Act*	**Proponent:** The Proponent must be compliant with the *Species at Risk Act* and does not anticipate the need for any associated federal authorization. Surveys had identified the presence of two species at risk listed as endangered on Schedule 1 of the *Species at Risk Act* (whitebark pine and little brown myotis). Whitebark pine is also listed as endangered and protected under the *Alberta Wildlife Act* and the Proponent will comply with the Alberta Species Recovery Plan. The Proponent is in the process of developing mitigation plans for wildlife. Because of the level of existing disturbance on site, the Proponent does not anticipate significant effects to wildlife and wildlife habitat; however, does recognize that temporary effects from sensory disturbances (noise, dust, traffic, etc.) will result from the Project and will be regulated under the Alberta *Environmental Protection and Enhancement Act.* Improved site closure and reclamation of the existing mining disturbances have the potential to improve overall wildlife habitat at Tent Mountain.	Species at risk are protected under the *Species at Risk Act.* Alberta Whitebark Pine Recovery Strategy (2013-2018) considers critical habitat to be the same as identified in the federal recovery strategy under the *Species at Risk Act.* Whitebark pine is an endangered species protected by the Alberta Wildlife Act. Grizzly bear is a threatened species protected by the *Alberta Wildlife Act* and has a recovery plan that is recent as of July 2020.

Area of Federal Jurisdiction	Effects and Mitigation (Information from Proponent , Federal and Provincial Authorities, Public, Indigenous groups)	Relevant Legislative Mechanisms
	The Proponent acknowledges the existence of a significant wildlife corridor to the north of the Project area and notes there is already significant, historical effects due to the current linear disturbance and other activities. The Proponent is committed to putting in place additional protective measures to avoid significant additional impacts to local and regional wildlife over the current impact of the existing infrastructure. **Federal Authorities:** Environment and Climate Change Canada noted that mining can lead to the disturbance and destruction of species at risk and their habitat, exposure to harmful substances through deposition, spills, or emissions, and the potential for other harmful substances to enter or be spilled into the receiving environment has the potential to negatively impact species at risk. **Requester and Indigenous Concerns:** Whitebark pine is an endangered species listed on Schedule 1 of the *Species at Risk Act*. The project is directly adjacent to regeneration and recovery critical habitat and is entirely within the two kilometre buffer established as the seed dispersal regeneration and recovery critical habitat and therefore a direct impact to the recovery of the species. Wildlife corridors provide connections that grizzly bear rely on to breed between Montana, Alberta, and B.C. populations. Concerns of adverse effects to grizzly bear include the Projects location within an important wildlife corridor and that this Michel-Alexander corridor could have impacts to various other species. Coal development and exploration in the area are negatively affecting these corridors and accompanying infrastructure, activity and noise will reduce the utility of this linkage zone for grizzly bears. Potential future development activities by the Proponent in the region would further fragment this habitat and corridor. Ecojustice has raised concerns about limber pine and whitebark pine, both listed as Endangered in Alberta under the *Wildlife Act* and that the *Wildlife Act* does not provide sufficient, broad legal protection for either individuals or habitat.	

APPENDIX II

Appendix II: Potential Federal, Provincial, and International Authorizations Relevant to the Project

Authorization	Description
Canadian Transportation Agency approval under section 98 of the *Canada Transportation Act*	Pursuant to section 98 of the *Canada Transportation Act*, a company shall not construct a railway line without the approval of the Canadian Transportation Agency (CTA). The Proponent has indicated that the railway spur is part of CN's network and is likely to require approval from the CTA.
Fisheries Act Authorization	Authorization under paragraph 35(2)(b) of the *Fisheries Act* is required when any activity that is not fishing results in the death of fish. Authorization under paragraph 34.4(2)(b) of the *Fisheries Act* is required when any activity that is not fishing results in the harmful alteration, disruption, or destruction to fish habitat (HADD). Prior to issuing such authorizations, consultations with potentially impacted Indigenous groups would be undertaken and potential accommodation for adverse impacts could be considered as appropriate. The *Fisheries Act* 36(3) prohibits the deposit of deleterious substances into waters frequented by fish, unless authorized by regulations or other federal legislation.
Species at Risk Act Authorization	Authorization may be required if there are impacts to a species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under sections 32, 33 and subsection 58(1) of the *Species at Risk Act*. Prior to authorization, the Competent Minister under this Act must be satisfied that the activities will not jeopardize survival or recovery of the species at risk. For non-aquatic species listed in Schedule 1 of the *Species at Risk Act* as Extirpated, Endangered or Threatened, a permit may be required from Environment and Climate Change Canada (e.g. under section 73 of the *Species at Risk Act*) for activities that affect a listed terrestrial wildlife species, any part of its critical habitat, or the residences of its individuals, where those prohibitions are in place. Such permits may only be issued if*:* all reasonable alternatives to the activity that would reduce the impact on the species have been considered and the best solution has been adopted; all feasible measures will be taken to minimize the impact of the activity on the species or its critical habitat or the residences of its individuals; and if the activity will not jeopardize the survival or recovery of the species.

