Schedule C – DRAFT Application Information Requirements

FOR THE

FORDING RIVER EXTENSION PROJECT (FRX)

ISSUED BY

ENVIRONMENTAL ASSESSMENT OFFICE AND IMPACT ASSESSMENT AGENCY OF CANADA

DRAFT JANUARY 2026

BRITISH COLUMBIA EAO Environmental Assessment Office

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PREFACE TO THE APPLICATION INFORMATION REQUIREMENTS

The Application Information Requirements (AIR), in accordance with Section 19(2)(a) of the *Environmental Assessment Act*, S.B.C 2018, c. 51 (BCEAA), sets out the information that EVR Operations Limited (EVR; the Proponent), is required to provide in its Application for an Environmental Assessment Certificate (the Application) to support the consent decisions of participating Indigenous nations and the decisions of provincial decision makers, per the recommendation under Section 16(2) of the BCEAA.

IAAC has developed a draft Federal Appendix to the Application Information Requirements (Appendix E; the federal appendix) for the Fording River Extension Project (FRX; the Project) proposed by the Proponent that were tailored by the Impact Assessment Agency of Canada (IAAC). The federal appendix replaces the Tailored Impact Statement Guidelines that would be used for a federal-only assessment process.

The Government of Canada is committed to meeting the objective of "one project, one review" in its review of projects. For FRX, IAAC and the B.C. Environmental Assessment Office (EAO) are working closely together following the *Impact Assessment Cooperation Agreement Between Canada and British Columbia* (2019). As part of those commitments, IAAC has developed the federal appendix as an appendix to the provincial Application Information Requirements (AIR) to clearly identify the requirements needed to assess adverse effects in federal jurisdiction that are not already assessed by the provincial process. To ensure ease of use, federal requirements described in the federal appendix have also been integrated into the AIR by the EAO so the requirements for a valued component (VC) are in one location. IAAC has deferred to provincial requirements where overlap exists and has leveraged the means of other jurisdictions to simplify requirements (e.g. by relying on provincial standards).

The draft federal appendix includes information and studies IAAC considers necessary for the conduct of the impact assessment focusing only on adverse effects within federal jurisdiction, or direct or incidental adverse effects (collectively referred to as adverse federal effects hereafter) that could potentially be significant as informed by the nature, complexity and context of the project, as well as by consultation and engagement with: the proponent, Indigenous groups, the public, other jurisdictions, federal authorities, and other interested parties. The Project would extend the life of EVR's existing Fording River Operations (FRO) steelmaking coal mine in southeastern British Columbia (B.C.) as described in the *Detailed Project Description* on the Environmental Assessment Office (EAO)'s Project Information Centre website. FRX would be located directly south of FRO's existing operations, approximately 15 kilometers northeast of Elkford, B.C.

FRX would expand the FRO coal mine by adding a new open pit and supporting infrastructure (e.g., mine rock storage, water treatment, tailings storage, roads, utilities, explosives storage, electrical systems, and office facilities), while using existing components at FRO such as the coal processing plant, stockpiles, rail loadout, and maintenance areas. This information on the conceptual approach to developing the Project is provided in the AIR for context.

TABLE OF CONCORDANCE

A Table of Concordance must be included in the Application. The Table of Concordance must demonstrate where the information requirements are found in the Application, including which volume and section, in the format of the table below.

Table 1. Table of Concordance between AIR and Application (Example Entry)

AIR Section and Page No.	AIR Title	AIR Section Language	Application Section Title	Application Volume, Section (or Sub-Section),	Relevant Appendix
Section 1.12 *Pages 22 to 29*	*Air Quality Assessment Boundaries*	*The Application must define assessment boundaries for the Air Quality VC, including spatial, temporal, administrative and technical boundaries.*	*Air Quality Assessment Boundaries*	*Volume 2* *Section 4.2.2*	*Volume 6* *Appendix K*

ABBREVIATIONS, ACRONYMS AND DEFINITIONS

The Application must include a list of all acronyms and abbreviations used and their definitions. This list will likely be an expanded version of the list below, which consists of terms that appear in this document.

BCEAA – The *Environmental Assessment Act* (2018)

Adverse federal effects – "Adverse effects within federal jurisdiction" and "direct or incidental adverse effects" as defined under the Impact Assessment Act

AIR – Application Information Requirements

Application – An Application for an Environmental Assessment Certificate

B.C. – British Columbia

EA – Environmental Assessment

EAO – Environmental Assessment Office

EVR – EVR Operations Limited; the Proponent

EV-CEMF – Elk Valley Cumulative Effects Management Framework

EVWQP – Elk Valley Water Quality Plan, the title of the Elk Valley Area Based Management Plan

FRX – Fording River Extension Project; the Project

GBA Plus – Gender Based Analysis Plus[1]

GHG – Greenhouse gas

HHRA – Human Health Risk Assessment

IA – Impact Assessment

IAA – The *Impact Assessment Act*

IAAC – The Impact Assessment Agency of Canada

JAEP – Joint Assessment and Engagement Plan

Negative Effect - Undesirable or adverse effect of the project.

Joint Detailed Permitting Plan – The joint federal and provincial plan for FRX permitting

SARA – *Species at Risk Act*

TAC – Technical Advisory Committee

VC – Valued Component

ML/ARD – Metal Leaching/Acid Rock Drainage

TSF – Tailings Storage Facility

[1] Gender Based Analysis Plus (GBA Plus) provides a framework to describe the full scope of potential negative and positive effects under the Act. GBA Plus is an analytical framework that guides practitioners, proponents and participants to ask important questions about how designated projects may affect diverse or potentially vulnerable population groups.

APPLICATION SUMMARY

The Application must include a stand-alone, plain language summary in English and French[2] of the Application, including the following:

a) A summary description of the Project;

b) A summary description of the scope of the provincial Environmental Assessment (EA) and the federal Impact Assessment (IA);

c) A brief overview of engagement activities with Indigenous Nations, the public, local governments,[3] provincial and federal government agencies and stakeholders;

d) A summary of the key issues raised by Indigenous Nations, the public, local governments, provincial and federal government agencies and stakeholders;

e) A summary of anticipated key effects on Section 25 matters listed in the BCEAA and valued components, proposed mitigation measures, predicted residual and cumulative effects and any required follow-up programs;

f) A summary of direct and incidental effects within federal jurisdiction, as defined in the IAA;

g) A summary of anticipated key effects on Indigenous Nations and their rights recognized and affirmed by Section 35 of the *Constitution Act, 1982* (Section 35 Rights), and proposed mitigation measures for those effects; and

h) Key maps or figures illustrating the Project location and key Project components.

The Application must be provided in an indexed, unlocked PDF format. The proponent is encouraged to submit draft documents for review by EAO and IAAC (e.g. proposed study plans, draft sections of the Application) prior to the formal submission.

In preparing the Application, the proponent must adhere to *ethical guidelines* and cultural protocols governing research, data collection and confidentiality. The proponent must respect the obligation of protecting personal information, including for disaggregated data from small or unique populations, and adopt the established standards for the management of Indigenous data (e.g. the First Nations principles of Ownership, Control, Access and Possession or standards adopted by an Indigenous group), including obtaining permission from Indigenous groups before including information from or about them.

1.0 PROJECT OVERVIEW

1.1. Project Introduction

The Application must provide the proponent's requested project description for the Environmental Assessment Certificate including maps and the requested duration of the Environmental Assessment Certificate.

The Application must provide an overview of the Project including:

- The Project purpose and need;
- The type of project, including:

[2] A French-language summary is a federal requirement.

[3] Local governments include municipalities and regional districts.

  - Whether the Project is a new mine or a modification of an existing mine;
  - Whether the Project site is located in an area or site of historical mining activity;
  - The type of deposit, target materials, and mining and processing/milling methods;
  - The product(s) that will be produced and shipped, and the market(s) for these product(s);
  - The projected duration of mine site facilities and activities from construction to post-closure, including any long-term or permanent facilities or activities; and
  - The two stages of the Project based on footprint and schedule.
- A statement of the general Project location and names of the nearest communities;
- The relevant history of the Project, including exploratory or investigative history; and
- The level of study completed for the Project (e.g., preliminary economic assessment, pre-feasibility, feasibility).

1.2. Proponent Description

The Application must:

- Describe the Proponent, including company history, type of company or organization, affiliations, headquarter location, corporate and management structures;
- Provide the registered legal name and registered address of the Proponent;
- Provide contact information for Proponent representatives for the Project (for example, name, address, phone, email); and
- Identify the main contractor/company responsible for the preparation of the Application including their qualifications.

Authorship

The Application must identify key personnel responsible for preparing the Application including, their employers, qualifications and the sections for which they were contributors.

The Application must identify key information, reports and data used to support the development of the Application and the associated contributing organization and relevant qualifications. If the information, reports or data used are not those that are described in the AIR, the application must provide rationale as to why alternatives were used. The Application must demonstrate that a qualified individual has prepared the information or studies provided. A qualified individual would include someone who, through education, experience or knowledge relevant to a matter, may be relied on by the proponent to provide advice within his or her area of expertise. Knowledge relevant to a matter may include Indigenous and local knowledge.

Documents prepared by Qualified Professionals, including designs, must represent final documents (i.e., not drafts) and must be signed and sealed.

1.3. Project Location

The Application must describe the Project location and access. Descriptions of the following features must be included, and where appropriate, located on map(s):

- Project site including the latitude and longitude coordinates (using international standard representation in degrees, minutes, seconds) of the main Project site;

- Project maximum disturbance footprint, including the surface area, and approximate locations and spacing of on and off-site Project components, where available;
- Project access route and transportation corridors, including use of existing roads and known trails;
- All waterbodies, including intermittent and ephemeral streams and navigable waterways;
- Environmentally sensitive areas, such as national, provincial and regional parks, ecological reserves, marine protected areas, marine refuges, ecologically and biologically sensitive areas, old growth management areas, ungulate winter ranges, wetlands, estuaries, habitats of federally or provincially listed species at risk, provincially-identified wildlife habitats and other identified sensitive areas identified through the assessment process to date;
- Offset areas from prior projects, if publicly available;
- Current land and aquatic use in the area;
- Summary of historical environmental characteristics of the area;
- Description of the historical environmental and socio-economic history of the Project site;
- Major existing infrastructure;
- Description and locations of all potable drinking water sources;
- Description of local communities, including distances to these communities;
- Proponent lands, tenures, properties, or leased lands;
- Federal lands;
- Adjacent land uses;
- Distance to Alberta and United States boundaries;
- Description of Indigenous Nation territories[4], Treaty lands, communities and Reserve lands and distance to these features (these and the following information bullet in this list must be informed by collaboration with the Indigenous Nation)
- Indigenous Nation harvesting regions (included with permission of the Nation);
- Indigenous Nation land use plans and/or environmental bylaws; and
- Summary of culturally and locally important features of the landscape (including features of cultural importance to Indigenous Nations).

The following shapefiles and .kmz files for the Project must be submitted:

- Project footprint, including for each stage of the Project;
- Known or proposed Project components;
- Project access route;
- Boundaries of Local Assessment Areas and Regional Assessment Areas for each VC; and
- Other non-confidential biophysical and political data.

[4] Do not include First Nation territories boundaries on maps.

1.4. Project Components

In their Detailed Project Description for the Project, EVR adopted a staged mining approach for the Project, dividing the mine plan into two stages based on footprint and schedule, and proposed that a condition be included in the Environmental Assessment Certificate for the Project requiring that EVR be in compliance with the conditions of the Environmental Assessment Certificate before proceeding to second stage of the Project.

The Application must describe:

- The Project components determined to be within the scope of the Project in the Process Order, including figures of both on- and off-site facilities and associated activities;
- How any existing/modified infrastructure will be used or will interact with the Project; and
- Components by Project stage.

The Project components, also listed in the Process Order, are:

- The mine site area, including:
  - Open pit;
  - Laydown areas and access roads;
  - Offices, warehouses, services buildings, explosives management facilities, and other ancillary infrastructure;
  - Transmission line, transformers and distribution lines connecting to the existing Fording River Operations (FRO) power and utilities;
  - Mine rock storage areas;
  - Coal stockpiling and sorting areas;
  - Coal and mine rock materials handling facilities;
  - Water treatment and discharge infrastructure and facilities;
  - Overburden, soil, and construction stockpiles;
  - Borrow areas;
  - Tailings management and storage; and
  - Water management systems and infrastructure;
- Use of existing FRO facilities and activities, including:
  - Coal processing plant facilities with associated coal stockpiles;
  - Tailings handling and storage;
  - Water treatment and sewage facilities;
  - Office, warehouses, and maintenance facilities;
  - Explosives storage, manufacturing, and delivery systems; and
  - Mining equipment including drills, shovels, and haul trucks.
- Existing FRO transportation facilities and activities, including:
  - Access roads including Fording Mine Road and Highway 3 and Highway 43; and

- Rail spur, power, and utilities.

1.5. Project Activities and Schedule

The Application must describe:

- Activities occurring in the applicable construction, operations, closure and post-closure phases of the project, including the activities' durations (e.g. estimated number of months/years), scheduling and staging;
- Scheduling and staging that includes the time of year, frequency, and duration for project activities;
- Any overlapping phases; and
- Which project facilities and activities will not be decommissioned.[5]

The activities described in the Application must include the following:

- Management of overburden, pit walls, mine rock and tailings should be based on predictions of ML/ARD, which can be developed through an on-going life-cycle mine characterisation program based on B.C. and MEND 1.20.1 guidance. These predictions should be verified using monitoring of field columns or barrel assays, and mine tailings and rock storage area seepages during construction, operations, and closure. If predictions are exceeded, this should trigger adaptive management of the mine material;
- Management of mine discharge should be based on effluent monitoring with clear administrative and action levels that would require adaptive management of the treatment facility;
- Excavation and salvage of topsoil, soil, and bedrock, including potentially acid-generating and metal-leaching materials along with the frequency, duration, time of year, time of day, and methods;
- Site clearing, grubbing, and grading, including tree and vegetation removal along with the frequency, duration, time of year, time of day, and methods;
- Drilling and blasting including along with the frequency, duration, time of year, time of day, and methods;
- Management of access, including methods, rationale and duration;
- Management, transport, storage, and handling of products produced;
- Project-related traffic, including the types of vehicles, timing, frequency and duration of use;
- Activities that involve periods of increased disturbance related to adverse federal effects and impacts on Indigenous Peoples and their rights;
- Operation of worker accommodation facilities, including approximate capacity, location, and how workers will be transported to and from site; and
- Any exclusion zones where Project activities would not take place.

If applicable, the Application can identify an early construction phase and describe any activities that are planned to be conducted prior to construction of the main components of the Project (for example, tree clearing or decommissioning/removal of existing infrastructure that must be removed).

The Application must also provide a summary of the changes that have been made to the Project since the Detailed Project Description was submitted to the EAO on August 14, 2025, including the rationale for the changes.

[5] Please note that the description of decommissioning is not required where it is explicitly excluded by the *Reviewable Projects Regulation*.

1.5.1. Project Staging Criteria

EVR has proposed developing the Project in two stages to mitigate some effects until there is increased confidence in measures intended to mitigate Project and/or cumulative effects in the Project area. EVR has proposed this project staging approach to address concerns raised by Ktunaxa First Nations regarding the potential for the project to cause extraordinarily adverse effects. EVR has proposed that the Environmental Assessment Certificate authorize both Stage 1 and Stage 2 of the Project. However, Stage 2 would only proceed once specific performance criteria -set out as conditions in the EAC – are met. In a *letter* submitted to the EAO on July 4, 2025, EVR proposed that proceeding into the second stage of the Project would entail a review of Project performance against criteria that are informed by Ktunaxa Nation rights and interests, an opportunity to identify and align solutions if project performance is inadequate, and availability of a facilitated dispute resolution process.

To support assessment of this proposed mitigation measure, the Application must describe how the project will be staged and include proposed performance criteria for evaluation and consideration by the EAO for condition development, which must include:

- A list of mitigation measures to be evaluated against criteria necessary to authorize Stage 2 of the Project. They must be mitigation measures for potential negative effects on specific valued components from Table 2 and/or Ktunaxa Interests from Sections 8.5.1 or 8.5.2 of the AIR;
- Quantitative criteria (e.g. defined compliance thresholds) to evaluate the effectiveness of the specified measures to mitigate the negative effects on the specified valued components and/or Ktunaxa Interests;
- Methods to use and analyze the criteria for the review of mitigation effectiveness;
- Discussion of the likelihood of mitigation effectiveness and any uncertainties with justification based on evidence or documented success;
- A process to seek to achieve consensus with respect to solutions if the review demonstrates that mitigations are not effective;
- A facilitated dispute resolution process;
- Timing of an early staging decision check-in step during start and middle phases of Stage 1 to provide an opportunity for generational input on Project performance, and for adjustments to be made before the staging decision; and
- Timing of the staging decision.

1.6. Workforce Requirements

The Application must describe the anticipated labour requirements, employee programs and policies (if available), and workforce development opportunities for the designated project, including Gender Based Analysis Plus (GBA Plus) considerations, in relation to:

- Opportunities for employment outlining the anticipated number of full-time and part-time positions to be created for each project phase (noting the length of each phase), the skill and education levels required for the positions, and working conditions;
- Anticipated workforce region of origin (local, regional, out-of-province or international employees);
- Investment in training opportunities;

- Expected workforce requirements based on the National Occupational Classification system and timelines for employment opportunities;
- Anticipated work rotation schedules and means to get employees to the Project site (for example, fly-in/fly-out, bus, employee use of personal vehicles);
- Anticipated housing arrangements for the workforce for each Project phase;
- Anticipated hiring policies including hiring programs;
- Anticipated plan to assist workers after closure;
- Workplace policies and programs for all potentially impacted Indigenous peoples' employment and employment of underrepresented groups[6] (for example, people with disabilities, visible minorities) including integration of capacity-building measures identified by Indigenous governments, application of GBA Plus, and mechanisms for safe, inclusive workplaces[7];
- Employee assistance programs and benefits including career planning, employee counselling, family support, transition planning, pension plan and group insurance benefit plans; and
- Workplace policies and programs including codes of conduct, workplace safety programs and cultural training and awareness programs.

1.7. Project Need and Purpose

1.7.1. Need for the Project

The Application must describe the underlying opportunity or issue that the Project intends to seize or solve under Section 22(1)(d) of the IAA. The Application must provide supporting information that demonstrates the need for the Project. The Application must include a summary of any comments or views of Indigenous Nations, the public, and other participants the proponent received to date on the need for the Project.

1.7.2. Purpose of the Project

The Proponent must identify the purpose of the Project. The Application must broadly classify the Project and outline what is to be achieved by carrying out the Project including:

- The target market (such as international, domestic, local); and
- Objectives the proponent has in carrying out the project.

1.7.3. Alternatives to the Project

The Proponent must summarize alternatives to the Project that are described in EVR's *August 14, 2025 Detailed Project Description*. The summary must describe the rationale for selecting the proposed project over other options and describe how the analysis validated the preferred alternative as a reasonable approach to meet the need and purpose. Include information on whether any of these alternatives to the project may be proposed by EVR for development in the future.

[6] Employment and Social Development Canada recommends that EVR engage with local Indigenous Skills and Employment Training Program Agreement holders for these workplace policies and programs.

[7] Commitments should include collaboration with Indigenous governments on identifying appropriate workforce development strategies and partners.

1.8. Alternative Means of Carrying out the Project

The Proponent must analyze alternative means of carrying out the Project. The Application must identify and consider alternative means of carrying out the Project that are technically and economically feasible, including the use of best achievable technology, and the potential environmental, economic, social, cultural and health effects, effects to Indigenous Nations and their Section 35 rights, effects to federal jurisdiction, and risks and uncertainties associated with those alternatives. The alternative means analysis must address all Project components for all project phases, where relevant to the Project activities and design. Considerations include, but are not limited to, alternative technologies, processes, mitigation and design.

The alternative means analysis must:

- Identify the preferred means of carrying out the Project, including the staging of the Project;
- Describe all alternative means considered, including substantively different ways that are technically and economically feasible to meet the Project needs and achieve the Project purpose;
- Identify alternative means that have been determined as technically and economically feasible, with rationale;
- Demonstrate how the views, information, and knowledge from Indigenous Nations, the public, and other participants, as well as how existing studies/reports, and sustainability principles were considered;
- Describe the methods and criteria that were used for comparing the alternative means that are technically and economically feasible and for identifying the preferred means. Criteria must include consideration of the following factors and may also include economic, logistic or other factors relevant to the comparison:
    - Environmental, economic, social, cultural and health effects;
    - Potential effects to provincial species at risk (red and blue listed species) and species at risk as per the Species at Risk Act (SARA) and critical habitat, including a description of how avoidance of effects was considered and how it may be achieved through alternative means of carrying out the Project or alternatives to the Project;
    - Effects to Indigenous Nations and their Section 35 Rights;
    - Any relevant studies, local or regional plans, community plans, and Indigenous knowledge;
    - Effects on diverse human populations who may be more vulnerable to negative effects using a GBA Plus analysis;
    - Effects on GHG emissions; and
    - Risks and uncertainties.
- Identify the potential effects, risk and uncertainties of each technically and economically feasible alternative means;
- Discuss how the Best Available Technologies have been considered in identifying the preferred means; and
- Summarize the potential effects, risks and uncertainties of the preferred means and how these are addressed (refer to other parts of the Application where applicable for more detail).

1.8.1. Alternatives Means Analysis

The alternative means analysis must describe all alternative means of carrying out the Project considered, including (but not limited to):

- Locating project facilities;
- Mining methods;

- Mine rock handling;
- Mine waste disposal including a description of disposal methods for any identified ML/ARD material;
- Source control of mine contact water quality, including options for calcite management;
- Management and treatment of effluent discharges, including consideration of BAT and technology readiness, using the *Technology Readiness Assessment*;
- Air emissions and greenhouse gases, including consideration of BAT;
- Industrial waste disposal; and
- Workforce accommodation, including effects to workers when off-shift and in camps.

The alternative means analysis may be informed by:

- Regional and strategic assessments;
- Scientific research;
- Any study or plan that is conducted or prepared by a government (including local, provincial, federal or Indigenous nation) in respect to the project region and that has been provided with respect to the project;
- Any relevant assessment of the effects of the project that is conducted by or on behalf of an Indigenous Nation and that is provided with respect to the project;
- Indigenous knowledge, community or local knowledge, comments received from the public, comments received from a jurisdiction; and
- Other studies or assessment conducted by other proponents.

1.8.2. New or Substantially Modified TSFs and Dams

If the Project includes a new or substantially modified[8] TSF or dam, the Application must include a description and assessment of the alternative means of undertaking the proposed Project with respect to options for tailings management that considers technology, siting, and water balance.

This assessment must, following the guidance documents in section 1.8.3:

- Present and compare best practices and BATs for tailings management for the Project, along with options for managing water balance to enhance safety and reduce the risk (likelihood and consequence) of a TSF or dam failure during all phases of mine life (construction, operations, closure, post-closure);
- Present and compare technically and economically viable engineering solutions that are available to adequately address site conditions;
- Demonstrate that reasonable efforts were made to engage with affected Indigenous Nations and that local Indigenous Knowledge received through that engagement is considered, with respect to the options presented and chosen;
- Provide a clear and transparent evaluation of the factors that supported the selection of the most suitable option;

[8] "substantially modified" refers to a substantial departure from approval under the *Mines Act*, as described in the *Departure from Approval Guidelines*

- Factors that will be taken into consideration in the evaluation include safety, consequences of failure, technical and financial aspects, land and water use objectives, and implications for environmental, health, social, heritage and economic values.

- Consider these evaluation factors in relation to tailings management options in both the short and long-term context;
  - Life cycle cost assumptions (construction, operations, closure, post-closure) must be included in the analysis of options.

1.8.3. Additional Resources:

- *Technology Readiness Assessment* (Ministry of Energy, Mines and Low Carbon Innovation and Ministry of Environment and Climate Change Strategy, August 2022);
- Environment and Climate Change Canada's *Guidelines for the Assessment of Alternatives for Mine Waste Disposal* (December 2016 or as updated);
- EAO's *Application Information Requirements Template Tailings Management Requirements for Mining Projects Undergoing an Environmental Assessment* (August 2015 or as updated);
- *Best Achievable Technology Assessment to Inform Waste Discharge Standards Handout*; and
- *Best Achievable Technology Assessment Methodology for Mining Projects*.

1.9. Conceptual Reclamation and Closure Plan

The Application must include a conceptual reclamation and closure plan. Costing and detailed designs are not required. The plan should include, at a minimum:

- Description of how reclamation planning informed mine design including the general arrangement, major facility locations and design (e.g. design of mine rock storage, tailings storage, etc.), ancillary infrastructure location and design, and any other aspect of mine design;
- Link the ongoing tailings, mine rock, overburden and pit characterisation program to the closure plan;
- Land and water use objectives that are informed by pre-mining land and water use and capability metrics, as well as engagement with potentially affected Indigenous Nations, local communities, and other stakeholders;
- Conceptual approach to progressive reclamation that will occur on site during operations, including a definition of "progressive reclamation", an evaluation of risks associated with outcomes of the conceptual approach, a schedule for progressive reclamation (e.g. how many hectares by what milestone) that can be verified over time, and how it will mitigate negative effects on biophysical valued components and/or Indigenous Nation's interests;
- Description of any reclaimed areas that can be used as habitat for specific wildlife species including Big Horn Sheep, Elk and others with a focus on critical habitat for each species (e.g. Big Horn Sheep winter range);
- Conceptual reclamation approach, prescriptions, success criteria, and schedule for each mine facility, ancillary infrastructure, and disturbance area to enable review of technical;
- Description of proposed soil salvage, including inventory of estimated salvageable soils, and supporting rationale if not all soils from disturbance footprints will be salvaged;

- Description of anticipated reclamation challenges, including soil inventory shortfalls or lack of representative examples of reclamation success for an ecosystem type, and the research programs that may be required to overcome these challenges;
- Consideration of other projects in the region and their timing when developing this plan;
- Description of projected ecosystem type capability losses, including mitigation measures and offset proposals by Project Stage/Phase; and
- Demonstration of how climate change has been considered in reclamation planning.

In addition to the information listed above, this section must include information on which Indigenous Nations were engaged (and how) with respect to the conceptual reclamation and closure plan, what the Indigenous Nations' views were, and how those views have been considered in the proposed conceptual reclamation and closure plan. This section must include information about how the Ktunaxa 2021 Reclamation Collaboration Project was considered in the conceptual reclamation and closure plan.

2.0 Regulatory Framework

2.1. Environmental Assessment and Impact Assessment Processes

The Application must identify where the Project has met the definition of a reviewable project, with reference to the appropriate section of the Reviewable Projects Regulation under the B.C. EA Act. In addition, the Application must identify the designated physical activity and physical activities that are incidental to the designated physical activity in accordance with the IAA (this list should be developed with support from IAAC). The Application should also provide a high-level overview of the assessment process, including coordination between provincial and federal processes.

It must also state if there is an Indigenous Nation review and whether it is coordinated or substituted with the provincial EA. Provide a reference to the Joint Assessment and Engagement Plan which provides details of the process.

2.2. Relevant Government Policies and Initiatives

The Application must identify government policies, study initiatives, and regional and strategic assessments relevant to the Project and/or EA and IA and their implications. The application should clearly demonstrate how the Project will meet the Elk Valley Water Quality Plan (EVWQP) water quality targets, support progress towards and/or achievement of the overall EVWQP goals, and is consistent with the implementation guidance (Section 5 of the 2025 EVWQP).

2.3. Land Use Plans

The Application must summarize any land use plans of a government (municipal, provincial, federal, or a First Nation) that may be relevant to the project area including whether the project is consistent with the identified plans.

2.4. Agreements or Arrangements with Indigenous Nations

The Application must identify and describe how any applicable agreements or arrangements between federal or provincial governments with Indigenous Nations that are pertinent to the project and/or EA (for example: treaty, Act agreements (Section 41), consultation agreements, etc.).

2.5. Permitting

The Application must provide an update to the information provided on permitting in the Detailed Project Description, which must:

- Describe existing licenses, permits approvals or tenures and the date received;
- Describe any tenure-related constraints that would need to be resolved for the project to proceed as proposed, and the nature of those constraints;
- Describe if and how existing permits or authorizations would or may be modified for the project;
- Describe anticipated authorizations and permits, their expected submission dates and an indication of whether they would be submitted during the EA; and
- Describe whether permits or authorizations would provide the proponent with exclusive or non-exclusive rights and the implications of this with respect to required assessment matters.

For additional information on permitting, please see the Joint Detailed Permitting Plan.

2.6. Environmental and Community Context

The Application must provide a landscape-level overview of the Project area that sets the context for the assessment and will allow a comprehensive understanding of the current level of ecosystem functions and community well-being. This sets the stage for the discussion of biophysical factors that support ecosystem function (in *Section 10.0*) and factors that support human and community well-being (in *Section 11.0*), based on the results of the VC assessments completed in Section 6.0. Detailed information on the baseline conditions for each VC should be included in each relevant VC assessment section.

3.0 PUBLIC ENGAGEMENT

The Application must describe the Proponent's ongoing and proposed public and stakeholder engagement activities regarding the Project and during the development of the Application. The Proponent's public and stakeholder engagement strategy must be informed in part by the Joint Assessment and Engagement Plan issued by the EAO. The Application must describe whether the engagement is consistent with the requirements in the Joint Assessment and Engagement Plan, and if not, provide a rationale.

The Application must describe the efforts made to distribute Project information and the information and materials that were distributed during the Proponent's engagement in Early Engagement, Process Planning and Application Development. Indicate the methods used, where the consultation was held, the number of people, organizations and groups consulted and the views expressed (with attention given to groups differentiated by age, gender, ethnicity, employment and income levels and geographic location to more fully understand differential effects and perspectives), and the extent to which this information was incorporated in the design of the project as well as in the Application.

The Application must provide a summary of key issues related to the Project, which were raised through engagement with the public and stakeholders and the potential environmental, economic, social, cultural and health effects, including disproportionate effects for diverse groups within the population and effects to current and future generations. Describe ways to address the issues raised, such as alternative means, specific mitigation measures or specific monitoring programs and adaptive management to deal with uncertainty. Identify the public and stakeholder concerns that were not addressed, if any, and provide reasons why the concerns were not addressed. The Application must also provide details regarding how the public and stakeholders will be kept involved during all phases of the project, if the Project is approved and proceeds.

4.0 Local Government Engagement

The Application must describe the Proponent's ongoing and proposed local government engagement activities regarding the Project and during the development of the Application. The Proponent's engagement strategy must be informed in part by the Joint Assessment and Engagement Plan issued by the EAO and IAAC. The Application must describe whether the engagement is consistent with the requirements in the Joint Assessment and Engagement Plan, and if not, provide a rationale.

The Application must describe the efforts made to distribute Project information and the information and materials that were distributed during the consultation process. Indicate the methods used, where the consultation was held, the views expressed and the extent to which this information was incorporated in the design of the Project as well as in the Application.

The Application must provide a summary of key issues related to the Project, which were raised through engagement with local government and the potential environmental, economic, social, cultural and health effects, including disproportionate effects on distinct human populations and effects to current and future generations. Describe ways to address the issues raised, such as alternatives means, specific mitigation measures or specific monitoring programs and adaptive management to deal with uncertainty. Identify local government concerns that were not addressed, if any, and provide reasons why the concerns were not addressed.

The Application must also provide details regarding how local governments will be kept involved during all phases of the project, if the project is approved and proceeds.

5.0 Valued Components

The Application must include a table that summarizes the VCs and subcomponents that will be considered and the rationale for which VCs and subcomponents are included in the assessment, not applicable to the assessment, or included in an alternative VC. The table must include the anticipated linkages between VCs.

Selection of VCs must follow the B.C. EAO's Effects Assessment Policy, Version 1.0 (BC EAO 2020a) and the approach to VCs presented in the Impact Assessment Agency of Canada's Practitioner's Guide to Federal Impact Assessments under the IAA and associated Tailored Impact Statement Guidelines Template for Designated Projects Subject to the IAA and the Generic Requirements for Impact Statements (Government of Canada 2025).

Table 2 below details the VCs, their subcomponents, and associated requirements that the Application must meet to describe existing conditions and assess potential effects of the project. Table 2 indicates linkages between VCs and other sections of the AIR. Linkages between VCs and Indigenous Interests are listed in Indigenous Interest Tables in *Sections 8.6* through *Section 8.8.*

Table 2 Column Descriptions (Table of Requirements organized by VC and Subcomponent)

Valued Component: Components of the biophysical and human environment that are considered by Indigenous nations, TAC, CAC, the public, local governments, provincial and federal government agencies, stakeholders, and the Proponent to have scientific, ecological, economic, social, health, cultural, archaeological, historical, or other importance.

Requirements for Existing Conditions Descriptions: A list of studies, analyses, or other information required to describe the existing condition of each VC.

Subcomponent: Smaller distinct aspects of a VC that can be used to classify, assess, or characterize the effects assessment into meaningful parts. For example, 'wildlife' as a VC may have 'ungulates', 'fur-bearers' and 'birds' as subcomponents.

Potential Project Effects to Subcomponent: Rationale that describes an effects pathway or interaction of the Project with the VC and Subcomponents, and lists potential effects to the Subcomponents.

Indicators: Qualitative or quantitative metrics used to describe existing conditions of a Subcomponent and to assess potential effects to Subcomponents.

Information to assess effects on the Valued Component: Includes specific studies, modelling requirements, and analyses that must be prepared and included in the Application. Any information listed here that is not provided must be accompanied with rationale why it can not be completed or is unnecessary to assess the effects on the Valued Component.

Linked Valued Components and AIR Sections: A list of other VCs and sections of the AIR that the VC interacts with. (Linkages of VCs with Indigenous Interests are specified in Indigenous Interests tables in Section 8.0).

Table 2: Information requirements the Application must include to describe existing conditions and assess potential effects of the project. Presented by VC and subcomponent.

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
Air Quality	Describe sources of baseline air emissions, including mobile, stationary and fugitive; Provide baseline information to characterize ambient air quality by identifying and quantifying emission sources of criteria/common air contaminants (for example, total suspended particulates, fine particulates smaller than 2.5 microns, respirable particulates of less than 10 microns, carbon monoxide, ozone, sulphur oxides, nitrogen oxides, volatile organic compounds, hydrogen sulphide, any other hazardous air pollutants (mobile and stationary sources) – note that where possible, baseline conditions must be established using a minimum of 12 months of continuous monitoring data; however, 24 months or more of baseline data collection is preferred. ENV approval is required for this and, for particulate matter, must follow federal guidance on handling transboundary flows and exceptional events[9] (TFEE); Incorporate seasonal variability in the baseline survey and include a determination of background or ambient contaminant concentrations, and provide monitoring data of appropriate duration, representativeness, data completeness, data validation and quality control; Describe the local and regional climate including historical records and oral history of relevant meteorological information (for example, precipitation, air temperature, wind speed, wind direction, relative humidity); Describe the local and regional climate projections for the area with the rationale of the climate model chosen and including a description of the current and projected climate impacts on air quality; Describe human, and terrestrial and aquatic VC air quality-sensitive receptors in the local and regional assessment areas; Describe available Indigenous and local knowledge related to current and historical air quality conditions; and Provide air dispersion models of a base case, developed in accordance with provincial or federal standards, to account for existing pollutant sources and to determine the spatial distribution of pollutants in the local and regional assessment areas. Dispersion modelled base case will be as per approved model plan by ENV.	Air quality	Fugitive dust (including coal dust generated from rail transport) and combustion emissions (including breaker stacks, coal dryers, etc.) from the Project may increase ambient air pollutants. • Increase in Criteria Air Contaminants • Increase in Volatile Organic Compounds • Increase in other air pollutants	Ambient concentrations of criteria air contaminants (CACs), including particulate matter (TSP, PM10, PM2.5), carbon monoxide (CO), volatile organic compounds (VOCs), ground level ozone, sulphur dioxide (SO2), and nitrogen oxides (NOX). Predicted ambient concentrations (and deposition) including baseline of other air quality contaminants that may affect other valued components (metals, polycyclic aromatic hydrocarbons, diesel particulate matter).	Compare indicators to the most current B.C. Air Quality Objectives and/or Canadian Ambient Air Quality Standards; Describe standards that will be used as thresholds for assessment of effect from VOCs; Describe the areas/zones where deposition of dust and particulate matter will occur from Project-related activities, with an emphasis on changes to spatio-temporal impacts as a result of the Project; Undertake a level 3 air dispersion modelling assessment in accordance with the British Columbia Air Quality Dispersion Modelling Guidelines (BC ENV 2022) as per an ENV-approved model plan; Document and rationalize how the contaminant emission reduction efficiencies were applied in the calculation of emission rates, including details of all assumptions associated with these mitigations and their feasibility; Use a mix of representative engine tier categories corresponding to the types of equipment likely to be used for the project activities (e.g., a combination of Tier 0, 1, 2, 3 and 4), to provide a more representative assessment; Determine a likely range of locomotive emission rates to be expected along the rail transport route including spatial variations for Regional Assessment Area; and Provide predicted air quality concentration for the following scenarios: baseline; project; baseline plus project; baseline plus project and past, present and reasonably foreseeable projects) for construction and operation phases. For the project case, both scenarios of the project with or without mitigation must be considered.	Surface Water Human Health Soil Vegetation Wildlife Biophysical Factors that Support Ecosystem Function

[9] https://ccme.ca/en/res/pn1483_gdad_eng-secured.pdf

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
Acoustic	Describe current ambient noise levels at key receptor points (for example, closest or most affected receptors), where relevant this may include providing the results of a baseline ambient noise survey and permissible sound levels for each receptor; Describe typical sound sources, geographic extent and temporal variations; Describe noise-sensitive receptors in the local and regional assessment areas, including any foreseeable future receptors and distances of receptors from the project, including camps that will house project workers when off shift; and Describe available Indigenous and local knowledge related to current noise conditions. Receptors must be included to evaluate impacts on peaceful enjoyment of harvesting, spiritual, recreational and other (e.g., hiking, hunting) activities.	Noise	The Project may generate noise from blasting, heavy machinery, and transportation, potentially disturbing nearby ecosystems, communities and wildlife. • Change in noise levels due to activities in Construction and Operations • Change in low-frequency noise levels	Energy equivalent daytime and nighttime sound levels (Leq) expressed in A-weighted decibels (dBA) and C-weighted decibels (dBC). Maximum sound level (LAmax) expressed in dBA. dB over pressure and number of blasts (for blasting effects). Change in Percent Highly Annoyed (%HA).	Compare predicted noise levels to thresholds provided in Guidance for Evaluating Human Health Effects in Impact Assessment: Noise (Health Canada, 2023b) and British Columbia Noise Control Best Practices Guideline (BCER 2024); Provide noise model input and output sheets; and Provide the predicted noise level for the following scenarios for the construction and operation phases: baseline; project only; baseline plus project; baseline plus project and past, present, and reasonably-foreseeable projects and activities).	Wildlife Aquatic Resources and Freshwater Fish Land and Resource Use Community Health and Well-being Biophysical Factors that Support Ecosystem Function
		Vibration	The Project, particularly blasting and heavy equipment use, may generate ground vibrations that may affect nearby structures, ecosystems, and community well-being. • Change in vibration due to Construction and Operations activities	Peak pressure level (PPL) expressed in unweighted decibels (dBL) Peak particle velocity (PPV) expressed in millimetres per second (mm/s)	Compare vibration levels with United States Bureau of Mines vibration criteria (USBM 1980a, 1980b).	
Groundwater	Describe the regional and local groundwater quantity and quality conditions; Describe any project-specific baseline surveys completed, including a detailed description of the methods used and how the results helped to characterize existing conditions (for example, filled an information gap; confirmed or refuted older information); Provide groundwater quantity and quality data used to develop or inform water balance and water quality models, if required for the assessment; Describe seasonal trends in groundwater quality and quantity parameters (including fluctuations and long-term trends); Describe possible groundwater-surface water interactions; Describe water quality relative to B.C. Water Quality Guidelines or the B.C. Contaminated Sites Standards (for groundwater wells); Identify all domestic, communal or municipal water wells within the assessment area; describe their current use, potential for future use and whether their consumption has an Indigenous Nation cultural importance; Describe existing data on seepage and groundwater	Groundwater quality	The Project may affect groundwater quality through infiltration of contact water from mine rock, pit walls, and surface watercourses, as well as from industrial waste disposal and accidental spills. • Changes to groundwater quality	Groundwater chemistry (e.g., temperature, pH, conductivity, dissolved oxygen, turbidity, major and minor ions, dissolved metals, nutrients and organic compounds and other contaminants of potential concern).	Carry out groundwater modelling aligned with the *Guidelines for Groundwater Modelling to Assess Impacts of Proposed Natural Resource Development Activities* (B.C. MOE, 2012); Provide a comparison of projected groundwater quality to B.C. Water Quality Guidelines or the B.C. Contaminated Sites Standards; Provide a comparison of projected groundwater quality to B.C. Water Quality Guidelines, or the B.C. Contaminated Sites Standards, and Guidelines for Canadian Drinking Water Quality; and Provide a numerical groundwater model (steady state and transient) that can simulate the existing groundwater flow conditions and predict the future groundwater conditions in response to planned or potential stresses, including but not limited to: • Dewatering of underground workings during operations; • Flooding of the workings and discharges at closure; • Drawdown on the local aquifer, including connections to surface water in the Fording River and the potential for water to be lost from the river as a result of aquifer drawdown; • Losses of discharge to the local water bodies; • Loss of discharge to groundwater, and thence to surface water if/when connected, from local	Surface Water Aquatic Resources and Freshwater Fish Human Health Soil Land and Resource Use Wildlife Vegetation Biophysical Factors that Support Ecosystem Function

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
	quality around existing tailings management facilities, mine rock storage areas and pit walls; Describe the bedrock structural features, and its influence on groundwater flow, including discussion of fracture density and orientation, hydraulic conductivity, and transmissivity where relevant; and Describe available Indigenous and local knowledge related to groundwater.				waterbodies altered through pit development or water diversion along the west flank of the Project/Castle Mountain; and • Predicting seepage pathways (particle tracking).	
		Groundwater quantity	The Project may alter groundwater quantity due to changes in surface elevation and the extent of geological and mine waste materials. • Changes in groundwater flow • Changes to groundwater quantity • Interactions with surface water	Hydraulic head, aquifer storage, aquifer permeability, hydraulic gradients, base flows	Carry out groundwater modelling aligned with the *Guidelines for Groundwater Modelling to Assess Impacts of Proposed Natural Resource Development Activities* (B.C. MOE, 2012).	

