SKEENA™ RESOURCES

Eskay Creek Revitalization Project

Detailed Project Description

August 10, 2022

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Joint Submission to the Impact Assessment Agency of Canada, British Columbia Environmental Assessment Office, and Tahltan Central Government

Skeena Resources
Suite #650, 1021 West Hastings Street
Vancouver, BC V6E 0C3

August 10, 2022

IMPORTANT NOTICE TO ALL REVIEWERS

The Detailed Project Description (DPD) builds upon the information provided in Skeena Resources' Initial Project Description, with updates and revisions reflecting refinements to the design, as well as feedback from engagement with Indigenous Peoples, governments, municipalities, the public, and other stakeholders. In this DPD, Skeena Resources also provides clarifications and additional information in response to issues identified in the Joint Summary of Issues and Engagement (JSOIE).

The DPD and its appendices should be reviewed in their entirety to connect the feedback/ concerns provided to Skeena Resources with outcomes and our approach to engagement and assessment of the Project. For Skeena Resources' direct responses to issues identified in the JSOIE, along with a cross-reference to where many of those issues are addressed throughout this DPD, readers should refer to Appendix I.

Key updates to this section:

To facilitate review for readers who are familiar with the Initial Project Description, boxed summaries—like this one—are provided at the beginning of each major section of this Detailed Project Description. These summaries highlight the content changes made in each major section relative to the information that was provided in the Initial Project Description.

EXECUTIVE SUMMARY

Key updates to this section:

This section is updated to reflect changes made throughout the Detailed Project Description.

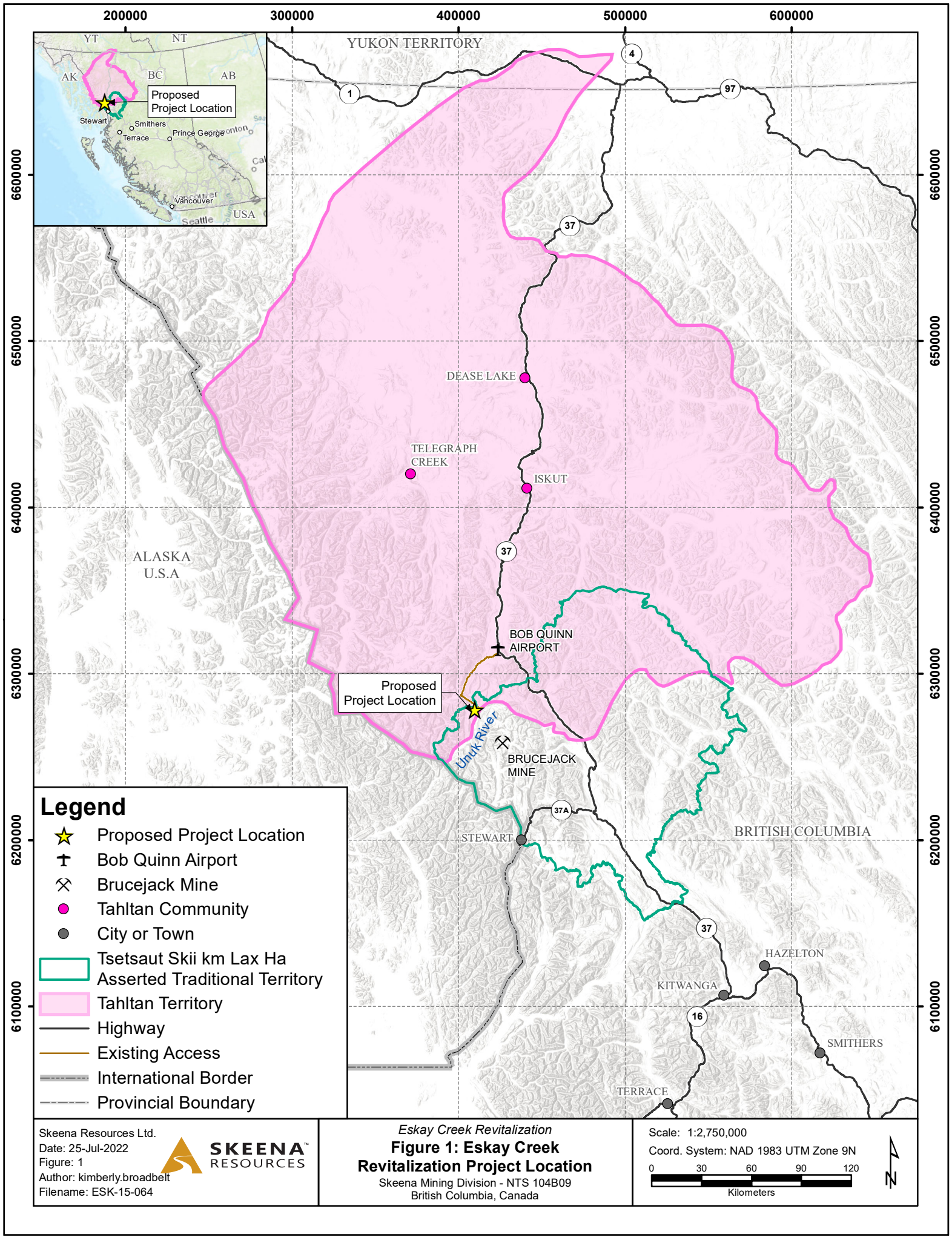
Skeena Resources Limited (Skeena Resources) is proposing the Eskay Creek Revitalization Project (the Project) to restart mining at the past-producing Eskay Creek Mine. The Project will be an open pit gold-silver mine with an estimated total annual production of 3.0 Mt/year in Years 1 to 5 and up to 3.7 Mt/year in Years 6 to 9 (8,225 tpd to 10,140 tpd).