Authorization	Description
Migratory Birds Convention Act, 1994	The *Migratory Birds Convention Act*, *1994* prohibits killing, harming, or collecting adults, young and eggs of migratory birds and screens and provides regulatory responses for effects to migratory birds. A permit is required for all activities affecting migratory birds, with some exceptions detailed in the Migratory Birds Regulations.
Canadian Environmental Protection Act, 1999	May require greenhouse gas emissions reporting, if ten kilotonnes or more of GHGs are emitted in carbon dioxide equivalent units per year. This would be in addition to reporting required from the Strategic Assessment of Climate Change, should an impact assessment be required.
Explosives Act	Factory and Magazine Licences under Section 7(1) of the *Explosives Act* may be required.
Coal Mining Effluent Regulations (pending)	The Coal Mining Effluent Regulations (CMER; proposed under the *Fisheries Act*) are currently being developed by Environment and Climate Change Canada and would provide effluent quality standards to deposit deleterious substances (selenium, nitrate and suspended solids). The target to pre-publish proposed regulations in Canada Gazette, Part I is in the summer of 2022. Final regulations are targeted 2023, at which time they would be law. This Project would be subject to the regulations.
Clean Fuel Standard Regulations (pending)	The proposed Clean Fuel Standard (CFS) Regulations will reduce the lifecycle carbon intensity of fossil fuels used in mobile and stationary equipment in the construction and operational phases of projects. In addition to the use of lower carbon fossil fuels that would be supplied, the CFS would incent some GHG reduction measures (such as the use of electric or zero emission technologies in lieu of fossil fuel equipment) that would enable the Proponent to generate credits for trade. The regulations for the liquid fossil fuel class are being developed first, with draft regulations published in Canada Gazette, Part I, in December 2020 and Environment and Climate Change Canada will continue consultations with interested parties with final regulations to be published in late 2021, with the coming into force of the regulatory requirement in December 2022.
Alberta	
Environmental Protection and Enhancement Act (EPEA)	EPEA supports and promotes the protection, enhancement and wise use of the environment. The Alberta Energy Regulator reviews applications under EPEA to assess the potential environmental impacts of a proposed project. The existing EPEA approval No. 47679-02-01 has been transferred to the Proponent. The current approval only allows for monitoring and closure operations and condition 3.1.1 prevents the creation of any new disturbance to the land surface of the mine, undertaking of any new

Authorization	Description
	construction or refurbishing an existing portion operational status until and amendment to the approval is obtained. Pursuant to ss. 39(e)(i) & (iii) and 67(1), the Project constitutes either a new development or a change to an activity that is of a substantial nature pursuant under EPEA and a mandatory activity pursuant to Schedule 1(g) of the Environmental Assessment (Mandatory and Exempted Activities) Regulation. The Proponent is required, pursuant to section 44(1)(a) of EPEA, to prepare and submit an environmental impact assessment (EIA) report for this project. The EIA report is to be prepared in accordance with the provisions of Division 1 of Part 2 of EPEA.
Public Lands Act	The *Public Lands Act* regulates public land allocations, the sale or transfer of public land to other levels of government or private entities, and the uses (include recreational use, commercial use and industrial use) of public land. The Proponent applied for a Mineral Surface Lease (MSL) under the *Public Lands Act* to the AER in April 2019 for resumed operations.
Coal Conservation Act	To regulate the exploration of coal, the site development for coal extraction, and the commercial operation of a coal extraction site including permits to develop a mine site or mine. Section 23(1)(a) requires Approval to construct and operate a new coal processing plant. Application to be submitted as a coal processing plant will require new authorization under the Act. The plant will be constructed and operated within the boundary of the existing Permit and not require any new land disturbances. The Proponent current holds mine permit AB C 85-16G. Section 11 - Pit Licence grants Approval(s) to develop, operate and reclaim the surface mine, associated rock disposal areas and Project infrastructure. Pits, rock disposal areas and other Project infrastructure will be constructed partially within the existing operational areas and incorporated into the Project expansion areas.
Water Act	*Water Act* approval for the construction and operation of water management structures. Existing and new water management facilities will be required. *Water Act* Licence for the consumptive use of defined quantities of water for the fresh water make up requirements of the coal plant. The Proponent will be applying for a licence to divert and use water for the purpose of washing raw coal at the coal handling and processing plant. Montem will apply to use water stranded in Pit 4. The approved Water Management Plan for the South Saskatchewan River Basin is enabled under the *Water Act*.