Surface Water	Describe surface water quantity and quality conditions in the local and regional assessment areas, including a description of the local watersheds;
	Provide maps of the watershed(s) in the vicinity of the project showing key watercourses and waterbodies and define key watercourses and waterbodies;
	Describe sediment quality and quantity conditions in the local and regional assessment areas. Sediment quality should be described relative to B.C. and Canadian Council of Ministers of the Environment Sediment Quality Guidelines;
	Describe any project-specific baseline surveys completed, including a detailed description of the methods used and how the results helped to characterize existing conditions (for example, filled an information gap; confirmed or refuted older information) – note that baseline conditions must be established using a minimum of 12 months of continuous monitoring data; however, 24 months or more of baseline data collection is preferred;
	Provide surface water quantity and quality data used to develop or inform water balance and water quality models, if required for the assessment;
	Provide regional and local hydrologic and climatologic data (hydrometric data collection is to adhere to standardized practices and procedures – refer to the most recent version of the Manual of British Columbia Hydrometric Standards);
	Describe the local and regional climate projections for the area with the rationale of the climate model chosen and including a description of the current and projected climate impacts on hydrology;
	Provide local water quality data (water quality data collection is to adhere to standardized practices and procedures – refer to Cavanaugh et al 1998, Clark 2003, MELP 1998, or ENV 2024);
	Describe regional geological and geochemical conditions;
		Surface water and sediment quality	The Project may cause changes to surface water and sediment quality through increased erosion, sediment loading, dust deposition, and the release of contaminants such as selenium and nitrates from disturbed areas and from industrial waste.
			• Changes in levels of:
			  ○ Acidification and eutrophication
			  ○ Metals
			  ○ Nutrients
			  ○ Other contaminants of potential concern
				Constituents (selenium species, temperature, pH, conductivity, dissolved oxygen, turbidity, major and minor ions, metals, nutrients and organic compounds and contaminants of potential concern) in surface water.
				Constituents (metals, nutrients) in sediment.
					Provide a geochemical characterization of metal leaching and acid rock drainage (ML/ARD) potential for each geologic and mining-related material to be disturbed, produced, excavated, imported, and stored during each phase of the life of the mine, including construction and post-closure;
					Demonstrate that the ML/ARD characterization program supports appropriate materials handling, source term development, and mitigation and contingency plans for the protection of biophysical valued components;
					Include metal leaching under the range of pH values anticipated for drainage from Project components and activities and consideration of other sources of contaminants including nitrogen from blasting residuals or cyanide from processing;
					Use the 2023 Regional Water Quality Model, updated as necessary to incorporate the latest permitted and reasonably foreseeable project mine plans, and with the latest climate, hydrogeological and/or geochemical information relevant to the FRX project to:
					• complete site-wide water balance and water quality modelling (incorporating appropriate sensitivity analyses and contingencies for water sources and discharges). Modelling will incorporate the results of the ML/ARD characterization program and groundwater numerical flow model(s) to delineate surface water-groundwater interactions and potential effects to both surface water quantity and surface water quality;
					• present receiving water quality and quantity prediction results (incorporating appropriate sensitivity analyses for a range of climate conditions) and use the results to identify potential effects on water users and biota. Predicted changes to flows and water levels must be evaluated at a suitable temporal scale to assess changes to seasonal and inter-annual patterns in streamflow including critical periods for fish and fish habitat. Results are to be compared to established benchmarks, updated effect concentrations, or B.C. Water Quality Guidelines (WQGs, BC MWLRS 2021, b) and where B.C. WQGs
						Aquatic Resources and Freshwater Fish
						Human Health
						Wildlife
						Soil
						Land and Resource Use
						Vegetation
						Biophysical Factors that Support Ecosystem Function

		Surface water quantity (Hydrology)	The Project may result in changes to surface water quantity by altering natural flow regimes and groundwater recharge, leading to decreased or altered base flows or flow pathways in nearby streams and rivers. • Changes to in-stream flow, flow timing, and water levels • Changes to sediment yield and deposition • Changes to runoff dynamics and pattern	Surface water levels and rate of flow Sediment yield (total suspended solids) and deposition		

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
	Describe seasonal and inter-annual patterns in streamflow; Describe seasonal and inter-annual trends in water quality parameters; Describe water quality relative to Approved and Working B.C. Water Quality Guidelines for all designated uses and to established Elk Valley specific benchmarks for selenium, cadmium, nitrate, sulphate, and nickel (EVWQP 2025, Golder 2022 and WSP Technical Memorandum, April 17, 2025) and to Canadian Council of Ministers of the Environment guidelines; Identify springs and potable water resources within the assessment area and describe their current use, potential for future use, and whether their consumption has cultural importance to Indigenous Nations; Describe effects occurring to surface water and sediment, and water use and users from discharges to the receiving environment from any current and historical industrial activities; and Describe available Indigenous and local knowledge related to surface water.				do not exist, to Canadian Council of Ministers of the Environment and Canadian Drinking Water Quality guidelines. Quality and quantity prediction results should be presented together with associated uncertainties (e.g., standard error, standard deviation, confidence internal, or probability distributions), along with a discussion of how these uncertainties will be addressed as the Project advances; The site-wide water balance model must also be used to demonstrate that the proposed water management structures have sufficient capacity to function, as designed, under both normal and extreme weather conditions. This includes demonstrating that the system has enough capacity to store the necessary volumes of water during extreme wet conditions and, that it can maintain adequate water coverage of PAG tailings during extreme dry conditions; Demonstrate that reasonable efforts were made to engage with potentially affected Indigenous Nations on the overall site water balance and overall water management plan and that local Indigenous knowledge received through that engagement has been considered; Compare model results to the site specific Elk Valley Water Quality Benchmarks for nickel (Chronic Nickel Benchmark for the Elk Valley (Golder 2022)), Nitrate and Sulphate (Updated Effects Concentrations for Nitrate and Sulphate (WSP Technical Memorandum, April 17, 2025)) and Selenium and Cadmium (2025 Elk Valley Water Quality Plan), and to all downstream water quality Compliance Limits and Site Performance Objectives as listed in EMA effluent permit 107517; Describe site-specific source control measures (e.g., cover systems) and other site-specific mitigation measures. Mitigation measures must be site-specific; Evaluate the effectiveness of the proposed mitigation measures, using either site-specific data, examples of analog sites with similar conditions, or a combination; Provide an estimate of the duration that water treatment will be required due to additional mine rock deposition; Include water quality predictions for Stage 1 and Stage 2, including anticipated lag times, expected reporting timelines, and the duration of downstream effects; If a mitigation/treatment technology is proposed as a primary mitigation method for water quality, a Best Achievable Technology Assessment and Technology Readiness Assessment may be required. Technologies assessed at Technology Readiness Level 7 or higher are generally deemed acceptable for environmental assessment; Under the IAA, adverse effects within federal jurisdiction include a non-negligible adverse change that is caused by pollution to boundary waters or international waters, as those terms are defined in subsection 2(1) of the *Canada Water Act*. Should project-related effects be predicted to	

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
					extend beyond the Canada-U.S. border, the proponent must complete an assessment of those effects as they relate to transboundary waters; Water quality predictions and results are to be compared to water quality guidelines. Water quality screening should follow the Parameters of Concern Fact Sheet, Defining Parameters of Concern for Effluent Discharge Authorization Applications (ENV 2024); Where project activities have the potential to alter surface water flows in watercourses within the LAA (e.g., Chauncey Creek), complete an environmental flow needs study to evaluate the quantity, timing, and variability of flows required to maintain aquatic ecosystem function; Describe potential unintended outcomes of current and proposed water treatment (e.g., selenium speciation from buffer ponds, nickel from entrained water) and the potential effects on ABMP targets, including fish tissue thresholds; and Describe potential impacts of the Project on the Kilmarnock Clean Water Diversion, including how the diversion will continue to operate to maintain clean water during operations and post-closure. Document measures to ensure ongoing compliance with the 2020 ECCC directive, and include monitoring, adaptive management, and contingency plans to address any effects of Project activities on the Kilmarnock Clean Water Diversion.	
Soil	Describe the potential for existing contamination of soils within the Project footprint that could be released or otherwise disturbed because of the Project; Provide baseline soil map units and data (soil series distribution and extent); Provide baseline maps and data for soil erosion potential; Provide baseline maps and data for land or agricultural capability as relevant; Characterize topsoil and subsoil for suitability as growth media for reclamation; Characterize land or agricultural capability as relevant; Describe any historical land use and the potential for contamination of soils and sediments and describe any known or suspected soil contamination with the local and regional assessment areas that could be re-suspended, released, or otherwise disturbed as a result of the Project; Describe available Indigenous and local knowledge related to soil; Describe the soil characteristics at removal and receiving locations, and the extent (surface area and depth) and volume of top and subsoil to be	Soil quality	The Project may affect soil quality by altering its chemical and physical properties during mining and reclamation, with potential contamination from dust, spills, and hazardous materials. • Acidification • Eutrophication • Contamination • Erosion • Dust accumulation	Soil quality (e.g., soil chemistry, reclamation suitability, erosion susceptibility, compaction, particulate deposition)	Describe the spatial extent and characteristics of physical changes to soil, including the extent to which soil will be lost as a result of project components or activities, or will be salvaged and stockpiled for use in site reclamation and restoration; Provide a general description of site-specific limitations related to soil salvage and provide supporting rationale if not all soils from disturbance footprints will be salvaged; Provide an estimated inventory of salvageable soils, classified by suitability to meet land and water use objectives; Describe where soil materials would and would not be used for revegetation during site reclamation and restoration, and map and overlay this information with the Project's components and activities; Describe contingency measures that will be implemented if there is an anticipated shortfall of reclamation material, including additional contingency measures for amending substrates if mine overburden usage results in moisture and nutrient limitation issues for vegetation reclamation; Update Soil Survey. The soil survey for this area is from 1990, at a scale of 1:100 000, and soils are not mapped at an appropriate scale for the decisions being made. Relationships between surficial geology, terrain, ecology and vegetation; uncommon soil types (such as high elevation grassland soils, cumulic soils on fans and floodplains, eolian cappings, and peatlands); soil erosion potential; long-term cumulative impacts on soils in the Elk	Vegetation Human Health Wildlife Biophysical Factors that Support Ecosystem Function
		Soil quantity	The Project may result in changes to soil quantity and distribution from vegetation removal, overburden removal, storage of mine rock and the development of an open-pit mine. • Loss of soil due to erosion and soil disturbance, alteration and removal	Quantity and distribution of soil		

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
	salvaged. Soil characteristics should be associated with ecosystem type (e.g. high elevation grasslands, wetlands, forest, etc.) and soils should be stored 'like with like' and records retained on their ecosystem association to ensure that they are used to support reclamation of appropriate ecosystems. Describe the approach to how soil salvage will consider ecosystem type of soil and storage/use considerations; and Provide baseline data from wetland soil pits (physical, chemical, biological) and their relationship to wetland vegetation.				Valley; topsoil resource potential; should be addressed in the soil survey report. Soils mapping could be tied to ecosystem mapping (at a scale 1:20,000-1:5,000); Monitoring plans must include ongoing measurement of soil erosion dynamics at nearby grasslands (of all condition types including non-functioning and excellent condition). Include at least two baseline measurement surveys prior to additional disturbances and subsequent measurements every two to three years at specified sites; Provide reports on whether soils impacted (physically, chemically, biologically) by mining activities can be used in reclamation, with a focus on linkages between vegetation, ecosystem function and structure, and with the intention of providing data helpful to preserving and re-building ecologically functional soil types that support specific vegetation; Provide data and reporting on physical, chemical, and biological properties of Gg16 rough fescue grassland soils so they can be appropriately characterized to help inform HEG reclamation practices for FRX; and Describe how existing reclamation research will be used to inform the closure and reclamation plan.	
Surface geology and terrain	Describe general information about baseline physiography; Describe terrain and surficial geology, including any unique geological landforms that may interact with the project; Identify and describe areas that have the potential to cause stability problems (i.e., geohazards); Provide maps showing the extents of the unique geological landforms; and Describe available Indigenous and local knowledge related to surficial geology and unique geological landforms.	Unique geology and terrain	The Project may damage or permanently alter surficial geology and terrain, including unique geologic landforms through excavation, blasting, and landscape modification. • Changes in area, extent or condition of surficial geology and terrain including unique geological landforms (e.g. karst, talus slopes, rocky outcrops, sand dunes, lava beds, caves, cliffs, hot springs), habitat types (e.g. winter range, high elevation grasslands) and features (e.g. escape terrain). Indicators used to assess potential effects should include abundance and distribution of habitat types and features that depend on local geology and terrain.	Area and condition of each unique geological landform. Abundance and distribution of surficial geology and terrain, including unique geologic landforms, slope, elevation and aspect Geohazard risk (including landslides, snow avalanches and erosion)	Conduct modeling of constructed landforms to determine whether they will support the habitat types and features that they did prior to project works (including slope, aspect, wind, snow loading, etc.).	Vegetation Wildlife Aquatic Resources and Fish Habitat Land and Resource Use Biophysical Factors that Support Ecosystem Function
Vegetation	Identify and classify terrestrial ecosystems in the Local Assessment Area according to the Biogeoclimatic Ecosystem Classification system and the applicable field guide(s) to site identification; Provide terrestrial ecosystem mapping (1:5,000), including spatial files, plot data used in validation and other materials used to create the mapping product. Provide justification when mapping does not align with Provincial data sources (for example, Element Occurrences). (If discrepancies are not resolved with field data, Provincial data sources will be used.) Updates to mapping	Plant species of interest	The Project may disturb plant habitats, alter soil and water conditions, introduce pollutants, and introduce and spread invasive species that can affect plant health and distribution. • Changes to plant species of interest including: ○ Provincially and federally listed plants and lichens ○ Identified rare species ○ Species of conservation concern (e.g. whitebark pine) ○ Species of cultural importance and conservation concern to Indigenous Nations Potential pathways of effects include: • Direct destruction of plants	Habitat availability and distribution – amount, distribution and connectivity of potential habitat for plant species of interest Abundance – number of documented occurrences of plant species of interest; changes	Identify which Project components and activities would be permanent, and areas where reclamation or restoration would not occur. For these areas, indicate ecosystem loss, degradation, or partial loss of function, and any additional stressors on remaining ecosystem components. The effects assessment must rationalize areas where reclamation or restoration would not occur and demonstrate consistency with other legislation and regulations; Summarize amount and type of old growth forest identified in TAP polygons that will require replacement; Model how the loss of Bighorn sheep habitat would effect	Land and Resource Use Air Quality Soil Groundwater Surface Water Wildlife Aquatic Resources and Fish Habitat Human Health

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
	including new plot data should be submitted to the Province within 1 year of collection; Provide definition, assessment methodology and classification measures used for riparian areas; Describe the local and regional climate projections for the area with rationale of the climate model chosen and include a description of the current and projected climate impacts on vegetation; Describe the location, extent and condition of ecological communities of conservation concern. Where ecosystems of conservation concern (e.g., HEG, wetlands) overlap with current and historical mining activities, describe baseline (pre-project) effects occurring to these ecosystems. Please provide justification for measures of condition and data to support condition. For example, to assess Gg16 condition, required data includes include ungulate (elk and bighorn sheep) use during spring-fall, forage production (spring and fall) for rough fescue and other dominant grass species, vegetation community composition, measures of soil erosion, measures of site hydrology, end-of-march snow surveys, long-term weather data etc. Requirements for wetland condition include size, landscape context, hydrology patterns, etc. Data needs to be collected before and after each phase of the project; Describe the current vegetation health conditions; Describe linkages between soil type and vegetation data to support characterization of ecosystems and inform mitigation measures. Include additional studies on soil–vegetation relationships in existing reclamation areas to assess risks associated with using non-specific soils for ecosystem reclamation (e.g., grassland soils, wetland soils); Identify and classify wetland associations following Wetlands of British Columbia: A Guide to Identification (Mackenzie and Moran 2004 and additional wetland classification specific to southeast Kootenays following MacKillop et al (LHM71+ associated guides) and describe their conservation status, special extent and functions. In instances where classifications are not clear, please confer with provincial ecologists; Identify the location and extent forest lands by seral stage, including of old forest ecosystems, old growth deferral areas, Old Growth Management Areas, and old growth TAP polygons; Describe any established conservation thresholds (such as the EV-CEMF) and whether these are exceeded at baseline;		• Loss of habitat • Fragmentation of habitat • Increase in edge habitat • Change in habitat quality • Change in vegetation community composition and structure including to at-risk ecological communities identified by the B.C. Conservation Data Centre • Deposition of dust and particulate matter • Uptake of contaminants of potential concern • Change in snowpack at moisture limited sites	to number of plants in the population within potential habitat and/or at known occurrence locations; health and mortality (considering air quality and dustfall, soil and water quantity and quality, invasive species) Presence of plant communities (including at-risk ecological communities) in the project footprint Ability of plant species to maintain self-sustaining and ecologically effective populations Health metrics to assess potential effects of the Project on vegetation subcomponents, including sensitive migratory bird habitat (e.g., wetlands) and plant species at risk (e.g., Whitebark Pine).	grazing pressure on remaining Gg16 grasslands; Provide a study and analysis documenting changes in carbon sequestration comparing undisturbed ecosystems, progressive reclamation, and post closure to help quantify project-related impacts to ecosystem services; and Provide a quantitative analysis of impacts to snowpack particularly at moisture-limited sites, such as grasslands.	Biophysical Factors that Support Ecosystem Function Species Lists in Appendix C
		Wetland functions	The Project may impact wetland functions by altering hydrology, water quality, and soil and vegetation essential for wetland functions. • Effects to wetland ecosystems • Effects to wetlands that provide important functions to species at risk, migratory birds and species of importance to Indigenous Peoples Potential pathways of effects include: • Direct destruction of plants • Loss of habitat • Fragmentation of habitat • Increase in edge habitat • Change in habitat quality • Change in vegetation community composition and structure	Area, distribution and connectivity Hydrological, biogeochemical and habitat functions		

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
	Describe the current level of disturbance associated with vegetation, including a quantitative description of level of habitat fragmentation, for example, perimeter to area ratios, proximity to mining infrastructure including exploration roads, reclaimed areas (seed source for agronomics that can be carried by ungulates and spread to adjacent 'undisturbed' areas), use by ungulates (specific to grasslands), exposure associated with mountain removal, and presence of invasive weed; Describe the natural disturbance regime (such as, fire, floods, droughts, etc.). If an ecosystem is maintained by natural disturbance processes, provide data on historical disturbance types, frequencies, and return intervals, supported by maps, and describe how current and historical mining activities have altered or may alter these disturbance regimes (e.g., changes to fire return intervals, removal of avalanche start zones, altered hydrological cycles affecting wetlands and riparian areas); Identify the location and abundance of rare and provincially or federally listed plant species, based on targeted field surveys as applicable; Describe the presence and abundance of invasive and non-native species in the project area and any regional-scale invasive species management efforts. Describe how current mining activities have influenced the introduction, establishment, and spread of invasive and non-invasive species within and adjacent to the project. Detail existing protection, monitoring, and treatment measures for infestations; Identify the biodiversity metrics (e.g., species richness), biotic and abiotic indicators that are used to characterize the baseline vegetation biodiversity and discuss the rationale for their selection. Include additional measures, such as community composition, species abundance, and seral-stage context to more accurately represent ecosystem dynamics; Quantify ecosystem functions, including loss of carbon sequestration, associated with declining condition or removal of ecosystems (grasslands, forests, wetlands) within the mining area; Provide data on capability and availability of forage productivity for winter range; Identify any Wildlife Tree Reserve Areas that have been established in forestry cutting permits within the Local Assessment Area; Provide information on the presence and abundance of traditional use plants in the project area,		• Deposition of dust and particulate matter • Uptake of contaminants of potential concern			
		Ecosystems	The Project may impact ecosystems by altering landforms, air and water quality, and habitats essential for biodiversity and ecological function and by increased human disturbance (e.g., recreational access). • Changes to ecosystems, including: o Old and mature forests (including old growth management areas and old growth TAP Polygons) o Grasslands and brushlands, including High Elevation Grasslands (HEG) o Avalanche ecosystems o Rock outcrops and sparsely vegetated o Riparian and flood ecosystems o Wetlands and wetland functions o Ecological communities of conservation concern o Provincially listed ecological communities Potential pathways of effects include: • Direct destruction of plants • Loss of habitat • Fragmentation of habitat • Increase in edge habitat • Change in habitat quality • Change in vegetation community composition and structure • Deposition of dust and particulate matter • Uptake of contaminants of potential concern	Abundance of the ecosystem present Distribution and connectivity of the ecosystem Condition (quality and function) of the ecosystem, including: • Natural disturbance regime • Structural complexity • Hydrologic patterns and water quality • Nutrient cycling • Biotic interactions • Species composition • Genetic diversity • Winter processes (e.g. snowpack) Ability of ecosystems to be self-sustaining and ecologically effective		

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
	integrating available Indigenous and local knowledge as applicable; and Describe available Indigenous and local knowledge related to vegetation; Describe any established conservation thresholds (for example, as defined in a recovery strategy, conservation plan, or similar document such as the EV-CEMF) and whether these are exceeded at baseline; and Describe disturbance currently affecting vegetation and any relevant current conditions and targets from B.C. Cumulative Effects Framework reports.					

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
Wildlife	Include a current list of species expected to occur in the local and regional assessment areas for the VC; For each species, provide federal (Committee on the Status of Endangered Wildlife in Canada and SARA) and provincial (Conservation Data Centre List and Conservation Framework Rank) conservation status and expected occurrence (for example, months; seasons), distribution (for example, extent of project interaction), and general habitat associations (for example, old forest; wetlands). Incorporate current knowledge/datasets for SAR occurrences where available (e.g. badger sign on Castle 2020); Describe the occurrence, distribution, population status, threats and conservation goals of each VC subcomponent (for example, species or species group, such as bighorn sheep); Describe and provide all project-specific baseline surveys completed, including a detailed description of the methods used and how the results helped to characterize existing conditions (for example, filled an information gap; confirmed or refuted older information); Describe the efforts to determine species presence/non-detection, the limitations of those efforts, the likelihood/probability of species presence/non-detection, and the level of confidence in those determinations;	Birds (individual species or species groups or guilds as appropriate). Migratory birds should be further divided into smaller groups that are defined taxonomically (e.g., waterfowl, other waterbirds, songbirds, raptors, etc.) or by ecological guilds (e.g., wetland birds, open country birds, forest birds).	The Project may impact birds by disturbing habitats, increasing noise, light and air pollution, and altering food and water availability essential for their survival. • Changes to birds including: ○ Species at risk (provincially and federally listed) ○ Species of conservation concern to Indigenous nations ○ Species whose nests are listed as Wildlife Habitat Features ○ Olive-sided flycatcher ○ American goshawk ○ American dipper ○ Harlequin Duck ○ Prairie Falcon ○ Peregrine Falcon Potential pathways of effects include: • Direct injury or mortality • Damage or destruction of nests, dens or residences • Loss, damage, or alteration of key habitats and habitat features, including nesting, roosting, perching, and foraging/feeding sites • Habitat fragmentation, habitat loss, and change in vegetation community composition and structure • Avoidance of habitat and change in movement behavior from sensory disturbance (e.g. noise and lighting) • Deposition of dust and particulate matter • Changes in habitat quality as a result of changes in water quality and quantity • Inhalation and ingestion of Contaminants of Potential Concern (COPCs) • Increase in predation risk • Increase in adverse human-wildlife interactions	Habitat availability and distribution – amount (area), fragmentation, functionality (considering sensory disturbance / zone of influence), movement opportunities, availability of habitat features such as coarse woody debris, wildlife trees and snags, protected nests, leks, breeding sites, and roosts. Ability of wildlife species to maintain self-sustaining and ecologically effective populations.	Describe how and to what extent progressive reclamation will or will not provide habitat (e.g. stand structure, patch size, connectivity, wildlife tree retention, course woody debris) for wildlife during operations, how displaced wildlife (e.g. bighorn sheep) will be managed during and post mining without adversely impacting adjacent ecosystems and the anticipated effectiveness of the mine reclamation at closure and post-closure to restore wildlife habitat; For migratory birds, include maps of nests that will be or have been added to the Abandoned Nest Registry and are being monitored to comply with the Migratory Birds Regulations, 2022; Comparison of air, surface water, soil, sediment, and foods (e.g., berries, fish) measurements/predictions to applicable ecological health guidelines/standards; Quantify impacts to habitat availability (including losses) and quality using established habitat models and provincial mapping layers (e.g., ungulate winter ranges) and describe how these changes are expected to influence the abundance and distribution of wildlife species across relevant life-history stages; Quantify and describe any temporal (seasonal or time-limited) loss or reduction in availability of key wildlife habitats (e.g., bighorn sheep winter range or lambing habitat) associated with baseline conditions, construction, operations, reclamation, and post-closure; Assess spatial and temporal changes in winter and non-winter habitat (including forage) and use by elk and bighorn sheep to determine incremental impacts on adjacent	Land and Resource Use Air Quality Acoustic Vegetation Human Health Biophysical Factors that Support Ecosystem Function Appendix C: Species List

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
	Describe the location, distribution, condition and amount of suitable habitat that provides the daily, seasonal and/or annual life requisites for a VC subcomponent. Provide the habitat mapping used to describe baseline conditions, which should be Terrestrial Ecosystem Mapping (for example, RIC 1998, 1999), Predictive Ecosystem Mapping (RIC 2000), or other well-supported and appropriate habitat mapping methods (for example, habitat suitability index model using vegetation resources inventory data or resource selection functions); Describe the purpose, success, locations and general nature of past and current wildlife habitat enhancement projects (e.g., mule deer winter range enhancement) in the Regional Assessment Area. Describe their role with respect to the FRX project and clarify how they related to project specific effects and/or regional efforts; Describe the local and regional climate projections for the area with rationale of the climate model chosen and including a description of the current and projected climate impacts on wildlife and suitable habitat and/or migration patterns of each VC subcomponent; Identify the biodiversity metrics, or biotic and abiotic indicators, that are used to characterize the baseline biodiversity for wildlife and discuss the rationale for their selection; Describe the location, distribution, condition and amount of 'critical habitat' (for example, as defined in a recovery strategy, conservation plan, or similar document); Provide a list of Ungulate Winter Ranges, Wildlife Habitat Areas, Wildlife Management Areas, Important Bird Areas, Bird Conservation Regions, or sanctuaries and the extent to which these overlap with the wildlife VC spatial boundaries; Provide a list or description of wildlife and wildlife habitat management objectives as defined in Land and Resource Management Plans or Sustainable Resource Management Plans; Describe the location and relative importance or significance of wildlife habitat features (for example, breeding colonies, travel corridors and inter/intra-seasonal movements, foraging sites specifically for bighorn sheep, mineral licks, protected nests, dens, roosts); Describe any established conservation thresholds (for example, as defined in a recovery strategy, conservation plan, or similar document such as the EV-CEMF) and whether these are exceeded at baseline (for example, linear feature density, core security habitat, critical habitat);	Migratory birds (as defined under the Migratory Birds Convention Act, 1994)	The Project may impact birds by disturbing nesting habitats, increasing noise, light and air pollution, and altering food and water availability essential for their survival. Migratory birds as defined by *the Migratory Birds Convention Act* will be addressed independently as a subcomponent to meet the requirements of the IAA, based on likely effect pathways from project components or activities. Potential pathways of effects include: • Direct injury or mortality • Damage or destruction of nests, dens or residences • Habitat fragmentation, habitat loss, and change in vegetation community composition and structure • Avoidance of habitat and change in movement behavior from sensory disturbance (e.g. noise and lighting) • Deposition of dust and particulate matter • Changes in habitat quality as a result of changes in water quality and quantity • Inhalation and ingestion of Contaminants of Potential Concern (COPCs) • Increase in predation risk • Increase in adverse human-wildlife interactions • Increase in pollutants with potential to disrupt movement, behaviour and/or health.	Habitat availability and distribution – amount (area), fragmentation, functionality (considering sensory disturbance / zone of influence), movement opportunities, availability of habitat features such as coarse woody debris, wildlife trees and snags, protected nests, leks, breeding sites, and roosts Abundance (survival and reproduction) – mortality, health indicators Ability of migratory bird species to maintain self-sustaining and ecologically effective populations	ranges, and develop mitigation options to manage grazing pressures and sustain populations during mine development; Quantify the effectiveness of Project design features and mitigation measures (including footprint refinement, implementation of Teck's 2020 Grizzly Bear Denning Management Plan, and operational wildlife mitigation practices) in avoiding and minimizing effects on grizzly bears, including changes in habitat availability, habitat quality, and risk of mortality or disturbance. Include how feedback from Ktunaxa, including KNC and Yaq̓ it ʔa knuq̓ti 'it, was incorporated; For assessments on grizzly bears, consider both soapberry/buffaloberry and huckleberry in wildlife assessments, using the Shepherdia data layer (to be provided by WLRS) for soapberry and the EV-CEMF mapping and data layers for huckleberry; Include maps of all identified Wildlife Habitat Features. Provide information on which bird species utilize the high elevation grasslands during the breeding season and/or migration; Conduct studies on western toad movement, habitat use, population size/structure, population genetics and disease at the landscape scale to evaluate impacts of salvage programs on population health, habitat use, and connectivity. Conduct studies to identify bat species present and reproductive status, locate bat hibernacula within the LSA.	

		Mammals (individual species or species groups as appropriate)	The Project may impact mammals by fragmenting habitats and habitat loss, including ungulate winter range, increasing human disturbance, and exposing wildlife to pollutants and noise that disrupt movement, behavior, and health.
			
			• Changes to mammals including:
			  ○ Species at risk (provincially and federally listed)
			  ○ Grizzly bear
			  ○ Canada lynx
			  ○ American marten
			  ○ American badger
			  ○ Bighorn sheep
			  ○ Elk
			  ○ Species at risk bats
			  ○ Species of conservation concern to Indigenous nations
			
			Potential pathways of effects include:
			• Direct injury or mortality
			• Damage or destruction of nests, dens or residences
			• Habitat fragmentation, habitat loss, and change in vegetation community composition and structure
			• Avoidance of habitat and change in movement behavior from sensory disturbance (e.g. noise and lighting)
			• Deposition of dust and particulate matter
				Habitat availability and distribution
				Abundance
				Comparison of air, surface water, soil, sediment, and foods (e.g., berries, fish) measurements/predictions to the applicable ecological health guidelines/standards		

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
	Describe disturbance currently affecting wildlife and wildlife habitat, such as habitat fragmentation and habitat loss, and the extent of human access and use (authorized and/or unauthorized) and any relevant current conditions and targets from B.C. Cumulative Effects Framework reports; Describe the natural disturbance regimes and their sources (such as, fire, floods, droughts, diseases, insects and other pests); Provide information on the use of species as country foods and reference to species of Indigenous cultural use and value; and Describe available Indigenous and local knowledge related to wildlife; including information from publicly-available sources (e.g., roadkill data).		• Changes in habitat quality as a result of changes in water quality and quantity • Inhalation and ingestion of Contaminants of Potential Concern (COPCs) • Increase in predation risk • Increase in adverse human-wildlife interactions			
		Reptiles and Amphibians (individual species or species groups as appropriate)	The Project may impact reptiles by disturbing habitats, altering thermal and moisture conditions, and exposure to pollutants that affect health and reproduction. • Changes to reptiles and amphibians including: o Western toad o Species of conservation concern to Indigenous nations o Species at risk (provincially and federally listed) Potential pathways of effects include: • Direct injury or mortality • Damage or destruction of nests, dens or residences • Habitat fragmentation, habitat loss, and change in vegetation community composition and structure • Avoidance of habitat and change in movement behavior from sensory disturbance (e.g. noise and lighting) • Deposition of dust and particulate matter • Changes in habitat quality as a result of changes in water quality and quantity • Inhalation and ingestion of Contaminants of Potential Concern (COPCs) • Increase in predation risk • Increase in adverse human-wildlife interactions	Habitat availability and distribution Abundance		
		Invertebrates (individual species or species groups as appropriate)	The Project may impact invertebrates by disturbing habitats and altering food availability essential for their survival. • Changes to invertebrates including: o Gillette's checkerspot o Species of conservation concern to Indigenous nations o Species at risk (provincially and federally listed) Potential pathways of effects include: • Direct injury or mortality • Damage or destruction of nests, dens or residences • Habitat fragmentation, habitat loss, and change in vegetation community composition and structure • Avoidance of habitat and change in movement behavior from sensory disturbance (e.g. noise and lighting) • Deposition of dust and particulate matter • Changes in habitat quality as a result of changes in water quality and quantity • Inhalation and ingestion of Contaminants of Potential Concern (COPCs) • Increase in predation risk • Increase in adverse human-wildlife interactions	Habitat availability and distribution – amount (area), fragmentation, functionality (considering sensory disturbance / zone of influence), movement opportunities Abundance (survival and reproduction) – mortality, health indicators Ability of wildlife species to maintain self-sustaining and ecologically effective populations		

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
Aquatic Resources and Freshwater Fish (including fish as defined in subsection 2(1) of the *Fisheries Act*)	Provide maps of the watershed(s) in the vicinity of the project showing all watercourses and waterbodies that may be impacted by the Project; Describe and provide maps of relevant fish habitats, including characteristics that directly and indirectly support fish in carrying out their life processes, including: width, depth, and gradient of the waterbody; temperature, turbidity, total suspended solids, total hardness, total dissolved solids, biological oxygen demand, carbonate equilibrium, dissolved oxygen, and pH; habitat types (e.g., riffle, run, pool, fish habitat uses (i.e., for spawning, rearing, migration, and overwintering habitat); permanent or temporary barriers or restrictions to fish movement; aquatic algae and aquatic vegetation; and riparian vegetation (composition and state of maturity); Provide a characterization of fish habitat features that may demonstrate the presence of fish species in terms of appropriate habitats – water quality and quantity, sediment characteristics, geomorphological channel features (e.g. riffle, run, pool spacing), hydraulic features, forage availability, prey, cover, refuge, feeding, habitat distribution, spawning habitats, nursery habitats, rearing habitats, overwintering habitat availability, migration routes, sensitive timing for these activities, seasonal variability in habitat use, ranges and sensitive periods, variability in seasonal flow patterns, and primary and secondary productivity in affected water bodies as applicable; Describe the fish species present and an estimate of the abundance of those species, including a description of the efforts to determine species presence/absence, the limitations of those efforts, the likelihood/probability of species presence/absence, presence of species at risk including critical habitat, and the level of confidence in those determinations; Provide a description of the biodiversity within the freshwater environment, including describing the trophic level, interactions and relative importance of each species with the identified food webs and identify the biodiversity metrics, biotic and abiotic indicators that are used to characterize the baseline biodiversity for fish and/or aquatic species, including the rationale for their selection; Describe the historical occurrence, distribution, and conservation status of freshwater fish in the watercourses and waterbodies; Describe and provide any baseline surveys, including Project-specific surveys conducted in the local	Fish habitat	The Project may affect fish habitat by removing aquatic and riparian habitats, altering stream flow, increasing sedimentation, and changes to water quality. • Changes to fish habitat (including seasonal/overwintering habitat, including changes to: o Aquatic and riparian habitats (EV-CEMF) due to physical disturbance o Base stream flow and connectivity o Water quality (e.g., phosphorus, temperature, and the likelihood of calcite formation) o Sediment regime	Fish habitat availability and suitability – changes to the amount and/or quality of habitat and use Fish habitat connectivity – changes to habitat connectivity and fish distribution and movement	Ensure the assessment of fish habitat evaluates all components covered by the definition in subsection 2(1) of the Fisheries Act; Riparian fish habitat impacts will be quantified (in m2) using the adjacency approach (i.e., buffer-strip method), with seral stage used to inform riparian habitat quality; Aquatic fish habitat impacts will be quantified (in m2) for physically disturbed areas, as well as those affected by changes in streamflow, where applicable. Consistent with protecting environmental flow needs (EFN), changes in weighted-usable-area (WUA) for fish life history stages and swiftwater invertebrates will be calculated using modelled-predicted flow data (see Surface Water Quantity for model details), established habitat-flow relationships and habitat suitability criteria (HSC). Describe the inputs used in this model, and the QA/QC of model input data, in addition to the model validation methods, and a comprehensive description of the model limitations. The EFN assessment will inform water licensing, permitting and offsetting requirements; Fish presence for all potentially affected watercourses and waterbodies must be described. The methods used to determine fish presence must be scientifically defensible and follow appropriate provincial and federal guidelines. Methods must include consideration of permanent and seasonal barriers to fish movement, and the presence of seasonal and perennial habitat. Fish sampling over multiple years and with multiple methods, is also typically required; Evaluation of the effects of calcite deposition on fish and aquatic habitat including a mitigation plan and an evaluation of risk associated with failure of mitigation options; Evaluation of calcite concretion on WCT rearing habitat and fry overwintering survival, with a study designed to meet the needs of the fish population model to build an effects curve into this relationship; and Evaluation of Source Control options for Calcite and their consideration as a mitigation option.	Human Health Land and Resource Use Biophysical Factors that Support Ecosystem Function Wildlife Indigenous Nations Surface Water Groundwater Vegetation Acoustics
		Aquatic resources	The Project may impact aquatic resources by altering water quality (e.g. increases of parameters of concern, phosphorus, temperature, calcite formation), flow regimes, and sedimentation, potentially disrupting aquatic habitats and ecosystem functions. • Changes to aquatic resources, including: o Benthic invertebrates (abundance and community composition) o Periphyton productivity, ash-free dry mass and chlorophyll-a concentration o Bioaccumulation in aquatic resources (tissue concentrations)	Benthic invertebrate habitat availability, suitability, and connectivity Benthic invertebrate health, community composition, including with respect to pollution tolerance, and abundance Periphyton productivity, as	B.C. Water Quality Guidelines and established benchmarks and updated effect concentrations (EVWQP; B.C. Ministry of Environment and Parks 2025) will be used to support the assessment of aquatic resources; A comprehensive assessment of cumulative effects to fish and fish habitat resulting from habitat loss, alteration and fragmentation, calcification, and water diversion within the Regional Assessment Area. The assessment must include mitigation measures proposed; Assessment of groundwater seepage; and A full accounting of tributary and mainstem mining related habitat loss in the Fording River. Describe offsetting projects that are expected or in place and evaluate their performance in achieving habitat and ecological	

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
	and regional assessment areas for water quality, freshwater plankton, periphyton, benthic invertebrates, fish, fish habitat, macrophytes, and biological tissues, including the methods used (for example, location of sampling stations, catch methods, date of catches, species, catch-per-unit effort) and how the results helped to characterize existing conditions (for example, the source of data available, filled an information gap; confirmed or refuted older information) as applicable; Describe threats to fish in the project area such as relating to, but not limited to, illegal harvesting, invasive plant or fish species, risks of stranding, risks to overwintering habitat access, loss of tributary habitat for various life stage development, pathogens, disease (e.g., whirling disease) and hybridization; Describe the status of past offsetting requirements for FRO Swift, including any outstanding offsets and offsets that may be further impacted by the Project, to inform the existing conditions assessment; Describe the conservation status under the B.C. Conservation Data Centre, Committee on the Status of Endangered Wildlife in Canada, and SARA for all potential freshwater fish and aquatic resources Species at Risk;Describe the local and regional climate projections for the area with rationale of the climate model chosen and including a description of the current and projected climate impacts on fish, habitat and habitat use; Provide information on the use of fish and/or aquatic species as country foods and reference to species of Indigenous cultural use and value; Describe available Indigenous and local knowledge related to freshwater fish; Describe tissue concentrations in aquatic resources and fish, specifically those that could relate to bioaccumulation concerns and for fish species harvested for consumption; Where Project facilities and activities interact with current and historical mining activities, describe baseline (pre-project) effects occurring to freshwater fish and aquatic resources from the alteration, disruption, or destruction of aquatic habitat including effluent discharges (e.g. calcite and calcite concretion) to the receiving environment; Describe any established conservation thresholds (for example, as defined in a recovery strategy, conservation plan, or similar document such as			inferred from ash-free dry mass and chlorophyl-a concentrations Periphyton health, community composition, and abundance	objectives.	
		Fish	The Project may affect fish growth, fish population/ abundance health, reproduction, and survival. • Changes to fish, including: o Fish tissue (bioaccumulation) o Fish Passage or Fish Movement (e.g., migration blockage) o Fish survival and mortality o Fish population o Fish communities (e.g., fish health, survival, invasive species, and developmental effects) o Species at Risk (e.g. Westslope Cutthroat Trout (EV-CEMF) o Species of conservation concern to Indigenous nations o Traditional use species o Other aquatic species of management concern	Habitat availability and suitability – changes to the amount and/or quality of habitat and use by fish Habitat connectivity – changes to habitat connectivity and fish distribution and movement Fish abundance, health, growth, survival and reproduction Ability of fish species to maintain self-sustaining and ecologically effective populations	Assessment of fish through evaluation of all components covered by the definition in subsection 2(1) of the *Fisheries Act*; A fish population modelling framework will be used to understand how key Project-related stressors may influence the upper Fording River Westslope Cutthroat Trout population's resilience and sustainability; B.C. Water Quality Guidelines and established benchmarks and updated effect concentrations (EVWQP; B.C. Ministry of Environment and Parks 2025 will be used to support the assessment of fish health (bioaccumulation risk); and Describe how reclamation planning will maintain sufficient flows in the Fording River and all fish-bearing tributaries to meet environmental flow needs and support the long-term viability of Westslope Cutthroat Trout. This should include projected flow regimes, measures to achieve them, and linkage to progressive reclamation and closure planning.	

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
	the EV-CEMF) and whether these are exceeded at baseline; and Describe disturbance currently affecting fish and fish habitat, such as habitat loss and any relevant current conditions and targets from B.C. Cumulative Effects Framework reports.					
Employment and Economy	Describe the local and regional economy, including the main economic activities in the local and regional assessment areas; Describe the local economy's likely capacity to provide labour specifically for the mine, and estimate how much labour will likely need to come from elsewhere; Compare data on average local wages with provincial and national averages to provide a more comprehensive picture of the local economy; Characterize the economic conditions and participation, including the differences of experiences by diverse groups, including Indigenous peoples, or other community relevant groups, as appropriate (such as women, youth, seniors); Describe trends in labour force and employment statistics for residents in the local and regional assessment areas, including Indigenous Nations, and the availability of skilled and unskilled workers, existing workers, existing employment rates, full-time and part-time employment, and training; Describe local labour market conditions for other underrepresented groups as identified by GBA Plus (for example, people with disabilities, visible minorities); Describe wage and income information, including average salary range; Describe tax revenues and government expenditures; Specify the estimated total budget of the mine and the proportion that would be spent locally; Quantify changes to local and provincial employment resulting from the work in the mine that would be indirect or induced; Discuss trends and factors influencing cost of living (for example, housing, food, goods and services); Describe businesses or industry relevant to the Project in the local and regional assessment areas, including availability of businesses that may provide supplies and services required for the Project; Describe whether local procurement of materials will be prioritized;	Employment	The Project may affect employment by creating jobs and training in extraction, transportation, and support services, though the impact may fluctuate with market demand and project phases. • Changes to employment, including: o Jobs and training o Labour income o Access to economic opportunities / economic equity	Direct work force size and occupational composition Labour force characteristics (size, composition, unemployment and participation rates, education and skill level, industry experience) Income and earnings Jobs and skills training relevant for the Project[10]	Using Project construction and operating expenditures and estimated workforce requirement, carry out economic impact analysis using the British Columbia Input-Output Model (BCIOM) and Statistics Canada's national Input-Output (IO) model to provide estimates of direct, indirect and induced economic output (revenues), gross domestic product (GDP), employment, income, and government revenues; On the recommendation of Indigenous Services Canada the Application may apply Indigenous Services Canada's *online Economic Impacts Estimator tool* to support economic impacts assessment, especially in terms of modeling induced development and wider regional economic effects of the Project on Indigenous populations; Impacts on employment, including available training and jobs created, should be broken down into impacted North American Industrial Classification System (NAICS) and National Occupational Classification System (NOCS) where applicable; and The socio-economic analysis should assess direct, indirect, and induced employment impacts for Indigenous communities based on priorities identified by Indigenous governments. Outline how the proponent will support Indigenous-led economic development strategies, including procurement opportunities for Indigenous-owned businesses, as determined by Indigenous Nations. Include metrics and indicators to monitor Indigenous employment outcomes and supplier diversity, co-developed with Indigenous governments.	Land and Resource Use Infrastructure and Services Community Health and Well-being
		Economy	The Project may alter the local and regional economy by increasing GDP and tax revenues through industrial activity, while potentially altering government expenditures, land and resource valuations, the cost of living, and tourism and other economic drivers. • Changes to the economy, including: o Tax revenues and government expenditures o GDP contributions o Business revenue o Cost of living (for example, housing, food, goods and services) o Tourism and other economic drivers in the region	Regional and local economic base, including productive forest land base Supplier profiles (number, type, location, capability and capacity) Project materials, goods and services expenditures, contracting revenues Project indirect and induced value added (GDP) Gross Domestic Product (GDP) Changes to the commercial tourism environment (e.g., visual quality, noise and vibration, air quality, fishery and wildlife resource		

[10] Employment and Social Development Canada recommends that appropriate Indigenous service delivery organizations are consulted related to the Indigenous Skills and Employment Training Program.

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
	Describe available Indigenous and local knowledge related to employment and economy; Describe potential changes in labour needs with forecasted technological improvements; and Describe the changes in employment for Indigenous groups, including as resulting from ability to meet labour demand, training programs, initiatives and other measures to improve employment opportunities for Indigenous Peoples, as well as workforce diversity and inclusion, and potential labour shortages and how they would be addressed,			availability) Government revenues (including Elk Valley Tax Sharing Agreement) Government expenditures		

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
Land and Resource Use	Describe any Forest Management and/or Regional Land and Resource Management Plans and official community plans, as well as associated zoning or land use policies; Describe any Indigenous land use activities or resource plans; Identify sub-groups within the local and regional assessment areas and their vulnerability to land and resource use effects (for example, Indigenous people, farmers); • Describe the following types of land or resource uses, including location and access, in the vicinity of the Project: • Private property and residential areas; • Industrial land uses (for example, mining, oil and gas); • Other tenured, permitted or licensed land uses (for example, trapping, guiding); • Consumptive land uses (for example, hunting, fishing, trapping, vegetation gathering); • Downstream non-project water uses, users and licenses that may be affected by the project, and describe that use (e.g., aquatic life, drinking, irrigation, livestock watering, industrial, etc.); • Non-project groundwater uses and users that may be affected by the project, and describe that use; • Indigenous groundwater uses and users, where information is available or provided; • Outdoor recreation areas (for example, camping, hiking, skiing, boating, caving); • Agricultural land uses; • Tourism; • Parks and protected areas; • Other. Describe current conditions with respect to topography, landforms, air quality, surface water quality, noise, vibration, or night-time light nuisance for occupants or resource users; Describe the local and regional climate projections for the area with rationale of the climate model chosen and including a description of the current and projected climate impacts on land and resource use; Describe the visual landscape from key use areas; and Describe available Indigenous and local knowledge related to land and resource use; Describe if any abandoned or historical mines or mine	Private property	The Project may affect private property by increasing noise and dust pollution, and potentially disrupting groundwater supplies or structural stability due to nearby blasting and excavation activities. • Changes to the use and enjoyment of private property	Access to and use of private property		Air Quality Acoustic Surface Water Vegetation Wildlife Freshwater Fish Human Health Community Health and Well-being Indigenous Nations Unique Geologic Landforms Employment and Economy
		Tenured land and resource use	The Project may affect tenured land and resource use by affecting established rights and land use activities and by altering access, ecosystems, and productivity of the land. • Changes to industrial land uses (for example, mining, oil and gas) • Changes to other tenured, permitted or licensed land uses	Conformance with regional and local government land use designations, plans, objectives and policies Land and water-based commercial activity type, location, access, use levels Availability/abundance of fish and wildlife Environmental condition of in-air noise levels, air quality, visual quality		
		Public land and resource use	The Project may affect public lands and resource use by altering wildlife habitats and water quality (i.e., affecting hunting and fishing), reducing access and aesthetic value for recreational activities (i.e., hiking and camping), degrading agricultural land, and diminishing the appeal of natural areas for tourism. • Changes to consumptive land uses (for example, hunting, fishing, trapping, vegetation gathering) • Changes to non-consumptive land uses (for example, camping, hiking, skiing, boating, climbing, caving) • Changes to agriculture • Changes to tourism • Changes to the ability to travel freely in the territory and to access areas important to the exercise of rights, • Changes in knowledge of and experience associated with Land Use • Changes to topography and landforms • Changes to weather, snow accumulations and wind patterns	Land and water-based recreation activity type, location, access, use levels Availability/abundance of fish and wildlife Environmental condition of in-air noise levels, air quality, visual quality		
		Parks and protected areas	The Project may impact parks and protected areas by altering ecosystems, air and water quality that may potentially impact recreational and conservation value. • Changes to parks and protected areas, including: ○ Federal, provincial, regional, municipal parks ○ Other protected areas ○ Recreation Sites and Trails B.C. areas	Land and water-based recreation activity type, location, access, use levels Availability/abundance of fish and wildlife Environmental condition of in-air noise levels, air quality, visual quality		

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
	related activities, including exploration, would or may interact with the Project, the locations of these sites, the nature of those interactions, and if and how these sites are being managed; and Provide an inventory of existing tailings, mine rock, and contaminated materials that are present on-site map the areas where these materials occur, and overlay this with the Project's components and activities.	Visual resources	The Project may impact visual resources by introducing industrial structures, dust, and landscape disruption that diminish the natural aesthetic and scenic quality of the surrounding area. • Changes to visual resources	Visibility of Project components and activities from key viewpoints Visual impact to viewers from key viewpoints (e.g., Wapiti Ski Hill in Elkford B.C., hunting areas, Indigenous use areas) Visibility of Project lighting from key viewpoints Perceived light levels from key viewpoints		

Infrastructure and Services	Describe relevant population demographics and trends (for example, health status, community and regional safety and crime, education and training, population size, gender, age, permanent and temporary populations);Describe the capacity and availability of the following Community and Regional;
	• Health care and social services and facilities;
	• Emergency response services;
	• Domestic water supply;
	• Sewage and water treatment facilities;
	• Solid waste collection services, landfills and recycling facilities;
	• Recreational infrastructure, facilities and services;
	• Educational services and facilities including day care;
	• Any other relevant public or private sector infrastructure and services.
	Describe the capacity of local and regional transportation infrastructure;
	Describe the capacity of housing and accommodation; and
	Describe available Indigenous and local knowledge, demographics and trends related to infrastructure and services.
		Community infrastructure and services	The Project may affect community infrastructure and services by increasing demand for health care, emergency response, social services and educational facilities, while potentially straining domestic water supplies, sewage systems, landfills, recreational spaces, and both public and private sector support services.
			• Changes to community infrastructure and services, including:
			  ○ Health care and social services and facilities
			  ○ Emergency response services
			  ○ Domestic water supply
			  ○ Sewage and water treatment facilities
			  ○ Landfills and recycling facilities
			  ○ Community recreational facilities
			  ○ Educational services and facilities, including day care
			  ○ Other public and private sector services
				Health, social, emergency, educational and recreational services capacity
				Demand for services
				Water, waste and power infrastructure capacity and condition
				Mobility
				Access and use by distinct population groups as identified through GBA Plus
				Change in population and demographics
				Access to schools and childcare.
						Employment and Economy
						Community Health and Well-being
						Human Health
						Groundwater
						Surface Water

		Transportation infrastructure	The Project may impact transportation and infrastructure by increasing vehicle traffic, accelerating road wear, and necessitating upgrades to local transport networks and utility systems to support industrial operations. • Changes to transportation infrastructure and traffic volumes	Traffic levels and composition Transportation infrastructure condition and capacity		
		Housing and accommodation	The Project may alter demand, availability, and costs of housing and accommodation, particularly during construction. • Changes to housing and accommodation, including rentals	Housing and rental stock and condition, supply and demand Temporary accommodation availability		

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
				(supply), demand and condition		
Human Health	Summarize baseline conditions for VCs that are linked to human health, which may include: • Air quality; • Surface Water; • Groundwater; and/or • Soil quality. Summarize baseline community health conditions, including an overview of the current community health profile and how it compares to regional and provincial benchmarks. This should include, where data are available, indicators relevant to potential mining-related exposures such as age-adjusted life expectancy, prevalence or incidence of respiratory diseases (e.g., COPD and asthma), cardiovascular outcomes (e.g., heart attacks), and other relevant chronic conditions; Summarize baseline conditions for quality and quantity of country foods, including baseline contaminant concentrations in the tissues of country foods (traditional foods) consumed by Indigenous Nations and local communities. When summarizing baseline conditions for country foods, ensure that the spatial extent of the evaluation aligns with the spatial extent of potential exposure pathways, including air, surface water, and soil contamination; Baseline conditions should be based on the Second Revised Final Human Health Risk Assessment (Teck, October 2023), incorporate additional studies under Authorization 107517 (including the human health data evaluation program, first report covering 2021–2025 expected November 30, 2026), and draw upon the International Joint Commission's Reference on Transboundary Water Pollution in the Elk-Kootenay Watershed (expected September 2026), including assessments of risk, well-being, data gaps, and recommendations for further information collection; Describe the country foods[11] (i.e., traditional foods) consumed by which Indigenous Nations, including how much, how frequently, where these country foods are harvested, and how the data was collected (such as site-specific consumption surveys, community-led assessments on impacts to Treaty or harvesting rights). If site-specific	Human Health Risk Assessment (HHRA)	The Project may result in changes to human health through alteration of air, water, and soil quality, and the quality and availability of country foods. • Changes to human health, including: ○ Air quality ○ Drinking and recreational water quality ○ Soil quality ○ Quality and quantity of country foods	Comparison of air, surface water, soil, sediment, and foods (e.g., berries, fish) measurements/predictions to the applicable human health guidelines/standards Hazard quotients (indicates whether the amount of a chemical taken in by a receptor is greater than the amount of the chemical below which there would be essentially no risk of negative health effects; calculated as the ratio of the estimated daily intake, based on the exposure assessment, to the selected toxicity reference value). Incremental lifetime cancer risk; the increased risk attributed to chemical exposure above background cancer risks caused by genetics, lifestyle, and other non-chemical factors. Comparison of risk estimates to acceptable risk levels determined by Health Canada,	Describe potential effects on quality and quantity of country foods, including contaminant concentrations in the tissues of country foods (i.e., traditional foods) consumed by Indigenous Nations and local communities; Conduct a human health problem formulation exercise including a model prediction (i.e., a conceptual site model or conceptual exposure model) to determine whether a HHRA is required. The proponent must provide a rationale/explanation if problem formulation/preliminary model predictions indicate that a HHRA is not warranted; If an HHRA is conducted, it must: • Be conducted by a professional with training, experience, and qualifications in HHRAs in B.C., and a professional statement including the qualifications and experience must be included; • Follow relevant HHRA guidance, such as British Columbia Guidance for Prospective Human Health Risk Assessment (MOH 2022) and the Health Canada documents Guidance on Human Health Detailed Quantitative Risk Assessment for Chemicals (DQRA) (Health Canada 2010) and Guidance for Evaluating Human Health Effects in Impact Assessment: Human Health Risk Assessment (Health Canada 2023c); • The proponent is encouraged to refer to Health Canada's Guidance for Evaluating Human Health Effects in Impact Assessment: Air Quality; • Assess health effects using health-based guidelines; • Provide the approximate location on maps and isopleths of likely human receptors, including foreseeable future receptors; • The application must provide rationale for the exclusion of any human receptors, COPC, or exposure pathways from the quantitative HHRA. In cases where there are no guidelines, standards, or criteria available for screening an environmental medium (e.g. country foods), the COPC must included to determine whether there may be health risks associated with the predicted concentrations; • Sensitivity analysis to increase the level of confidence in the HHRA (when needed) especially when there is uncertainty in the assessment; • Carcinogenic and non-carcinogenic assessment of diesel particulate matter using established guidance values in Human Health Risk Assessment for Diesel Exhaust];	Air Quality Surface Water Groundwater Soil Vegetation Aquatic Resources and Freshwater Fish Wildlife Land and Resource Use Indigenous Nations Community Health and Well-being

[11] As per the *British Columbia Guidance for Prospective Human Health Risk Assessment (April 2022)*, country foods are defined as all foods sourced outside of commercial food systems, also referred to as environmental livelihoods. This includes any food that is trapped, fished, hunted, harvested, or grown for subsistence or medicinal purposes outside of the commercial food chain.

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
	consumption data are not provided, then provide an acceptable rationale why the surrogate consumption data provided is appropriate (if given express permission by Indigenous Nation communities to disclose this information); and Describe available Indigenous and local knowledge related to human health.			B.C. ENV and B.C. Ministry of Health. If an HHRA is required for the project, in addition to the applicable human health guidelines/standards the Elk Valley specific human health screening values should also be used, as they are calculated using Ktunaxa preferred consumption rates. These can be found in Appendix B of the Human Health Data Evaluation Program Study Design (Ramboll, November 30, 2024).	• The proponent is encouraged to refer to Health Canada's Guidance for Evaluation Human Health Effects in Impact Assessment: Noise; and • If any PFAS-containing products will be used or produced as a result of the Project, assess PFAS as part of the HHRA.	
		Health Impact Assessment (HIA)	The Project may result in changes to human health through alteration of environmental, social, cultural and economic conditions. • Changes to human health, including: o Air quality o Acoustic o Infrastructure and services o Economic conditions o Drinking and recreational water quality o Soil quality	Assess the interactions between effects on environmental, social, cultural and economic conditions and their resulting relationships to current and future health conditions.	If required, conduct a Health Impact Assessment following Health Canada's Interim Guidance: Health Impact Assessment of designated Projects.	
Community Health and Well-being	Describe influences on community health (such as, disposable income, cost of living, lifestyle, language, rates of alcohol and substance abuse, and of illegal activities and violence; rates of sexually transmitted infections and gender-based violence; etc.), including, as applicable, indicators proposed by Indigenous Nations; Describe the current status and trends related to drug toxicity in nearby communities, including Indigenous Nations, highlighting vulnerabilities and risk factors associated with mining activities, local workforce dynamics, and regional social conditions;Describe community cohesion, including factors such as traditional, community or neighbourhood engagement, support and social networks and other social activities; Describe the psychosocial environment and its	Subcomponents of the Social Determinants of Health (selected based on applicability to potentially affected communities)	The Project may place additional demands on health infrastructure and services while contributing to population health risks through increased exposure to air and water pollutants, noise, light and community stressors, as well as broader changes to the social determinants of health such as temporary or permanent population change and social fabric, economy and income, community services and infrastructure, and the physical environment. • Changes to community health, including: o Health infrastructure and services o Healthcare, social services and facilities o Emergency response services o Population health • Social determinants of health o Perceived risks to human health, o The resilience and well-being of Indigenous groups, o Public health and safety concerns (e.g. risk of malfunctions or accidents related to project operations; risks to the health and	Determinants of health such as: Education, employment, income Healthcare and other services Housing Recreational environmental conditions (e.g., noise and vibration) and opportunity Social environment (e.g., social support, coping	Assessment of the Community Health and Well-being should include consideration of Indigenous perspectives and experiences. Utilize the social determinants of health as a framework for describing existing conditions and to assess the potential effects of the Project on the Community Health and Well-being VC, including the use of indicators such as perceived health, mental health status, child and youth development, educational attainment, and food insecurity. The specific elements (subcomponents) of the social determinants of health to be assessed will be based on those most applicable to potentially affected communities and will consider social, economic, and environmental factors; Identify if the project would interact with other factors that support community health and well-being that were not specifically assessed as part of a VC;	Acoustic Human Health Employment and Economy Infrastructure and Services Air Quality Land and Resource Use Human Health Indigenous Nations

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
	influence on community well-being; Describe the socio-cultural environment, identifying Indigenous Nations and predominant cultural communities, demographic characteristics and major socio-cultural concerns of the population; Describe access, ownership and use of resources (such as land tenure, minerals, food, water, social infrastructure); Describe the capacity (currently available or planned) of institutions to deliver public services and infrastructure; Describe relevant historical community background; Existing health infrastructure and services, including health care provider capacity; Drinking water infrastructure, services and sources for surface and/or groundwater (permanent, seasonal, periodic, or temporary), including approximate wellhead capture zones; Describe baseline conditions identified for VCs that contribute to population health, such as: • Population demographics; • Employment and income; • Access to housing; • Access to services (for example, health and community services); • Personal health practices (for example, substance use, diet, exercise, and family violence); • Health status (for example, mental health, chronic illnesses). • Any context-specific definitions of health and well-being, including those that may have been raised through local knowledge. Describe baseline health conditions and existing health inequalities using available disaggregated data for diverse groups and subgroups as identified through GBA Plus. Consider differential access to resources, opportunities and services within the community where that data is available. Where gaps in the data exist, or when potential disproportionate effects on subgroups are not anticipated, the Application must discuss impacts to health for the broader population. Where available information presents a limitation on the ability to describe differential effects to distinct populations, articulate this limitation and describe its implications for analysis; Provide an overview of the current state of community health and well-being from a local community perspective where such information is available; and Describe workforce interactions with Indigenous groups and their differential impacts, particularly		safety of Indigenous women and girls such as gender-based violence; illicit and illegal drug availability, gang activity), ○ Disturbance of daily activities, and ○ Avoidance of certain country food sources or of drinking or recreational water sources due to the perception of contamination; ○ Changes to access of affordable housing and/or changes to access of affordable housing in proximity of work ○ Changes to use of recreational areas or gathering places	skills, community safety, cohesion) Indicators identified by Indigenous Nations Summary results of linked VC assessments including human health (HHRA), noise, land and resource use,	Assess potential negative and positive effects of changes to affected communities' social conditions including, but not limited to: food security (including access to country foods); income inequity; changes at the community-level that affect social conditions as result of increased population, workers camps, economic activity, cost of living, among other factors; and non-commercial/trade economy; Discuss trends and factors influencing cost of living (e.g., housing, food, goods and services), and include indicators of economic well-being such as job satisfaction, financial security (ability to make ends meet, including housing, food, and transportation costs), and economic security (e.g., household debt levels and asset ownership), where data are available; Assess potential effects of the Project on local patterns of unregulated drug use, including factors such as workforce influx, work stress, and cyclical employment, and outline proposed mitigation measures in collaboration with affected Indigenous Nations; Describe in- and out-migration project effects, including changes in social and cultural make-up of affected communities and changes in populations; Evaluate potential social effects associated with increased disposable income, including potential cost of living effects, adverse and positive lifestyle changes, distribution of benefits among affected people; Describe any anticipated effects to language; Consider the potential for stresses on community, family and household cohesion, alcohol and substance abuse, or illegal or other potentially disruptive activities; Describe if any differential access for diverse groups to health infrastructure and services within the community, including health care provider capacity, and increased use of health and related health-social services in relevant communities, will be negatively or positively impacted by the project, where that data is available. Where gaps in the data exist, or when potential disproportionate effects on subgroups are not anticipated, the Application must discuss impacts to health for the broader population; In situations where project-related air, water or noise emissions did not exceed local, provincial, territorial, or federal guidelines or thresholds (including vulnerable populations), and yet public concerns were raised regarding human health effects, provide a description of the public concerns and how they are to be addressed (if not already addressed); Describe changes to viewscapes as a result of the project and potential effects to community health; and An assessment of cumulative effects of human and indigenous and non-indigenous community well-being. The Application must include mitigation measures developed in collaboration with participating Indigenous Nations to	

Valued Component	Requirements for Existing Conditions Descriptions	Subcomponent	Potential Project Effects to Subcomponent	Indicators to be used to assess Potential Effects	Information to assess effects on the Valued Component	Linked Valued Components and AIR Sections
	on women and girls, in the context of the National Inquiry into Missing and Murdered Indigenous Women and Girls (Calls for Justice 13.1-13.5).				identify community and culturally-specific and relevant indicators and impacts.	
Archaeological and Heritage Resources	Describe and provide archaeological studies completed in the local and regional assessment areas and any sites found within the Project footprint; Describe the archaeological potential in the project area; Describe any heritage, archaeological or historical sites identified in the project area; Describe the paleontological potential in the project area; and Describe available Indigenous and local knowledge related to archaeological and heritage resources.	Historical resources Archaeological sites Palaeontological resources	The Project may impact archaeological and heritage resources by disturbing or destroying culturally significant sites through excavation, blasting, and land alteration. • Changes to sites of historical importance • Changes to sites of archaeological importance (including Culturally Modified Trees) • Changes to paleontological resources	Presence, number, type and locations of archaeological materials or features (artifacts, features, lithic procurement sources, etc.) that would contribute to an archaeological site Paleontological resources Heritage sites		Land and Resource Use Community Health and Well-being

6.0 Assessment Methods: Effects on Valued Components

The Application must describe the methods used to assess the potential effects of the entire Project: potential effects from the first ***and*** second Project stages. The proposed methods must meet the requirements under the BCEAA, as described in the EAO's Effects Assessment Policy, Version 1.0, April 2020 (BC EAO 2020a), and the requirements under the federal IAA.

Each VC-specific section of the Application must identify linkages to other VCs, Indigenous Interests (Section 8), biophysical factors that support ecosystem function (Section 10) and impacts to current and future generations (Section 11) and describe how the results of the VC-specific assessment are integrated with those linked sections of the Application. All VC sections of the Application must include the following sub-sections:

1. Relevant Statutes, Policies and Frameworks
2. Influence of Consultation and Engagement
3. Assessment Boundaries
4. Existing Conditions
5. Potential Effects
6. Effects Management
7. Effects Assessment (Positive Effects) and/or Effects Assessment (Negative Effects)
8. Characterization of Residual Effects
9. Cumulative Effects
10. Monitoring and Mitigation Effectiveness

Sections 6.1 to 6.11 below and the contents of Table 2 describe the information required in the sub-sections of each VC-specific Application section.

6.1. Relevant Statutes, Policies and Frameworks

The Application must summarize the regulatory and planning context for the management of the VC, including relevant legislation, policies and frameworks specific to the VC, and how these apply to the Project. These may include various Acts, regulations, policies, standards, cooperation agreements and/or decision-making frameworks including Indigenous law.

Appendix A provides VC-specific statues, policies and frameworks that may be relevant.

6.2. Influence of Consultation and Engagement

The Application must describe how information obtained from consulting the EAO, IAAC, Indigenous Nations, the Technical Advisory Committee (TAC), the Community Advisory Committees (CAC), the public, and any other stakeholders was used. Consultation may consist of information gathered or shared during engagement with Indigenous Nations, the TAC or CAC meetings, public comment periods and open houses. The proponent may select additional VCs, in consultation with Indigenous groups and participants and in consideration of Indigenous Knowledge and community knowledge. The Application must provide a justification if a VC suggested by an Indigenous group is excluded.

Where Indigenous Knowledge is shared by Indigenous Nations for use in the Application, the Application will describe how it was applied in alignment with the Indigenous knowledge plans, agreements, policies, or protocols of the Indigenous Nation (see also Section 8.3).

6.3. Assessment Boundaries

The Application must describe the spatial, temporal, administrative and technical boundaries of each VC (or subcomponent) to be used and provide rationale for why these boundaries were chosen using professional, local and Indigenous knowledge where available. The Application must include an explanation of how the proponent considered any information received from Indigenous Nations in identifying spatial boundaries.

The Application must also describe the methods used to identify the boundaries. Information on boundaries for each VC (or subcomponent) must be included in the appropriate VC sections of the Application, and must encompass all relevant project phases, components and activities.

Spatial Boundaries

The following spatial boundaries and the sizes of these areas in hectares must be identified in the Application:

- *Project footprint:* The smallest scale includes the footprint of temporary and permanent physical works associated with the Project and the area within which physical activities associated with the Project will occur.
- *Local Assessment Area (LAA):* Typically comprised of a larger area than the project footprint within which all (or most) potential project effects are expected to occur. The LAA encompasses the project footprint and the zone of influence[12] of the Project, including areas that may be affected by direct and indirect Project effects, such as air contaminants, noise, light, effluents and wastes, employment and use of services and infrastructure.
- *Regional Assessment Area (RAA):* The RAA is used to provide context for the assessment of potential project effects and includes the LAA. The RAA is typically based on a natural transition (for example, watershed boundary, ecological zone) or an artificial delineation (for example, political or economic district or zone) that is relevant to the VC to understand the context for the effect. The RAA boundary should be at an appropriate scale that provides relevant context for consideration of project direct and indirect effects, offers useful and meaningful data and neither over-emphasizes nor under-emphasizes the scale of the project effects.
- *Cumulative Effects Assessment (CEA) Area:* The RAA may be used as the spatial boundary for the assessment of potential cumulative effects, or a different boundary may be chosen that better reflects the nature of cumulative effects relevant to the Project's potential effects. The spatial boundary for cumulative effects assessment for a VC should encompass the area within which the residual effects of the project are likely to interact cumulatively with the effects of other past, present and reasonably foreseeable future projects and activities on that same VC. Boundaries may be informed by the B.C. Cumulative Effects Framework (CEF)[13] or other available CEFs and through engagement with Indigenous nations, the TAC, any CAC, the public, local governments, provincial and federal government agencies, and stakeholders.

Transboundary spatial boundaries must be identified where transboundary effects are expected outside of the Province of British Columbia's or Government of Canada's jurisdiction. The spatial boundary maps for VCs (or subcomponents) must clearly identify parts of the project footprint located on lands and waters that lie within federal jurisdiction or treaty lands.

[12] The zone of influence is a spatial limit beyond which the residual environmental effects of the project on a given assessment matter are not detectable.

[13] Assessment protocols, assessment reports and supporting data are available at: https://www2.gov.bc.ca/gov/content/environment/naturalresource-stewardship/cumulative-effects-framework.

The Application must include a figure showing the proximity of the project to federal lands, as well as a description of the nearest federal lands. If the proponent identifies potential effects to federal lands, the Application must include an assessment of those effects to federal lands. If no effects to federal lands are anticipated, the Application should provide a clear statement to that effect and include the rationale supporting that conclusion.

The Application must include maps and spatial data for the proposed Local Assessment Area and Regional Assessment Area boundaries. See the Spatial Data Submission Guidelines to ensure included maps and data are submitted according to the EAO requirements.

Draft Assessment Boundaries are presented in Appendix B.

Temporal Boundaries

The following temporal boundaries must be identified and used in the Application:

- *Construction:* The phase of the Project during which physical alteration of land, vegetation or any other aspect of the natural environment occurs, including upgrading, repairing, replacing, or removing, any existing work or infrastructure. Construction does not include any activities conducted solely for investigative purposes under a valid permit or authorization.
- *Operations:* The phase of the Project starting when commercial production of coal from the Project begins and ending when commercial production of coal from the Project permanently ceases and Closure phase begins.
- *Closure:* The phase of the Project during which all development and production ceases and mining facilities and infrastructure, except for infrastructure required for ongoing monitoring and maintenance, are decommissioned and/or removed. Reclamation activities continue to be conducted and completed. Closure ends when all activities cease, including reclamation activities.
- *Post-Closure:* The phase of the Project following completion of Closure during which management, maintenance, and monitoring programs for the Project site continue. Post-Closure ends when all the condition requirements of this Certificate are met.

Where relevant, VC-specific temporal boundaries that reflect how long the VC will experience effects should be described.

Administrative or Technical Boundaries

Where administrative or technical boundaries have constrained the assessment of potential effects, the nature of the boundaries and their influence must be documented in the Application.

6.4. Existing Conditions

For each VC (and its subcomponents), the Application must describe the existing conditions (for example, “baseline”) within the local and regional assessment areas in enough detail to enable potential project-VC interactions to be identified, understood and assessed. This description may include the characteristics of the VC (or subcomponent) itself and other components to which the condition of the VC is linked or dependent.

The Application must include:

- A description of the quality and reliability of the existing conditions data and its applicability for the purpose used, including any data gaps, insufficiencies and uncertainties, and plans to address insufficiencies and uncertainties, particularly for the purpose of monitoring activities;
- A detailed description of the natural and/or human-caused trends, including climate change, that may alter the VC irrespective of the changes that may be caused by the project or other projects and activities in the local area;
- An explanation of if and how other past and present projects and activities in the local and regional assessment areas have affected, or are affecting, each VC;

- Documentation of the methods and information sources used to compile information on existing (or baseline) conditions, including any standards or guidelines followed;
- Where additional project- and VC-specific field studies are undertaken, the scope and methods used should follow published documents pertaining to data collection and analysis methods, where these are available, and note which guidance documents were used. Where methods used for data collection deviate from applicable published guidance, the rationale for the variance must be provided in the Application;
- Description of the VC-specific application of local and Indigenous knowledge; and
- Summarize findings of any existing conditions technical reports, studies, analyses, etc. that are provided in Appendices to the Application.

6.4.1. GBA Plus Requirements

Existing conditions descriptions for social, economic and health VCs (Employment and Economy, Land and Resource Use, Infrastructure and Services, Health, Community Health and Well-being, Archeological and Heritage Resources) must include the application of GBA Plus, including a description of disproportionate effects on distinct human populations (using disaggregated data where available) and a description of existing conditions for diverse or distinct subgroups to support the understanding of effects.

The Application must identify relevant intersections of sex, gender, ethnicity, race, culture, religion, income, age, sexual orientation, disability, education, geography, and language. Both qualitative and quantitative data may be necessary to describe existing conditions across diverse or distinct subgroups, where GBA Plus factors have the potential to be relevant to the understanding of effects. Where the available information presents a limitation on the ability to characterize existing conditions according to GBA Plus approaches, this limitation will be articulated, and its implications for analysis described. Guidance documents with relevance to GBA Plus include:

- Guidance: Gender-Based Analysis Plus in Impact Assessment (Agency 2021);
- Tool: Assessing the Quality of a GBA Plus in the Impact Statement (Agency 2022); and
- EAO's Effects Assessment Policy
- Human and Community Well-Being (BC EAO 2020b)
- Guidance: *The Social Determinants of Health* (Bryant, R. 2020) and *The Social Determinants of Health Strategy* (First Nations Health Authority 2025).

6.5. Potential Effects

The Application must describe the potential positive and negative direct and indirect effects for each phase of the project on each VC (including species listed in Table 2 and Appendix C), and must include, but is not limited to, the potential effects listed in Table 2. The Application must identify interactions between the project, including the various physical works and activities, and each VC via effects pathways, and must summarize potential interactions between effects (to one VC, multiple VCs, or Indigenous Interests).

6.6. Effects Management

The Application must describe effects management approaches to be applied to the Project, including approaches to mitigate potential negative effects and enhance positive effects as appropriate.

The Application must include a summary table listing mitigations by VC or Indigenous Interest and locations in the Application where detailed descriptions of each mitigation can be found.

The Application must apply GBA Plus analysis and document how effects management approaches may be disproportionate on distinct human populations, including Indigenous Nations, Elders, or other community relevant groups such as women, youth, and seniors as well as within the identified population groups (e.g., Indigenous women, Indigenous youth, etc.) as identified through GBA Plus analysis.

For each VC section, the Application must:

- Apply the mitigation hierarchy of avoid, minimize, restore on-site and offset;
- Quantify the relative contribution of each step to overall effect reduction;
- Describe the best practices and avoidance measures incorporated into the project design to reduce potential effects, including site and route selection, project scheduling, project design (for example, equipment selection, placement, emissions abatement measures, project extent/size) and construction and operation procedures and practices;
- Describe any standard mitigation to be implemented, including consideration of best management practices, environmental management plans for each Project phase, environmental protection plans, contingency plans, emergency response plans and other general practices;
- Describe the approach used to identify and select site-specific mitigation measures to be implemented to address potential negative effects (including any offset plans);
- Describe site-specific measures that are specific to each identified effect and clearly indicate how the mitigation measures will reduce the potential negative effects or enhancement measures will increase positive effects on the VC (measures are to be written as specific commitments that clearly describe how the proponent intends to implement them and the outcome the measures are designed to address) along with an indication whether the effects to be mitigated are under provincial, federal, or another jurisdiction (or a combination);
- Describe how disproportionate effects to distinct human populations, including Indigenous Nations, Elders, or other community relevant groups such as women, youth, and seniors, were used to inform mitigation and enhancement measures;
    - Where gaps in available data present limitations on the possibility of understanding disproportionate effects, the Application must specify these limitations and their possible implications to understanding of effects;
- Include the anticipated time required for mitigation measures to become effective, to enable understanding of the duration of residual effects and the temporal characteristics of reversibility;
- Summarize the mitigation measures for potential project effects by project phase and identify any mitigation measures that are in management or offset plans;
- Identify potentially negative effects associated with the mitigation method itself;
- Provide analysis of the likely effectiveness of proposed technically and economically feasible mitigation measures;
- If there is little relevant or applicable experience with a proposed mitigation measure and there may be some question as to its effectiveness, clearly describe the potential risks and uncertainties associated with use of the mitigation should those measures not be effective;
- Clearly indicate which mitigation measures are within the care and control of, and will be implemented by, the proponent. For any mitigation measure that will be applied by contractors and/or sub-contractors, clearly indicate how the proponent will verify application of the mitigation measure;
- Avoid the terms “where feasible”, “if applicable”, “if appropriate”, “if practical”, and other conditional terms when describing mitigation measures. Define clear thresholds and actions and provide a clear understanding of the

situations in which mitigation measures would or would not be applied and identify factors influencing implementation. For instances where the mitigation measure would not be applied, clearly indicate: why, who would make the decision, and details about what contingency measure(s) would be applied instead; and

- Write mitigation measures as specific commitments that clearly describe how the proponent intends to implement them and the desired outcomes; measures are to be specific, achievable, measurable, and verifiable, and described in a manner that avoids ambiguity in intent, interpretation and implementation.

6.6.1. Offsetting

For projects that propose offsetting, the Application must provide offsetting or compensation plans following the *Procedures for Mitigating Impacts on Environmental Values (Environmental Mitigation Procedures)* (Ministry of Environment 2014b or as updated) and the Policy for Applying Measures to Offset Impacts to Fish and Fish Habitat Under the *Fisheries Act*. For offsetting targeting species at risk, Template 2 in the *Species at Risk Act* Permitting Policy and the Operational Framework for Use of Conservation Allowances should be considered.

Offsets for impacts to Fish and Fish Habitat under the *Fisheries Act.*

The Proponent is encouraged to provide the information required for permitting during the EA/IA in support of an efficient and shortened permitting approval process and refer to Project Planning: Applying for a *Fisheries Act* Authorization and the Applicant's Guide Supporting the Authorizations Concerning Fish and Fish Habitat Protection Regulations.

In consideration of the above, fish and fish habitat, as defined in subsection 2(1) of the *Fisheries Act*, will be offset applying methods consistent with those set out in Table 2 for the Aquatic Resources and Freshwater Fish VC. Specifically, the Project will quantify the areal extent (m^2) of fish habitat lost due to both physical disturbances and reduced base flows, while also considering habitat quality in determining offset requirements.

To accurately estimate offsetting requirements, the application must establish fish presence for all potentially affected watercourses and waterbodies. The methods used to determine fish presence must be scientifically defensible and follow appropriate provincial and federal guidelines. Methods must include consideration of permanent and seasonal barriers to fish movement, and the presence of seasonal and perennial habitat. Fish sampling over multiple years and with multiple methods, is also typically required.

Offsetting or compensation plans for other VCs/sub-components (e.g. terrestrial ecosystems, etc.)

For plans following the *Procedures for Mitigating Impacts on Environmental Values (Environmental Mitigation Procedures)* (Ministry of Environment 2014b or as updated), the Application must align with the provincial mitigation policy including:

- describe the existing conditions;
- describe mitigation measures;
- identify and describe residual effects;
- describe the proposed offsetting, including any funding and commitments for implementing offset measures, and provide a rationale;
- describe how the proposed offsetting aligns with published recovery, management, or action plans and strategies;
- identify the location and timing of implementation of offsetting;
- describe the success criteria and financial provisions for adaptive management; and,
- identify the parties responsible for implementation, including monitoring and reporting.

6.7. Assessment of Positive Effects

Potential positive effects may be directly related to the project or may be identified after considering the consequences of technically and economically feasible mitigation measures that maximize a wider range of benefits. Proponents are encouraged to look for opportunities to create positive effects and practically extend the scope or extent of project-specific mitigation, restoration, and enhancement measures to produce net project benefits. Where appropriate, information regarding potential positive effects on human and community well-being should be presented by gender, age and other community relevant identity factors to identify disproportionate potential effects for diverse groups.

The Application must:

- Identify and assess predicted positive effects;
- Describe how long-term trends (for example, changing environment, employment and technology) and market fluctuations have been considered; and
- Characterize the positive effect.

6.8. Assessment of Negative Effects

Negative effects may result from interactions between the project and VCs, and may be avoided, minimized, restored, or offset through the application of mitigation and management measures. Following the identification of mitigation and management measures, any residual negative effects on VCs must be assessed and described.

The Application must provide a detailed description of the methods used to assess negative effects to the VCs that are anticipated as a result of the project and present the results of this assessment, after taking mitigation into account.

The Application must, for each potential effect:

- Describe the analytical methods used to identify negative effect, including modelling approaches and the associated data;
- Identify assumptions used in analytical methods;
- Present the results of the analyses, including a detailed description of any potential residual effect (the description of the potential effect can be either qualitative or quantitative);
- Describe in qualitative terms the nature and degree of uncertainty or conservatism related to the data, modelling and methods used for the analysis; and
- Describe the anticipated effectiveness of mitigation measures and proposed adaptive management measures and describe the prediction of potential residual effects. If additional risk analysis is required to assess the potential risk where there is high uncertainty about the mitigation effectiveness (for example, where mitigation measures are proposed to be implemented for which there is little experience or questions about their effectiveness), a range of likely, plausible and possible outcomes will be assessed and additional studies, mitigation or contingency plans may be required.

For all VCs, information regarding potential effects on the human environment should be presented by gender, age and other community relevant identity factors to identify disproportionate residual effects for diverse groups using GBA Plus.

Where appropriate, and where the best practice or evidence-based thresholds exist, negative effects should be described quantitatively using these criteria. Where a quantitative description is not possible, effects should be described qualitatively.

When residual effects on a VC are predicted and the VC is also considered a "pathway" for other potential effects on other VCs, the Application must identify the linkages between the VCs.

Where offsetting measures are proposed to directly or indirectly address a potential effect, the Application must describe any potential effects following the implementation of measures to avoid, minimize and restore on-site. For transparency, the change to the VC prior to the implementation of offsetting should be clearly identified, quantified and characterized in the Application to fully understand the consequences of the project being assessed. The characterization is best undertaken in the context of describing the proposed suite of mitigation, the need for and scope of offset, and residual effect.

6.9. Characterization of Residual Effects

The Application must characterize negative residual effects of the project to the VCs.

For each negative residual effect, the Application must:

- Provide a detailed characterization of residual effects following the implementation of mitigation measures;
- For every residual effect, the context needs to be fully described using qualitative and/or quantitative information, including:
    - Effects of past and present projects and activities;
    - Potential trends in the condition of the VC;
    - Vulnerability and resiliency of the VC.
- Use the criteria in Table 3 to characterize residual effects. The characterization must follow the characterization definitions provided in the table. If the definitions do not apply to a VC (for example, Duration may differ for short versus long-lived species) provide a clear description of any differences followed and rationale why;
- Describe the likelihood of whether a residual effect is likely to occur using appropriate quantitative or qualitative terms and enough description to understand how the conclusion of likelihood was reached; and
- Identify and explain the relevant sources of information that were used to characterize the residual effects, including those provided by Indigenous Nations and other EA participants.

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Table 3: Residual Effects Characterization Definitions

Criteria	General Description	Assessment Definitions
Context	The particular context within which the project occurs may include: applicable legislation, standards, plans and policies; existing condition of the VC and the impact of natural and human-caused trends on the condition of the VC, including cumulative effects; ecological or social limits and thresholds; vulnerability and resiliency of social and/or ecological systems and components; climate change projections relevant to the geographic scope and the VC; community and cultural context; and, Indigenous interests.	**High Resilience:** the receiving environment or population has high natural resilience to imposed stresses and can respond and adapt to the potential residual effect. **Moderate Resilience:** the receiving environment or population has a moderate resilience to imposed stresses and may be able to respond and adapt to the potential residual effect. **Low Resilience:** the receiving environment or population has low resilience to imposed stresses and will not easily adapt to the potential residual effect.
Magnitude	Magnitude refers to the expected size or severity of the residual effect. When evaluating magnitude of residual effects, consider the proportion of the Valued component affected within the spatial boundaries and the relative effect (e.g., relative to natural annual variation in the magnitude of the valued component or other relevant characteristic).	**Negligible:** no detectable change from existing conditions. **Low:** the potential residual effect will slightly alter or change the valued component without changing its role or function. **Medium:** the potential residual effect will alter or change the nature, role, or function of a valued component but will not affect its integrity. **High:** the potential residual effect will substantially alter or change the nature, role, or function of a valued component and may jeopardize the valued component's integrity.
Extent	The spatial scale over which the residual effect is expected to occur.	**Limited**: the potential residual effect is restricted to the Project footprint. **Local**: the potential residual effect will be within the local assessment area. **Regional:** the potential residual effect will be within the regional assessment area. **Beyond Regional:** the potential residual effect will be beyond the regional assessment area.
Duration	The period during which the potential effect persists and acts upon the valued component. This may be longer than the duration of the physical work or activity that produced the potential residual effect.	**Short-term:** the anticipated potential residual effect will be felt temporarily during project construction or closure phases only. It also applies to any effect that will occur for less than two years. **Medium-term:** the anticipated potential residual effect will be felt for a limited period of time greater than two years, generally corresponding to the operations phase and closure phase. **Long-term:** the anticipated potential residual effect will be felt beyond closure.
Reversibility	Whether or not the residual effect on the valued component can be reversed once the physical work or the activity causing the effects stop or	**Fully reversible:** may fully recover and return to its pre-project state. **Partially reversible:** may partially recover from project changes. **Irreversible:** will not recover and return to its pre-project state.

<table>
<tr><th>Criteria</th><th>General Description</th><th>Assessment Definitions</th></tr>
<tr><td></td><td>mitigation measures take effect to eliminate the effect.</td><td></td></tr>
<tr><td>Frequency</td><td>How often or how many times the anticipated residual effect may occur.</td><td>Once: the potential effect is confined to one discrete event.
Regular: the potential effect occurs at consistent intervals.
Irregular: the potential effect occurs at sporadic intervals.
Continuous: the potential effect occurs constantly.</td></tr>
<tr><td>Affected Populations</td><td>A subset of the population being affected disproportionately by certain valued components. Examples of affected populations could include different groups within the Indigenous nation who may experience the effects in a different way, such as youth, Elders, or women.</td><td>Even: the potential effect is experienced by any or all sub-populations.
Disproportionate: the potential effect is experienced only by certain populations or experienced more acutely by certain sub-populations.</td></tr>
<tr><td>Risk (likelihood and consequences)</td><td>The likelihood (probability) of an event (incident) occurring and its consequences. Likelihood is whether a residual effect is likely to occur. It may be influenced by a variety of factors, such as the likelihood of a causal disturbance occurring or the likelihood of mitigation being successful. The consequences are the residual effect, positive or negative. The magnitude and extent of the residual effect provides information on the consequence, which in conjunction with likelihood, informs the understanding of risk.</td><td>Likelihood
Low: less than 40 percent chance of effect occurring
Medium: 40 to 80 percent chance of effect occurring
High: more than 80 percent chance of effect occurring
Consequence
Consequence can be assessed as minor, moderate or major based on the combination of magnitude and extent.
<table>
<tr><th colspan="2">Consequence</th><th colspan="3">Magnitude</th></tr>
<tr><td></td><td></td><td>High</td><td>Medium</td><td>Low</td></tr>
<tr><td rowspan="3">Extent</td><td>Regional</td><td>Major</td><td>Major</td><td>Moderate</td></tr>
<tr><td>Local</td><td>Moderate</td><td>Moderate</td><td>Moderate</td></tr>
<tr><td>Limited</td><td>Moderate</td><td>Minor</td><td>Minor</td></tr>
</table>
Risk
Risk is consequence multiplied by likelihood.
<table>
<tr><th>Risk</th><th colspan="3">Consequence</th></tr>
<tr><td></td><td>Major</td><td>Moderate</td><td>Minor</td></tr>
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</table>

<table>
<tr><th>Criteria</th><th>General Description</th><th>Assessment Definitions</th></tr>
<tr><td></td><td></td><td><table><tr><td rowspan="3">Likelihood</td><td>High</td><td>High</td><td>Moderate</td><td>Low</td></tr><tr><td>Medium</td><td>High</td><td>Moderate</td><td>Low</td></tr><tr><td>Low</td><td>Moderate</td><td>Low</td><td>Low</td></tr></table></td></tr>
<tr><td>Uncertainty</td><td>The natural variation in complex biophysical environments or the statistical variation in data sets and models that arises from the imperfection of unknown information. Where uncertainty is unable to be reduced, how it affects valued components needs to be described so that it can be considered in decision making</td><td>Low: there is a good understanding of the cause-effect relationship between the project and the valued component, and sufficient data are available to support the assessment. The effectiveness of the selected mitigation measures is moderate to high. There is a low degree of uncertainty associated with data inputs and/or modelling techniques, and variation from the predicted effect is expected to be low.

Moderate: the cause-effect relationships between the project and a valued component are not fully understood (e.g., several unknown external variables or data for the project area are incomplete). The effectiveness of mitigation measures may be moderate or high. Modelling predictions are relatively confident.

High: the cause-effect relationships between the project and a valued component are poorly understood. There may be several unknown external variables and/or data for the project area that are incomplete. The effectiveness of the mitigation measures may not yet be proven. Modelling results may vary considerably given the data inputs. There is a high degree of uncertainty in the conclusions of the assessment.

To consider when determining confidence: the reliability of data inputs and analytical methods used to predict project effects, the confidence regarding the effectiveness of mitigation measures, and the certainty of the predicted outcome.</td></tr>
<tr><td>Importance</td><td>Have any issues been identified as an interest/priority by potentially affected Indigenous nations, local governments, provincial and federal government agencies, or stakeholders.</td><td>Low: previously identified by some individuals, but not by Indigenous nations, community members, or government agencies.

Moderate: previously identified as an interest by Indigenous nations, community members, the public, local governments, and/or provincial and federal government agencies, but not stated as a top interest.

High: identified repeatedly as a top interest by Indigenous nations, community members, the public, local governments, and/or provincial or federal government agencies.</td></tr>
</table>

6.10. Cumulative Effects

The Application must include a separate section or chapter that provides an assessment of cumulative effects from the Project and past, present, and reasonably-foreseeable projects and activities. This assessment should follow the methods described in the EAO's *Effects Assessment Policy* and should align with the EV-CEMF, including VC's targets and assessment areas.

The Application must:

- Identify and provide a rationale for the VCs from the Project identified in the Application to have residual effects, that now have the potential to act cumulatively with other projects and activities;

- Provide a rationale to justify the exclusion of any VCs that will experience residual effects when assessing cumulative effects (e.g. if there are no projects or activities that may interact cumulatively with residual effect of the project);
- Identify and justify the spatial and temporal boundaries for assessing cumulative effects, including any Indigenous territorial or temporal perspectives as applicable;
- Identify and include a map of all past, present, and reasonably foreseeable projects and activities[14] that the project may interact with cumulatively. For each reasonably foreseeable project or activity identified, the following general characteristics must be described, where available, in order to understand how its effects might act cumulatively with the Project:
    - Location, physical size of project components and activities;
    - Expected duration and timing of activities, including seasonal variations;
    - Transportation routes and modes of transport;
    - Emissions, wastes and discharges; and
    - Observed or predicted effectiveness of mitigation measures.
- Include the availability (or lack) of information about the residual effects of other projects and activities should also be considered. Any assumptions or uncertainty about other projects and activities and their effects should be documented;
- Identify the methods used to determine potential cumulative effects, including data sources[15] and collection methods, data analysis, and any other relevant assessment information;
- Identify potential cumulative effects to each VC selected by describing existing conditions then comparing the current and future conditions. The effects of past and current activities (activities that have been carried out) are to be used to contextualize the current state of the VC. Climate change is to be considered as part of future conditions. Ecological, Indigenous, or social context also supports the understanding of the existing conditions;
- Determine potential cumulative effects to each VC selected by comparing the existing condition of a VC to predicted future condition of a VC with the Project in combination with other identified projects and activities;
- Propose measures that are technically and economically feasible to mitigate any identified negative cumulative effects[16], including:
    - The criteria or rationale used to determine technically and economically feasible mitigation measures;
    - The predicted effectiveness of the measures and adaptive management measures applied to mitigate the cumulative effects;

[14] Activities are not limited to other reviewable projects, if those activities are likely to affect the indicator cumulatively (for example, forestry, agriculture, recreational activity).