Authorization	Description
Land Stewardship Act	Enables the implementation of Land Use Frameworks such as the South Saskatchewan Regional Plan and Livingstone-Porcupine Hills Land Footprint Management Plan for the management of cumulative effects. These plans include other frameworks such as the South Saskatchewan Region surface water quality management framework: for the mainstem Bow, Milk, Oldman and South Saskatchewan Rivers (Alberta).
Historical Resources Act	Provides for the use, designation and protection of moveable and immoveable historic resources. Projects such as this one that require a provincial environmental impact assessment require and application under the *Historical Resources Act.* Clearance is required prior to any site preparation or construction work occurring. In the case of incidental historical finds, all activities that may impact the resource are to cease while it is being evaluated.
Electrical Utilities Act	Authorizations for interconnection to electrical for the Project. Applications will be submitted for electrical needs of the plant, office and shop facilities.
Municipal Government Act	Applications to the Municipal District of Crowsnest Pass will be required for construction authorizations.

British Columbia

Environmental Assessment Act	The *Environmental Assessment Act* regulates the assessment of major projects in British Columbia for potentially adverse environmental, economic, social, heritage and health effects that may occur during the life cycle of these projects. Issuance of a certificate is required for reviewable projects to proceed. Section 3(2), Section 10(1) and Table 6 of the *Reviewable Projects Regulation* require an assessment under the EAA for mine expansion when: a) the existing project that is subject to the modification has a production capacity in excess of 250,000 tonnes per year of clean coal or raw coal or both; or b) the clearance of 600 hectares or more of land, unless the clearance has been authorized by the minister, or delegate, under the *Resort Timber Administration Act*.
Mines and Minerals Act	Permits are required for on-site activities, including management of water quality, waste and metal leaching and acid rock drainage, as well as geotechnical design and reclamation and closure planning.
Coal Act	The *Coal Act* authorizes the registration of coal titles.

Environmental Management Act	The *Environmental Management Act* regulates industrial and municipal waste discharge, pollution, hazardous waste and contaminated site remediation. The *Environmental Management Act* provides the authority for introducing wastes into the environment, while protecting public health and the environment. Each mine in B.C. is required to apply for, obtain and comply with conditions in a Waste Discharge permit issued under the Act and includes requirements related to discharge quality and quantity, development and implementation of management plans, monitoring programs and reporting.
Land Act	The *Land Act* governs the disposition, administration and management of Crown land in the province.
Water Sustainability Act	*Water Sustainability Act* governs the licensing, diversion and use of water by maintaining water quantity, water quality and aquatic ecosystems in and for B.C.. Authorizations may be issued for long-term diversion and storage of specific quantities of water for one or more water use purposes, short-term use approvals authorize holders to use water for a period up to 24 months and change approvals and notifications authorizing work, in and about a stream, and can include conditions and require public and Indigenous consultation.
Wildlife Act	This *Wildlife Act* may require permits for Scientific Fish Collection Permits, and the removal of bird nests, amphibian species and beavers. Conservation measures include setting individual species population objectives as well as establishment of habitat protection measures, using a variety of legislative tools.
Forest and Range Practices Act	The *Forest and Range Practices Act* outlines how all forest and range practices and resource-based activities are to be conducted on Crown land in B.C., while ensuring protection of everything in and on them, such as plants, animals and ecosystems.
Forest Act	Governs the issuance of timber harvesting permits and forest service road use permits. Permission under the *Forest Act* is required for activities it governs on provincial Crown land.
Heritage Conservation Act	The *Heritage Conservation Act* requires an Archaeological Impact Assessment prior to clearing and ground disturbance. Permits may be required for disturbances or alteration of sites.
Public Health Act	The *Public Health Act* is the primary article of legislation that is used by the government to convey land to the public for community, industrial and business use. The Act allows the granting of land, and the issuance of Crown land tenure in the form of leases, licences, permits and rights of way.