[15] Consider all of the following: relevant policies and programs supporting better management of cumulative effects; land use management plans in the region; collaborative efforts among governments, Indigenous groups, and stakeholders; existing regional monitoring or management frameworks (including but not limited to the B.C. Cumulative Effects Framework); existing permitting or other regulatory applications or reports. Where reports describing predicted effects are not available, proponents should describe likely effects based on existing knowledge of the effects of similar activities or reference cases as described in scientific literature or other reports. Reasonably foreseeable future projects and activities with similar predicted effects may be grouped in broad categories, such as forest harvesting or mineral exploration.

[16] Where available, some B.C. Cumulative Effects Framework reports identify management responses to be considered by the proponent when selecting mitigation for a project.

  - In cases where measures to mitigate these effects are beyond the control of the proponent, what parties have authority to act on the measures and commitments made by the other parties regarding the implementation of the measures and any associated plans; and
- Characterize residual cumulative effects using the criteria in Section 6.8 as well as the nature of the cumulative effect (e.g. incremental, additive, synergistic). Where possible and appropriate, quantifiable benchmarks or thresholds identified in provincial and regional Cumulative Effects Framework protocols or other regional assessments should be applied, including any ecological thresholds where known (e.g., the points at which small changes to the indicator could cause a major shift in an ecosystem) for biophysical factors that support ecosystems.

For some VC assessments, it may be appropriate to determine future conditions both with, and without the project, in order to account for potential changes in baseline conditions (e.g. due to climate change, anticipated changes in socio-economic conditions and/or changes related to existing (approved) projects that have not yet been completed). Where it is important to distinguish future conditions with and without the Project, the Application must identify the methods for illustrating these differences. This may include a description of how assessment cases are used to distinguish cumulative effects between existing and approved, the Project and other reasonably foreseeable developments for those VCs included in the cumulative effects assessment.

6.11. Monitoring and Mitigation Effectiveness

Where a positive or negative residual effect and/or cumulative effect has been identified for a VC and where there is moderate to high uncertainty in the predicted effect or in the effectiveness of the mitigation proposed, the Application must include a plan, that:

- Identifies measures to ensure and verify that mitigation measures are implemented as planned and evaluates the accuracy of the predicted effects;
- Identifies the measures to evaluate the effectiveness of proposed mitigation measures to meet the intended mitigation commitments and goals;
- Identifies the regulatory instruments that include a monitoring requirement for the VC;
- Proposes an appropriate strategy (for example, adaptive management) to apply if predicted effects and mitigation effectiveness are not as expected. The strategy must include a plan that follows the Plan-Do-Check-Act/Adjust model or trigger action response plan rather than a commitment to simply apply adaptive management. The adaptive management plan must include quantified thresholds for monitoring and specific actions that will be implemented for each monitored threshold, involvement of consultative parties such as Indigenous Nations and government agencies, and any other measures deemed necessary to manage the issue;
- Identifies a mechanism to disseminate follow-up results such as data and reports among interested parties;
- Describes the specific monitoring methods, frequency and duration and if monitoring activities could result in negative effects (e.g. lethal sampling), monitoring report outline, and plans to provide funding to any monitoring participants including the process to ensure sufficient resources available for monitoring;
- Identifies duration of follow-up activities and who is responsible, if not only the proponent;
- Identifies a follow-up program for environmental, economic, social, cultural, or health effects, as applicable, including disproportionate effects to discreet populations; and
- Identifies the involvement of Indigenous Nations in the follow-up strategy design and the implementation, evaluation of the follow-up results, as well as any updates, including a communication mechanism between the

Nations and the proponent.

7.0 Other Assessment Matters

7.1. Greenhouse Gas Emissions

The Application must provide the results of an assessment of the GHG emissions of the project. As FRX would produce greater than 10,000 tonnes per year of carbon dioxide equivalents of GHGs, the Application must include a credible net-zero plan that demonstrates how the facility will align with world leading emissions performance for the facility type, how emissions will continue to be reduced as far as reasonably practicable throughout the project's lifetime, and how the project will achieve net-zero GHG emissions by 2050.

The net-zero plan must include:

- A description of the Project's main source(s) of GHG emissions by GHG type, including fugitive emissions;
- A quantitative description of the project's estimated annual GHG emissions by Project phase, over the lifetime of the Project;
- The relative contribution of each emission source to the Project's overall GHG profile;
- A description of how the proponent will reduce the GHG emissions from its Project, during its lifetime, as much as reasonably practicable through:
- Ensuring that the emissions intensity (measured by tonnes of carbon dioxide equivalent per the unit of production or activity) of the Project, during its lifetime, will be similar to the lowest in the world when compared against similar facilities under comparable conditions, and
- Implementing changes in technology that have arisen that would allow the Project to exceed the standard set out above or explaining why it would not be practicable to do so.
- A description of estimated operational GHG emissions intensity;
- A set of emissions intensity targets every five years, or as otherwise agreed with the Climate Action Secretariat, until the project achieves net-zero emissions in 2050.
- An analysis of the Best Achievable Technologies (BAT) and Best Environmental Practices to mitigate project GHG emissions, the reason(s) why a particular technology was selected, and planned timeline for technology implementation.
- Where a BAT that could further reduce emissions is not selected, a rationale for not selecting that technology must be provided along with a timeline for reviewing its potential for application in the future.
- A description of how on-site GHG emissions reductions were prioritized;
- A description of any additional GHG mitigation measures that will be implemented (e.g., Carbon Capture and Storage) and the percentage of each mitigation measure relative to projected annual emissions;
- A description of emissions that cannot be netted out and are expected to remain by the target net-zero timeline (and for each year thereafter), if applicable, and the proposed approach to netting these emissions to zero using B.C. Offset Units;
- An acknowledgement that this plan must be reviewed and updated every five years considering current Best Achievable Technologies and Best Environmental Practices;
- A description of the potential effects of the Project on the Province being able to meet its targets in the *CleanBC*

Roadmap to 2030 and the *Climate Change Accountability Act*;

- Using the most recent Provincial Inventory Data, include quantification of how much the Project will increase the current gap to Provincial targets;
- expressed as a percentage; and,
- Using the most recent value published in the Climate Change Accountability Report, a quantification of how much the Project is expected to increase the forecast gap between emissions in 2030 and the 2030 target, expressed in tonnes carbon dioxide equivalent and as a percentage.

7.2. Malfunctions and Accidents

The Application must provide an assessment of the risk of unplanned events that could arise from malfunctions and accidents that could impact VCs and Indigenous Interests.

7.2.1. Relevant Statutes, Policies and Frameworks

Statutes, policies and frameworks that may be relevant to the assessment of potential effects from malfunction and accidents:

- *Environmental Management Act*, including the Hazardous Waste Regulation and Spill Reporting Regulation*;*
- Province of B.C. Risk Management Branch and Government Security Office, April 2019;
- Additional sector-specific statues, policies and frameworks as applicable, such as:
  - *Canada Environmental Protection Act;*
  - *Migratory Birds Convention Act;*
  - *Public Health Act;*
  - *Transportation of Dangerous Goods Act*;
  - Environmental protection and safety procedures in accordance with international codes and standards.
  - Environment and Climate Change Canada's Guidelines to Avoid Harm to Migratory Birds (July 2023 or as updated);
  - Environment and Climate Change Canada's National Wildlife Emergency Response Framework Guidance (March 2023 or as updated);
  - Technology Readiness Assessment (Ministry of Energy, Mines and Low Carbon Innovation and Ministry of Environment and Climate Change Strategy, August 2022);
  - Environment and Climate Change Canada's Guidelines for the Assessment of Alternatives for Mine Waste Disposal (December 2016 or as updated);
  - EAO's Application Information Requirements Template Tailings Management Requirements for Mining Projects Undergoing an Environmental Assessment (August 2015 or as updated);
  - Best Achievable Technology Assessment to Inform Waste Discharge Standards Handout; and
  - Best Achievable Technology Assessment Methodology for Mining Projects.

7.2.2. Assessment Approach

The assessment approach must evaluate the risk of malfunctions and accidents (including scenarios) by examining the likelihood of an incident (for example, malfunction or accident) and the consequences of the incident to each relevant VC and Indigenous Interests. The assessment approach must consider incidents related, but not limited to: human and

operator error; design, technological, and equipment malfunction or failure; and environmental factors. The results of the risk-based assessment should be used to develop plans to reduce or eliminate the likelihood of an incident or reduce the consequence of incidents. All phases of the project must be considered.

The Application must:

- Describe all potential incidents that may result in physical harm, damage or severe effects during all phases of the project, including:
    - An explanation of how those potential incidents were identified;
    - The circumstances under which the incidents could occur;
    - A summary of mitigation measures that are assumed to apply to potential incidents and would be considered in their risk ratings.
- Identify and justify the spatial and temporal boundaries for the effects assessment of malfunctions and accidents;
- Describe the methods for assessing the potential risk of each incident, including definitions for classifications of likelihood, consequence and risk, and identification of threshold for incidents that will be carried forward for detailed analysis (for example, incidents determined to be moderate or high-risk);
- Provide an assessment of the likelihood, frequency and extent of each incident occurring, based on, for example, historical trends and predictive models;
- Describe the consequences of each incident in quantifiable terms to the extent possible considering potential environmental, economic, social, cultural and health effects and effects to Indigenous Interests;
- Provide a classification of the risk of each incident based on its likelihood and consequence;
- Identify all the incidents that will be carried forward for further assessment based on the criteria identified in the methods;
- Provide detailed information on the potential effects of each incident carried forward including:
    - Most likely and worst-case scenarios of the effects of incidents on VCs and Indigenous Interests within spatial boundaries described for the assessment area;
    - Information from historical incidents from similar operations and conditions, where applicable;
    - If applicable, the quantity and characteristics of the contaminants and other materials likely to be released into the environment from an incident.
- Provide detailed information on proposed mitigation measures to reduce the likelihood and consequence to VCs and Indigenous Interests for incidents carried forward including:
    - Safety protocols, and mitigation measures to reduce the likelihood of incidents;
    - Contingency and emergency response procedures if such events do occur;
    - Communication and notification procedures for the public and Indigenous Nations;
    - Monitoring, evaluation, and adaptive management system to identify, proactively avoid, and rectify any malfunction and/or accident;
    - Likelihood of mitigation being successful and the time lag for mitigation to become effective, informed by previous incidents of a similar nature; and
- Provide conclusions on the potential risks of the incidents carried forward.

At minimum, the following additional malfunctions or accidents must be considered in the Application:

- Terrain hazards (e.g. landslides, slope failures, erosion);
- Traffic hazards;
- Hazardous material spills;
- Other Project infrastructure hazards or failures.

7.3. Effects of the Environment on the Project

The Application must:

- Describe the environmental factors deemed to have possible consequences on the project, including, but not necessarily limited to, consideration of natural hazards and influences of nature such as:
  - Warmer and drier climate in summer;
  - Higher precipitation;
  - Earlier peak spring flow and other potential hydrological changes; and
  - Natural hazards, including seismic, volcanic, avalanche, extreme weather events and fire.
- Describe how climate change might increase the likelihood and magnitude of the above-mentioned environmental factors;
- Describe any changes or effects on the project that may be caused by the above-mentioned environmental factors;
- Provide the likelihood (based on future climate change projections) and consequence of the changes or effects to relevant VCs, including on the VC mitigation measures;
- Provide practical mitigation measures (including references to the latest relevant codes and standards), including design strategies, environmental contingency plans, and climate risk plans to avoid or minimize the likelihood and consequence of the negative effects of the environment on the project;
- Provide a conclusion about the potential risk of an effect of the environment on the project and to relevant VCs; and
- Describe how climate change has been incorporated into the project design and planning over the lifetime of the project and a description of the climate data and projections used.

8.0 Assessment Methods: Effects on Indigenous Nations & Their Interests

The Application must include an assessment of the effects of the Project on the following Indigenous Nations:

- Yaq̓it ʔa·knuqƛ̓i’it First Nation*
- Ktunaxa Nation Council Society*[17]
- Shuswap Band*
- Piikani Nation*
- Kainai (Blood Tribe)*
- Siksika Nation*
- Stoney Nakoda Nations*
- Tsuut’ina Nation
- Métis Nation British Columbia (IAAC only)
- Otipemisiwak Métis Government (IAAC only)

[17] For the purposes of FRX EA, Ktunaxa Nation Council Society represents ʔakisq̓nuk̓ First Nation, ʔaq̓am, Yaqan nuʔkiy.

* First Nations who have self-identified as participating Indigenous nations under section 14 of the *Environmental Assessment Act* (2018).

IAAC consults with Métis because the federal government recognizes the constitutional duty to consult and accommodate based on the "honour of the Crown" under section 35 of the Constitution Act, 1982.

This assessment must be informed by engagement with each Indigenous Nation, as required in the Joint Assessment and Engagement Plan. Efforts should be made to incorporate nation-specific information and requirements below, based on work with each Indigenous Nation.

The Application must contain one section for each Indigenous Nation. The section must be titled with the name of the Indigenous Nation and it must include the following sub-sections:

1. [Indigenous Nation] Context
2. Overview of Engagement
3. Indigenous Knowledge
4. [for each Indigenous Interest]
    - **4.1.** Context and Background
    - **4.2.** Existing Conditions
    - **4.3.** Potential Project Effects
    - **4.4.** Effects Management
    - **4.5.** Characterization of Residual Effects
    - **4.6.** Positive Effects
    - **4.7.** Cumulative Effects
5. Summary

Sections 8.1 to 8.8 below contain detailed requirements for each Indigenous Nation section of the Application.

8.1. [Indigenous Nation] Context

This section must provide an understanding of the Indigenous Nation, its Section 35 Rights and the current context.

This section must include background information on each of the Indigenous Nation, including the Indigenous Nation's use of the area, ethnography, language, governance (as applicable), laws (as applicable), economy, traditional resources, population (including demographic characteristics), communities, Infrastructure and community services, reserves, physical and cultural heritage, Indigenous land use plans (as required under *Section 2.3*), climate change and other policies, health (physical, mental, social), social and economic conditions, existing cumulative effects and any other contextual information the Indigenous Nation views as important to understanding the impacts of the project on the Indigenous Nation and their Section 35 Rights.

This section should also outline any treaties or agreements that may apply to the area including agreements between Indigenous Nations and any other known information regarding Indigenous Nation governance roles and stewardship practices in relation to the area.

Summarize any past, present and anticipated future use of the project area by the Indigenous Nation over time and practices in the project area regarding the Section 35 Rights and other interests identified. This summary must include any

site-specific use values present in the Local Assessment Area which are areas identified and/or mapped by the Indigenous Nation as having environmental, cultural, spiritual, transportation, subsistence and habitation value.

8.2. Overview of Engagement

The Application must:

- Provide an overview of engagement activities that were conducted including describing the efforts taken in relation to the following:
    - The engagement activities required by the Joint Assessment and Engagement Plan including the timeframe, means and results of engagement;
    - Indigenous Nation's views on the proponent's engagement approach and resolution of issues raised.
- Provide an overview of the contributions received from the First Nation with respect to the project including:
    - Description of how the proponent responded to questions, comments and issues raised by the Indigenous Nations and their perspectives on the resolution of issues, how unresolved issues have been addressed in the Application and/or how unresolved input will be addressed through the EA or another regulatory process or government initiative;
    - Where and how the Indigenous Nation's perspectives were integrated into or contributed to decisions regarding the Project, including:
        - Development and collection of baseline information;
        - Plans for construction, operation, closure and post closure;
        - Identification of VCs;
        - Development of mitigation measures; and
- Describe any arrangement or agreement between the proponent and the Indigenous Nation for collaboration on the development of the Application or delivery of the proposed Project. This includes agreements related to the delivery of studies and capacity funding agreements.

8.3. Indigenous Knowledge

Regarding the collection and application of Indigenous knowledge, the Application must:

- Provide an outline of the steps taken by the proponent to work with the Indigenous Nation to collect and apply Indigenous knowledge in alignment with the Indigenous Nations' knowledge plans, agreements, policies, or protocols, including a summary of any arrangements with the Indigenous Nation regarding the use and application of Indigenous knowledge;
- Provide a statement indicating whether the Indigenous Nation supports the characterization and application of any Indigenous knowledge contained within the Application and whether the Indigenous Nation gives permission for public disclosure of their Indigenous knowledge;
- Describe how Indigenous knowledge informed project design, analysis, and proposed mitigation measures; and
- If applicable, provide a plan for future cooperation between the proponent and the Indigenous Nation to further incorporate Indigenous knowledge into project implementation (for example, monitoring and management plans).

8.4. [Indigenous Interest]

The Indigenous Interests that must be assessed for each Indigenous Nation are listed in sections 8.6 to 8.8. Each Indigenous Nation section **must have this sub-section repeated for each Indigenous Interest.**

8.4.1. Context and Background

Describe the Indigenous Interest in detail. Describe any specific species that are of importance in relation to the interest, specific sites and places of importance, experiential components of importance and any social, cultural or spiritual matters of importance, including sense of place and ancestral connection, cultural transmission where information is available. Include any other contextual information identified by the Indigenous Nation as important to understand the Indigenous Interest.

8.4.2. Existing Conditions

The Application must:

- Provide an overview of the nature and scope of Indigenous Nation's rights based on community knowledge and legal considerations; and
- Describe the location and importance of traditional territories and specific areas, including preferred harvesting grounds, sacred sites, cultural transmission sites and travel corridors.
- Describe historical and current use of the Assessment Area by the Indigenous Nation in relation to the Indigenous Nation.
- Describe how the Indigenous Interest has been affected by past and present effects.

8.4.3. Potential Project Effects

The Application must provide an analysis of effects which uses the indicators outlined in each Indigenous nation's table of Indigenous Interests.

The analysis of effects should clearly outline the perspectives of the Indigenous Nation and how the proponent considered and responded to those perspectives.

8.4.4. Effects Management

The Application must:

- Provide project design and mitigations that are proposed to mitigate effects on the Indigenous Interest including mitigations proposed in relation to linked VCs;
- Provide proposed monitoring initiatives or review processes related to the effect on the Indigenous Interest; and
- Ensure proposed project design and mitigations consider the existing conditions of the Indigenous Interest. If Indigenous Interests have already been affected by past or present effects, the proposed project design and mitigations should account for this to seek to reduce or prevent incremental erosion of the Indigenous Interest.

Indigenous Nation perspectives on the effectiveness of the mitigation options must be presented as well as the relative level of uncertainty or risk associated with the mitigation options.

8.4.5. Characterization of Residual Effects

The Application must provide a characterization of negative residual effects of the project to the Indigenous rights and Interests after consideration for the proposed mitigations. The standard characterization criteria are found in section 6.9.

The Application must provide rationale and describe engagement with Indigenous Nation, EAO and IAAC on any modifications to the characterization criteria.

8.4.6. Positive Effects

The Application must describe any positive effects to the Indigenous Interest that are anticipated as a result of the project and its associated effects management approaches. The Application must describe how the Indigenous Nation's perspectives informed the assessment in relation to positive effects on the Indigenous Interest and outline the views and perspectives provided by the Indigenous Nation.

8.4.7. Cumulative Effects

The Application must provide an analysis of cumulative effects for negative residual cumulative effects on Indigenous rights and Interests from the Project and past, present, and reasonably-foreseeable projects and activities. This assessment must follow the methods described section 6.10 for VCs and the EAO's *Effects Assessment Policy* or include any variations in methods for cumulative effects assessment in the Application with rationale.

8.5. Summary

The Application must include a summary of the assessment for each Indigenous Nation outlining:

- The characterized residual effects organized by Indigenous Interests for the EAO to consider when determining the overall seriousness of effect to the Indigenous Interests;
- Any major points of agreement or disagreement with the Indigenous Nation; and
- Efforts taken to address any points of disagreement.

The Application should not conclude on the seriousness of the effect of the project on the Indigenous Interests. This step will be taken by the EAO and IAAC during the Effects Assessment phase.

Rights and Interest Table Column Descriptions

Indigenous Interest: An Indigenous Interest is an inclusive category designed for the Environmental Assessment process, encompassing Section 35 rights but including other matters of concern that support holistic consideration of effects on an Indigenous Nation. Indigenous interests will generally include subcomponents which, when taken together, capture the full scope of the Indigenous Interest. Indigenous interests may be called the same thing as a Valued Component (VC) is called or they may be informed by one or more VCs.

Subcomponent: Smaller distinct aspects of a VC/interest that can be used to classify, assess, or characterize the effects assessment into meaningful parts. For example, 'wildlife' as a VC may have 'ungulates', 'fur-bearers' and 'birds' as subcomponents.

Assessment Boundaries: Serve to define the scope or limits of the assessment; Where relevant, each Indigenous interest should have a defined spatial and temporal boundary, if different than the boundaries established for VCs informing the assessment. If applicable, administrative and technical boundaries should also be identified for the interest.

- *Spatial* – the interest exists in one area and not another (i.e. the spatial scope of potential impact is broader or narrower than for other First Nations with a similar interest). Note: the scope of the assessment of effects must be within the Local Assessment Area (LAA). Spatial boundaries for Indigenous Interests must not exceed this LAA except in relation to discussing cumulative effects.
- *Temporal* – the interest will only be affected by certain phases of the project or the interest only occurs at certain times.
- *Administrative* – Limitations impose by political, economic, legal, or social constraints. A key administrative interest is the clarification of the nature of the interest in relation to constitutionally protected rights.
- *Technical* – an interest is of a nature that there may be certain technical constraints in measuring impact. This may include an inability to accurately measure the effects of a project, due to an inability to determine existing conditions in relation to suitable indicators or an inability to attribute changes to the project. This may warrant alternative indicators or approaches

Indicators: Specific measurable parameters to be used to measure the change attributable to the project. This is most useful when there is meaningful and credible data available or information that can feasibly be obtained for those indicators. **Information Sources:** May include unique information about ethnography, language, governance, economy, population, communities, reserves, and health and social conditions. Can include consideration of Indigenous knowledge or any other contextual information the Nation's views as important to understanding the potential effects of the project on their interests.

8.6. Indigenous Interests of B.C.-Based Indigenous Nations

Each Indigenous Nation will have a table identifying unique Indigenous interests that occur in the Local Assessment Area and have the potential to be impacted by the Project. Each Indigenous interest identified in the table will have the following information, developed in collaboration with Indigenous nations, and must have section 8.1.3 replicated using the information provided in the table.

8.6.1. Yaq̓it ʔa·knuqƛi'it First Nation

Yaq̓it ʔa·knuqƛi'it First Nation has expressed serious concerns regarding the potential environmental effects of FRX. These concerns include direct, indirect, and cumulative effects to surface water quality and quantity, groundwater quality and quantity, soil, unique geologic landforms, vegetation (including plants, wetlands, and ecosystems), wildlife (including birds), aquatic resources and freshwater fish, and human health. While effects of FRX on these interests will be assessed in the respective VC chapters, Yaq̓it ʔa·knuqƛi'it First Nation and KNCS have raised serious concerns about how these environmental effects may affect their culture, traditions, ways of life and practice of rights. The assessment must discuss the interconnectedness of the Yaq̓it ʔa·knuqƛi'it Indigenous Interests and interconnectedness with VC subcomponents (e.g. wetlands, ecosystems, fish and fish habitat, aquatic resources, population health, culture). The Application must assess the potential project-specific and cumulative effects to the unique Yaq̓it ʔa·knuqƛi'it Indigenous Interests described

in Table 4 and must use the Assessment Boundaries, Indicators and Information Sources listed in that table. Ensure that the information and analysis applied to assessing effects to Yaq̓it ʔa·knuqƛi'it interests is informed by Yaq̓it ʔa·knuqƛi'it perspectives.

Table 4: Indigenous Interests of Yaq̓it ʔa·knuqƛi'it

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Indigenous Interest	Indicators to measure the Potential Effects	Information Sources
Water Ability of Yaq̓it ʔa·knuqƛi'it First Nation members to maintain their spiritual, cultural, social, and socio-economic connection to *napituk* (water)	*Temporal:* *Spatial:* Areas in which Yaq̓it ʔa·knuqƛi'it territory overlaps with the project footprint and/or the Surface water and Groundwater LAAs and RAAs, including the Chauncey Creek watershed *Technical:* TBD	• Spiritual connection to napituk. • Cultural connection to napituk. • Social connection to napituk. • Socio-economic connection to napituk.	Increased/decreased confidence in ability to safely drink surface and groundwater. Increased/decreased access to, and use of, water for spiritual connection. Increased/decreased access to, and use of, water for cultural practice. Increased/decreased socio-economic connection to water.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for YQT Indigenous Knowledge sources Relevant results of Surface Water, Groundwater, Vegetation, Aquatic Resources and Freshwater Fish, and Community Health and Well-being VC assessments Current & Future Generations analysis
Yaq̓it ʔa·knuqƛi'it Lands and Resource Use The ability of Yaq̓it ʔa·knuqƛi'it First Nation members to continue fulfil their sacred and legal duty as responsible stewards of the lands and resources in their territory	*Temporal:* *Spatial:* Areas in which Yaq̓it ʔa·knuqƛi'it territory overlaps with the project footprint and/or the Lands and Resource Use LAA *Technical:* TBD	• Seasonal rounds (e.g., members' ability to hunt, fish and harvest plant and mineral gathering seasonally) • Current use and occupancy (e.g., access, hunting, habitation, transportation, trails) • Future use • Stewardship and governance of lands and water • Areas of cultural importance	Changes to: • Seasonal rounds • Current use and occupancy • Future use • Preferred hunting and gathering areas • Confidence in wild foods • Areas of cultural importance, including ceremonial locations	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for YQT Indigenous knowledge sources Relevant results from the Surface Water, Groundwater, Soil, Unique Geologic Landforms, Vegetation, Wildlife, Aquatic Resources, Fish, and Human Health VC assessments, Current & Future Generations analysis

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Indigenous Interest	Indicators to measure the Potential Effects	Information Sources
Yaq̓it ʔa·knuqƚi'it Traditional Knowledge and Language Ability of Yaq̓it ʔa·knuqƚi'it First Nation members to transmit traditional knowledge and use their place-based language, which is closely linked to the health and well-being of Yaq̓it ʔa·knuqƚi'it people and communities	*Temporal:* *Spatial:* Areas in which Yaq̓it ʔa·knuqƚi'it territory overlaps with the project footprint and/or the Land and Resource Use LAA and RAA *Technical:* TBD *Administrative:* TBD	• Transmission of Traditional knowledge • Use of Ktunaxa language	Change to use and transmission of traditional knowledge. Change to use of Ktunaxa language.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for YQT Indigenous knowledge sources Relevant results of Human Health and Community Health and Well-being VC assessments Current & Future Generations analysis
Yaq̓it ʔa·knuqƚi'it Economy Ability of Yaq̓it ʔa·knuqƚi'it First Nation to achieve their goals of a self-sufficient and sustainable economy	*Temporal:* *Spatial:* Areas in which Yaq̓it ʔa·knuqƚi'it territory overlaps with the project footprint and/or the Economy LAA/RAA *Technical:* TBD *Administrative:* TBD	• Training • Education • Business development • Ownership and control of resources	Changes to the subcomponents of this Interest: • Training • Education • Business development • Ownership and control of resources	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for YQT Indigenous knowledge sources Relevant results of the Employment, Economy, and Land and Resource Use VC assessments Current & Future Generations analysiS
Yaq̓it ʔa·knuqƚi'it Society The health and social well-being of Yaq̓it ʔa·knuqƚi'it First Nation citizens and communities	*Temporal:* *Spatial:* Areas in which Yaq̓it ʔa·knuqƚi'it territory overlaps with the project footprint and/or the Community Health and Well-being LAA/RAA *Technical:* TBD *Administrative:* TBD	• Traditional food consumption supporting sukiƚ ʔiknaƚa (eating well) • Housing • Transportation • Social services and infrastructure	Effects to traditional food consumption. Effects to housing, transportation and social services.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for YQT Indigenous knowledge sources Relevant results of the Vegetation, Wildlife, Aquatic Resources, Lands and Resource Use, Infrastructure and Services, and Community Health and Well-being VCs Current & Future Generations analysis

8.6.2. Ktunaxa Nation Council Society

Ktunaxa Nation Council Society (KNCS)[18] has expressed serious concerns regarding the potential environmental and cultural effects of FRX. These concerns include direct, indirect, and cumulative effects to surface water quality and quantity, groundwater quality and quantity, soil, unique geologic landforms, vegetation (including plants, wetlands, and ecosystems), wildlife (including birds), aquatic resources and freshwater fish, and on human health from biophysical and social determinants of health and interaction.

While effects of FRX on these interests will be assessed in the respective VC chapters, Yaq̓it ʔa·knuqƛi'it First Nation and KNCS have raised serious concerns about how these environmental effects may affect their culture, traditions, ways of life and practice of rights. The assessment must discuss the interconnectedness of the Ktunaxa Indigenous Interests and interconnectedness with VC subcomponents (e.g. wetlands, ecosystems, fish and fish habitat, aquatic resources, population health, culture). The Application must assess the potential project-specific and cumulative effects to the unique Ktunaxa Indigenous Interests described in Table 5 and must use the Assessment Boundaries, Indicators and Information Sources listed in that table.

[18] KNCS represents ʔakisq̓nuk First Nation, ʔaq̓ am and Yaqan Nuʔkiy.

Table 5: Indigenous Interests of Ktunaxa Nation Council

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effect to Interest	Indicators to measure the Potential Effects	Information Sources
Water Ability of Ktunaxa to maintain their spiritual, cultural, social, and socio-economic connection to wuʔu (water)	*Temporal:* Construction, operations, through post-closure *Spatial:* Areas in which Ktunaxa territory overlaps with the Surface water and Groundwater LAAs and RAAs, including the Chauncey Creek watershed *Technical:* TBD	• Spiritual connection to wuʔu • Cultural connection to wuʔu • Social connection to wuʔu • Socio-economic connection to wuʔu	Changes to Ktunaxa confidence in ability to safely drink surface and groundwater. Changes to Ktunaxa access to, and use of, water for spiritual connection. Changes to Ktunaxa access to, and use of, water for cultural practice. Changes to Ktunaxa socio-economic connection to water. Changes to the ability for Ktunaxa to transmit place-based knowledge. Effects on the ability of Ktunaxa to manage and make decisions over the area in line with stewardship principles, traditions, and governance systems. Loss of Ktunaxa place names.	Understanding of length of time water treatment will be needed. The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Citizen survey and qualitative interviews including Ktunaxa knowledge and perception of change in water quality, quantity and capability Citizen survey around confidence in use of water Fording River Swift Environmental Assessment Application Specifically Part C and other EA Part Cs Ktunaxa Dispute Resolution submissions Relevant results of Surface Water, Groundwater, Vegetation, Aquatic Resources, and Community Health and Well-being VC assessments EVR Upper Fording EFN study updated to include FRX Current & Future Generations analysis Ktunaxa-led Closure and post-closure socio-economic impact study Ktunaxa-led Coal mining economic assessment including health impacts EVR to model length of time water treatment will be

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effect to Interest	Indicators to measure the Potential Effects	Information Sources
					needed, based on up-to-date research on the release rates and also source control over the long term; attaining limits acceptable to Ktunaxa for selenium, speciated selenium, nitrates, sulphate and nickel EVRs Chauncey Creek Castover management plan EVR Tributary Management Plan Ktunaxa Diet Study Update Socioeconomic analysis of cost/aversion
Ktunaxa Lands and Resource Use The ability of Ktunaxa Nation members to continue fulfil their sacred and legal duty as responsible stewards of the lands and resources in their territory	*Temporal:* Contact through post-closure *Spatial:* Areas in which Ktunaxa territory overlaps with the Lands and Resource Use LAA *Technical:* TBD	• Seasonal rounds (e.g., members' ability to hunt, fish and harvest plant and mineral gathering seasonally) • Current use and occupancy (e.g., access, hunting, habitation, transportation, trails) • Future use • Stewardship and governance of lands and water	Changes to: • Seasonal rounds • Current use and occupancy • Future use • Preferred hunting and gathering areas including high elevation grasslands • Confidence in wild foods • Abundance of wild foods • Access to wild foods • Changes to Ktunaxa socio-economic	Disturbance of areas traditionally used for hunting, fishing harvesting and mineral gathering. Access ability for areas traditionally used for hunting, fishing, harvesting and mineral gathering. Changes to access around project site from current through to complete reclamation and returning of the land to Ktunaxa. The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Citizen survey and qualitative interviews including Ktunaxa knowledge and change in confidence of wild foods, change in use and seasonal round over time, ecological change over time Fording River Swift Environmental Assessment Application Specifically Part C and other EA Part Cs Ktunaxa Dispute Resolution submissions Fish tissue sampling for understanding of safe consumption Analysis of current reclamation to Ktunaxa standards

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effect to Interest	Indicators to measure the Potential Effects	Information Sources
			connection to land and resources. • Changes to the ability for Ktunaxa to transmit place-based knowledge Effects on the ability of Ktunaxa to manage and make decisions over the area in line with stewardship principles, traditions, and governance systemsLoss of Ktunaxa place names		Relevant results from the Surface Water, Groundwater, Soil, Unique Geologic Landforms, Vegetation, Wildlife, Aquatic Resources, Fish, and Human Health VC assessments Current & Future Generations analysis Ktunaxa diet study update Analysis of access and abundance (carrying capacity of populations that integrate Ktunaxa preferred harvesting rates) Analysis of access and cost to access: availability of resources – integrate quantity
Ktunaxa Traditional Knowledge and Language Ability of Ktunaxa to transmit traditional knowledge and use their place-based language, which is closely linked to the health and well-being of Ktunaxa people and communities	*Temporal:* *Spatial:* Areas in which Ktunaxa territory overlaps with the Land and Resource Use LAA and RAA *Technical:* TBD *Administrative:* TBD	• Transmission of Traditional knowledge • Use of Ktunaxa language	Change to use and transmission of traditional knowledge. Change to use of Ktunaxa language. Changes to the ability for Ktunaxa to transmit place-based knowledge. Effects on the ability of Ktunaxa to manage and make decisions over the area in line with stewardship principles,	Extent to which trails and archeological sites will be impacted, or access be impaired. Measure of land within Qukin ʔamakʔis free from disturbance and available to Ktunaxa for transmission of knowledge. Measure of land within Qukin ʔamakʔis with restricted or no access by	Fording River Swift Environmental Assessment Application Specifically Part C and other EA Part Cs Ktunaxa Dispute Resolution submissions Relevant results of Human Health, Community Health and Well-being, and Community Health and Well-being VC assessments Current & Future Generations analysis

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effect to Interest	Indicators to measure the Potential Effects	Information Sources
			traditions, and governance systems. Loss of Ktunaxa place names.	Ktunaxa or substantially altered. The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Citizen survey and qualitative interviews including barriers and supports to participation in knowledge transmission (e.g. culture camps etc.) appropriate documentation and sharing of knowledge and place names Trail mapping (noting confidentiality)
Ktunaxa Economy Ability of Ktunaxa Nation to achieve their goals of a self-sufficient and sustainable economy	*Temporal:* Contact through post-closure *Spatial:* Areas in which Ktunaxa territory overlaps with the project footprint and/or the Economy LAA/RAA *Technical:* TBD *Administrative:* TBD	• Training • Education • Business development • Ownership and control of resources • Ability to participate in traditional economic pathways	Changes to the subcomponents of this Interest: • Training • Education • Business development • Ownership and control of resources Effects on the ability of Ktunaxa to manage and make decisions over the area and resources in line with stewardship principles, traditions, and governance systems.	Measure effectiveness of economic impacts from past EAs. Measure of local Indigenous and specifically Ktunaxa people employed, available for employment and overall demand from the Project. The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Citizen survey and qualitative interviews including barriers and supports to community health, wealth, participation in Project benefits Citizen & community impact survey Details on business development success and challenges currently and through the Project; contracting opportunities Relevant results of the Employment, Economy, and Land and Resource Use VC assessments Current & Future Generations analysis Economic analysis of coal mining within Qukin ʔamakʔis Closure and post-closure socio-economic study

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effect to Interest	Indicators to measure the Potential Effects	Information Sources
					Closure and post-closure economic study Labour force and demographics study
Ktunaxa Society The health and social well-being of Ktunaxa citizens and communities	*Temporal:* Contact through post-closure *Spatial:* Areas in which Ktunaxa territory overlaps with the Community Health and Well-being LAA/RAA *Technical:* TBD *Administrative:* TBD	• Traditional food consumption supporting sukiɬ ʔiknaɬa (eating well) • Housing • Transportation • Social services and infrastructure	Effects to traditional food consumption. Effects to housing, transportation and social services. Loss of Ktunaxa place names.	Measure of how the Project would support or change traditional food consumption supporting sukiɬ ʔiknaɬa (eating well). The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Citizen survey and qualitative interviews including barriers to supports to community health and wealth and participation in Project benefits Updated Ktunaxa Diet study Relevant results of the Vegetation, Wildlife, Aquatic Resources, Lands and Resource Use, Infrastructure and Services, and Community Health and Well-being VCs Current & Future Generations analysis Closure and post-closure socio-economic study

8.6.3. Shuswap Band

Shuswap Band has expressed concerns regarding the effects of FRX on air quality, noise, surface water, groundwater, soils and terrain, vegetation, wildlife, aquatic resources and fish, socio-economic effects, including employment and economic opportunities. While effects of FRX on these interests will be assessed in the respective VC chapters, the assessment must discuss the interconnectedness of the Shuswap Band Indigenous Interests and interconnectedness with VC subcomponents (e.g. wetlands, ecosystems, fish and fish habitat, aquatic resources, population health, culture). The Application must assess the potential project-specific and cumulative effects to the unique Shuswap Band Indigenous Interests described in Table 6 and must use the Assessment Boundaries, Indicators and Information Sources listed in that table.

Table 6: Indigenous Interests of Shuswap Band

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects on Interest	Indicators to measure the Potential Effects	Information Sources
Shuswap Gathering Ability of Shuswap Band members to gather plants for subsistence and cultural purposes	*Spatial:* Areas in which Shuswap Band members harvest plants that overlap the Project footprint and/or Vegetation LAA *Temporal:* TBD *Technical:* TBD *Administrative:* TBD	Environmental conditions	Changes to species harvested by Shuswap members and their habitat.	Relevant indicators in the Vegetation VC for plant species gathered by Shuswap members. Abundance of species gathered by Shuswap members.	Note that the Elk Valley TEA and Cultural Heritage Assessment of the Elk Valley documents as sources for this information, as well as Community and Elder traditional knowledge where relevant. Relevant results of the Vegetation, Soil, Human Health, and Community Health and Well-being VC assessments Current & Future Generations analysis
		Community health and wellbeing	Changes to harvesting for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer Economy and community well-being: skills development, education, business opportunities.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	
		Specific sites and areas of importance	Disturbance, disruption or destruction of specific plant or material harvesting sites and areas of importance or access to preferred areas due to disturbance elsewhere. Changes to intensity and frequency of the site or area's used by Shuswap members for harvesting plants and materials.	Disturbance, disruption or destruction of specific plant gathering sites/areas of importance or access to sites. Intensity and frequency of use of specific gathering sites/areas of importance.	

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects on Interest	Indicators to measure the Potential Effects	Information Sources
Shuswap Fishing Ability of Shuswap Band members to fish for subsistence and cultural purposes	*Spatial:* Areas in which Shuswap Band members fish that overlap with the Project footprint and/or Aquatic Resources LAA Elk River and White River watersheds *Temporal:* TBD *Technical:* TBD *Administrative:* TBD	Environmental conditions	Changes to species, and their habitat, which are fished by Shuswap members.	Relevant indicators in the Fish and Fish habitat VC for fish species used by Shuswap members. Abundance of species used by Shuswap members.	Note that the Elk Valley TEA and Cultural Heritage Assessment of the Elk Valley documents as sources for this information, as well as Community and Elder traditional knowledge where relevant. Relevant results of the Aquatic Resources and Freshwater Fish, Human Health, and Community Health and Well-being VC assessments Current & Future Generations analysis
		Community health and wellbeing	Changes to fishing for subsistence, cultural purposes, medicine, sharing with community/ family, trade/bartering, knowledge and language transfer. Economy and community well-being: skills development, education, business opportunities.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	
		Specific sites and areas of importance	Changes to connectedness of waterways, area access, intensity and frequency of use, amount and type of disturbance to area used by Shuswap members for fishing.	Disturbance to specific fishing sites/areas of importance or access to sites/areas. Intensity and frequency of use of specific fishing sites/areas of importance.	
Shuswap Hunting Ability of Shuswap Band members to hunt for subsistence and cultural purposes	*Spatial*: Areas in which Shuswap Band members hunt that overlap with the Project footprint and/or Wildlife LAA *Temporal:* TBD	Environmental conditions	Changes to wildlife species, and their habitat, which are hunted and/or trapped by Shuswap members.	Relevant indicators in the Wildlife VC for wildlife species hunted and/or trapped by Shuswap members. Abundance of species hunted by Shuswap members.	Note that the Elk Valley TEA and Cultural Heritage Assessment of the Elk Valley documents as sources for this information, as well as Community and

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects on Interest	Indicators to measure the Potential Effects	Information Sources
	Technical: TBD *Administrative:* TBD	Community health and wellbeing	Changes to hunting and/or trapping for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer. Economy and community well-being: skills development, education, business opportunities.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Elder traditional knowledge where relevant. Relevant results of the Wildlife, Human Health and Community Health and Well-being VC assessments Current & Future Generations analysis
		Specific sites and areas of importance	Disturbance and disruption of specific hunting and trapping sites and areas of importance. Changes to intensity and frequency of the site or area's used, or access to, these sites ore areas by Shuswap members for hunting and/or trapping.	Disturbance of specific hunting and/or trapping sites/areas of importance. Intensity and frequency of use and access to specific hunting and/or trapping sites/areas of importance.	
Areas of Cultural and Spiritual Significance Ability of Shuswap Band members to access, use, and appreciate areas of	*Spatial:* Areas in which Shuswap Band members practice cultural or spiritual activities within the project footprint or	Community health and wellbeing	Changes to cultural land use, and knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Note that the Elk Valley TEA and Cultural Heritage Assessment of the Elk Valley documents as sources

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects on Interest	Indicators to measure the Potential Effects	Information Sources
cultural and spiritual importance	Land and Resource Use LAA *Temporal:* TBD *Technical:* TBD *Administrative:* TBD	Specific sites and areas of importance	Changes to Shuswap Band Archeological and cultural sites.	Disturbance, disruption, destruction of Shuswap Band Archeological and cultural sites.	for this information, as well as Community and Elder traditional knowledge where relevant. Relevant results Archeological and Heritage Resources VC assessments Current & Future Generations analysis Member use (access, use and appreciation) of Shuswap archeological and other specific sites for cultural use and knowledge and language transfer.
***séwllkwe (Water):** Séwllkwa (water) is considered sacred and the heart of ceremonial life, and as Shuswap Band states "Water is emblematic of the interconnectedness and balance between everything inherent in Secwepemcúl'ecw"	*Spatial:* Areas in which Shuswap Band territory overlaps with the Surface water and Groundwater LAAs and RAAs, including the Chauncey Creek watershed *Temporal:* TBD *Technical:* TBD *Administrative:* TBD	TBD	TBD	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Note that the Elk Valley TEA and Cultural Heritage Assessment of the Elk Valley documents as sources for this information, as well as Community and Elder traditional knowledge where relevant.

8.7. Indigenous Interests of Alberta-based Treaty 7 Nations

Treaty 7 Nations, based out of Alberta, self-identified as participating Indigenous nations on the FRX project in 2020. The EAO is committed to meeting its legislated obligations to any Indigenous Nation that has the potential to be impacted by a project in B.C. and has been consulting with Treaty 7 Nations since 2020.

The Province recognizes and honours the existence and content of all treaties, including Treaty 7. Treaty 7 Nations have treaty rights to harvest within the Treaty 7 area, which does not overlap the Project area or B.C. Treaty 7 includes a "cede and release clause" regarding all other rights and title, including any outside of the Treaty 7 area. Treaty 7 Nations assert Aboriginal rights in the Project area and have indicated that they currently engage in land use activities in B.C. including fishing, hunting, gathering and the use of culturally important sites. While the EAO does not recognize a deep consultation obligation to Treaty 7 in relation to Project impacts in B.C., the EAO will ensure that the requirement under the EA Act to assess potential impacts on Indigenous nations is fulfilled in consideration of the Treaty 7 Nations' distinct history, relationship to the Project area and to other nations, as well as the terms of Treaty 7.

Federally, IAAC will consult with the Treaty 7 Nations on the Project. This position is based on the federal Crown's constitutional duty to consult as well as implement the UN Declaration on the Rights of Indigenous Peoples. IAAC is guided by its constitutional obligation under Section 35 of the *Constitution Act, 1982*, to consult where Aboriginal and treaty rights may be adversely affected by a proposed project.

Each Indigenous interest identified in the tables will have information, developed in collaboration with Indigenous nations, and must have section 8.1.3 replicated using the information provided in the table.

8.7.1. Piikani Nation

Piikani Nation has expressed concerns regarding the local and transboundary effects of FRX on air quality, water quality, wildlife, wildlife health and aquatic resources (including fish), soil, ecosystems that support biodiversity including high elevation grasslands and old growth forests, climate change impacts, economy, education, housing, drug toxicity and employment, all of which will be assessed under the respective VC chapters.

While effects of FRX on these interests will be assessed in the respective VC chapters, the assessment must discuss the interconnectedness of the Piikani Nation Indigenous Interests and interconnectedness with VC subcomponents (e.g. wetlands, ecosystems, fish and fish habitat, aquatic resources, population health, culture). The Application must assess the potential project-specific and cumulative effects to the unique Piikani Nation Indigenous Interests described in Table 7 and must use the Assessment Boundaries, Indicators and Information Sources listed in that table.

Table 7: Indigenous Interests of Piikani Nation

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Interests	Indicators to measure the Potential Effects	Information Sources
Piikani Right to hunt and trap in Treaty 7 area in Alberta	*Spatial boundary:* Wildlife VC LAA and RAA. *Administrative boundary*: Treaty 7 Area in Alberta that overlaps with the LAA and RAA for the Wildlife VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Environmental conditions	Changes to wildlife species and their habitat within the *Spatial Assessment Boundary*, for species which are hunted and/or trapped by Piikani Nation members within the *Administrative Assessment Boundary.*	Relevant indicators in the Wildlife VC for wildlife species hunted and/or trapped by Piikani Nation members.	Placeholder for Piikani Indigenous Knowledge sources Wildlife VC
		Community Health & Well-being	Changes to hunting and/or trapping in the *Administrative Assessment Boundary* for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Piikani Indigenous Knowledge sources Wildlife VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis
		Specific sites or areas of importance	Disturbance and disruption of specific hunting and trapping sites and areas of importance in the *Administrative Assessment Boundary.* Changes to intensity and frequency of use of sites/areas in the *Administrative Assessment Boundary* used by Piikani Nation members for hunting and/or trapping.	Disturbance of specific hunting and/or trapping sites/areas of importance. Intensity and frequency of use of specific hunting and/or trapping sites/areas of importance.	Placeholder for Piikani Indigenous Knowledge sources Wildlife VC Current & Future Generations analysis
Piikani hunting activities in B.C.	*Spatial boundary:* Wildlife VC LAA and RAA. *Administrative boundary*:	Environmental Conditions	Changes to wildlife species and their habitat within the *Spatial Assessment Boundary*, for species which are hunted and/or trapped by Piikani Nation members within the *Administrative Assessment Boundary.*	Relevant indicators in the Wildlife VC for wildlife species hunted and/or trapped by Piikani Nation members.	Placeholder for Piikani Indigenous Knowledge sources Wildlife VC

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Interests	Indicators to measure the Potential Effects	Information Sources
	Area in B.C. that overlaps with the Project footprint and/or the LAA and RAA for the Wildlife VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Community Health & Well-being	Changes to hunting in the Administrative Assessment Boundary for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Piikani Indigenous Knowledge sources Wildlife VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis
Piikani fishing activities in B.C.	*Administrative boundary:* Area in B.C. that overlaps with the Project footprint and/or LAA and RAA for the Aquatic Resources and Freshwater Fish VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Environmental Conditions	Changes to species, and their habitat, which are fished by Piikani Nation members.	Relevant indicators in the Aquatic Resources and Freshwater Fish VC for species fished by Piikani Nation members.	Placeholder for Piikani Indigenous Knowledge sources Aquatic Resources and Freshwater Fish VC
		Community Health & Well-being	Changes to fishing for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Piikani Indigenous Knowledge sources Aquatic Resources and Freshwater Fish VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Interests	Indicators to measure the Potential Effects	Information Sources
Piikani Right to harvest plants in Treaty 7 area in Alberta	*Administrative boundary:* Treaty 7 Area in Alberta that overlaps with the LAA and RAA for the Air Quality VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Environmental Conditions	Changes due dust deposition on plant species and their habitat.	Relevant indicators in the Air Quality and Vegetation VCs for plant species harvested by Piikani Nation members.	Placeholder for Piikani Indigenous Knowledge sources Air Quality VC Vegetation VC
		Community Health & Well-being	Changes to harvesting for plants for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Piikani Indigenous Knowledge sources Air Quality VC Vegetation VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis
		Specific sites or areas of importance	Disturbance from dust deposition to specific sites and areas of importance for harvesting plants. Changes to intensity and frequency of specific sites/areas used by Piikani Nation members to harvest plants.	Disturbance of specific sites/areas of importance for harvesting plants. Intensity and frequency of use of specific sites/areas of importance for harvesting plants.	Placeholder for Piikani Indigenous Knowledge sources Air Quality VC Vegetation VC Current & Future Generations analysis
Piikani plant and material harvesting	*Administrative boundary:* Area in B.C. that overlaps with the Project footprint and/or the LAAs and RAAs	Environmental conditions	Changes to plant species harvested by Piikani Nation members and their habitat.	Relevant indicators in the Vegetation VCs for plant species harvested by Piikani Nation members.	Placeholder for Piikani Indigenous Knowledge sources Vegetation VC

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Interests	Indicators to measure the Potential Effects	Information Sources
activities in B.C.	for the Vegetation and Land and Resource Use VCs *Temporal boundary*: TBD *Technical boundary*: TBD	Community well-being	Changes to harvesting for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Piikani Indigenous Knowledge sources Vegetation VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis
Piikani Land and Resource Use in B.C.	*Administrative boundary:* Area in B.C. that overlaps with the Project footprint and/or the LAA and RAA for the Archeological and Heritage Resources VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Community Well-being	Changes to Piikani cultural land use, and knowledge and language transfer. Changes to current and future generations of land users.	Piikani Nation member use of Piikani archeological and other specific sites for cultural use and knowledge and language transfer.	Placeholder for Piikani Indigenous Knowledge sources Traditional and Indigenous knowledge, land use and occupancy information Archeological and Heritage Resources VC
		Sites/areas of importance	Changes to Piikani Archeological and cultural sites.	Disturbance, disruption, destruction of Piikani Archeological and cultural sites.	

8.7.2. Kainai (Blood Tribe)

Kainai has expressed concerns regarding the local and transboundary effects of FRX on air quality, water quality, wildlife, wildlife habitat, migratory birds, fish, and fish habitat, and human health, all of which will be assessed under the respective VC chapters.

While effects of FRX on these interests will be assessed in the respective VC chapters, the assessment must discuss the interconnectedness of the Kainai Indigenous Interests and interconnectedness with VC subcomponents (e.g. wetlands, ecosystems, fish and fish habitat, aquatic resources, population health, culture). The Application must assess the potential project-specific and cumulative effects to the unique Kainai Indigenous Interests described in Table 8 and must use the Assessment Boundaries, Indicators and Information Sources listed in that table.

Table 8. Indigenous Interests of Kainai (Blood Tribe)

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Interests	Indicators to measure the Potential Effects	Information Sources
Kainai Right to hunt and trap in Treaty 7 area in Alberta	*Spatial boundary:* Wildlife VC LAA and RAA. *Administrative boundary*: Treaty 7 Area in Alberta that overlaps with the LAA and RAA for the Wildlife VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Environmental conditions	Changes to wildlife species and their habitat within the *Spatial Assessment Boundary*, for species which are hunted and/or trapped by Kainai members within the *Administrative Assessment Boundary.*	Relevant indicators in the Wildlife VC for wildlife species hunted and/or trapped by Kainai members.	Placeholder for Kainai Indigenous Knowledge sources Wildlife VC
		Community Health & Well-being	Changes to hunting and/or trapping in the *Administrative Assessment Boundary* for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Kainai Indigenous Knowledge sources Wildlife VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis
		Specific sites or areas of importance	Disturbance and disruption of specific hunting and trapping sites and areas of importance in the *Administrative Assessment Boundary.* Changes to intensity and frequency of use of sites/areas in the *Administrative Assessment Boundary* used by Kainai members for hunting and/or trapping.	Disturbance of specific hunting and/or trapping sites/areas of importance. Intensity and frequency of use of specific hunting and/or trapping sites/areas of importance.	Placeholder for Kainai Indigenous Knowledge sources Wildlife VC Current & Future Generations analysis
Kainai hunting activities in B.C.	*Spatial boundary:* Wildlife VC LAA and RAA. *Administrative boundary*:	Environmental Conditions	Changes to wildlife species and their habitat within the *Spatial Assessment Boundary*, for species which are hunted and/or trapped by Kainai members within the *Administrative Assessment Boundary.*	Relevant indicators in the Wildlife VC for wildlife species hunted and/or trapped by Kainai members.	Placeholder for Kainai Indigenous Knowledge sources Wildlife VC

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Interests	Indicators to measure the Potential Effects	Information Sources
	Area in B.C. that overlaps with the Project footprint and/or the LAA and RAA for the Wildlife VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Community Health & Well-being	Changes to hunting in the *Administrative Assessment Boundary* for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Kainai Indigenous Knowledge sources Wildlife VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis
Kainai fishing activities in B.C.	*Administrative boundary:* Area in B.C. that overlaps with the Project footprint and/or LAA and RAA for the Aquatic Resources and Freshwater Fish VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Environmental Conditions	Changes to species, and their habitat, which are fished by Kainai members.	Relevant indicators in the Aquatic Resources and Freshwater Fish VC for species fished by Kainai members.	Placeholder for Kainai Indigenous Knowledge sources Aquatic Resources and Freshwater Fish VC
		Community Health & Well-being	Changes to fishing for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Kainai Indigenous Knowledge sources Aquatic Resources and Freshwater Fish VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Interests	Indicators to measure the Potential Effects	Information Sources
Kainai Right to harvest plants in Treaty 7 area in Alberta	*Administrative boundary:* Treaty 7 Area in Alberta that overlaps with the LAA and RAA for the Air Quality VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Environmental Conditions	Changes due dust deposition on plant species and their habitat.	Relevant indicators in the Air Quality and Vegetation VCs for plant species harvested by Kainai members.	Placeholder for Kainai Indigenous Knowledge sources Air Quality VC Vegetation VC
		Community Health & Well-being	Changes to harvesting for plants for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Kainai Indigenous Knowledge sources Air Quality VC Vegetation VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis
		Specific sites or areas of importance	Disturbance from dust deposition to specific sites and areas of importance for harvesting plants. Changes to intensity and frequency of specific sites/areas used by Kainai members to harvest plants.	Disturbance of specific sites/areas of importance for harvesting plants. Intensity and frequency of use of specific sites/areas of importance for harvesting plants.	Placeholder for Kainai Indigenous Knowledge sources Air Quality VC Vegetation VC Current & Future Generations analysis
Kainai plant and material harvesting	*Administrative boundary:* Area in B.C. that overlaps with the Project footprint and/or the LAAs and RAAs	Environmental conditions	Changes to plant species harvested by Kainai members and their habitat.	Relevant indicators in the Vegetation VCs for plant species harvested by Kainai members.	Placeholder for Kainai Indigenous Knowledge sources Vegetation VC

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Interests	Indicators to measure the Potential Effects	Information Sources
activities in B.C.	for the Vegetation and Land and Resource Use VCs *Temporal boundary*: TBD *Technical boundary*: TBD	Community well-being	Changes to harvesting for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Kainai Indigenous Knowledge sources Vegetation VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis
Kainai Land and Resource Use in B.C.	*Administrative boundary:* Area in B.C. that overlaps with the Project footprint and/or the LAA and RAA for the Archeological and Heritage Resources VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Sites/areas of importance Community Well-being	Changes to Kainai Archeological and cultural sites. Changes to Kainai cultural land use and knowledge and language transfer.	Disturbance of Kainai Archeological and cultural sites. Kainai member use of Kainai archeological and other specific sites for cultural use and knowledge and language transfer.	Placeholder for Kainai Indigenous Knowledge sources Archeological and Heritage Resources VC

8.7.3. Siksika Nation

Siksika Nation has expressed concerns regarding the effects of FRX on air quality, water quality, wildlife, fish, and fish habitat, and human health, all of which will be assessed under the respective VC chapters.

While effects of FRX on these interests will be assessed in the respective VC chapters, the assessment must discuss the interconnectedness of the Siksika Nation Indigenous Interests and interconnectedness with VC subcomponents (e.g. wetlands, ecosystems, fish and fish habitat, aquatic resources, population health, culture). The Application must assess the potential project-specific and cumulative effects to the unique Siksika Nation Indigenous Interests described in Table 9 and must use the Assessment Boundaries, Indicators and Information Sources listed in that table.

Table 9. Indigenous Interests of Siksika Nation.

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Interests	Indicators to measure the Potential Effects	Information Sources
Siksika Right to hunt and trap in Treaty 7 area in Alberta	*Spatial boundary:* Wildlife VC LAA and RAA. *Administrative boundary*: Treaty 7 Area in Alberta that overlaps with the LAA and RAA for the Wildlife VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Environmental conditions	Changes to wildlife species and their habitat within the *Spatial Assessment Boundary*, for species which are hunted and/or trapped by Siksika Nation members within the *Administrative Assessment Boundary.*	Relevant indicators in the Wildlife VC for wildlife species hunted and/or trapped by Siksika Nation members.	Placeholder for Siksika Indigenous Knowledge sources Wildlife VC
		Community Health & Well-being	Changes to hunting and/or trapping in the *Administrative Assessment Boundary* for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Siksika Indigenous Knowledge sources Wildlife VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis
		Specific sites or areas of importance	Disturbance and disruption of specific hunting and trapping sites and areas of importance in the *Administrative Assessment Boundary.* Changes to intensity and frequency of use of sites/areas in the *Administrative Assessment Boundary* used by Siksika Nation members for hunting and/or trapping.	Disturbance of specific hunting and/or trapping sites/areas of importance. Intensity and frequency of use of specific hunting and/or trapping sites/areas of importance.	Placeholder for Siksika Indigenous Knowledge sources Wildlife VC Current & Future Generations analysis
Siksika hunting activities in B.C.	*Spatial boundary:* Wildlife VC LAA and RAA. *Administrative boundary*:	Environmental Conditions	Changes to wildlife species and their habitat within the *Spatial Assessment Boundary*, for species which are hunted and/or trapped by Siksika Nation members within the *Administrative Assessment Boundary.*	Relevant indicators in the Wildlife VC for wildlife species hunted and/or trapped by Siksika Nation members.	Placeholder for Siksika Indigenous Knowledge sources Wildlife VC

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Interests	Indicators to measure the Potential Effects	Information Sources
	Area in B.C. that overlaps with the Project footprint and/or the LAA and RAA for the Wildlife VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Community Health & Well-being	Changes to hunting in the *Administrative Assessment Boundary* for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Siksika Indigenous Knowledge sources Wildlife VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis
Siksika fishing activities in B.C.	*Administrative boundary:* Area in B.C. that overlaps with the Project footprint and/or LAA and RAA for the Aquatic Resources and Freshwater Fish VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Environmental Conditions	Changes to species, and their habitat, which are fished by Siksika Nation members.	Relevant indicators in the Aquatic Resources and Freshwater Fish VC for species fished by Siksika Nation members.	Placeholder for Siksika Indigenous Knowledge sources Aquatic Resources and Freshwater Fish VC
		Community Health & Well-being	Changes to fishing for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Siksika Indigenous Knowledge sources Aquatic Resources and Freshwater Fish VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Interests	Indicators to measure the Potential Effects	Information Sources
Siksika Right to harvest plants in Treaty 7 area in Alberta	*Administrative boundary:* Treaty 7 Area in Alberta that overlaps with the LAA and RAA for the Air Quality VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Environmental Conditions	Changes due dust deposition on plant species and their habitat.	Relevant indicators in the Air Quality and Vegetation VCs for plant species harvested by Siksika Nation members.	Placeholder for Siksika Indigenous Knowledge sources Air Quality VC Vegetation VC
		Community Health & Well-being	Changes to harvesting for plants for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Siksika Indigenous Knowledge sources Air Quality VC Vegetation VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis
		Specific sites or areas of importance	Disturbance from dust deposition to specific sites and areas of importance for harvesting plants. Changes to intensity and frequency of specific sites/areas used by Siksika Nation members to harvest plants.	Disturbance of specific sites/areas of importance for harvesting plants. Intensity and frequency of use of specific sites/areas of importance for harvesting plants.	Placeholder for Siksika Indigenous Knowledge sources Air Quality VC Vegetation VC Current & Future Generations analysis
Siksika plant and material harvesting	*Administrative boundary:* Area in B.C. that overlaps with the Project footprint and/or the LAAs and RAAs	Environmental conditions	Changes to plant species harvested by Siksika Nation members and their habitat.	Relevant indicators in the Vegetation VCs for plant species harvested by Siksika Nation members.	Placeholder for Siksika Indigenous Knowledge sources Vegetation VC

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Interests	Indicators to measure the Potential Effects	Information Sources
activities in B.C.	for the Vegetation and Land and Resource Use VCs *Temporal boundary*: TBD *Technical boundary*: TBD	Community well-being	Changes to harvesting for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Siksika Indigenous Knowledge sources Vegetation VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis
Siksika Land and Resource Use in B.C.	*Administrative boundary:* Area in B.C. that overlaps with the Project footprint and/or the LAA and RAA for the Archeological and Heritage Resources VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Sites/areas of importance Community Well-being	Changes to Siksika Archeological and cultural sites. Changes to Siksika cultural land use and knowledge and language transfer.	Disturbance of Siksika Archeological and cultural sites. Siksika Nation member use of Siksika archeological and other specific sites for cultural use and knowledge and language transfer.	Placeholder for Siksika Indigenous Knowledge sources Archeological and Heritage Resources VC

8.7.4. Stoney Nakoda Nations

Stoney Nakoda Nations has expressed concerns regarding the effects of FRX on air quality, water quality, water quantity, wildlife, including species at risk, fish, and fish habitat, and human health, all of which will be assessed under the respective VC chapters.

While effects of FRX on these interests will be assessed in the respective VC chapters, the assessment must discuss the interconnectedness of the Stoney Nakoda Nations Indigenous Interests and interconnectedness with VC subcomponents (e.g. wetlands, ecosystems, fish and fish habitat, aquatic resources, population health, culture). The Application must assess the potential project-specific and cumulative effects to the unique Stoney Nakoda Nations Indigenous Interests described in Table 10 and must use the Assessment Boundaries, Indicators and Information Sources listed in that table.

Table 10. Indigenous Interests of Stoney Nakoda Nations

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Interests	Indicators to measure the Potential Effects	Information Sources
Stoney Nakoda Right to hunt and trap in Treaty 7 area in Alberta	*Spatial boundary:* Wildlife VC LAA and RAA. *Administrative boundary*: Treaty 7 Area in Alberta that overlaps with the LAA and RAA for the Wildlife VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Environmental conditions	Changes to wildlife species and their habitat within the *Spatial Assessment Boundary*, for species which are hunted and/or trapped by Stoney Nakoda Nations members within the *Administrative Assessment Boundary.*	Relevant indicators in the Wildlife VC for wildlife species hunted and/or trapped by Stoney Nakoda Nations members. Health of culturally significant species including bison and elk.	Placeholder for Stoney Nakoda Indigenous Knowledge sources Wildlife VC
		Community Health & Well-being	Changes to hunting and/or trapping in the *Administrative Assessment Boundary* for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Stoney Nakoda Indigenous Knowledge sources Wildlife VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis
		Specific sites or areas of importance	Disturbance and disruption of specific hunting and trapping sites and areas of importance in the *Administrative Assessment Boundary*. Changes to intensity and frequency of use of sites/areas in the *Administrative Assessment Boundary* used by Stoney Nakoda Nations members for hunting and/or trapping.	Disturbance of specific hunting and/or trapping sites/areas of importance. Intensity and frequency of use of specific hunting and/or trapping sites/areas of importance. Access to traditional harvesting areas during key seasons.	Placeholder for Stoney Nakoda Indigenous Knowledge sources Wildlife VC Current & Future Generations analysis
Stoney Nakoda hunting activities in B.C.	*Spatial boundary:* Wildlife VC LAA and RAA. *Administrative boundary*:	Environmental Conditions	Changes to wildlife species and their habitat within the *Spatial Assessment Boundary*, for species which are hunted and/or trapped by Stoney Nakoda Nations members within the *Administrative Assessment Boundary.*	Relevant indicators in the Wildlife VC for wildlife species hunted and/or trapped by Stoney Nakoda Nations members.	Placeholder for Stoney Nakoda Indigenous Knowledge sources Wildlife VC

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Interests	Indicators to measure the Potential Effects	Information Sources
	Area in B.C. that overlaps with the Project footprint and/or the LAA and RAA for the Wildlife VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Community Health & Well-being	Changes to hunting in the *Administrative Assessment Boundary* for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	Access to traditional harvesting areas during key seasons. The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Stoney Nakoda Indigenous Knowledge sources Wildlife VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis
Stoney Nakoda fishing activities in B.C.	*Administrative boundary:* Area in B.C. that overlaps with the Project footprint and/or LAA and RAA for the Aquatic Resources and Freshwater Fish VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Environmental Conditions	Changes to species, and their habitat, which are fished by Stoney Nakoda Nations members.	Relevant indicators in the Aquatic Resources and Freshwater Fish VC for species fished by Stoney Nakoda Nations members.	Placeholder for Stoney Nakoda Indigenous Knowledge sources Aquatic Resources and Freshwater Fish VC
		Community Health & Well-being	Changes to fishing for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Stoney Nakoda Indigenous Knowledge sources Aquatic Resources and Freshwater Fish VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Interests	Indicators to measure the Potential Effects	Information Sources
Stoney Nakoda Right to harvest plants in Treaty 7 area in Alberta	*Administrative boundary:* Treaty 7 Area in Alberta that overlaps with the LAA and RAA for the Air Quality VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Environmental Conditions	Changes due dust deposition on plant species and their habitat.	Relevant indicators in the Air Quality and Vegetation VCs for plant species harvested by Stoney Nakoda Nations members.	Placeholder for Stoney Nakoda Indigenous Knowledge sources Air Quality VC Vegetation VC
		Community Health & Well-being	Changes to harvesting for plants for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Stoney Nakoda Indigenous Knowledge sources Air Quality VC Vegetation VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis
		Specific sites or areas of importance	Disturbance from dust deposition to specific sites and areas of importance for harvesting plants. Changes to intensity and frequency of specific sites/areas used by Stoney Nakoda Nations members to harvest plants.	Disturbance of specific sites/areas of importance for harvesting plants. Intensity and frequency of use of specific sites/areas of importance for harvesting plants. Access to traditional harvesting areas during key seasons.	Placeholder for Stoney Nakoda Indigenous Knowledge sources Air Quality VC Vegetation VC Current & Future Generations analysis
Stoney Nakoda plant and material harvesting	*Administrative boundary:* Area in B.C. that overlaps with the Project footprint and/or the LAAs and RAAs	Environmental conditions	Changes to plant species harvested by Stoney Nakoda Nations members and their habitat.	Relevant indicators in the Vegetation VCs for plant species harvested by Stoney Nakoda Nations members. Health of culturally significant medicinal plants.	Placeholder for Stoney Nakoda Indigenous Knowledge sources Vegetation VC

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Interests	Indicators to measure the Potential Effects	Information Sources
activities in B.C.	for the Vegetation and Land and Resource Use VCs *Temporal boundary*: TBD *Technical boundary*: TBD	Community Health and Well-being	Changes to harvesting for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	Access to traditional harvesting areas during key seasons. The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Stoney Nakoda Indigenous Knowledge sources Vegetation VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis
Stoney Nakoda Land and Resource Use in B.C.	*Administrative boundary:* Area in B.C. that overlaps with the Project footprint and/or the LAA and RAA for the Archeological and Heritage Resources VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Sites/areas of importance Community Health and Well-being	Changes to Stoney Nakoda Archeological and cultural sites. Changes to Stoney Nakoda cultural land use and knowledge and language transfer. Changes to Stoney Nakoda cultural and spiritual experiences in proximity to the Project site.	Disturbance of Stoney Nakoda Archeological and cultural sites. Stoney Nakoda Nations member use of Stoney Nakoda archeological and other specific sites for cultural use and knowledge and language transfer. Integrity of spiritual sites and ceremonial areas (e.g., whether the spirit remains intact in sacred and ceremonial places). Light pollution impacts on Stoney Nakoda Nations members cultural and spiritual experiences in proximity to the Project site. Stoney Nakoda Nations members access to traditional harvesting areas during key seasons. Relevant indicators in the Wildlife VCs for wildlife species harvested by Stoney Nakoda Nations members.	Placeholder for Stoney Nakoda Indigenous Knowledge sources Archeological and Heritage Resources VC Noise VC

8.7.5. Tsuut'ina Nation

Tsuut'ina Nation has expressed concerns regarding the protection of animal migration routes, impacts to water quality, and the effects of dust on human health, employment opportunities, all of which will be assessed under the Wildlife, Water Quality, and Human Health, and Employment and Economy VCs respectively.

While effects of FRX on these interests will be assessed in the respective VC chapters, the assessment must discuss the interconnectedness of the Tsuut'ina Nation Indigenous Interests and interconnectedness with VC subcomponents (e.g. wetlands, ecosystems, fish and fish habitat, aquatic resources, community health and well-being). The Application must assess the potential project-specific and cumulative effects to the unique Tsuut'ina Nation Indigenous Interests described in Table 11 and must use the Assessment Boundaries, Indicators and Information Sources listed in that table.

Table 11. Indigenous Interests of Tsuut'ina Nation

Indigenous Interest	Assessment Boundaries	Subcomponents	Potential Effects to Interests	Indicators to measure the Potential Effects	Information Sources
Tsuut'ina plant and material harvesting activities in B.C.	*Administrative boundary:* Area in B.C. that overlaps with the Project footprint and/or the LAAs and RAAs for the Vegetation and Land and Resource Use VCs *Temporal boundary*: TBD *Technical boundary*: TBD	Environmental conditions	Changes to plant species harvested by Tsuut'ina Nation members and their habitat.	Relevant indicators in the Vegetation VCs for plant species harvested by Tsuut'ina Nation members.	Placeholder for Tsuut'ina Indigenous Knowledge sources Vegetation VC
		Community Health and Well-being	Changes to harvesting for subsistence, cultural purposes, medicine, sharing with community/family, trade/bartering, knowledge and language transfer.	The EAO, IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Tsuut'ina Indigenous Knowledge sources Vegetation VC Human Health VC Community Health & Well-being VC Current & Future Generations analysis
Tsuut'ina Land and Resource Use in B.C.	*Administrative boundary:* Area in B.C. that overlaps with the Project footprint and/or the LAA and RAA for the Archeological and Heritage Resources VC. *Temporal boundary*: TBD *Technical boundary*: TBD	Sites/areas of importance Community Health and Well-being	Changes to Tsuut'ina Archeological and cultural sites. Changes to Tsuut'ina cultural land use and knowledge and language transfer.	Disturbance of Tsuut'ina Archeological and cultural sites. Tsuut'ina Nation member use of Tsuut'ina archeological and other specific sites for cultural use and knowledge and language transfer.	Placeholder for Tsuut'ina Indigenous Knowledge sources Archeological and Heritage Resources VC

8.8. Indigenous Interests of Métis

Métis organizations have asserted rights and uses that could be impacted by the Project. The Application must include a Métis organization-specific assessment of the Project's impacts on Métis interests to meet the requirements of the federal IAA. IAAC will consult with Métis organizations on the Project.

Consultation conducted by the Proponent with Métis or organizations representing Métis within B.C. is understood to be conducted on behalf of the Government of Canada and should not be interpreted as an acknowledgement by B.C. that it owes a duty to consult or accommodate Métis within B.C. on land-based rights under section 35 of the *Constitution Act, 1982*. However, the EAO will still consider and assess impacts to Métis land-based practices or social and cultural values that have the potential to be impacted by the Project.

Each Métis interest identified in the tables will have information, developed in collaboration with Indigenous nations, and must have section 8.1.3 replicated using the information provided in the table.

8.8.1. Métis Nation British Columbia

Métis Nation British Columbia has expressed concerns regarding the potential environmental effects of FRX and, and human health. MNBC has raised concerns about how these environmental effects may affect their culture, traditions, ways of life and practice of rights. MNBC has also raised the following unique Indigenous Interests described in Table 12.

Table 12. Indigenous Interests of Métis Nation British Columbia

Indigenous Interest	Assessment Boundaries	Subcomponent	Potential Effects to Interest	Indicators to measure the Potential Effect	Information Sources
Métis Peoples' Lands and Resource Use	Spatial: Project effects that could impact areas of cultural and historical importance. *Temporal: TBD*	Concerns regarding potential Project impacts to fishing activities. Concerns regarding potential Project impacts to hunting activities. Concerns regarding potential Project impacts to plant gathering activities. Concerns regarding potential Project activities to cultural land use.	Effects to areas of cultural and spiritual importance. Effects to access to areas of key cultural and spiritual significance. Effects to sites of archeological importance. Effects to transmission of traditional knowledge. Effects to areas used for fishing, hunting and gathering activities.	IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	*Document Overview: Consultation-Guidelines-Approved-FINAL 2020.pdf* Placeholder for MNBC Knowledge sources

8.8.2. Otipemisiwak Métis Government

Otipemisiwak Métis Government has expressed concerns regarding the local and transboundary effects of FRX on air quality, water quality, wildlife, fish, and fish habitat, and human health, all of which will be assessed under the respective VC chapters. Otipemisiwak Métis Government has also raised the following unique Indigenous Interests described in Table 13.

Table 13: Indigenous Interests of Otipemisiwak Métis Government

Indigenous Interest	Assessment Boundaries	Subcomponent	Potential Effects to Indigenous Interest	Indicators to measure the Potential Effects	Information Sources
Lands and Resource Use by members of Otipemisiwak Métis Government	Spatial: Project effects that could impact areas in which Otipemisiwak Métis Government members assert their Indigenous rights and interests *Temporal:* TBD *Technical:* TBD	Concerns regarding transboundary Project effects on: • Emissions levels, climate impacts, and air quality concerns • Fishing activities • Hunting activities • Plant gathering activities • Cultural land use • Impacts on the limitations that will be put in place for access to the land	Project effects to the atmospheric environment that may contribute to climate change. Changes to air quality which may result in effects to Metis traditional use of the land and resources.	IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Otipemisiwak Métis Government members' Knowledge sources
Ability of Otipemisiwak Métis Government members to fish for subsistence and cultural purposes	Spatial: Project effects that could impact areas in which Otipemisiwak Métis Government members assert their Indigenous rights and interests *Temporal:* TBD *Technical:* TBD	Concerns regarding transboundary Project effects on: • Fish and fish habitat health (aquatic species in general)	TBD	IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Otipemisiwak Métis Government members' Knowledge sources

Indigenous Interest	Assessment Boundaries	Subcomponent	Potential Effects to Indigenous Interest	Indicators to measure the Potential Effects	Information Sources
Species at Risk, Terrestrial Wildlife and their Habitat **Concerns surrounding transboundary Project impacts to deforestation and associated impacts, impacts for wildlife species and migration corridors as well as risk to species at risk and the potential for those impacts to affect Otipemisiwak Métis Government members traditional land use**	Spatial: Project effects that could impact areas in which Otipemisiwak Métis Government members assert their Indigenous rights and interests *Temporal:* TBD *Technical:* TBD	Concerns regarding transboundary Project effects on: • Deforestation and associated impacts, • Impacts for wildlife species • Migration corridors • Species at risk. • Wildlife harvesting.	Effects to habitat, movement corridors, and migration patterns. Effects to mammal species or species groups important to Otipemisiwak Métis Government members. Effects to wildlife forage and HEG. Relevant indicators used in the Wildlife VC assessment.	IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Otipemisiwak Métis Government members' Knowledge sources
Otipemisiwak Métis Government members Spiritual, Physical, and Cultural Heritage **Concerns regarding the Archaeological survey work done to date on the Project, and how the archaeological record may be impacted by its activities.**	Spatial: Project effects that could impact areas in which Otipemisiwak Métis Government members assert their Indigenous rights and interests *Temporal:* TBD *Technical:* TBD	Concerns regarding Project effects on: • Archaeological sites found in the Project area and how they will be protected. • Processes of notification when artifacts are found during ground disturbance or while on the land in general. • Impacts to culture, tradition, and history.	Effects to areas of traditional, historical, cultural, and spiritual significance to Otipemisiwak Métis Government members.	IAAC and Indigenous Nations to work together to determine indicators prior to finalization of the AIR.	Placeholder for Otipemisiwak Métis Government members' Knowledge sources

9.0 SUMMARY OF STATUTORY REQUIREMENTS UNDER THE FEDERAL *IMPACT ASSESSMENT ACT*

The Application must contain information that addresses the statutory requirements under the IAA. This section must contain the location within the Application where Federal requirements have been addressed, namely the effects within Federal jurisdiction as defined in Section 2 (Table 7) and each of the factors set out in section 22 of the IAA (Table 8), as well as those described in the federal appendix.

This section is not intended to reiterate the assessment or restate findings for each aspect of the IAA. Where specific requirements of the IAA have not been considered within the Application, they are marked as not applicable, and a rationale should be provided.

The following provides an example of what Table 7 and Table 8 will look like.

Table 14: Effects within Federal Jurisdiction – Section 2 of the Impact Assessment Act

Effects within Federal Jurisdiction (as defined in Section 2 of the *IAA*)	Rationale for Inclusion	Section of AIR where the Requirements have been included	Section of Application Where the Effect is Assessed	Assessment Findings
(a) a non-negligible adverse change to the following components of the environment that are within the legislative authority of Parliament:				
(i) fish and fish habitat, as defined in subsection 2(1) of the Fisheries Act,	Physical changes (water quality and quantity) are anticipated in fish habitats downstream of the project.	Additional detail was added to Section 5 Table 2 to include fish and fish habitat, as defined in subsection 2(1) of the *Fisheries Act.*	This column will provide a cross-reference to the section of the Application where a description of the assessment for effects within Federal jurisdiction are addressed.	This column will provide the assessment findings for effects within Federal jurisdiction.
(ii) aquatic species, as defined in subsection 2(1) of SARA	Since fish and fish habitat is addressed under the previous row, the only other organism included in the SARA definition is marine plants. Since this is not a marine project, this effect need not be assessed.	Not required.	Not required.	Not required.
(iii) migratory birds, as defined in subsection 2(1) of the *Migratory Birds Convention Act, 1994*; and,	Project activities could adversely impact behaviour and survival of migratory birds directly, or through impacts to their habitats.	Migratory birds has been added as a sub-component of the Wildlife VC (Section 5), which describes the requirements to address effects within federal jurisdiction for migratory birds as defined in subsection 2(1) of the *Migratory Birds Convention Act, 1994*.	This column will provide a cross-reference to the section of the Application where a description of the assessment for effects within Federal jurisdiction are addressed.	This column will provide the assessment findings for effects within Federal jurisdiction.
(iv) Any other component of the environment that is set out in Schedule 3;	The legislative authority of Parliament that is set out in Schedule 3 is currently not available. This requirement is not applicable.	Not required.	Not required.	Not required.
a non-negligible adverse change to:				
(b) the environment that would occur on federal lands;	IAAC does not anticipate effects to federal lands, but has asked that	Section 6.3 Assessment Boundaries includes a description of the distance from project components to federal lands and	This column will provide a cross-reference to the section of the Application where a description of	This column will provide the assessment findings for effects within Federal jurisdiction.

Table 14: Effects within Federal Jurisdiction – Section 2 of the Impact Assessment Act

Effects within Federal Jurisdiction (as defined in Section 2 of the *IAA*)	Rationale for Inclusion	Section of AIR where the Requirements have been included	Section of Application Where the Effect is Assessed	Assessment Findings
	the proponent confirm this in its Application.	the location of any federal lands within the RAA.	the assessment for effects within Federal jurisdiction are addressed.	
(c) the marine environment that is caused by pollution and that would occur outside Canada;	The Project is not expected to interact with the marine environment	Not required.	Not required.	Not required.
(d) that is caused by pollution to boundary waters or international waters, as those terms are defined in subsection 2(1) of the *Canada Water Act*, or to interprovincial waters;	Effluent from the project could increase contaminant concentration or load downstream to the United States at the transboundary Koocanusa Reservoir as well as the Kootenai River downstream of Koocanusa Reservoir which flows through Montana and Idaho. There are existing regional impacts to water quality caused by pollution that affect the environment across the Canada-U.S. border. The project could have cumulative effects with those existing conditions.	The Surface Water VC in Table 2 of Section 5 identifies the requirements of the assessment of surface water quality; transboundary requirements have been added to that section.	This column will provide a cross-reference to the section of the Application where a description of the assessment for effects within Federal jurisdiction are addressed.	This column will provide the assessment findings for effects within Federal jurisdiction.
(e) with respect to the Indigenous peoples of Canada, a non-negligible adverse impact — occurring in Canada and resulting from any change to the environment — on:				
(i) physical and cultural heritage;	Ensures the project does not irreversibly damage the tangible and intangible assets that define Indigenous identity. Recognizes that potentially impacted site often holds deeper spiritual or cultural value.	Sections 8.5 to 8.7 describe the community-specific assessment for Indigenous nations, including effects on physical and cultural heritage.	This column will provide a cross-reference to the section of the Application where a description of the assessment for effects within Federal jurisdiction are addressed.	This column will provide the assessment findings for effects within Federal jurisdiction.
(ii) the current use of lands and resources for traditional purposes, or	Assesses potential interference with asserted and Section 35 rights, such as hunting, fishing, and gathering and ensures that the land's ability to support the	Sections 8.5 to 8.7 describe the community-specific assessment for Indigenous nations, including effects on current use.	This column will provide a cross-reference to the section of the Application where a description of	This column will provide the assessment findings for effects within Federal jurisdiction.

Table 14: Effects within Federal Jurisdiction – Section 2 of the Impact Assessment Act

Effects within Federal Jurisdiction (as defined in Section 2 of the *IAA*)	Rationale for Inclusion	Section of AIR where the Requirements have been included	Section of Application Where the Effect is Assessed	Assessment Findings
	traditional way of life and food security for Indigenous Nations remains intact		the assessment for effects within Federal jurisdiction are addressed.	
(iii) any structure, site or thing that is of historical, archaeological, paleontological or architectural significance;	Protects specific historical, archaeological, or paleontological sites from Project activities. Identification of these sites can avoid project delays and respects these resources.	Sections 8.5 to 8.7 describe the community-specific assessment for Indigenous nations, including effects on any structure, site or thing that is of historical, archaeological, paleontological or architectural significance.	This column will provide a cross-reference to the section of the Application where a description of the assessment for effects within Federal jurisdiction are addressed.	This column will provide the assessment findings for effects within Federal jurisdiction.
(f) a non-negligible adverse change occurring in Canada to the health, social or economic conditions of the Indigenous peoples of Canada; and	Identifies how project activities might disrupt the social fabric, health outcomes, or economic stability of Indigenous Nations.	Sections 8.5 to 8.7 describe the community-specific assessment for Indigenous nations, including effects on health, social or economic conditions of the Indigenous peoples of Canada.	This column will provide a cross-reference to the section of the Application where a description of the assessment for effects within Federal jurisdiction are addressed.	This column will provide the assessment findings for effects within Federal jurisdiction.
(g) a non-negligible adverse change to a health, social or economic matter that is within the legislative authority of Parliament that is set out in Schedule 3.	This ensures that all Project impacts falling under specific federal powers (as listed in Schedule 3) are legally accounted for during the review. It provides a regulatory compliance mechanism for the federal government to fulfill its specific legal responsibilities toward Indigenous peoples and their interests	The legislative authority of Parliament that is set out in Schedule 3 is currently not available. This requirement is not applicable.	Not required.	Not required.

Table 15: Factors to be Considered – Section 22 of the Impact Assessment Act

Factor to be Considered (as defined in Section 22 of the Impact Assessment Act)	Section of AIR Where the Requirements have been Included	Section of Application Where the Factor is Assessed	Assessment Findings
(a) The changes to the environment or to health, social or economic conditions and the positive and negative consequences of these changes that are likely to be caused by the carrying out of the designated Project, including:	Table 2 outlines the requirements to assess changes to the environment and to the health, social, and economic conditions that are likely to be caused by the carrying out of the designated Project. Sections 6.5, 6.7, and 6.8 describe the requirements to assess the positive and negative consequences of these changes.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(i) The effects of malfunctions or accidents that may occur in connection with the designated Project;	Section 7.2 describes the requirements to assess the effects of malfunctions or accidents that may occur in connection with the Project.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(ii) Any cumulative effects that are likely to result from the designated Project in combination with other physical activities that have been or must be carried out; and,	Section 6.10 describes the requirements to assess any cumulative effects that are likely to result from the designated Project in combination with other physical activities that have been or will be carried out.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(iii) The result of any interaction between those effects;	Section 8 describe the requirements to address the interaction between the effects from malfunctions or accidents and any cumulative effects from the Project.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(b) Mitigation measures that are technically and economically feasible and that would mitigate any adverse effects of the designated Project;	Section 6.6 describes the requirements to address mitigation measures that are technically and economically feasible and that would mitigate any adverse effects of the designated Project.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(c) The impact that the designated Project may have on any Indigenous nation and any adverse impact that the designated Project may have on the rights of the Indigenous peoples of Canada recognized and affirmed by Section 35 of the Constitution Act, 1982	Section 8.0 describes the requirements to assess the impact that the designated Project may have on any Indigenous nation and any adverse impact that the designated Project may have on the rights of the Indigenous peoples of Canada recognized and affirmed by Section 35 of the Constitution Act, 1982.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.

Table 15: Factors to be Considered – Section 22 of the Impact Assessment Act

Factor to be Considered (as defined in Section 22 of the Impact Assessment Act)	Section of AIR Where the Requirements have been Included	Section of Application Where the Factor is Assessed	Assessment Findings
(d) The purpose of and need for the designated Project;	Section 1.7 describes the requirements to address the purpose of and need for the designated Project.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(e) Alternative means of carrying out the designated Project that are technically and economically feasible, including through the use of best available technologies, and the effects of those means	Section 1.8 describes the requirements to address the alternative means of carrying out the designated Project that are technically and economically feasible, including through the use of best available technologies, and the effects of those means.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(f) Any alternatives to the designated Project that are technically and economically feasible and are directly related to the designated Project;	Section 1.7.3 describes the requirements to address any alternatives to the designated Project that are technically and economically feasible and are directly related to the designated Project.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(g) Indigenous Knowledge provided with respect to the designated Project	Each of the effects assessment subsections in Section 8 includes a subsection called Existing Conditions (8.4.2) that describes the requirement to discuss available Indigenous or local knowledge related to the applicable VCs. Section 8.3 describes the requirements for the collection and use of Indigenous knowledge in the Application. Section 6 outlines the requirements of how Indigenous knowledge was used in designing and carrying out studies on existing conditions, effects assessment and identification of mitigation measures for each VC.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(h) The extent to which the designated Project contributes to sustainability;	Section 12.0 contains the requirement to describe the extent to which the designated Project contributes to sustainability.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(i) The extent to which the effects of the designated Project hinder or contribute to the Government of Canada's ability to meet	Section 9.1.1 contains the requirement to describe the extent to which the effects of the designated Project hinder or contribute	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.