International	
International Joint Commission established under the *Boundary Waters Treaty of 1909*	The International Joint Commission (IJC) is a bi-national organization established by the governments of the U.S. and Canada under the *Boundary Waters Treaty of 1909,* which is implemented in Canada by the *International Boundary Waters Treaty Act*. The treaty provides general principles, rather than detailed prescriptions, for preventing and resolving disputes over waters shared between the two countries and for settling other transboundary issues. The specific application of these principles is decided on a case-by-case basis. The IJC has two main responsibilities: approving projects that affect water levels and flows across the boundary, and investigating transboundary issues and recommending solutions. The IJC's recommendations and decisions take into account the needs of a wide range of water uses, including drinking water, commercial shipping, hydroelectric power generation, agriculture, ecosystem health, industry, fishing, recreational boating and shoreline property. The IJC, if provided with a Reference from the governments, can be asked to engage with all interested and affected parties to evaluate the transboundary effects of mining activity within the Elk Valley region. References have historically been provided jointly by the Governments of Canada and the U.S.; however, the IJC could operate under a unilateral Reference from one of the two Governments.
International River Improvements Act	A license under the *International River Improvements Act* is required from Environment Climate Change Canada to construct, operate or maintain an international river improvement, such as a dam or water diversion.

APPENDIX III

Appendix III: Other Public and Indigenous Concerns Known to the Agency in Relation to the Project

Concerns Expressed
Selenium is a known issue in the Elk Valley in B.C. and in other areas of Alberta selenium quantities have been shown to be from six to nine times higher than baseline downstream of notable coal mines
Uncertainty that modern water management regimes are sufficient to improve water quality from mining operations
The project is within the Eastern Slopes of Alberta and is not in alignment with the Government of Alberta South Saskatchewan Regional plan which states that watershed management and headwaters protection in the Eastern Slopes is the highest priority
The area is located within or within close proximity to environmentally sensitive areas such as the of the “Crown of the Continent ecosystem”, Livingstone Hills Land Management Zone, and the Castle Wildland Provincial Park; activities in the area have already exceeded the linear density threshold limits in Livingstone Public Land Use Zone
Concerns about that provincial and international borders do not apply to wildlife. The Project area is situated within an important transboundary corridor for wildlife species beyond species at risk and could have a negative impact on their connectivity
Concerns surrounding the Governments of Alberta’s approach to coal mining considering the rescinding of a 1976 Coal Policy that put restrictions on coal mining in the Eastern Slopes of Alberta, the subsequent reinstatement of the policy after leases had been sold and the level of provincial consultation with the public
Concerns surrounding what has been considered baseline for the purpose of biophysical assessments and that the baseline should reflect the pre-mining conditions
Displacement of wildlife from increased traffic and sensory disturbance (e.g., noise, smells) associated with the Project
The Project is just under the 5,000 tonnes per day threshold of the Regulations and there are doubts the Project will remain below
Perceived inadequacy of the proposed Alberta environmental impact assessment Terms of Reference including insufficient assessment of Aboriginal or Treaty rights, consideration for the environmental sensitivity of the Project location, transboundary impacts, insufficient weight given to drinking water and water quality, and the proximity to other coal projects including the North Coal Michel Coal Project
A lack of adequate consultation with Indigenous groups
Concerns about the cumulative impacts of mining operations and other development projects in the region including on water, wildlife species, and habitat fragmentation

Concerns Expressed
Concerns about provincial processes being inadequate to regulate coal mining
Cumulative impacts from multiple activities in the same region should warrant a federal impact assessment for the proposed Project
Potential future coal mine projects by the Proponent (Chinook, Isola, Oldman, and 4-Stack) may be enabled by Project providing the necessary capital for would not be considered in the Alberta environmental impact assessment and therefore cumulative effects of future projects enabled by the Project may have detrimental effects on westslope cutthroat trout.
Tent Mountain Project may impede the possibility of stocking approximately 10 kilometres of potential habitat with pure strain westslope cutthroat trout
Concerns over the amount of CO_2 that will be generated from the burning of metallurgical coal mined from Tent Mountain
Concerns about the potential of waste rock dumps to stretch across the B.C./Alberta provincial border
Project fails to differentiate between reclaimed and brownfield disturbance area; previously reclaimed areas have undergone decades of regrowth and should be subtracted from the existing disturbance area (which would being the new disturbance area closer to the 50 per cent threshold outline in the *Physical Activities Regulations*)
Concerns that Alberta's provincial process would not adequately consider transboundary impacts to water quality from the proposed Project
Concerns about the creation of unwanted access contributing to increased hunting pressure by recreational land users that could negatively impact Indigenous harvest
Concerns about the potential introduction and spreading of contaminants into the environment (such as herbicides for Project maintenance) leading to reduced quality of vegetation and soils
Concerns about the destruction or degradation of waterways from stream bed and bank alteration from trenching and land clearing
Concerns about the impact that catastrophic failure of the mining infrastructure could have on the receiving environment
Concerns about Limber Pine and the possibility that provincial legislation will not be adequate to protect this species
There is no provincial mechanism to manage cross-border projects, so a federal review is necessary to address transboundary impacts and considerations