Table 15: Factors to be Considered – Section 22 of the Impact Assessment Act

Factor to be Considered (as defined in Section 22 of the Impact Assessment Act)	Section of AIR Where the Requirements have been Included	Section of Application Where the Factor is Assessed	Assessment Findings
its environmental obligations and its commitments in respect of climate change;	to the Government of Canada's ability to meet its environmental obligations and its commitments in respect of climate change.		
(j) Any change to the designated Project that may be caused by the environment;	Section 7.3 contains the requirement to describe any change to the designated Project that may be caused by the environment.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(k) The requirements of the follow-up program in respect of the designated Project;	Section 6.11 describes the requirements of the follow-up program in respect of the designated Project.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(l) Considerations related to Indigenous cultures raised with respect to the designated Project;	Sections 5 to 8 describe the requirements to summarize considerations related to Indigenous cultures raised with respect to the designated Project.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(m) Community knowledge provided with respect to the designated Project	Section 6.2 describes the requirements to summarize community knowledge provided with respect to the designated Project.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(n) Comments received from the public;	Sections 3.0 and 6.2 describe the requirements to summarize feedback received from the public with respect to the designated Project.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(o) Comments from a jurisdiction that are received in the course of consultations conducted under Section 21;	The Joint Assessment and Engagement Plan describes the requirements to summarize feedback received from jurisdictions received in the course of consultations conducted under Section 21 with respect to the designated Project.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(p) Any relevant assessment referred to in Section 92, 93 or 95;	Section 2.2 contains the requirements to describe any relevant regional or strategic assessment referred to in Section 92, 93, or 95.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(q) Any assessment of the effects of the designated Project that is conducted by or on behalf of an Indigenous governing body	There are ongoing discussions to determine whether this will be part of the assessment process.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.

Table 15: Factors to be Considered – Section 22 of the Impact Assessment Act

Factor to be Considered (as defined in Section 22 of the Impact Assessment Act)	Section of AIR Where the Requirements have been Included	Section of Application Where the Factor is Assessed	Assessment Findings
and that is provided with respect to the designated Project			
r) Any study or plan that is conducted or prepared by a jurisdiction — or an Indigenous governing body not referred to in paragraph (f) or (g) of the definition jurisdiction in Section 2 — that is in respect of a region related to the designated Project and that has been provided with respect to the Project	Sections 2 through 8 contain the requirements to address any study or plan that is conducted or prepared by a jurisdiction — or an Indigenous governing body not referred to in paragraph (f) or (g) of the definition jurisdiction in Section 2 — that is in respect of a region related to the designated Project and that has been provided with respect to the Project.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(s) The intersection of sex and gender with other identity factors; and	Sections 1.6, 1.8, 6.4.1, 6.6**,** 6.8, and Table 2 contain the requirements to assess the intersections of sex and gender with other identity factors with respect to the designated Project (i.e.. the application of GBA Plus).	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.
(t) Any other matter relevant to the impact assessment that IAAC requires to be taken into account	IAAC requires no additional matters.	This column must provide a cross-reference to the section of the Application where Federal assessment matters are addressed.	This column must provide the assessment finding where Federal assessment matters were assessed.

9.1. Contributions to inform decision making

At the decision-making phase of the IAA, should the decision maker determine that the adverse federal effects that are likely to be caused by the project are likely to be, to some extent, significant, the decision maker will decide whether they are justified in the public interest in light of the extent to which they are significant and of the factors set out in section 63 of the IAA. The requirements in this section may inform the analysis of these factors.

9.1.1. Canada's environmental obligations and climate change commitments

IAAC, with the support of federal authorities, will analyze the project's likely effects in the context of Canada's environmental obligations relevant to this project, as well as the project's GHG emissions in the context of Canada's emissions targets and forecasts. The information gathered during the planning phase suggests that this project would generally not contribute to the Government of Canada's ability to meet its environmental obligations and climate change commitments. This is because of the project's footprint on the receiving environment (e.g. habitat loss resulting in adverse effects on biodiversity) and the potential emissions caused by the project (e.g. GHG emissions).

Where the proponent is of the view that the likely effects of the project contribute to the Government of Canada's ability to meet its environmental obligations and/or its commitments in respect of climate change, the proponent is encouraged to substantiate this view in the Application by describing these likely effects and the extent of their contribution (e.g. net increase in biodiversity through what mechanism; or net GHG reductions through what actions).

9.1.1.1. Environmental obligations

Federal environmental obligations relevant to this project include those set out in the following instruments:

Biodiversity

- *Convention on Biological Diversity* and *Kunming-Montreal Global Biodiversity Framework* and its domestic framework: *Canada's 2030 Nature Strategy*, as well legislations supporting its implementation including *SARA* and recovery strategies and action plans developed under SARA for species at risk likely affected by the project available on the *species at risk public registry*;
- *Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar)*, as implemented in part under the *Federal Policy on Wetland Conservation* and the *North American Waterfowl Management Plan*];
- *Convention for the Protection of Migratory Birds in the United States and Canada*, as implemented in part under the *Migratory Birds Convention Act (1994)*, and supporting conservation objectives from ECCC's *bird conservation regions and strategies*;

Air pollution

- the *Canada-United States Air Quality Agreement*, as implemented under the Air Quality Management System;

Water quality and quantity

- the *Canada-US Boundary Waters Treaty*, as implemented by the International Joint Commission.

The Application must:

- list likely effects on species listed in Schedule 1 of SARA and their critical habitat, as well as identify the measures that will be taken to avoid or lessen those effects and to monitor them, including measures from any applicable provincial framework. Where applicable, refer to descriptions of effects already provided for VCs elsewhere in the Application. The proponent is also encouraged to include additional species that the Committee on the Status of Endangered Wildlife in Canada has recommended for listing as extirpated, endangered, threatened or of special concern.

Where the proponent is of the view that the likely effects of the project contribute to environmental obligations, the proponent is encouraged to:

- describe plans and commitments that contribute to the above-listed environmental obligations; and
- with respect to the biodiversity[19] obligations:
    - describe and, where possible, quantify likely changes in biodiversity resulting from the project referring to relevant guidance such as the *Convention on Biological Diversity's* *Voluntary Guidelines on Biodiversity-Inclusive Impact Assessment*,
    - describe whether, applying the mitigation hierarchy, the project would result in no net loss or in net positive impacts on biodiversity, and
    - describe whether and how the project's likely effects will contribute to the targets identified in *Canada's 2030 Nature Strategy* such as Target 2 (ecosystem restoration), Target 3 (protected and conserved areas), Target 4 (species recovery), Target 6 (invasive alien species), Target 7 (pollution and biodiversity, focusing on chemicals and air pollutants), Target 11 (ecosystem services and functions), Target 14 (mainstreaming of biodiversity values), Target 21 (knowledge sharing), and Target 22 (inclusion of Indigenous Peoples, women/girls, youth/children, persons with disabilities, and environmental human rights defenders in decision making).

9.1.1.2. Climate change commitments

Where the proponent is of the view that the likely effects of the project contribute to Canada's climate change commitments, the proponent is encouraged to describe its plans and commitments accordingly.

Greenhouse gases emissions

The proponent may assess the project's GHG emissions following the *Strategic Assessment of Climate Change* (SACC) and the technical guides related to the SACC, developed by ECCC, including the *Guidance on quantification of net GHG emissions, impact on carbon sinks, mitigation measures, net-zero plan and upstream GHG assessment* (Technical Guide). The proponent is encouraged to keep apprised of updates to the SACC and related technical guides published by ECCC.

10.0 Summary of Biophysical Factors That Support Ecosystem Function

The Application must consider project effects on biophysical factors that support ecosystem function based on the results of the VC assessments, including the cumulative effects assessments. The Application must:

- Provide an overview of the current ecosystem function in the vicinity of the project at a landscape-and watershed level;
- Identify biophysical factors that support ecosystem function that the project effects may interact with;
- Discuss how the assessments of effects of the project on VCs and Indigenous Interests, including cumulative effects, considered effects on these biophysical factors;
- Describe the positive and negative effects, including negative cumulative effects, on biophysical factors that support ecosystem function based on appropriate information from the VC assessments;

[19] The *Convention on Biological Diversity* defines biological diversity, or biodiversity, as "the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems".

- Identify proposed measures required to mitigate or manage potential effects on biophysical factors that support ecosystem function;
- Describe any predicted changes to ecosystem function as a result of the project;

11.0 Summary of Impacts to Current and Future Generations

The Application must summarize the analysis and conclusions for environmental, economic, social, cultural and health VCs and Indigenous Interests that contribute to the project's positive or negative effects on current and future generations. The Application must:

- Describe how input from engagement related to effects on current and future generations was incorporated and how the project has changed as a result;
- Demonstrate how any strategic direction from the Province of B.C. regarding sustainable development was considered;
- Provide any mitigation measures proposed to more equitably distribute positive and negative effects over time (e.g., across generations);
- Discuss the potential outcome that residual effects to VCs and Indigenous Interests will have on both current and future generations;
- Discuss the type(s) of economic growth that would be generated by the project and how this growth would be distributed, both within the population and over time; and
- Identify any relevant regional or provincial growth strategies and describe how the project is or is not aligned with them.

12.0 Evaluation of Sustainability

The Application must include an evaluation of the Project's contributions to sustainability in B.C and Canada[20]. This evaluation must describe how the Project will contribute to, or detract from, the protection of the environment, the fostering of a sound economy, and the supporting of the well-being of British Columbians and their communities.

The evaluation of sustainability for the Project must summarize:

- The context in which this Project is being proposed, including descriptions of global, national, provincial, local, and Indigenous needs, goals and values – and the extent to which this Project supports these needs, goals, and values;
- A summary of the positive and adverse effects the Project would have on the provincial and local environment, economy, and society;
- How key positive effects of the Project have been enhanced;
- How key adverse effects of the Project have been mitigated;
- How the Project would affect the interconnectedness and interdependence of human-ecological systems;
- How the Project would affect the well-being of present and future generations;

[20] Guidance: Considering the Extent to which a Project Contributes to Sustainability (IAAC) https://www.canada.ca/content/dam/iaac-acei/documents/policy-guidance/pp-pp/guidance-considering-extent-project-contributes-sustainability.pdf

- How the precautionary principle was applied in the development of the proposed Project, including consideration of uncertainty and risk of irreversible harm; and
- How Indigenous knowledge was applied in the development of the evaluation of sustainability.

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APPENDIX A: RELEVANT STATUES, POLICIES, AND FRAMEWORKS FOR VALUED COMPONENTS

Valued Component	Relevant Statutes, Policies and Frameworks
Air Quality	Statutes, Policies And Frameworks That May Be Relevant To The Air Quality VC Include: • *Canadian Environmental Protection Act,* And Regulations; • *Environmental Management Act* And Regulations; • British Columbia Ambient Air Quality Objectives; • Canadian Ambient Air Quality Standards; • British Columbia Air Quality Dispersion Modelling Guideline (BC ENV, 2022); • British Columbia Field Sampling Manual (Province Of B.C., 2013, 2020); • Guidance On Application Of Provincial Air Quality Objectives For NO_2 (BC ENV, 2021); • Guidance On Application Of Provincial Air Quality Objectives For SO_2 (BC MOE, 2017); • Meteorological Data And Sensing Requirements In The B.C. Ministry Of Environment; • Evaluating Human Health Impacts In Environmental Assessment: Air Quality (Health Canada, 2016); • Guidance Document on Achievement Determination Canadian Ambient Air Quality Standards for Fine Particulate Matter and Ozone (Canadian Council of Ministers of The Environment, 2012); • Guidance Document on Achievement Determination for Canadian Ambient Air Quality Standards for Nitrogen Dioxide (Canadian Council of Ministers of The Environment, 2020); and • Guidance Document on Achievement Determination for Canadian Ambient Air Quality Standards for Sulphur Dioxide (Canadian Council of Ministers of The Environment, 2020).
Acoustic	Statutes, policies and frameworks that may be relevant to the acoustic VC include: • Municipal bylaws; • Guidance for Evaluating Human Health Effects in Impact Assessment: Noise (Health Canada, 2023); • British Columbia Noise Control Best Practices Guideline (BCER 2024); • Report of Investigations 8507 Structure Response and Damage Produced by Ground Vibration from Surface Mine Blasting (USBM 1980a); and • Report of Investigations 8485 Structure Response and Damage Produced by Air Blast from Surface Mining (USBM 1980b).
Surface Water	Statutes, policies and frameworks that may be relevant to the surface water VC include: • *Water Sustainability Act* and regulations; • *Environmental Management Act,* including the Contaminated Sites Regulation; • *Fisheries Act,* including the proposed Coal Mining Effluent Regulations; • *Drinking Water Protection Act*; • *International River Improvements Act* and Regulations*;* • B.C. Water Quality Guidelines; • Source Drinking Water Quality Guidelines (ENV, 2020); • Guidelines for Canadian Drinking Water Quality (Health Canada, 2022); • Canadian Council of Ministers of the Environment Canadian Environmental Quality Guidelines; • Guidance for Evaluating Human Health Impacts in Environmental Assessment: Water Quality (Health Canada, 2017); • Manual of Standard Operation Procedures for Hydrometric Surveys in British Columbia (MELP 1998b); • B.C. Environmental Flow Needs Policy; • B.C. Field Sampling Manual (Province of B.C., 2013, 2020); • Snow Survey Sampling Guide (BC MOE 1981); • Government Actions Regulation under the Forest & Range Practices Act; • Policy for Metal Leaching and Acid Rock Drainage at British Columbia Mine Sites (July 1998); • Guidelines for Metal Leaching and Acid Rock Drainage at Mine Sites in British Columbia (August 1998); • Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials, MEND Report 1.20.1 (December 2009); • 2025 Elk Valley Water Quality Plan (BC Ministry of Environment and Parks, 2025); • Chronic Nickel Benchmark for the Elk Valley (Golder 2022); • - Updated Effects Concentrations for Nitrate and Sulphate (WSP Technical Memorandum, April 17, 2025); and • - Parameters of Concern Fact Sheet, Defining Parameters of Concern for Effluent Discharge Authorization Applications (ENV 2024).

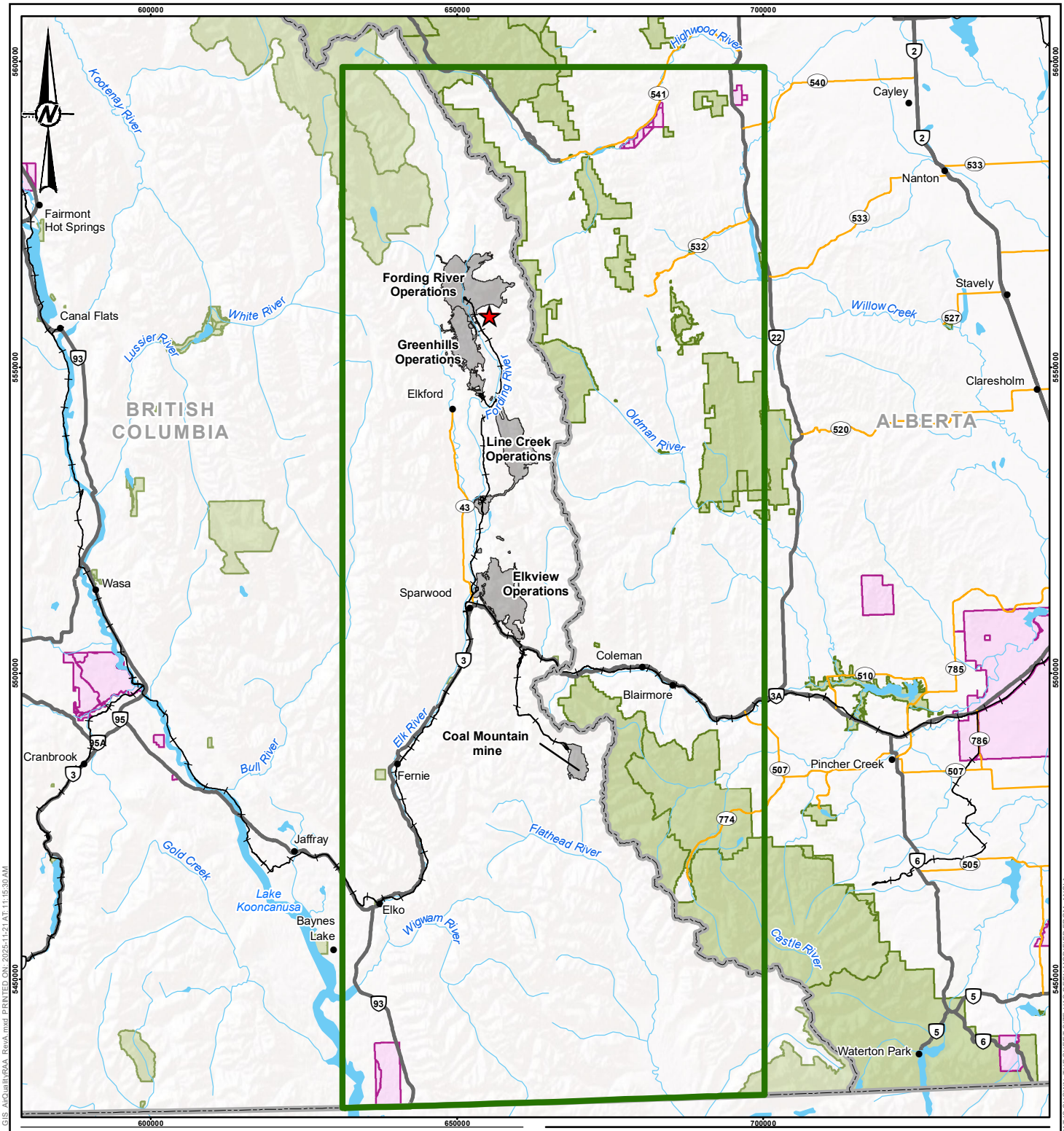
Valued Component	Relevant Statutes, Policies and Frameworks
Groundwater	Statutes, policies and frameworks that may be relevant to the groundwater VC include: • B.C. Guidelines for Groundwater Modelling to Assess Impacts of Proposed Natural Development Activities (BC MOE, 2012); • *Water Sustainability Act*; • *Environmental Management Act,* including the Contaminated Sites Regulation*;* • *Drinking Water Protection Act;* • B.C. Contaminated Sites Standards (in the B.C. Contaminated Sites Regulation); • B.C. Water Quality Guidelines; • B.C. Groundwater Protection Regulation; • Guidelines for Groundwater Modelling to Assess Impacts of Proposed Natural Resource Development Activities (B.C. MOE, 2012); • B.C. Field Sampling Manual (Province of B.C., 2013, 2020); • Government Actions Regulation under the Forest & Range Practices Act; • Source Drinking Water Quality Guidelines (ENV, 2020); • Guidelines for Canadian Drinking Water Quality (Health Canada, 2025); • Canadian Groundwater Quality Guidelines for Use at Contaminated Sites; and • Guidance for Evaluating Human Health Impacts in Environmental Assessment Drinking and Recreational Water Quality (Health Canada, 2016b).
Soil	Statutes, policies and frameworks that may be relevant to the soil VC include: • *Environmental Management Act,* including the Contaminated Sites Regulation; • *Agricultural Land Commission Act* and Agricultural Land Reserve regulations; • *Forest Range and Practices Act*; • *Local Government Act*; and • Canadian Council of Ministers of the Environment Canadian Soil Quality Guidelines for the Protection of Environment and Human Health.
Unique Geologic Landforms	Statutes, policies and frameworks that may be relevant to the unique geologic landforms VC include: • Protecting Karst in Coastal B.C. Special Report (Forest Practices Board, 2007); • Land use plans; • *Land Act* Notations of Interest; and • Government Actions Regulation under the *Forest & Range Practices Act*.
Vegetation	Statutes, policies and frameworks that may be relevant to the vegetation VC may include: • *Oil and Gas Activities Act* and associated regulations and guidelines; • *Forest and Range Practices Act*; • *Forest Act;* • *Weed Control Act* and regulation; • *Water Sustainability Act* and regulations; • B.C. Conservation Framework; • *Land Act;* • Evaluating the Health of Wetlands: Wetland Management Routine Effectiveness Evaluation and Technical Supplements (Fletcher et al, 2021; BCWF & FLNRO, 2021); • *Species at Risk Act* (SARA); • Federal Policy on Wetland Conservation (Government of Canada, 1991); • Canadian Wetland Classification System; • Wetland Ecological Functions Assessment: An Overview of Approaches; • Operational Framework for Use of Conservation Allowances; • Elk Valley Cumulative Effects Framework (EV-CEMF); • B.C. Cumulative Effects Framework; • B.C. Cumulative Effects Framework Interim Policy for the Natural Resource Sector; • Tripartite Framework Agreement on Nature Conservation between Canada, B.C., and the First Nations Leadership Council; • Draft B.C. Biodiversity and Ecosystem Health Framework; and • Guidance for Evaluating Human Health Impacts in Environmental Assessment: Country Foods (Health Canada, 2023d).

Valued Component	Relevant Statutes, Policies and Frameworks
Wildlife	Statutes, policies and frameworks that may be relevant to the wildlife VC include: • *Wildlife Act*; • *SARA;* • *Land Act*; • *Migratory Birds Convention Act* and regulation; • Recovery strategies, management plans, management strategies, guidelines, and action plans for migratory birds and species at risk; • B.C. Conservation Framework; • *Oil and Gas Activities Act* and associated regulations and guidelines; • Government Actions Regulation under the *Forest & Range Practices Act*; • Operational Framework for Use of Conservation Allowances; • Elk Valley Cumulative Effects Framework (EV-CEMF); • B.C. Cumulative Effects Framework; • B.C. Cumulative Effects Framework Interim Policy for the Natural Resource Sector; • Tripartite Framework Agreement on Nature Conservation between Canada, B.C., and the First Nations Leadership Council; • Draft B.C. Biodiversity and Ecosystem Health Framework; and • Guidance for Evaluating Human Health Impacts in Environmental Assessment: Country Foods (Health Canada, 2023d).
Aquatic Resources and Freshwater Fish	Statutes, policies and frameworks that may be relevant to the aquatic resources and freshwater fish VC include: • *Fisheries Act* and regulations; • *Environmental Management Act* and regulations; • Fisheries and Oceans Canada (DFO) policies; • *SARA*; • Framework for Assessing the Ecological Flow Requirements to Support Fisheries in Canada (DFO, 2013); • Pathways of Effects (DFO, 2024); • *Oil and Gas Activities Act* and associated regulations and guidelines; • *Riparian Areas Protection Act* and regulations*;* • Government Actions Regulation under the *Forest & Range Practices Act;* • *Water Sustainability Act* and regulations; • Operational Framework for Use of Conservation Allowances; • B.C. Environmental Flow Needs Policy; • Guidance for Evaluating Human Health Impacts in Environmental Assessment: Country Foods (Health Canada, 2023d); • Elk Valley Cumulative Effects Framework (EV-CEMF); • B.C. Cumulative Effects Framework; • B.C. Cumulative Effects Framework Interim Policy for the Natural Resource Sector; • Tripartite Framework Agreement on Nature Conservation between Canada, B.C., and the First Nations Leadership Council; and • Draft B.C. Biodiversity and Ecosystem Health Framework.
Employment and Economy	Statutes, policies and frameworks that may be relevant to the employment and economy include national, provincial, regional and/or local economic development plans, strategies and action plans, such as: • *Labour Mobility Act;* • *Trade, Investment and Labour Mobility Agreement Implementation Act;* • *New West Partnership Trade Agreement Implementation Act;* • Local community charter(s); • Resources from the First Nations Information Governance Centre; • Human and Community Well-being: Guidelines for Assessing Social, Economic, Cultural and Health Effects in Environmental Assessments in B.C.; • *Local Government Act;* and • *Local Government Grants Act.*

Valued Component	Relevant Statutes, Policies and Frameworks
Land and Resource Use	Statutes, policies and frameworks that may be relevant to the land and resource use VC include: • Crown land policies; • Land use plans; • Official Community Plans; • Regional Growth Strategies; • Municipal and Regional District bylaws; • *Agricultural Land Commission Act;* • *Forest Act;* • *Forest and Range Practices Act;* • *Water Sustainability Act*; • *Land Act;* • *Mineral Tenure Act;* • *Mines Act;* • *Oil and Gas Activities Act;* • *Parks Act;* • *Wildlife Act;* • *Fisheries Act;* and • *Local Government Act.*
Infrastructure and Services	Statutes, policies and frameworks that may be relevant to the infrastructure and services VC include: • Official Community Plans; • Regional Growth Strategies; • Municipal and Regional District bylaws; • Service provider management/development plans and strategies; • Local community charter(s); • Human and Community Well-being: Guidelines for Assessing Social, Economic, Cultural and Health Effects in Environmental Assessments in B.C. (BC EAO, 2020); • Housing Need Reports; • *Transportation Act;* • *Local Government Act;* • *School Act*; • *Teachers Act*; • *Fire Services Act*; • *First Nations Education Act*; • *Police Act*; and • *Public Health Act*.

Valued Component	Relevant Statutes, Policies and Frameworks
Human Health	Statutes, policies and frameworks that may be relevant to the human health VC include: • *Public Health Act* and regulations; • Contaminated Sites Regulation under the *Environmental Management Act*; • *Drinking Water Protection Act* and regulations; • Human and Community Well-being: Guidelines for Assessing Social, Economic, Cultural and Health Effects in Environmental Assessments in B.C. (BC EAO, 2020); • Health Canada Guidelines for Canadian Drinking Water Quality (Health Canada, 2022); • British Columbia Guidance for Prospective Human Health Risk Assessment (MOH, 2022); • Environment Canada Guidance for Ecological Risk Assessments (Government of Canada, 2013); • Health Canada Guidance for Evaluating Human Health Effects in Impact Assessment: Human Health Risk Assessment (Health Canada, 2023a); • Health Canada Federal Contaminated Site Risk Assessment in Canada Guidance on Human Health Preliminary Quantitative Risk Assessment (Health Canada, 2021); • Health Canada Guidance on Human Health Detailed Quantitative Risk Assessment for Chemicals (DQRA) (Health Canada 2010); • Relevant statutes, policies and frameworks for the air quality, surface water, groundwater and noise VCs; • Guidance for Evaluating Human Health Impacts in Environmental Assessment: Country Foods (Health Canada, 2023d); • Interim Guidance on Health Impact Assessment of Designated Projects Under the Impact Assessment Act Health Canada, 2023e) • The Social Determinants of Health (Bryant, R. 2020); and • The Social Determinants of Health Strategy (First Nations Health Authority 2025).
Community Health and Well-being	Statutes, policies and frameworks that may be relevant to the community health VC include: • Human and Community Well-being: Guidelines for Assessing Social, Economic, Cultural and Health Effects in Environmental Assessments in B.C. (BC EAO, 2020); • Interim Guidance: Health Impact Assessment of Designated Projects under the Impact Assessment Act (Health Canada, 2024); and. • Quality of Life Framework for Canada (Statistics Canada, 2021).
Archaeological and Heritage Resources	Statutes, policies and frameworks that may be relevant to the archaeological and heritage resources VC include: • *Heritage Conservation Act*; • Fossil Management Framework*;* • Fossil Management Policy including Fossil Impact Assessment Guidelines (Province of B.C., 2021); • Applicable Indigenous heritage policies and cultural use studies provided by Indigenous Nations; and • *Local Government Act.*

APPENDIX B: DRAFT ASSESSMENT AREAS



LEGEND

- CITY / TOWN / COMMUNITY
- PROJECT LOCATION
- RAILWAY
- PRIMARY HIGHWAY
- SECONDARY HIGHWAY
- WATERCOURSE
- AIR QUALITY REGIONAL ASSESSMENT AREA
- BRITISH COLUMBIA - ALBERTA BOUNDARY
- COAL MINING OPERATION
- FIRST NATIONS RESERVE
- PARK/PROTECTED AREA
- WATERBODY

DRAFT

0 20 40

1:900,000 KILOMETRES

NOTE(S)

SUBCOMPONENT-SPECIFIC REGIONAL ASSESSMENT AREAS MAY BE PRESENTED IN THE APPLICATION WITH APPROPRIATE RATIONALE

REFERENCE(S)

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DATUM: NAD 83 PROJECTION: UTM ZONE 11

EVR OPERATIONS LIMITED

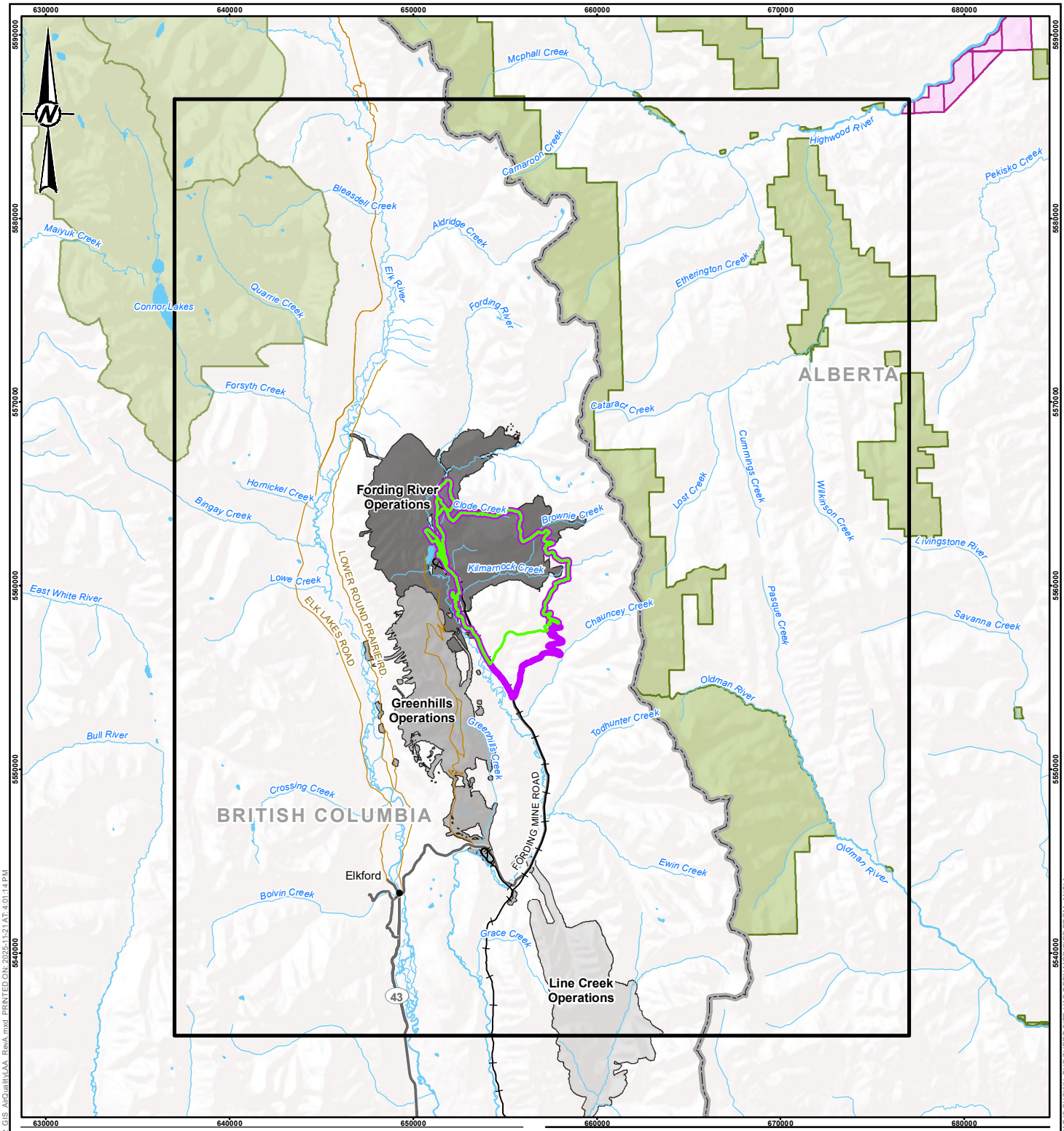
PROJECT
FORDING RIVER EXTENSION PROJECT

TITLE
AIR QUALITY REGIONAL ASSESSMENT AREA

EVR A GLENCORE COMPANY

YYYY-MM-DD	2025-11-21
DESIGNED	MH
PREPARED	DR
REVIEWED	
APPROVED	

PROJECT NO.	CONTROL	REV.	FIGURE
CA0050291.7055	AIR_001	A	1



LEGEND

- CITY / TOWN / COMMUNITY
- RAILWAY
- ROAD - PAVED
- ROAD - UNPAVED
- WATERCOURSE
- AIR QUALITY LOCAL ASSESSMENT AREA
- BRITISH COLUMBIA - ALBERTA BOUNDARY
- FRO C-3 PERMITTED MINE AREA
- GHO C-137 PERMITTED MINE AREA
- LCO C-129 PERMITTED MINE AREA
- FIRST NATIONS RESERVE
- PARK/PROTECTED AREA
- PROJECT FOOTPRINT - STAGE 1
- PROJECT FOOTPRINT - STAGE 1 + STAGE 2
- WATERBODY

DRAFT

0 5 10

1:300,000 KILOMETRES

REFERENCE(S)

BASE DATA OBTAINED FROM EVR OPERATIONS LIMITED AND GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED. DATUM: NAD 83 PROJECTION: UTM ZONE 11

EVR OPERATIONS LIMITED

PROJECT

FORDING RIVER EXTENSION PROJECT

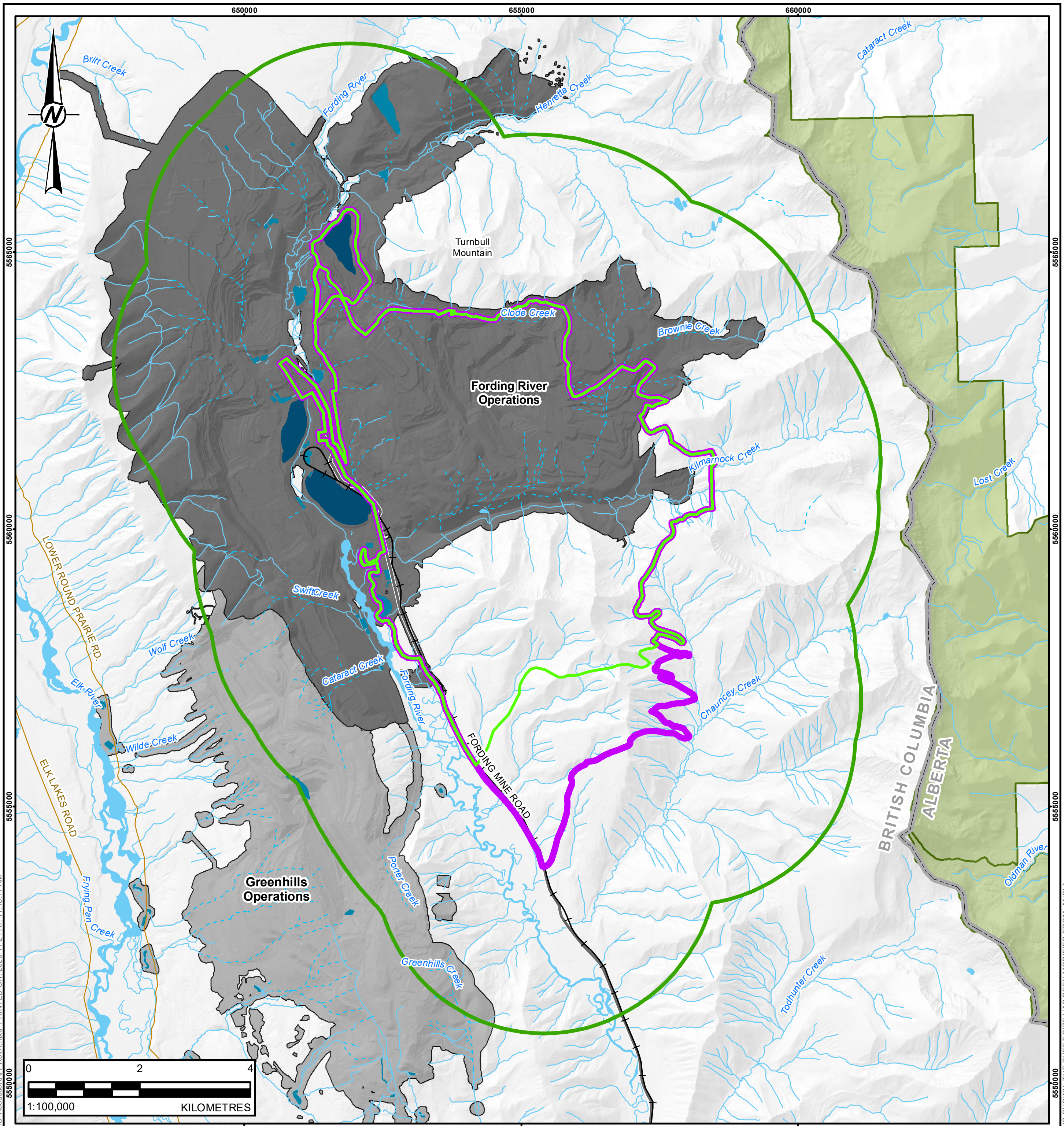
TITLE

AIR QUALITY LOCAL ASSESSMENT AREA

EVR A GLENCORE COMPANY

YYYY-MM-DD	2025-11-21
DESIGNED	MH
PREPARED	DR
REVIEWED	
APPROVED	

PROJECT NO.	CONTROL	REV.	FIGURE
CA0050291.7055	AIR_002	A	2



LEGEND

- RAILWAY
- ROAD - PAVED
- ROAD - UNPAVED
- SURFACE FLOW WATERCOURSE
- SUBSURFACE FLOW WATERCOURSE
- BRITISH COLUMBIA - ALBERTA BOUNDARY
- FRO C-3 PERMITTED MINE AREA
- GHO C-137 PERMITTED MINE AREA
- ACOUSTIC REGIONAL ASSESSMENT AREA
- PROJECT FOOTPRINT - STAGE 1
- PROJECT FOOTPRINT - STAGE 1 + STAGE 2
- PROVINCIAL PARK / PROTECTED AREA
- TAILINGS POND
- WASTE WATER/ SEDIMENT POND
- WATERBODY

DRAFT

NOTE(S)

SUBCOMPONENT-SPECIFIC REGIONAL ASSESSMENT AREAS MAY BE PRESENTED IN THE APPLICATION WITH APPROPRIATE RATIONALE

REFERENCE(S)

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EVR OPERATIONS LIMITED

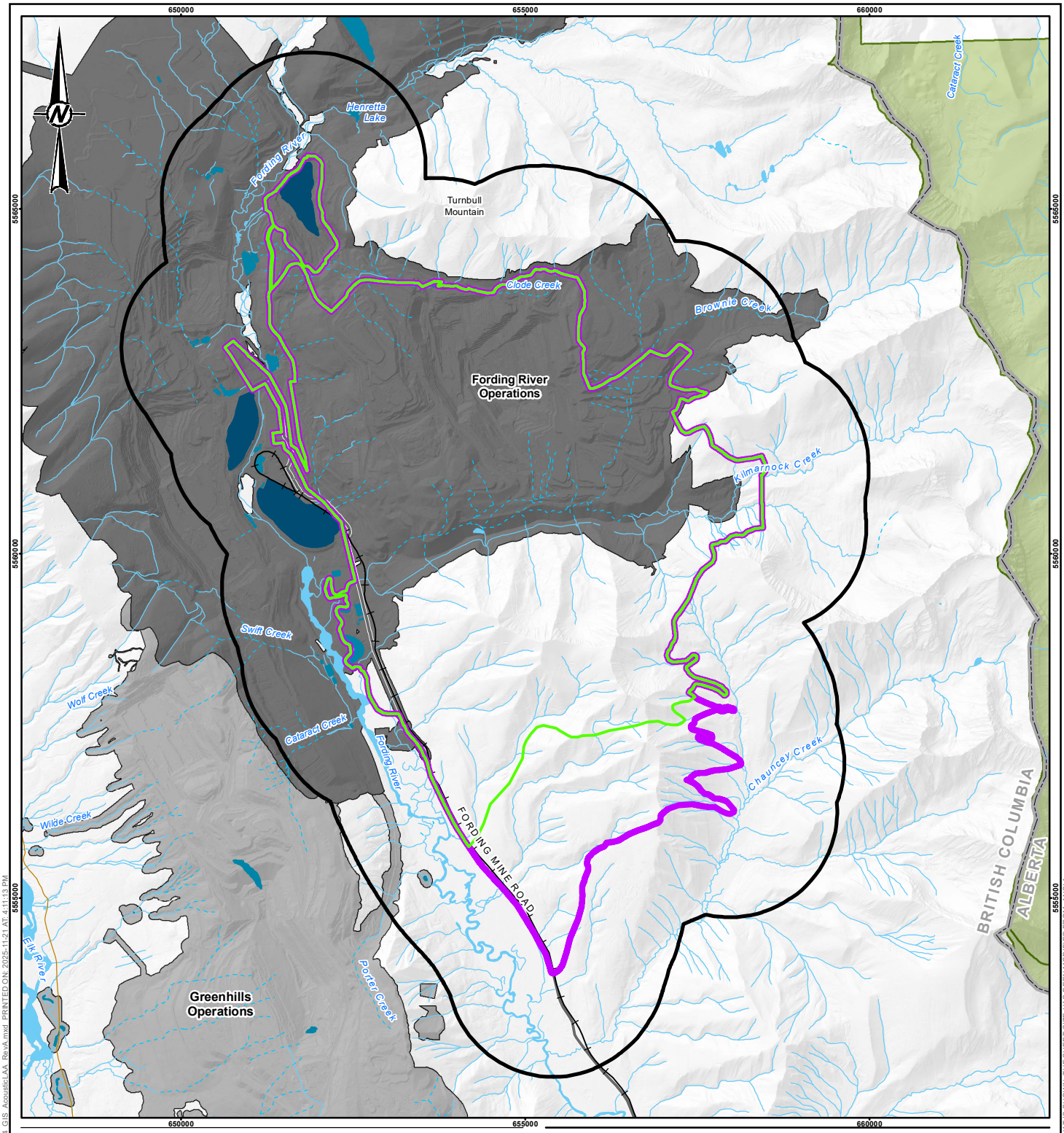
PROJECT
FORDING RIVER EXTENSION PROJECT

TITLE
ACOUSTIC REGIONAL ASSESSMENT AREA

EVR
A GLENCORE COMPANY

YYYY-MM-DD	2025-11-21
DESIGNED	SD
PREPARED	DR
REVIEWED	
APPROVED	

PROJECT NO.	CONTROL	REV.	FIGURE
CA0050291.7055	AIR_003	A	3



LEGEND

- RAILWAY
- ROAD - PAVED
- ROAD - UNPAVED
- SURFACE FLOW WATERCOURSE
- SUBSURFACE FLOW WATERCOURSE
- ACOUSTIC LOCAL ASSESSMENT AREA
- BRITISH COLUMBIA - ALBERTA BOUNDARY
- FRO C-3 PERMITTED MINE AREA
- GHO C-137 PERMITTED MINE AREA
- PROJECT FOOTPRINT - STAGE 1
- PROJECT FOOTPRINT - STAGE 1 + STAGE 2
- PROVINCIAL PARK / PROTECTED AREA
- TAILINGS POND
- WASTE WATER/ SEDIMENT POND
- WATERBODY

DRAFT

0 1 2

1:80,000 KILOMETRES

REFERENCE(S)

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EVR OPERATIONS LIMITED

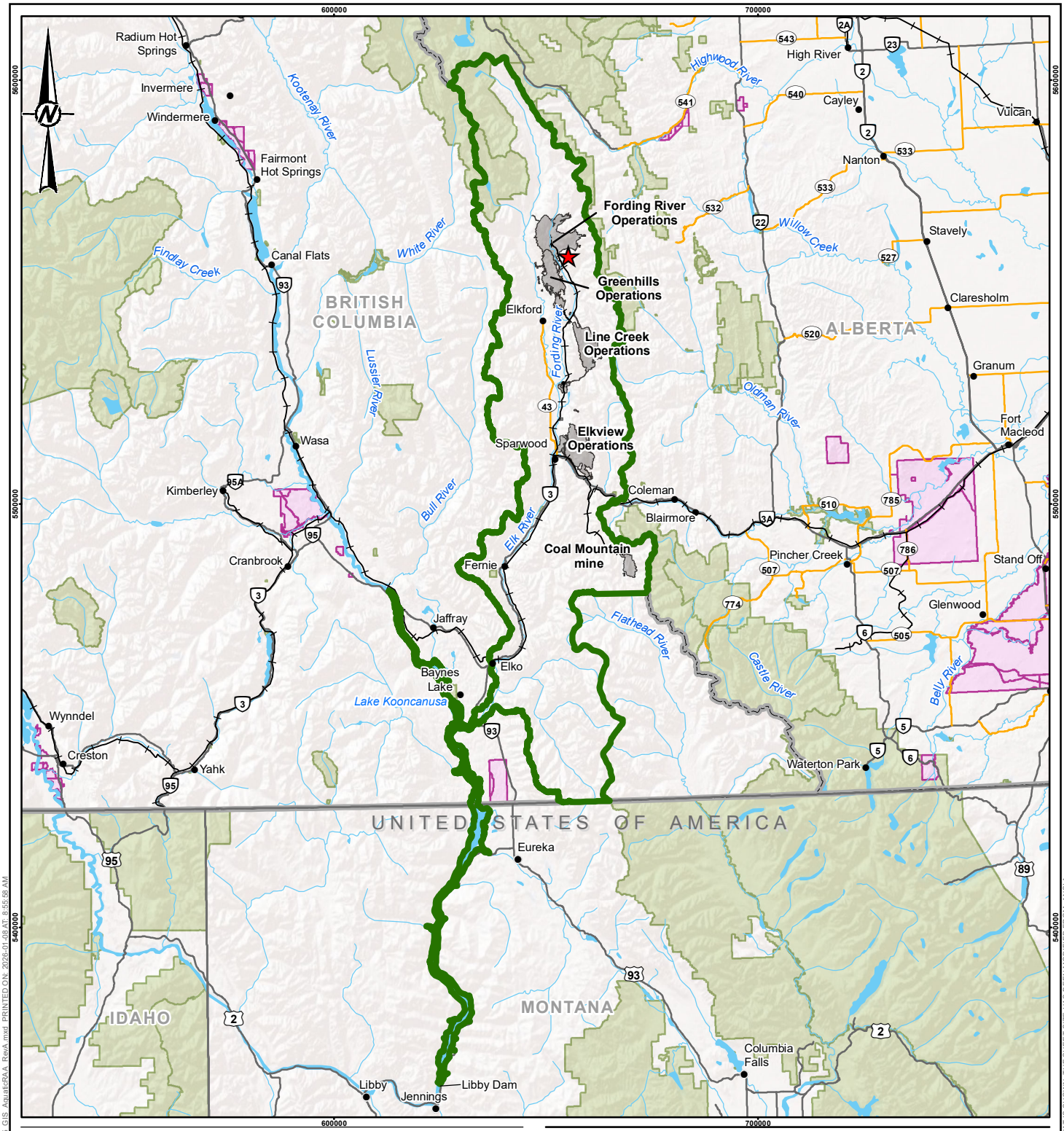
PROJECT
FORDING RIVER EXTENSION PROJECT

TITLE
ACOUSTIC LOCAL ASSESSMENT AREA

EVR A GLENCORE COMPANY

YYYY-MM-DD	2025-11-21
DESIGNED	SD
PREPARED	DR
REVIEWED	
APPROVED	

PROJECT NO.	CONTROL	REV.	FIGURE
CA0050291.7055	AIR_004	A	4



LEGEND

- CITY / TOWN / COMMUNITY
- PROJECT LOCATION
- RAILWAY
- PRIMARY HIGHWAY
- SECONDARY HIGHWAY
- WATERCOURSE
- AQUATIC REGIONAL ASSESSMENT AREA
- BRITISH COLUMBIA - ALBERTA BOUNDARY
- COAL MINING OPERATION
- FIRST NATIONS RESERVE
- INTERNATIONAL BORDER
- PARK/PROTECTED AREA
- STATE BORDER
- WATERBODY

DRAFT

0 20 40

1:1,300,000 KILOMETRES

NOTE(S)

SUBCOMPONENT-SPECIFIC REGIONAL ASSESSMENT AREAS MAY BE PRESENTED IN THE APPLICATION WITH APPROPRIATE RATIONALE

REFERENCE(S)

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DATUM: NAD 83 PROJECTION: UTM ZONE 11

EVR OPERATIONS LIMITED

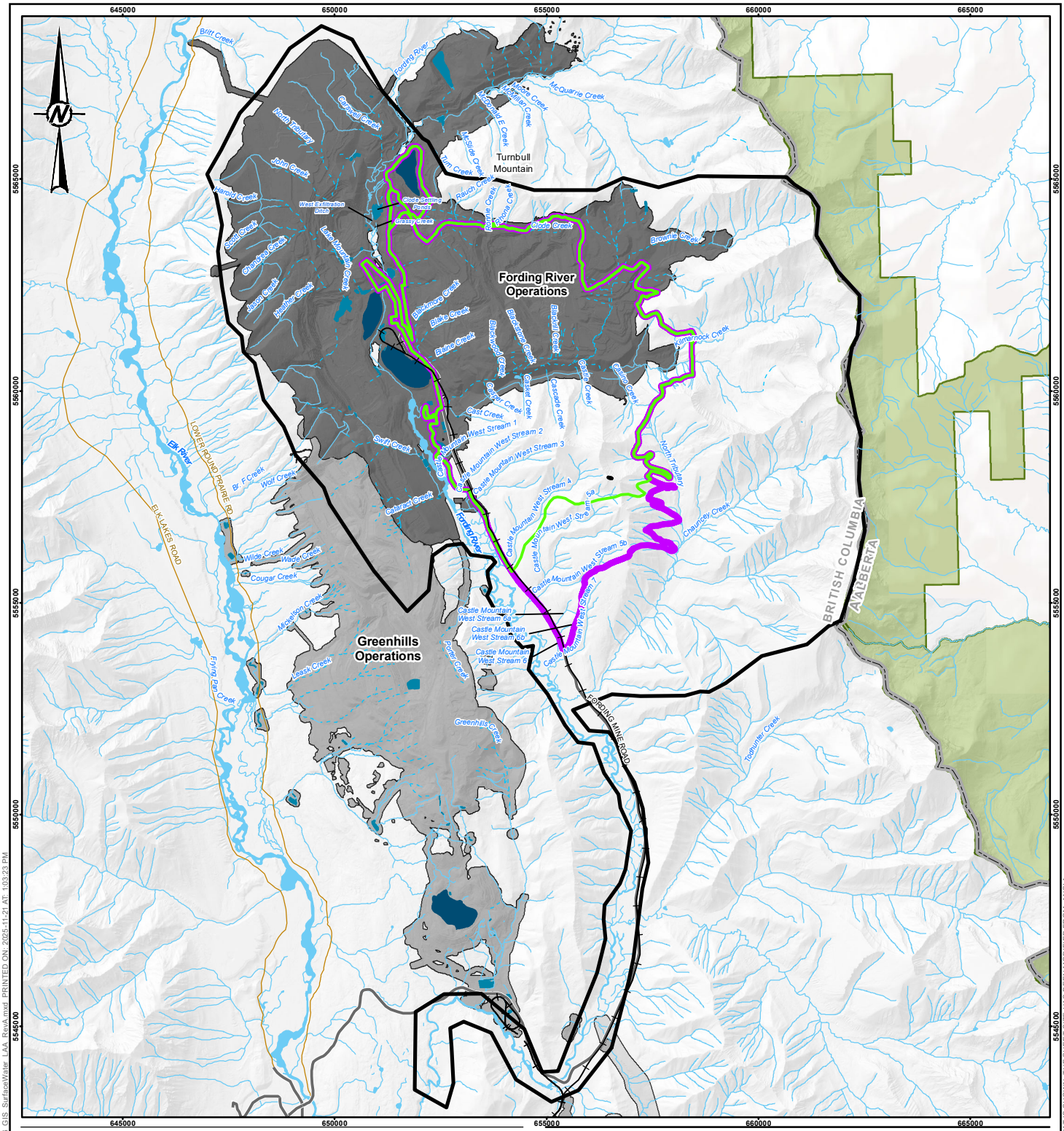
PROJECT
FORDING RIVER EXTENSION PROJECT

TITLE
AQUATIC REGIONAL ASSESSMENT AREA (SURFACE WATER, AQUATIC RESOURCES AND FRESHWATER FISH)

EVR A GLENCORE COMPANY

YYYY-MM-DD	2026-01-08
DESIGNED	KW
PREPARED	DR
REVIEWED	
APPROVED	

PROJECT NO.	PHASE	REV.	FIGURE
CA0050291.7055	AIR_005	A	5



LEGEND

- RAILWAY
- ROAD - PAVED
- ROAD - UNPAVED
- SURFACE FLOW WATERCOURSE
- SUBSURFACE FLOW WATERCOURSE
- BRITISH COLUMBIA - ALBERTA BOUNDARY
- FRO C-3 PERMITTED MINE AREA
- GHO C-137 PERMITTED MINE AREA
- LCO C-129 PERMITTED MINE AREA
- PROJECT FOOTPRINT - STAGE 1
- PROJECT FOOTPRINT - STAGE 1 + STAGE 2
- PROVINCIAL PARK / PROTECTED AREA
- SURFACE WATER LOCAL ASSESSMENT AREA
- TAILINGS POND
- WASTE WATER/ SEDIMENT POND
- WATERBODY

DRAFT

0 2 4
1:130,000 KILOMETRES

REFERENCE(S)

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PROJECTION: UTM ZONE 11 DATUM: NAD 83

EVR OPERATIONS LIMITED

PROJECT
FORDING RIVER EXTENSION PROJECT

TITLE
SURFACE WATER LOCAL ASSESSMENT AREA

EVR A GLENCORE COMPANY

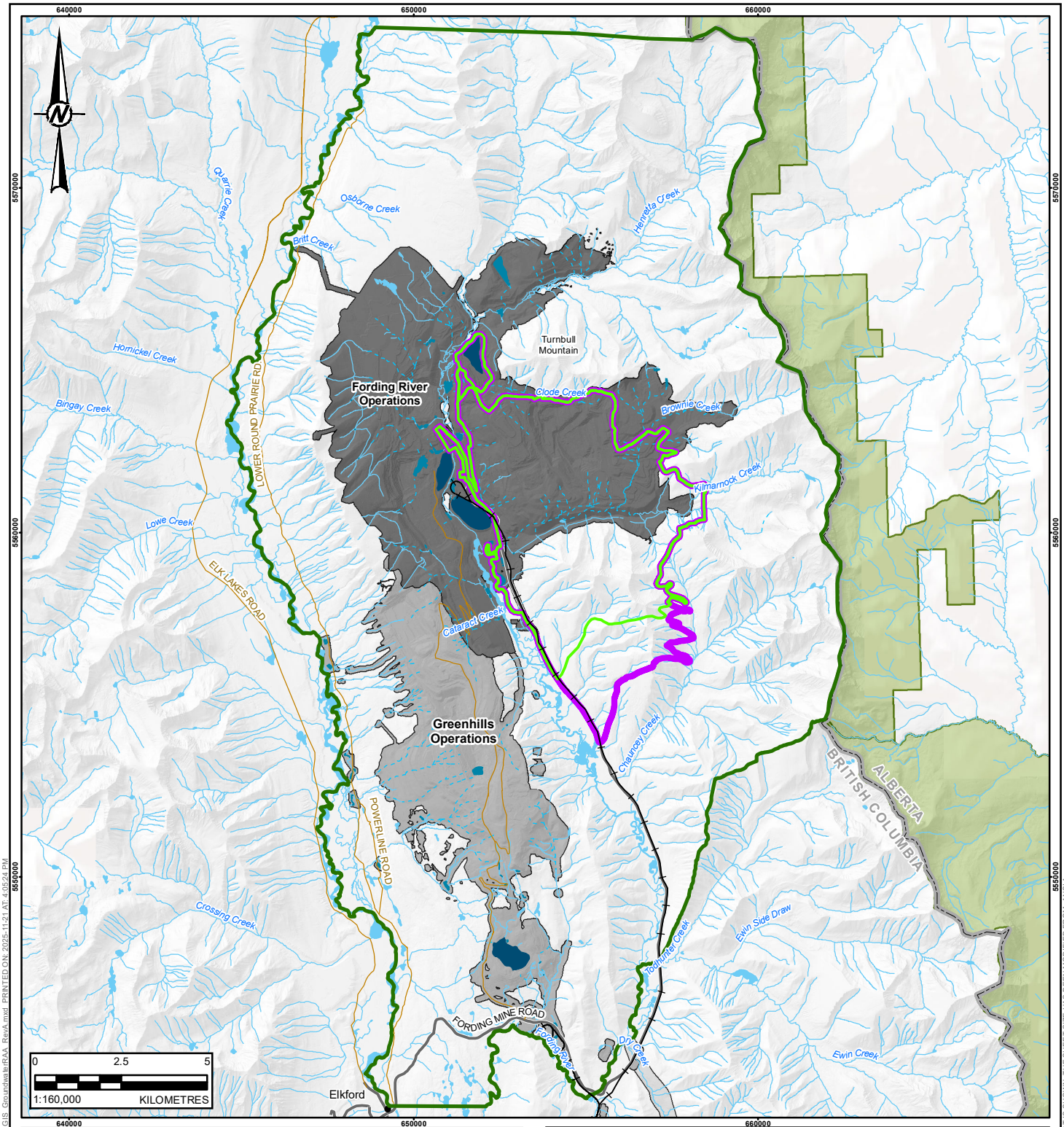
YYYY-MM-DD	2025-11-21
DESIGNED	DR
PREPARED	DR
REVIEWED	
APPROVED	

PROJECT NO.	CONTROL	REV.	FIGURE
CA0050291.7055	AIR_006	A	6

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

0 25mm

PATH: I:\CLIENTS\EVR\CA0050291.7055\Mapping\09_AIR\CA0050291_7055_AIR_006_GIS_SurfaceWater_LAA_RevA.mxd PRINTED ON: 2025-11-21 AT: 1:03:23 PM



LEGEND

- CITY / TOWN / COMMUNITY
- RAILWAY
- ROAD - PAVED
- ROAD - UNPAVED
- SURFACE FLOW WATERCOURSE
- SUBSURFACE FLOW WATERCOURSE
- BRITISH COLUMBIA - ALBERTA BOUNDARY
- FRO C-3 PERMITTED MINE AREA
- GHO C-137 PERMITTED MINE AREA
- LCO C-129 PERMITTED MINE AREA
- GROUNDWATER REGIONAL ASSESSMENT AREA
- PROJECT FOOTPRINT - STAGE 1
- PROJECT FOOTPRINT - STAGE 1 + STAGE 2
- PARK/PROTECTED AREA
- TAILINGS POND
- WASTE WATER/ SEDIMENT POND
- WATERBODY

DRAFT

NOTE(S)

SUBCOMPONENT-SPECIFIC REGIONAL ASSESSMENT AREAS MAY BE PRESENTED IN THE APPLICATION WITH APPROPRIATE RATIONALE

REFERENCE(S)

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PROJECTION: UTM ZONE 11 DATUM: NAD 83

EVR OPERATIONS LIMITED

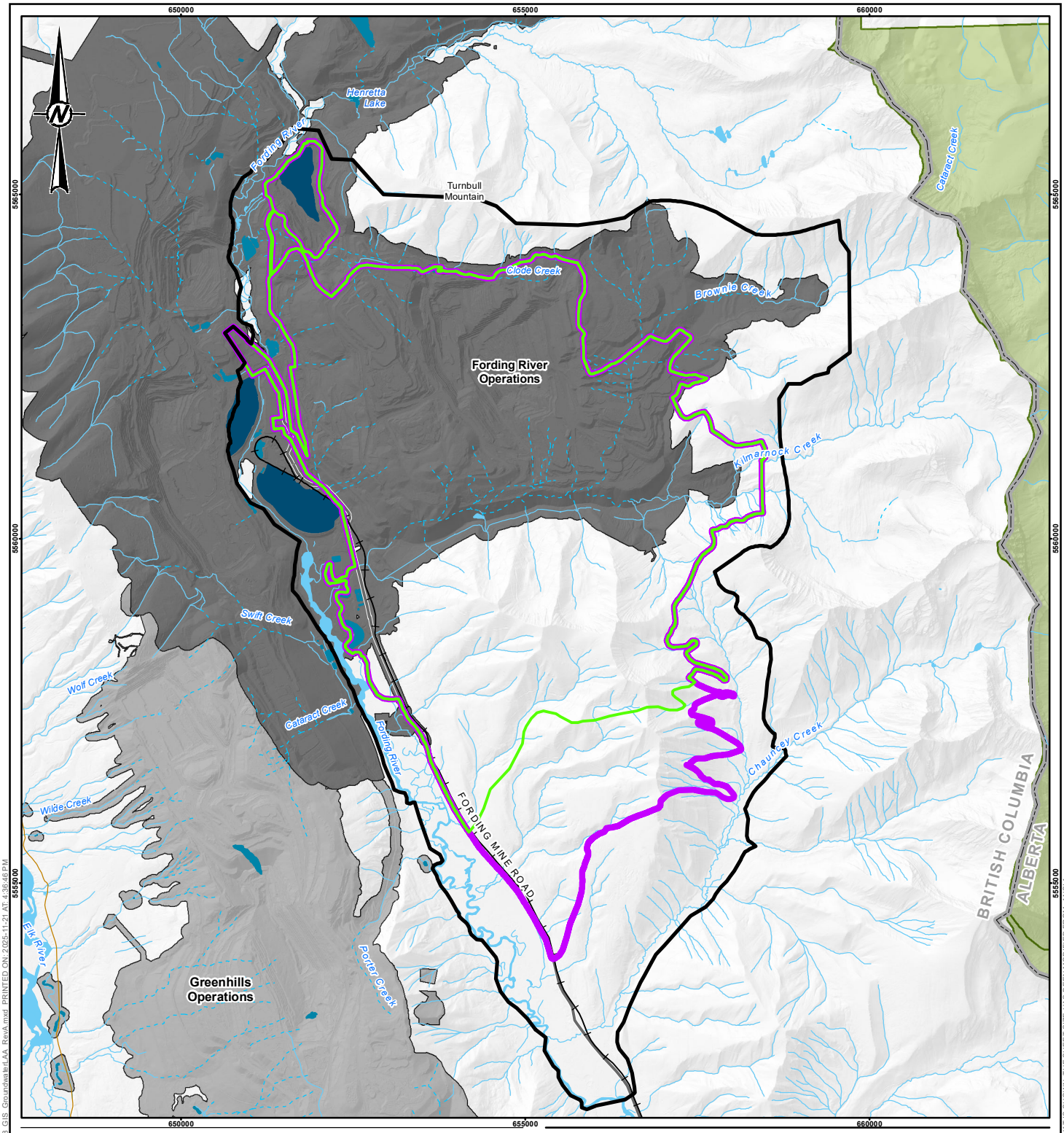
PROJECT
FORDING RIVER EXTENSION PROJECT

TITLE
GROUNDWATER REGIONAL ASSESSMENT AREA

EVR A GLENCORE COMPANY

YYYY-MM-DD	2025-11-21
DESIGNED	MH
PREPARED	DR
REVIEWED	
APPROVED	

PROJECT NO.	CONTROL	REV.	FIGURE
CA0050291.7055	AIR_007	A	7



LEGEND

- RAILWAY
- ROAD - PAVED
- ROAD - UNPAVED
- SURFACE FLOW WATERCOURSE
- SUBSURFACE FLOW WATERCOURSE
- BRITISH COLUMBIA - ALBERTA BOUNDARY
- FRO C-3 PERMITTED MINE AREA
- GHO C-137 PERMITTED MINE AREA
- GROUNDWATER LOCAL ASSESSMENT AREA
- PROJECT FOOTPRINT - STAGE 1
- PROJECT FOOTPRINT - STAGE 1 + STAGE 2
- PROVINCIAL PARK / PROTECTED AREA
- TAILINGS POND
- WASTE WATER/ SEDIMENT POND
- WATERBODY

DRAFT

0 1 2
1:80,000 KILOMETRES

REFERENCE(S)

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EVR OPERATIONS LIMITED

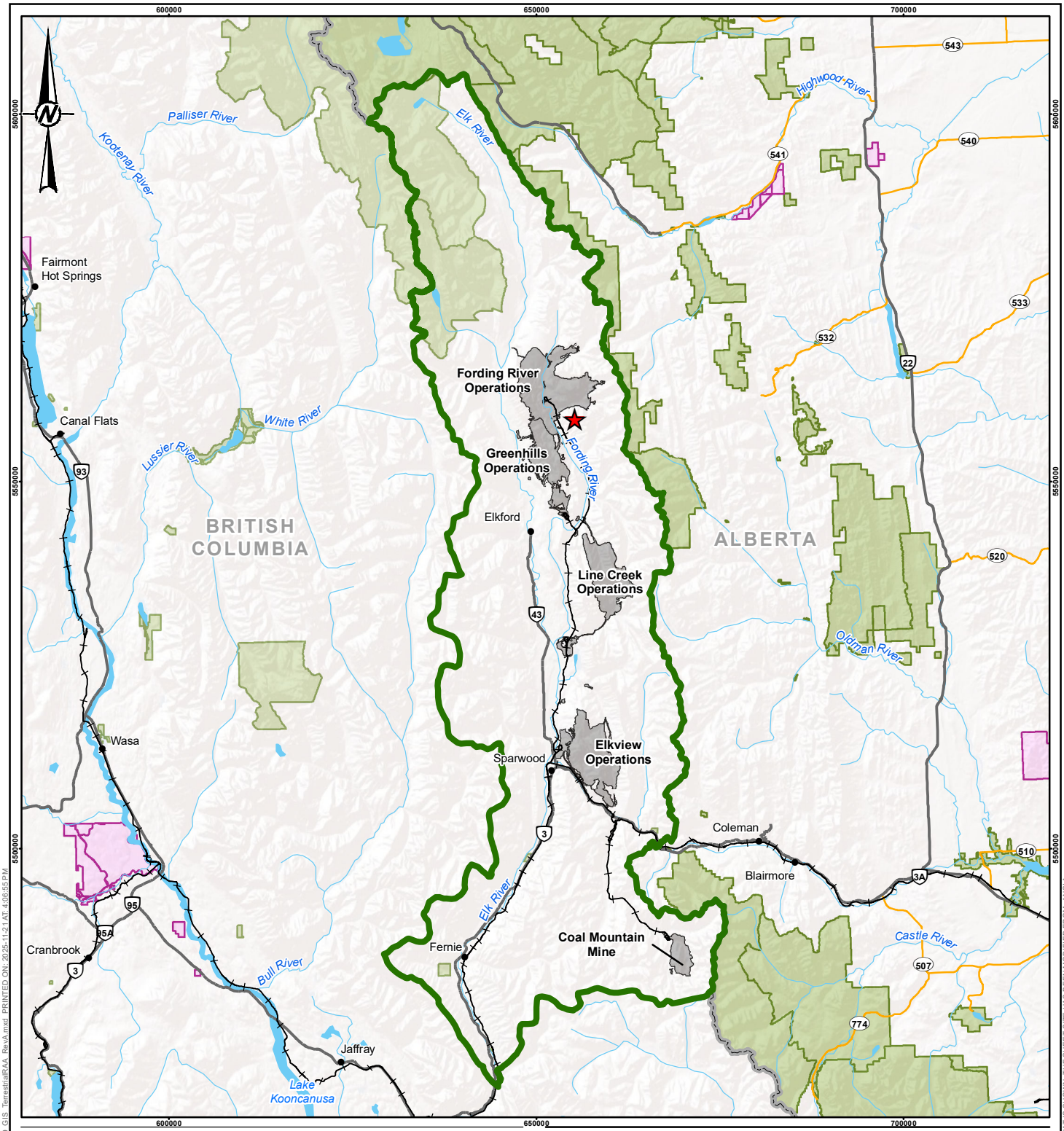
PROJECT
FORDING RIVER EXTENSION PROJECT

TITLE
GROUNDWATER LOCAL ASSESSMENT AREA

EVR A GLENCORE COMPANY

YYYY-MM-DD	2025-11-21
DESIGNED	SD
PREPARED	DR
REVIEWED	
APPROVED	

PROJECT NO.	CONTROL	REV.	FIGURE
CA0050291.7055	AIR_008	A	8



LEGEND

- CITY / TOWN / COMMUNITY
- PROJECT LOCATION
- PRIMARY HIGHWAY
- SECONDARY HIGHWAY
- RAILWAY
- WATERCOURSE
- BRITISH COLUMBIA - ALBERTA BOUNDARY
- COAL MINING OPERATION
- FIRST NATIONS RESERVE
- PARK/PROTECTED AREA
- TERRESTRIAL REGIONAL ASSESSMENT AREA
- WATERBODY

0 10 20

1:750,000 KILOMETRES

DRAFT

NOTE(S)

SUBCOMPONENT-SPECIFIC REGIONAL ASSESSMENT AREAS MAY BE PRESENTED IN THE APPLICATION WITH APPROPRIATE RATIONALE

REFERENCE(S)

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EVR OPERATIONS LIMITED

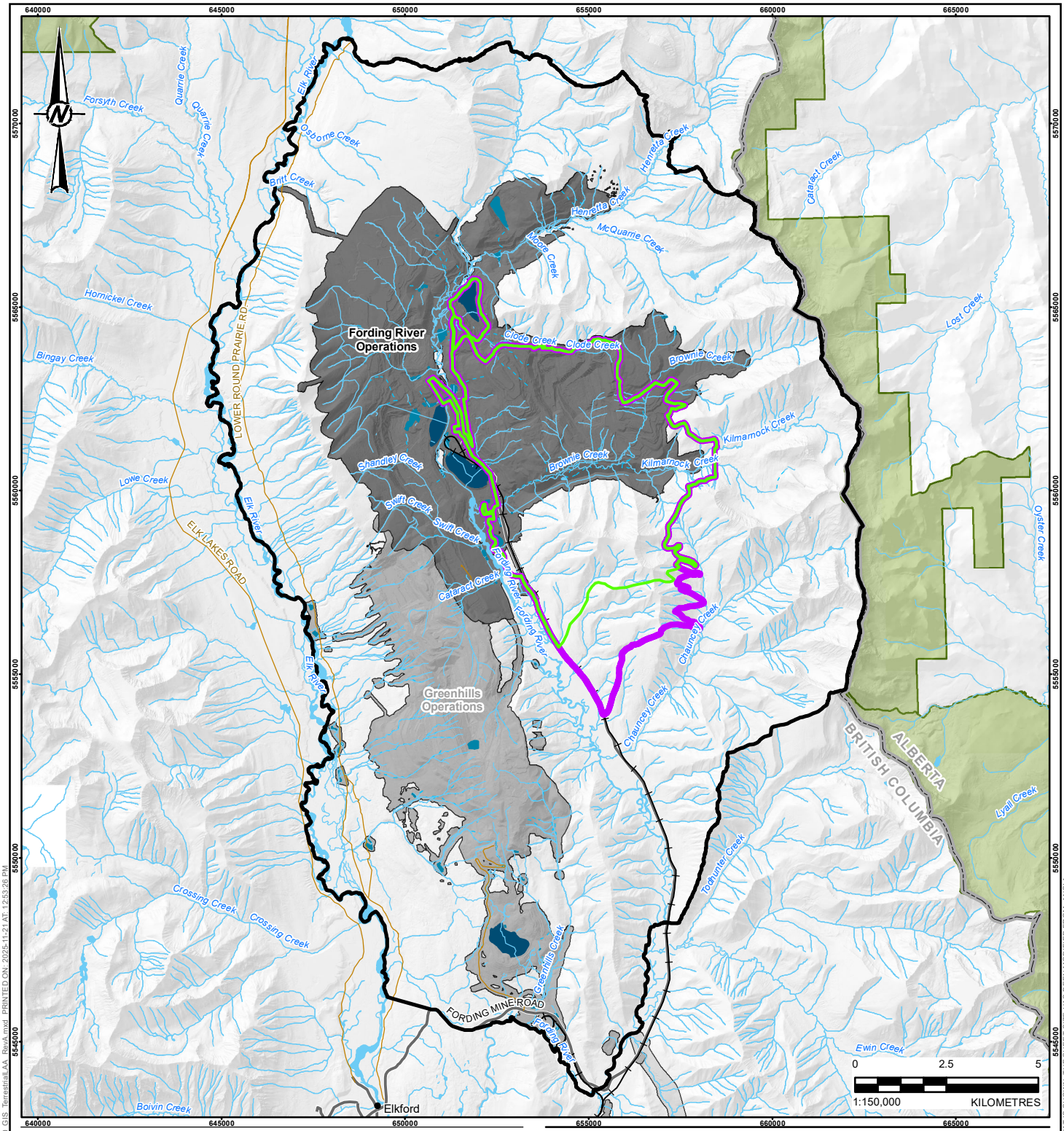
PROJECT
FORDING RIVER EXTENSION PROJECT

TITLE
TERRESTRIAL REGIONAL ASSESSMENT AREA

EVR A GLENCORE COMPANY

YYYY-MM-DD	2025-11-21
DESIGNED	DR
PREPARED	DR
REVIEWED	
APPROVED	

PROJECT NO.	PHASE	REV.	FIGURE
CA0050291.7055	AIR_009	A	9



LEGEND

- CITY / TOWN / COMMUNITY
- RAILWAY
- ROAD - PAVED
- ROAD - UNPAVED
- SURFACE FLOW WATERCOURSE
- SUBSURFACE FLOW WATERCOURSE
- BRITISH COLUMBIA - ALBERTA BOUNDARY
- FRO C-3 PERMITTED MINE AREA
- GHO C-137 PERMITTED MINE AREA
- LCO C-129 PERMITTED MINE AREA
- PROJECT FOOTPRINT - STAGE 1
- PROJECT FOOTPRINT - STAGE 1 + STAGE 2
- PROVINCIAL PARK / PROTECTED AREA
- TERRESTRIAL LOCAL ASSESSMENT AREA
- TAILINGS POND
- WASTE WATER/ SEDIMENT POND
- WATERBODY

DRAFT

REFERENCE(S)

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PROJECTION: UTM ZONE 11 DATUM: NAD 83

EVR OPERATIONS LIMITED

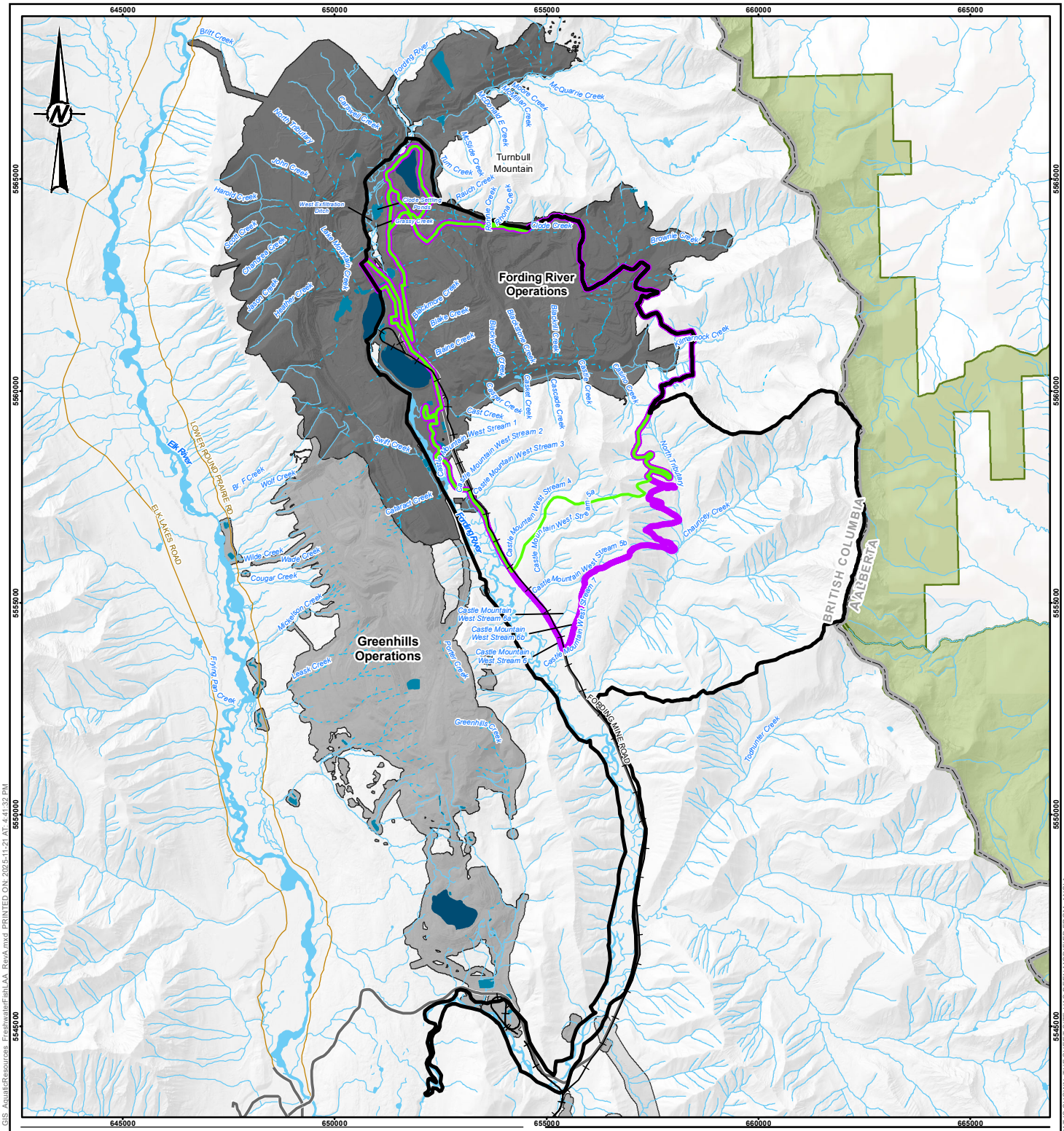
PROJECT
FORDING RIVER EXTENSION PROJECT

TITLE
TERRESTRIAL LOCAL ASSESSMENT AREA

EVR A GLENCORE COMPANY

YYYY-MM-DD	2025-11-21
DESIGNED	DR
PREPARED	DR
REVIEWED	
APPROVED	

PROJECT NO.	CONTROL	REV.	FIGURE
CA0050291.7055	AIR_010	A	10



LEGEND

- RAILWAY
- ROAD - PAVED
- ROAD - UNPAVED
- SURFACE FLOW WATERCOURSE
- SUBSURFACE FLOW WATERCOURSE
- AQUATIC RESOURCES AND FRESHWATER FISH LOCAL ASSESSMENT AREA
- BRITISH COLUMBIA - ALBERTA BOUNDARY
- FRO C-3 PERMITTED MINE AREA
- GHO C-137 PERMITTED MINE AREA
- LCO C-129 PERMITTED MINE AREA
- PROJECT FOOTPRINT - STAGE 1
- PROJECT FOOTPRINT - STAGE 1 + STAGE 2
- PROVINCIAL PARK / PROTECTED AREA
- TAILINGS POND
- WASTE WATER/ SEDIMENT POND
- WATERBODY

DRAFT

0 2 4

1:130,000 KILOMETRES

REFERENCE(S)

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PROJECTION: UTM ZONE 11 DATUM: NAD 83

EVR OPERATIONS LIMITED

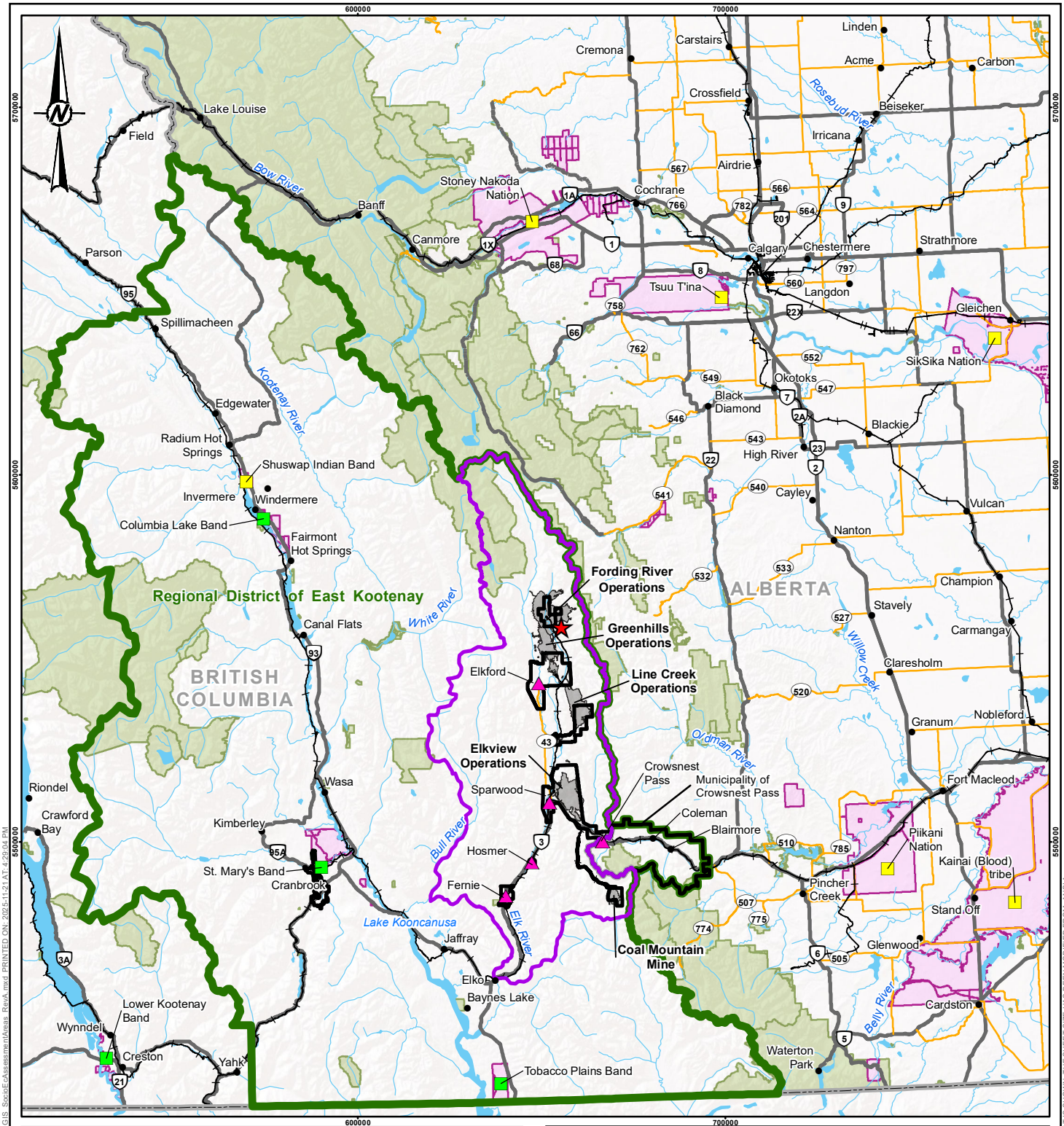
PROJECT
FORDING RIVER EXTENSION PROJECT

TITLE
AQUATIC RESOURCES AND FRESHWATER FISH LOCAL ASSESSMENT AREA

EVR A GLENCORE COMPANY

YYYY-MM-DD	2025-11-21
DESIGNED	DR
PREPARED	DR
REVIEWED	
APPROVED	

PROJECT NO.	CONTROL	REV.	FIGURE
CA0050291.7055	AIR_011	A	11



LEGEND

- CITY / TOWN / COMMUNITY
- COMMUNITIES OF OTHER PARTICIPATING AND INTERESTED INDIGENOUS PEOPLES
- KTUNAXA NATION COMMUNITIES
- LOCAL STUDY AREA COMMUNITY
- PROJECT LOCATION
- RAILWAY
- PRIMARY HIGHWAY
- SECONDARY HIGHWAY
- WATERCOURSE
- BRITISH COLUMBIA -ALBERTA BOUNDARY
- COAL MINING OPERATION
- FIRST NATIONS RESERVE
- KTUNAXA DISTRICT OF QUKIN ?AMAK?IS (RAVEN'S LAND)
- MUNICIPAL BOUNDARY
- PARK/PROTECTED AREA
- REGIONAL ASSESSMENT AREA
- WATERBODY

DRAFT

0 20 40
1:1,500,000 KILOMETRES

NOTE(S)

SUBCOMPONENT-SPECIFIC REGIONAL ASSESSMENT AREAS MAY BE PRESENTED IN THE APPLICATION WITH APPROPRIATE RATIONALE

REFERENCE(S)

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DATUM: NAD 83 PROJECTION: UTM ZONE 11

EVR OPERATIONS LIMITED

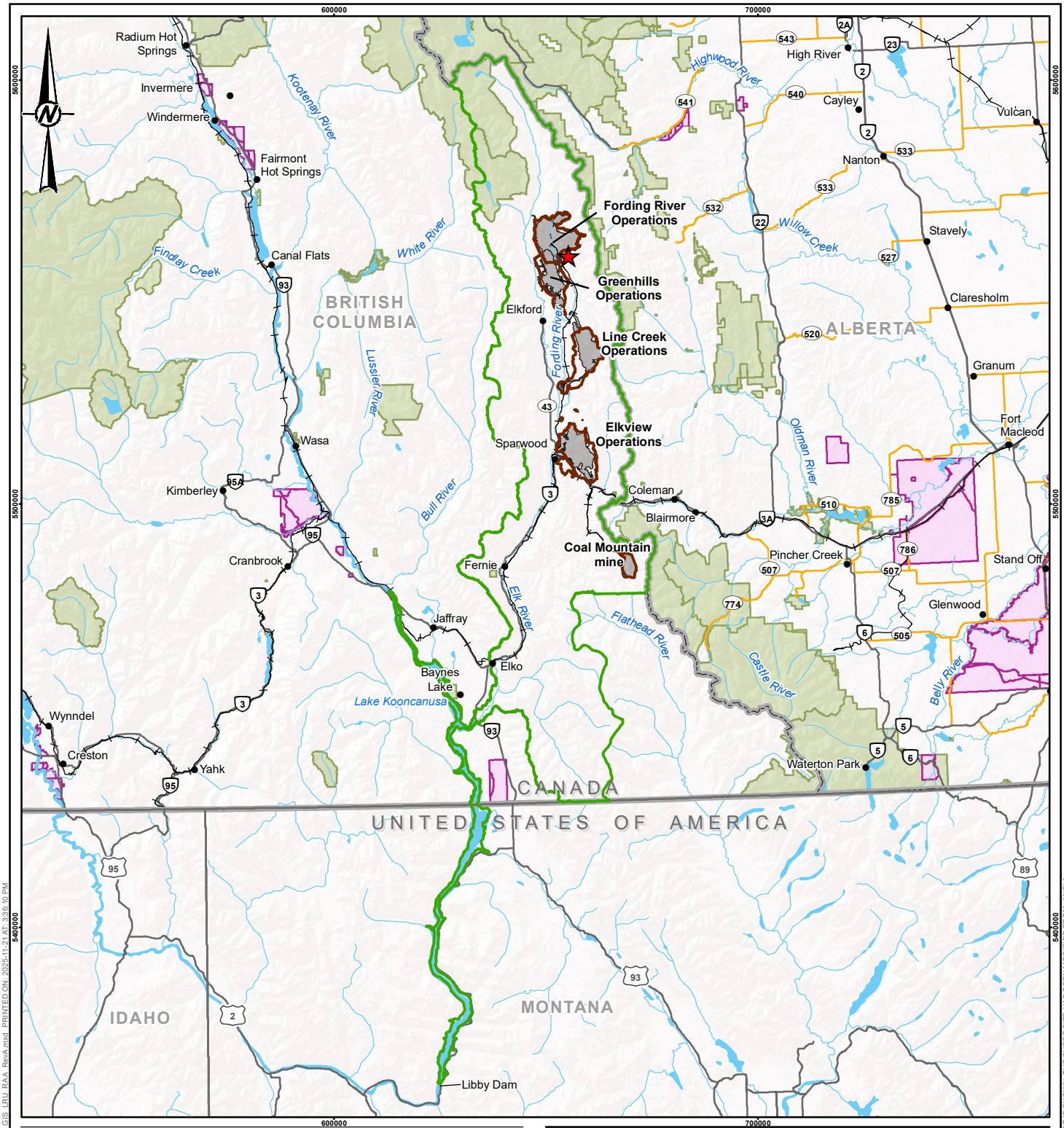
PROJECT
FORDING RIVER EXTENSION PROJECT

TITLE
SOCIO-ECONOMIC ASSESSMENT AREAS

EVR A GLENCORE COMPANY

YYYY-MM-DD	2025-11-21
DESIGNED	DW
PREPARED	DR
REVIEWED	
APPROVED	

PROJECT NO.	PHASE	REV.	FIGURE
CA0050291.7055	AIR_012	A	12



LEGEND

- CITY / TOWN / COMMUNITY
- PROJECT LOCATION
- PRIMARY HIGHWAY
- SECONDARY HIGHWAY
- RAILWAY
- WATERCOURSE
- BRITISH COLUMBIA - ALBERTA BOUNDARY
- CANADA - USA BORDER
- COAL MINING OPERATION
- FIRST NATIONS RESERVE
- LAND AND RESOURCE USE REGIONAL ASSESSMENT AREA
- NO UNAUTHORIZED ENTRY BOUNDARY
- PARK/PROTECTED AREA
- STATE BORDER
- WATERBODY

DRAFT

0 20 40

1:1,300,000 KILOMETRES

NOTE(S)

SUBCOMPONENT-SPECIFIC REGIONAL ASSESSMENT AREAS MAY BE PRESENTED IN THE APPLICATION WITH APPROPRIATE RATIONALE

REFERENCE(S)

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DATUM: NAD 83 PROJECTION: UTM ZONE 11

EVR OPERATIONS LIMITED

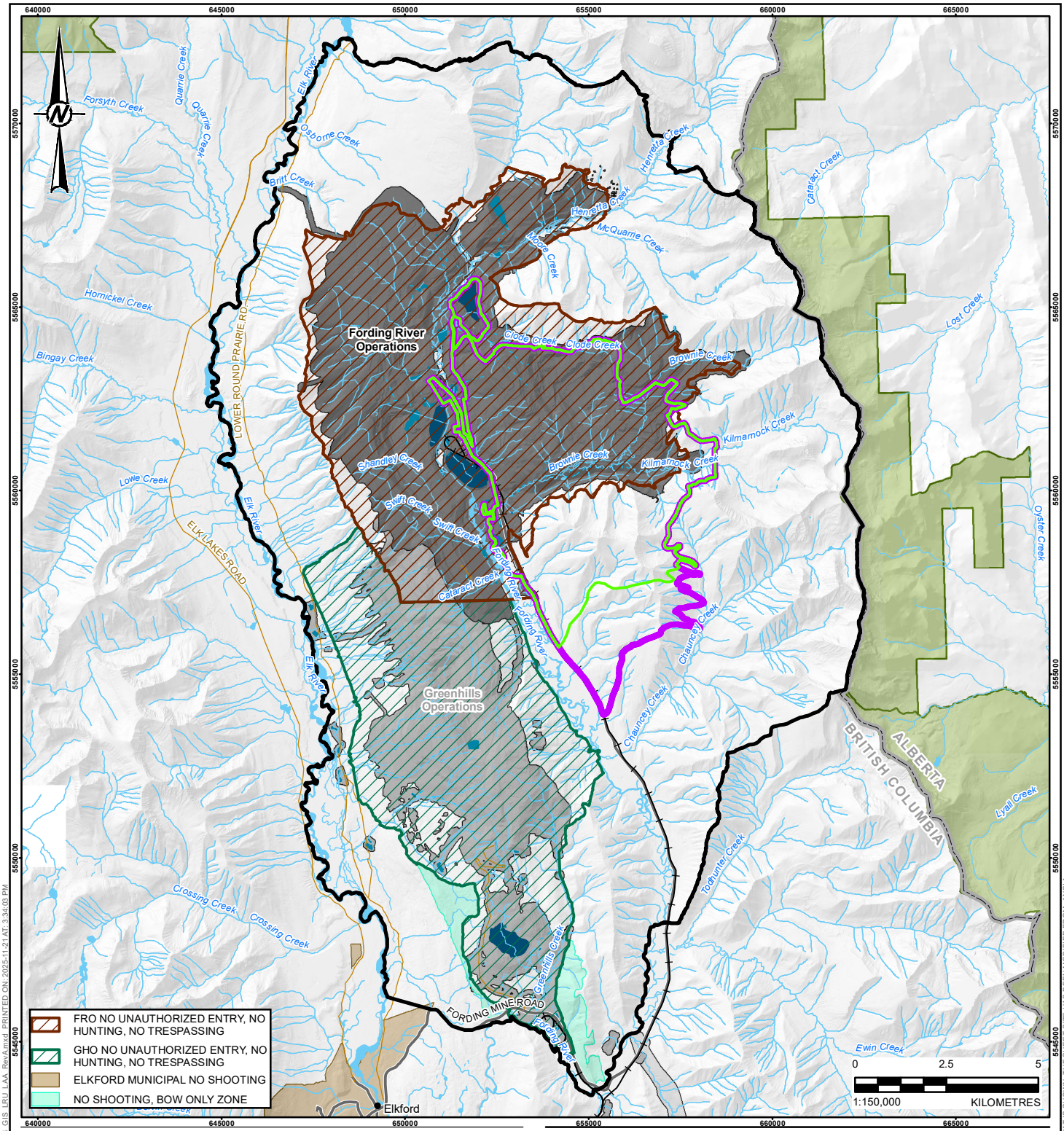
PROJECT
FORDING RIVER EXTENSION PROJECT

TITLE
LAND AND RESOURCE USE REGIONAL ASSESSMENT AREA

YYYY-MM-DD	2025-11-21
DESIGNED	DW
PREPARED	DR
REVIEWED	
APPROVED	

EVR A GLENCORE COMPANY

PROJECT NO.	PHASE	REV.	FIGURE
CA0050291.7055	AIR_013	A	13



LEGEND

- CITY / TOWN / COMMUNITY
- RAILWAY
- ROAD - PAVED
- ROAD - UNPAVED
- SURFACE FLOW WATERCOURSE
- SUBSURFACE FLOW WATERCOURSE
- BRITISH COLUMBIA - ALBERTA BOUNDARY
- FRO C-3 PERMITTED MINE AREA
- GHO C-137 PERMITTED MINE AREA
- LCO C-129 PERMITTED MINE AREA
- LAND AND RESOURCE USE LOCAL ASSESSMENT AREA
- PROJECT FOOTPRINT - STAGE 1
- PROJECT FOOTPRINT - STAGE 1 + STAGE 2
- PROVINCIAL PARK / PROTECTED AREA
- TAILINGS POND
- WASTE WATER/ SEDIMENT POND
- WATERBODY

DRAFT

REFERENCE(S)

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PROJECTION: UTM ZONE 11 DATUM: NAD 83

EVR OPERATIONS LIMITED

PROJECT
FORDING RIVER EXTENSION PROJECT

TITLE
LAND AND RESOURCE USE LOCAL ASSESSMENT AREA

EVR A GLENCORE COMPANY

YYYY-MM-DD	2025-11-21
DESIGNED	DR
PREPARED	DR
REVIEWED	
APPROVED	

PROJECT NO.	CONTROL	REV.	FIGURE
CA0050291.7055	AIR_014	A	14

APPENDIX C: SPECIES LISTS AND ECOSYSTEMS FOR APPLICABLE VALUED COMPONENTS

Valued Component	Species/Ecosystem
Vegetation	Old and Mature forest*
	Grasslands and brushlands (e.g. High Elevation Grasslands)
	Avalanche ecosystems
	Rock outcrops and sparsely vegetated ecosystems
	Riparian habitat* and flood ecosystems
	Wetlands and Wetland Functions
	Whitebark pine (*Pinus albicaulis* Engelm.)
	Plant species at risk
	Culturally important plants
Wildlife (Mammals)	Grizzly bear*
	Canada lynx
	American marten
	American badger
	Elk
	Bighorn sheep*
	Wolverine
	Bat species at risk
Wildlife (Birds)	American goshawk
	American dipper
	Olive-sided flycatcher
	Harlequin Duck
	Prairie Falcon
	Peregrine Falcon
	Blackswift
	Common Nighthawk
	Short-eared Owl
	Barn Swallow
	Bank Swallow
	Northern Goshawk
Wildlife (Migratory Birds)	Migratory birds, as defined by the Migratory Birds Convention Act, will be addressed as a group to meet the requirements of the IAA, based on likely effect pathways from project components or activities
Wildlife (Reptiles & Amphibians)	Western toad Rubber Boa
Wildlife (Terrestrial Invertebrates)	Gillette's checkerspot Magnum Mantleslug
Aquatic Resources and Freshwater Fish	Fish habitat
	Aquatic Resources
	Aquatic Ecosystems*

Valued Component	Species/Ecosystem
	Westslope Cutthroat Trout*
	Fish species that occur in the regional study area (RSA)
	Aquatic invertebrates
	Amphibian species that breed in lentic environments in the RSA
	Aquatic-dependent bird species that feed or breed in the RSA

* Indicates values included in the *Elk Valley Cumulative Effects Management Framework*

APPENDIX D: PROVINCIAL DATA SUBMISSION STANDARDS[21]

Data Type	Database	Data Submission Standard	Quality Assurance
Air Quality	ENVISTA	Must be compatible with *Envista Importing routines* Provider must make sites and air monitoring equipment available for audits at applicable rates as defined by the *Environmental Data Quality Assurance Regulation*	Provincial standards for monitoring and QA/QC are in development *- current drafts available*. *National Air Pollution Surveillance Program Ambient Air Monitoring and Quality Assurance/Quality Control Guidelines* Additional Guidance available: • *EPA Quality Assurance Handbook for Air Pollution Measurement Systems Volume II* • BC MOE Meteorological Data and Sensing Requirements - available upon request *bcairquality@gov.bc.ca* • BC MOE Air Monitoring Instrumentation available upon request - *bcairquality@gov.bc.ca*
Climate	ENVISTA - Air Quality Network Meteorological Data	ENVISTA - Must be compatible with *Envista importing routines* National Data Transmission Standards under development	National siting, data qualification, transmission and operational guidelines in development
Climate	AQUARIUS time series software	Continuous Water Data *format and submission process*	RISC Hydrometric Manual provides guidance on grading hydrometric data by a Qualified Professional. RISC Continuous Water Quality Manual provides guidance on grading water quality data. No grading standards exist for snow, groundwater data at this time.
Fish and Fish Habitat	FDIS - Field Data information System (Oracle) For reports, Ecological Reports Catalogue (EcoCat)	Online Fish Data Submission process following "*1:20,000 Reconnaissance Standards*" (RISC) *FDIS data QA Tool and Data Submission Standards*	Data manually reviewed by biologists, automated QA scripting against FDIS data standards before being entered into FDIS database

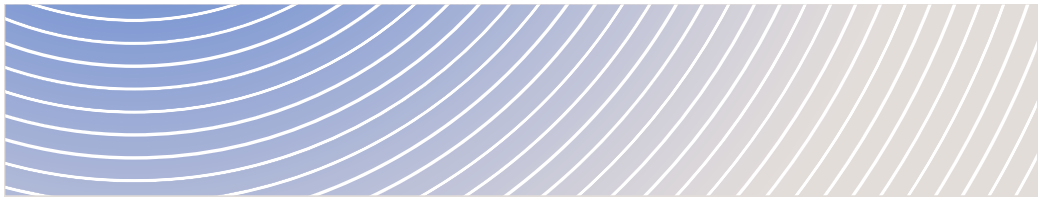
[21] The provincial data submission standards have been prepared using best available information at the time this document was developed. Proponents should confirm the data requirements with the appropriate government agency. The EAO may provide specific direction on data submission standards through the Process Order that differs from the standards noted above.

Data Type	Database	Data Submission Standard	Quality Assurance
Surface Water and Groundwater Quality and Quantity	Environmental Monitoring System (EMS) - biotic and abiotic analysis of water, air, solid waste discharges and ambient monitoring sites	Data format and submission process: *Environmental Monitoring System*	*BC Field Sampling Manual*
Surface Water and Groundwater Quality and Quantity	AQUARIUS time series software	Data format and submission process: *Continuous Water Data*	RISC Hydrometric Manual provides guidance on grading hydrometric data by a Qualified Professional. *RISC Continuous Water Quality Manual* provides guidance on grading water quality data. No grading standards exist for snow, groundwater data at this time.
Surface Water and Groundwater Quality and Quantity	Groundwater Wells and Aquifers (GWELLS) - Application for the collection, storage and disclosure of well and aquifer data. Includes a register of individual well drillers and well pump installers authorized to work on wells within the Province.	Reporting requirements outlined in Schedules 1-6 of the *Groundwater Protection Regulation* *Groundwater Wells Information*	No grading standards exist at this time
Wildlife Inventory	SPI - Species Inventory Database (Oracle) For reports, Species Inventory Web Explorer (SIWE)	Online Wildlife Data Submission process following *Wildlife Species Inventory Data Standards/Templates and RISC manuals: Species Inventory Fundamentals (RISC 1998, 2011), Wildlife Camera Metadata Protocol (RISC 2019)* *SPI Data Submission Standards and Templates* *Species Inventory Fundamentals (1998)*	Data manually reviewed by biologists, automated QA scripting against SPI data standards before being entered into SPI database.
Aquatic Ecosystems	Canadian Aquatic Biomonitoring Network (CABIN)	Sampling must follow *standard methods (EC 2012)* and data is uploaded using on-line template.	Formal training required to access the database, collect and upload data; Sampling follows standardized protocols.
Rare Plant and Lichen Inventory	SPI - Species Inventory Database (Oracle) For reports, Species Inventory Web Explorer (SIWE)	Online Data Submission process following Species Inventory Data Standards/Templates and "*Inventory and Survey Methods for Rare Plants and Lichens*" (RISC 2018)	Data manually reviewed by biologists, automated QA scripting against SPI data standards before being entered into SPI database *Data Submission Standards and Template*

Data Type	Database	Data Submission Standard	Quality Assurance
Terrain Mapping	TEIS - Terrestrial Ecosystem Inventory Systems (ESRI File Geodatabase - BCGW oracle tables)	*Standard for Terrestrial Ecosystem Mapping (TEM) - Digital Data Capture in British Columbia. Version 3.0, 2015*	*Quality Assurance Guidelines for TEM* *Quality Assurance Guidelines for TSM, 2010* *Digital QA scripts and processes for data QA and loading to corporate data systems* *Contractor package templates and tools*
Soil Survey	Soil Environnent Master (ESRI File Geodatabase - BCGW oracle tables) BCSIS database (MS Access and ESRI File Geodatabase) Soils Information Finder Tool (ESRI ArcGIS online)	*Data templates, mapping and inventory standards* Digital standards and data dictionaries Draft contractor package templates and tools	Scripts and digital checking tools VPRO application for data entry
Ecosystem Mapping	TEIS - Terrestrial Ecosystem Inventory Systems (ESRI File Geodatabase - BCGW oracle tables)	*Standard for Terrestrial Ecosystem Mapping (TEM) - Digital Data Capture in British Columbia. Version 3.0, 2015* Contractor Package templates and tools	*Protocol for Accuracy Assessment of Ecosystem Maps* *A Protocol for Assessing Thematic Map Accuracy Using Small-area* TEM Quality Assurance: *Quality Assurance Guidelines for TEM* *Quality Assurance Guidelines for DTEIF* *VPRO application for data entry*

APPENDIX E: FEDERAL APPENDIX

Draft Federal Appendix to the Application Information Requirements



FORDING RIVER EXTENSION PROJECT

January 14, 2026 (interim version)

Impact Assessment Agency of Canada | Agence d'évaluation d'impact du Canada

Canada

Contents

Abbreviations and short forms

Term	Definition
Adverse federal effects	"Adverse effects within federal jurisdiction" and "direct or incidental adverse effects" as defined under the *Impact Assessment Act*
AIR	Application Information Requirements
Application	The proponent's joint provincial Application and federal Impact Statement
B.C.	British Columbia
COPC	Contaminant of Potential Concern
EAO	Environmental Assessment Office
ECCC	Environment and Climate Change Canada
the federal appendix	The federal appendix to the Application Information Requirements (replacing the Tailored Impact Statement Guidelines)
the proponent	EVR Operations Limited
the Project	The Fording River Extension Project
GBA Plus	Gender Based Analysis Plus
GHG	Greenhouse gas
IAA	*Impact Assessment Act*
IAAC	Impact Assessment Agency of Canada
SARA	*Species at Risk Act*
SACC	Strategic Assessment of Climate Change
VC	Valued component

1 Introduction

The federal impact assessment process is intended to prevent or mitigate significant adverse effects within federal jurisdiction — and significant direct or incidental adverse effects — by anticipating, identifying and assessing the effects of designated projects in order to inform decision making under the *Impact Assessment Act* (IAA).

IAAC has developed the draft Federal Appendix to the Application Information Requirements (the federal appendix) for the Fording River Extension Project (the Project) proposed by EVR Operations Limited (the proponent) that were tailored by the Impact Assessment Agency of Canada (IAAC) during the Planning phase of the impact assessment process. This document replaces the Tailored Impact Statement Guidelines that would be used for a federal-only assessment process.

The Government of Canada is committed to meeting the objective of "one project, one review" in its review of projects. For the Project, IAAC is working closely with B.C.'s Environmental Assessment Office (EAO) following the Impact Assessment Cooperation Agreement Between Canada and British Columbia (2019). As part of those commitments, IAAC has developed this document as an Appendix to the provincial Application Information Requirements (AIR; available on the EAO's webpage) to clearly identify the requirements needed to assess adverse effects in federal jurisdiction that are not already assessed by the provincial process. To ensure ease of use, federal requirements described in this document have also been integrated into the AIR by the EAO so the requirements for a valued component (VC) are in one location. To avoid duplication, IAAC has deferred to provincial requirements where overlap exists, and has leveraged the means of other jurisdictions to simplify requirements (e.g. by relying on provincial standards).

The draft federal appendix includes information and studies IAAC considers necessary for the conduct of the impact assessment focusing only on adverse effects within federal jurisdiction, or direct or incidental adverse effects (collectively referred to as adverse federal effects hereafter) that could potentially be significant as informed by the nature, complexity and context of the Project, as well as by consultation and engagement with: the proponent, Indigenous groups, the public, other jurisdictions, federal authorities, and other interested parties.

The draft federal appendix (alongside the Application Information Requirements) will be finalized following a joint comment period with the EAO, which will run from January 14, 2026 to February 15, 2026.

1.1 Scope of the impact assessment

In determining what information and studies are required in the proponent's Application[1], as set out in the AIR and in this document, IAAC took into account the factors listed in subsection 22(1) of the IAA (Table 1), the aspects listed under the definition of federal jurisdiction in section 2 of the IAA (Table 2), and focused on elements anticipated to be material to decision making under the IAA as described in section 1.2 Selection of Valued Components. Only items not already required by the AIR and which are necessary to characterize effects in federal jurisdiction have been included in this document to minimize duplication of effort.

Table 1 describes the factors to be considered under section 22 of the IAA, and provides a reference to where in the AIR the requirements are included.

Table 1: Factors to be Considered – Section 22 of the Impact Assessment Act

Factor to be Considered (as defined in Section 22 of the Impact Assessment Act)	Section of AIR where the Requirements have been included
(a) The changes to the environment or to health, social or economic conditions and the positive and negative consequences of these changes that are likely to be caused by the carrying out of the designated Project, including:	Table 2 outlines the requirements to assess changes to the environment and to the health, social, and economic conditions that are likely to be caused by the carrying out of the designated Project. Sections 6.5, 6.7, and 6.8 describe the requirements to assess the positive and negative consequences of these changes.
(i) The effects of malfunctions or accidents that may occur in connection with the designated Project;	Section 7.2 describes the requirements to assess the effects of malfunctions or accidents that may occur in connection with the Project.
(ii) Any cumulative effects that are likely to result from the designated Project in combination with other physical activities that have been or must be carried out; and,	Section 6.10 describes the requirements to assess any cumulative effects that are likely to result from the designated Project in combination with other physical activities that have been or will be carried out.
(iii) The result of any interaction between those effects;	Section 8 describe the requirements to address the interaction between the effects from malfunctions or accidents and any cumulative effects from the Project.
(b) Mitigation measures that are technically and economically feasible and that would mitigate any adverse effects of the designated Project;	Section 6.6 describes the requirements to address mitigation measures that are technically and economically feasible and that would mitigate any adverse effects of the designated Project.
(c) The impact that the designated Project may have on any Indigenous nation and any adverse impact that the designated Project may have on the rights of the Indigenous peoples of Canada recognized and affirmed by Section 35 of the *Constitution Act, 1982*	Section 8.0 describes the requirements to assess the impact that the designated Project may have on any Indigenous nation and any adverse impact that the designated Project may have on the rights of the Indigenous peoples of Canada recognized and affirmed by Section 35 of the *Constitution Act, 1982*.
(d) The purpose of and need for the designated Project;	Section 1.7 describes the requirements to address the purpose of and need for the designated Project.
(e) Alternative means of carrying out the designated Project that are technically and economically feasible,	Section 1.8 describes the requirements to address the alternative means of carrying out the designated Project that are technically and

[1] The proponent's Application will reflect both provincial and federal requirements and will serve as both the provincial Application and the federal Impact Statement.

Table 1: Factors to be Considered – Section 22 of the Impact Assessment Act

Factor to be Considered (as defined in Section 22 of the Impact Assessment Act)	Section of AIR where the Requirements have been included
including through the use of best available technologies, and the effects of those means	economically feasible, including through the use of best available technologies, and the effects of those means.
(f) Any alternatives to the designated Project that are technically and economically feasible and are directly related to the designated Project;	Section 1.7.3 describes the requirements to address any alternatives to the designated Project that are technically and economically feasible and are directly related to the designated Project.
(g) Indigenous Knowledge provided with respect to the designated Project	Each of the effects assessment subsections in Section 8 includes a subsection called Existing Conditions (8.4.2) that describes the requirement to discuss available Indigenous or local knowledge related to the applicable VCs. Section 8.3 describes the requirements for the collection and use of Indigenous knowledge in the Application. Section 6 outlines the requirements of how Indigenous knowledge was used in designing and carrying out studies on existing conditions, effects assessment and identification of mitigation measures for each VC.
(h) The extent to which the designated Project contributes to sustainability;	Section 12.0 contains the requirement to describe the extent to which the designated Project contributes to sustainability.
(i) The extent to which the effects of the designated Project hinder or contribute to the Government of Canada's ability to meet its environmental obligations and its commitments in respect of climate change;	Section 9.1.1 contains the requirement to describe the extent to which the effects of the designated Project hinder or contribute to the Government of Canada's ability to meet its environmental obligations and its commitments in respect of climate change.
(j) Any change to the designated Project that may be caused by the environment;	Section 7.3 contains the requirement to describe any change to the designated Project that may be caused by the environment.
(k) The requirements of the follow-up program in respect of the designated Project;	Section 6.11 describes the requirements of the follow-up program in respect of the designated Project.
(l) Considerations related to Indigenous cultures raised with respect to the designated Project;	Sections 5 to 8 describe the requirements to summarize considerations related to Indigenous cultures raised with respect to the designated Project.
(m) Community knowledge provided with respect to the designated Project	Section 6.2 describes the requirements to summarize community knowledge provided with respect to the designated Project.
(n) Comments received from the public;	Sections 3.0 and 6.2 describe the requirements to summarize feedback received from the public with respect to the designated Project.
(o) Comments from a jurisdiction that are received in the course of consultations conducted under Section 21;	The Joint Assessment and Engagement Plan describes the requirements to summarize feedback received from jurisdictions received in the course of consultations conducted under Section 21 with respect to the designated Project.
(p) Any relevant assessment referred to in Section 92, 93 or 95;	Section 2.2 contains the requirements to describe any relevant regional or strategic assessment referred to in Section 92, 93, or 95.
(q) Any assessment of the effects of the designated Project that is conducted by or on behalf of an Indigenous governing body and that is provided with respect to the designated Project	There are ongoing discussions to determine whether this will be part of the assessment process.

Table 1: Factors to be Considered – Section 22 of the Impact Assessment Act

Factor to be Considered (as defined in Section 22 of the Impact Assessment Act)	Section of AIR where the Requirements have been included
r) Any study or plan that is conducted or prepared by a jurisdiction — or an Indigenous governing body not referred to in paragraph (f) or (g) of the definition jurisdiction in Section 2 — that is in respect of a region related to the designated Project and that has been provided with respect to the Project	Sections 2 through 8 contain the requirements to address any study or plan that is conducted or prepared by a jurisdiction — or an Indigenous governing body not referred to in paragraph (f) or (g) of the definition jurisdiction in Section 2 — that is in respect of a region related to the designated Project and that has been provided with respect to the Project.
(s) The intersection of sex and gender with other identity factors; and	Sections 1.6, 1.8, 6.4.1, 6.6, 6.8, and Table 2 contain the requirements to assess the intersections of sex and gender with other identity factors with respect to the designated Project (i.e., the application of GBA Plus).
(t) Any other matter relevant to the impact assessment that IAAC requires to be taken into account	IAAC requires no additional matters.

1.2 Selection of Valued Components

Valued Components (VCs) serve as the focal points for the impact assessment. The elements of the natural and human environments selected as VCs are those anticipated to be material for decision making under the IAA.

The VCs must be assessed following the requirements presented in Sections 5 and 6 of the AIR, the direction in the federal appendix, as well as the generic assessment methodology in the Generic Requirements for Impact Statements which outlines the steps that must be applied to the assessment of each VC.

IAAC compared the effects within federal jurisdiction to the valued components identified for the provincial process in Section 5 of the AIR and determined what aspects require additional detail. Table 1 describes each aspect within the definition of federal jurisdiction and includes rationale on whether or not it was added to the AIR.

Table 2: Effects within Federal Jurisdiction – Section 2 of the Impact Assessment Act

Effects within Federal Jurisdiction (as defined in Section 2 of the *IAA*)[2]	Rationale for Inclusion	Section of AIR where the Requirements have been included	Section of Application Where the Effect is Assessed	Assessment Findings
(a) a non-negligible adverse change to the following components of the environment that are within the legislative authority of Parliament:				
(i) fish and fish habitat, as defined in subsection 2(1) of the Fisheries Act,	Physical changes (water quality and quantity) are anticipated in fish habitats downstream of the Project. Further increases in contaminants could also have adverse effects on fish health.	Additional detail was added to Section 5 Table 2 to include fish and fish habitat, as defined in subsection 2(1) of the *Fisheries Act.*	This column will provide a cross-reference to the section of the Application where a description of the assessment for effects within Federal jurisdiction are addressed.	This column will provide the assessment findings for effects within Federal jurisdiction.
(ii) aquatic species, as defined in subsection 2(1) of *Species at Risk Act* (SARA)	Since fish and fish habitat is addressed under the previous row, the only other organism included in the SARA definition is marine plants. Since this is not a marine Project, this effect need not be assessed.	Not required.	Not required.	Not required.
(iii) migratory birds, as defined in subsection 2(1) of the *Migratory Birds Convention Act, 1994*; and,	Project activities could adversely impact behaviour and survival of migratory birds directly, or through impacts to their habitats.	Migratory birds are contained as a sub-component of the Wildlife VC (Section 5), which describes the requirements to address effects within federal jurisdiction for migratory birds as defined in subsection 2(1) of the *Migratory Birds*	This column will provide a cross-reference to the section of the Application where a description of the assessment for effects within Federal jurisdiction are addressed.	This column will provide the assessment findings for effects within Federal jurisdiction.

[2] The Governor in Council may add or remove components of the environment and health, social or economic matters to Schedule 3 of the IAA. Since there are no matters listed on Schedule 3, those items have been excluded from the table.

Table 2: Effects within Federal Jurisdiction – Section 2 of the Impact Assessment Act

Effects within Federal Jurisdiction (as defined in Section 2 of the *IAA*)[2]	Rationale for Inclusion	Section of AIR where the Requirements have been included	Section of Application Where the Effect is Assessed	Assessment Findings
		Convention Act, 1994.		
a non-negligible adverse change to:				
(b) the environment that would occur on federal lands;	IAAC does not anticipate effects to federal lands but has asked that the proponent confirm this in its Application.	Section 6.3 Assessment Boundaries includes a description of the distance from Project components to federal lands and the location of any federal lands within the RAA.	This column will provide a cross-reference to the section of the Application where a description of the assessment for effects within Federal jurisdiction are addressed.	This column will provide the assessment findings for effects within Federal jurisdiction.
(c) the marine environment that is caused by pollution and that would occur outside Canada;	The Project is not expected to interact with the marine environment	Not required.	Not required.	Not required.
(d) that is caused by pollution to boundary waters or international waters, as those terms are defined in subsection 2(1) of the *Canada Water Act*, or to interprovincial waters;	Effluent from the Project could increase contaminant concentration or load downstream to the United States at the transboundary Koocanusa Reservoir as well as the Kootenai River downstream of Koocanusa Reservoir which flows through Montana and Idaho. There are existing regional impacts to water quality caused by pollution that affect the environment across the Canada-U.S. border. The Project could have cumulative effects with those existing conditions.	The Surface Water VC in Table 2 of Section 5 identifies the requirements of the assessment of surface water quality; transboundary requirements have been added to that section.	This column will provide a cross-reference to the section of the Application where a description of the assessment for effects within Federal jurisdiction are addressed.	This column will provide the assessment findings for effects within Federal jurisdiction.
(e) with respect to the Indigenous peoples of Canada, a non-negligible adverse impact — occurring in Canada and resulting from any change to the environment — on:				

Table 2: Effects within Federal Jurisdiction – Section 2 of the Impact Assessment Act

Effects within Federal Jurisdiction (as defined in Section 2 of the *IAA*)[2]	Rationale for Inclusion	Section of AIR where the Requirements have been included	Section of Application Where the Effect is Assessed	Assessment Findings
(i) physical and cultural heritage;	Project activities could adversely impact the physical or cultural heritage of Indigenous peoples. Excavation activities during construction may adversely affect historic and archaeological sites of importance.	Sections 8.0 to 8.7 describe the community-specific assessment for Indigenous nations, including effects on physical and cultural heritage.	This column will provide a cross-reference to the section of the Application where a description of the assessment for effects within Federal jurisdiction are addressed.	This column will provide the assessment findings for effects within Federal jurisdiction.
(ii) the current use of lands and resources for traditional purposes, or	The Project may cause adverse effects to the current use of lands and resources for traditional purposes, such as hunting, fishing, gathering as well as spiritual and cultural activities. The Project may affect fisheries in the Elk River and its tributaries, as well as ungulate and sheep habitats used for hunting.	Sections 8.0 to 8.7 describe the community-specific assessment for Indigenous nations, including effects on current use.	This column will provide a cross-reference to the section of the Application where a description of the assessment for effects within Federal jurisdiction are addressed.	This column will provide the assessment findings for effects within Federal jurisdiction.
(iii) any structure, site or thing that is of historical, archaeological, paleontological or architectural significance;	Project activities may adversely impact specific structures, sites or things that are significant to Indigenous peoples from a historical, archaeological or architectural perspective. Any previously undisturbed areas may have important sites that could be impacted by construction activities	Sections 8.0 to 8.7 describe the community-specific assessment for Indigenous nations, including effects on any structure, site or thing that is of historical, archaeological, paleontological or architectural significance.	This column will provide a cross-reference to the section of the Application where a description of the assessment for effects within Federal jurisdiction are addressed.	This column will provide the assessment findings for effects within Federal jurisdiction.
(f) a non-negligible adverse change occurring in Canada to the	Project activities may have effects on the health, social and economic conditions of Indigenous Peoples. Health could be impacted by the degradation of drinking water in	Sections 8.0 to 8.7 describe the community-specific assessment for	This column will provide a cross-reference to the section of the Application	This column will provide the assessment findings for effects within Federal jurisdiction.

Table 2: Effects within Federal Jurisdiction – Section 2 of the Impact Assessment Act

Effects within Federal Jurisdiction (as defined in Section 2 of the *IAA*)[2]	Rationale for Inclusion	Section of AIR where the Requirements have been included	Section of Application Where the Effect is Assessed	Assessment Findings
health, social or economic conditions of the Indigenous peoples of Canada; and	the Elk River valley, or from increases in noise or air pollution. Social or economic conditions of those who depend on the environment could be affected.	Indigenous nations, including effects on health, social or economic conditions of the Indigenous peoples of Canada.	where a description of the assessment for effects within Federal jurisdiction are addressed.	
Rights of Indigenous Peoples				
Impacts on rights of Indigenous Peoples	Project activities may cause adverse impacts on the rights of Indigenous peoples. The proponent must share studies and information about the Project and its potential impacts with Indigenous groups prior to assessing the impact of the Project on their rights and collaborate with Indigenous groups in assessing impacts on those rights.	Sections 8.0 to 8.7 describe the community-specific assessment for Indigenous nations, including effects on health, social or economic conditions of the Indigenous peoples of Canada.	This column will provide a cross-reference to the section of the Application where a description of the assessment for effects within Federal jurisdiction are addressed.	This column will provide the assessment findings for effects within Federal jurisdiction.

1.3 Preparing the Application

The Application must address requirements outlined in IAAC's Generic Requirements for Impact Statements if those requirements are not already required by the AIR or the federal appendix. Where the proponent is of the opinion that certain information requested in this document or in the generic requirements is not required or cannot be provided, it must contact IAAC prior to submitting the Application to confirm whether the proponent's rationale for excluding the information is appropriate. The rationale must also be provided in the Application. In addition, the Application must identify the designated physical activity and physical activities that are incidental to the designated physical activity in accordance with the IAA (these activities should be developed with support from IAAC). The Project subject to the impact assessment includes both the designated physical activity and any indicental activities.

As relevant, the proponent is also encouraged to refer to the policy frameworks and guidance available in IAAC's Practitioner's Guide to Federal Impact Assessments including the Technical Considerations and References for the preparation of an Impact Statement, and to keep apprised of updates.

In preparing the Application, the proponent must adhere to ethical guidelines and cultural protocols governing research, data collection and confidentiality. The proponent must respect the obligation of protecting personal information, including for disaggregated data from small or unique populations, and adopt the established standards for the management of Indigenous data (e.g. the First Nations principles of Ownership, Control, Access and Possession or standards adopted by an Indigenous group for control over data collection and use), including obtaining permission from Indigenous groups before including information from or about them.

In determining what information and studies are required in the proponent's Application, as set out in the AIR and in this document, IAAC took into account the aspects listed under the definition of federal jurisdiction in section 2 of the IAA, and focused on elements anticipated to be material to decision making under the IAA as described in section 1.2 Selection of Valued Components. Only items not required by the provincial process and that are required to understand and address effects in federal jurisdiction have been included in this document to minimize duplication of effort. The Application must identify activities that involve periods of increased disturbance related to adverse federal effects and impacts on Indigenous Peoples and their rights.

1.4 Federal permitting coordination

IAAC will provide coordination of federal permits, licences or authorizations (collectively called permits) early and throughout the impact assessment process to provide:

- clarity on permitting requirements, timelines and processes through the development of detailed federal permitting plans; and
- transparency on the status and progress of permits through public reporting on the Canadian Impact Assessment Registry Internet site.

Under the IAA, federal authorities are prohibited from issuing permits before an impact assessment is completed. The proponent, however, is encouraged to develop federal permit applications concurrent with the impact assessment. In some cases, the same information and studies may be used to inform both the impact assessment and federal permits. Collecting and providing permitting information during the impact assessment process may expedite subsequent federal decisions, where applicable. Early engagement with the federal government, Indigenous communities and the public is essential to support a speedy review of federal permits.

2 Indigenous Peoples

The Application must demonstrate how impacts on Indigenous Peoples and their rights were considered and assessed, including:

- impacts resulting from any change to the environment on physical and cultural heritage or any structure, site or thing that is of historical, archaeological, paleontological or architectural significance;
- impacts resulting from any change to the environment on the current use of lands and resources for traditional purposes;
- changes to the health, social or economic conditions of Indigenous Peoples; and
- any adverse impacts on Indigenous rights.

Indigenous Peoples are best placed to understand how a project may impact them. The assessment of impacts on Indigenous Peoples and their rights must be done in collaboration with Indigenous groups as outlined in Description of engagement with Indigenous groups. Where relevant, the proponent must collaborate with Indigenous groups to incorporate information from or about them into the assessment of all VCs (e.g. biophysical VCs). The proponent must respect each Indigenous group's preferences for assessing impacts, and discuss with each Indigenous group whether it is appropriate for the proponent to provide its conclusions regarding (residual and cumulative) impacts on Indigenous Peoples and their rights. If an Indigenous group has provided their own conclusion, the proponent is not required to provide one.

The proponent is expected to engage with all Indigenous groups impacted by the Project, as set out in the Joint Assessment and Engagement Plan, and to describe the outcomes of that engagement in the Application. In addition, the results of engagement should be analyzed and presented separately for each Indigenous group. This group-specific assessment does not need to repeat the entire analysis of each VC, but should summarize and present the information relevant to that group. To the extent possible, each group-specific assessment should be done in a way that works best for that Indigenous group.

Where requested by Indigenous groups, parts or all of the assessments of effects on Indigenous Peoples and their rights can be combined in the group-specific assessment. For example, effects on the current use of lands and resources for traditional purposes and impacts on Indigenous rights to hunt, fish, and trap can be reported together. Indigenous groups may also identify holistic VCs that encompass multiple environmental, health, social, or economic elements. Undertaking these assessments together, when requested, will support consistent conclusions. In all cases, the Application must demonstrate that all requirements were met.

2.1 Indigenous physical and cultural heritage, and structures, sites, or things of significance

2.1.1 Effects to physical and cultural heritage, and structures, sites, or things of significance

The Application must also include:

- copies of correspondence with provincial, territorial or Indigenous authorities responsible for heritage resources with comments on any physical and cultural heritage resource assessment.

2.2 Current use of lands and resources for traditional purposes

The Application must assess the impacts of the Project to the current use of lands and resources for traditional purposes. The analysis must align with the steps set out in the Technical Guidance for Assessing the Current Use of Lands and Resources for Traditional Purposes under CEAA, 2012.

2.3 Health, social and economic conditions of Indigenous Peoples

The Application must assess the impacts of the Project on the health, social and economic conditions of Indigenous Peoples. The proponent is encouraged to refer to the Indigenous Mental Wellness and Major Project Development: Guidance for Impact Assessment Professionals and Indigenous Communities; the Final Report on Missing and Murdered Indigenous Women and Girls, in particular the Calls for Justice for Extractive and Development Industries (Calls for Justice 13.1 to 13.5), and Health Canada's Interim Guidance: Health Impact Assessment of Designated Projects under the *Impact Assessment Act*.

2.3.1 Baseline conditions for the health, social and economic conditions of Indigenous Peoples

Baseline economic conditions of Indigenous Peoples

- describe Indigenous or federal economic development plans for the study areas; and
- describe relevant treaty provisions pertaining to economic activities for Indigenous Peoples.

2.3.2 Effects on Health, Social and Economic Conditions of Indigenous Peoples

Effects on Indigenous Peoples health

- justify if any human receptors, Contaminant of Potential Concern (COPC), or exposure pathways have been excluded from the quantitative human health risk assessment. In cases where there are no guidelines, standards, or criteria available for screening an environmental medium (e.g. country foods), the COPC must included to determine whether there may be health risks associated with the predicted concentrations;
- assess impacts on the health of Indigenous Peoples from likely biophysical effect pathways considering:
  - air quality from Project-related air emissions including based on a comparison with Canadian Ambient Air Quality Standards established by the Canadian Council of Ministers of the Environment, National Ambient Air Quality Objectives and relevant provincial standards. The proponent is encouraged to refer to Health Canada's Guidance for Evaluating Human Health Effects in Impact Assessment: Air Quality,
  - for non-threshold air pollutants (e.g. PM2.5 and NO2), air quality criteria and guidelines must not be used as 'pollute-up-to levels', since any increase in exposure will result in an incremental population risk. When pollutant levels approach or exceed applicable Canadian or provincial standards, the proponent is encouraged to compare against solely health-based guidelines (e.g. World Health Organization Global Air Quality Guidelines),

Effects on economic conditions of Indigenous Peoples

- describe the changes in employment for Indigenous groups, including as resulting from:
- if relevant and where concerned Indigenous groups agree with including this information, describe benefit agreement being considered or discussed;
- provide an estimate of the levels of economic participation for Indigenous groups in comparison to the total Project requirements (e.g. employment, total dollar value of contracts);
- describe the situations where the Project's activities may directly or indirectly create economic hardship or opportunities, or displace businesses; and
- describe effects on the economic conditions of Indigenous groups resulting from environmental changes, as identified by Indigenous groups.

2.4 Rights of Indigenous Peoples

The IAA affirms the Government of Canada's commitment to ensure respect for the rights of Indigenous Peoples of Canada recognized and affirmed by section 35 of the *Constitution Act, 1982*. The proponent is encouraged to refer to IAAC's Guidance: Assessment of Potential Impacts on the Rights of Indigenous

Peoples, Policy Context: Assessment of Potential Impacts on the Rights of Indigenous Peoples and IAAC's Indigenous Advisory Committee Principles to Guide the Assessment of Impacts to Indigenous Inherent and Treaty Rights.

3 Contributions to inform decision making

At the decision-making phase of the IAA, should the decision maker determine that the adverse federal effects that are likely to be caused by the Project are likely to be, to some extent, significant, the decision maker will decide whether they are justified in the public interest in light of the extent to which they are significant and of the factors set out in section 63 of the IAA. The requirements in this section would inform the analysis of these factors.

3.1 Canada's environmental obligations and climate change commitments

IAAC, with the support of federal authorities, will analyze the Project's likely effects in the context of Canada's environmental obligations relevant to this Project, as well as the Project's greenhouse gas (GHG) emissions in the context of Canada's emissions targets and forecasts. The information gathered during the planning phase suggests that this Project would generally not contribute to the Government of Canada's ability to meet its environmental obligations and climate change commitments. This is because of the Project's footprint on the receiving environment (e.g. habitat loss resulting in adverse effects on biodiversity) and the potential emissions caused by the Project (e.g. GHG emissions).

Where the proponent is of the view that the likely effects of the Project contribute to the Government of Canada's ability to meet its environmental obligations and/or its commitments in respect of climate change, the proponent is encouraged to substantiate this view in the Application by describing these likely effects and the extent of their contribution (e.g. net increase in biodiversity through what mechanism; or net GHG reductions through what actions).

3.1.1 Environmental obligations

Federal environmental obligations relevant to this Project include those set out in the following instruments:

Biodiversity

- *Convention on Biological Diversity* and *Kunming-Montreal Global Biodiversity Framework* and its domestic framework: Canada's 2030 Nature Strategy, as well legislations supporting its implementation including SARA and recovery strategies and action plans developed under SARA for species at risk likely affected by the Project available on the species at risk public registry;

- Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar), as implemented in part under the Federal Policy on Wetland Conservation and the North American Waterfowl Management Plan];
- *Convention for the Protection of Migratory Birds in the United States and Canada*, as implemented in part under the *Migratory Birds Convention Act (1994)*, and supporting conservation objectives from Environment and Climate Change Canada's (ECCC) bird conservation regions and strategies;

Air pollution

- the Canada-United States Air Quality Agreement, as implemented under the Air Quality Management System;

Water quality and quantity

- the Canada-US Boundary Waters Treaty, as implemented by the International Joint Commission.

The Application must:

- list likely effects on species listed in Schedule 1 of SARA and their critical habitat, as well as identify the measures that will be taken to avoid or lessen those effects and to monitor them, including measures from any applicable provincial framework. Where applicable, refer to descriptions of effects already provided for VCs elsewhere in the Application. The proponent is also encouraged to include additional species that the Committee on the Status of Endangered Wildlife in Canada has recommended for listing as extirpated, endangered, threatened or of special concern.

Where the proponent is of the view that the likely effects of the Project contribute to environmental obligations, the proponent is encouraged to:

- describe plans and commitments that contribute to the above-listed environmental obligations; and
- with respect to the biodiversity[3] obligations:
  - describe and, where possible, quantify likely changes in biodiversity resulting from the Project referring to relevant guidance such as the *Convention on Biological Diversity's* Voluntary Guidelines on Biodiversity-Inclusive Impact Assessment,
  - describe whether, applying the mitigation hierarchy, the Project would result in no net loss or in net positive impacts on biodiversity, and
  - describe whether and how the Project's likely effects will contribute to the targets identified in Canada's 2030 Nature Strategy such as Target 2 (ecosystem restoration), Target 3 (protected and conserved areas), Target 4 (species recovery), Target 6 (invasive alien species), Target 7 (pollution and biodiversity, focusing on chemicals and air pollutants), Target 11 (ecosystem services and functions), Target 14 (mainstreaming of biodiversity values), Target 21

[3] The *Convention on Biological Diversity* defines biological diversity, or biodiversity, as "the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems".

(knowledge sharing), and Target 22 (inclusion of Indigenous Peoples, women/girls, youth/children, persons with disabilities, and environmental human rights defenders in decision making).

3.1.2 Climate change commitments

Where the proponent is of the view that the likely effects of the Project contribute to Canada's climate change commitments, the proponent is encouraged to describe its plans and commitments accordingly.

Greenhouse gas emissions

The proponent may assess the Project's GHG emissions following the Strategic Assessment of Climate Change (SACC) and the technical guides related to the SACC, developed by ECCC, including the Guidance on quantification of net GHG emissions, impact on carbon sinks, mitigation measures, net-zero plan and upstream GHG assessment (Technical Guide). The proponent is encouraged to keep apprised of updates to the SACC and related technical guides published by ECCC.

3.2 Sustainability

Sustainability is the ability to protect the environment, contribute to the social and economic well-being of the people of Canada and preserve their health in a manner that benefits present and future generations. Information required throughout the AIR can be used to support the analysis of the extent to which the likely effects of the Project contribute to sustainability.

3.2.1 Extent to which the likely effects of the Project contribute to sustainability

The Application must:

- provide an analysis of the extent to which the project's likely positive effects and adverse federal effects contribute to sustainability according to the following steps:
  - identify the VCs from section 1.2 Selection of Valued Components and any additional key issues relevant to the sustainability analysis, informed by Indigenous Knowledge and the Project context,
  - describe the connections between the VCs identified for the sustainability analysis
  - consider the benefits and costs to the environmental, health, social and economic well-being of present and future generations;
  - describe the balance of positive effects and adverse federal effects on the VCs; and
  - provide a conclusion on the extent to which the Project's effects contribute to sustainability from no contribution to low, moderate or high contribution.