The Project is located in northwestern British Columbia (BC), within the territory of the Tahltan Nation and the asserted traditional territory of the Tsetsaut Skii km Lax Ha (Figure 1). The southern portion of the concentrate haul route along Highway 37 near Meziadin Junction, and westward along Highway 37A to Stewart, passes through the territories of the Gitanyow Nation and Nisga'a Nation. The closest local Métis chartered community, represented by the Métis Nation British Columbia, is in Terrace, BC (Figure 1).

Purpose of the Detailed Project Description

The purpose of the Detailed Project Description (DPD) is to provide an update to the July 2021 Initial Project Description (IPD), including refinements to the Project design, and to describe how Skeena Resources has addressed, or intends to address, the issues raised during engagement and in the Joint Summary of Issues and Engagement from the Environmental Assessment Office and the Impact Assessment Agency of Canada. The objectives of the DPD are to:

1. summarize key issues and concerns and Skeena Resources' approach to resolving them in the DPD or how the issues will be addressed in future phases;
2. update the list of potential positive and negative effects of the Project to inform Process Planning;
3. describe outcomes of engagement with Indigenous Peoples, regulators, stakeholders and public that informed the DPD and plans for follow-up engagement;
4. update information about the Project presented in the IPD and show how comments on the IPD have been considered, or will be considered, as more information becomes available; and
5. provide an overview of the anticipated regulatory path for the Project, including work to consider the Tahltan Nation's information requirements and the combined federal and provincial assessment approach.



Skeena Resources Ltd.
Date: 25-Jul-2022
Figure: 1
Author: kimberly.broadbelt
Filename: ESK-15-064

SKEENA RESOURCES

Eskay Creek Revitalization

Figure 1: Eskay Creek Revitalization Project Location

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:2,750,000
Coord. System: NAD 1983 UTM Zone 9N
0 30 60 90 120
Kilometers
N

For the purposes of the impact assessment, the primary contact person for Skeena Resources is:

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Regulatory Context

The following describes the regulatory and policy framework for the Project, including its review within the Tahltan Central Government (TCG) environmental assessment process, the *Impact Assessment Act* (administered by the Impact Assessment Agency of Canada [IAAC]), and the *Environmental Assessment Act* (administered by the British Columbia Environmental Assessment Office [EAO]).

Since 2020, TCG and Skeena Resources have worked collaboratively to define an entry point into the provincial and federal assessment processes for the Revitalization Project. An important outcome of this collaborative approach was TCG's July 2021 request to the BC Minister of Environment and Climate Change Strategy for the Project to be designated as reviewable under Section 11 of the British Columbia *Environmental Assessment Act*. Skeena Resources fully supported this request to the Province, and the Minister designated the Project as reviewable under the Act on July 30, 2021. The Project is reviewable under the federal *Impact Assessment Act, 2019* (IAA) *Physical Activities Regulations*, under the following sections:

- Section 18(d) the construction, operation, decommissioning and abandonment of a new metal mill, other than a uranium mill, with an ore input capacity of 5 000 tonnes per day (tpd) or more; and
- Section 19(c) the expansion of an existing mine with an increase in the area of mining operations of 50% or more and the total ore production capacity would be 5 000 tpd or more after the expansion.

The Project's production rate of 3.0 Mt/year to 3.7 Mt/year (8,225 tpd to 10,140 tpd) would be higher than the threshold in the *Physical Activities Regulations.*

The TCG is the administrative governing body of the Tahltan Nation and is reviewing the Project against TCG's Environmental Assessment Requirements to inform its decision about Tahltan consent on the Project. The Tahltan Heritage Resources Environmental Assessment Team (THREAT) provides technical support to TCG's Lands Department and to Tahltan Leadership.

Pursuant to the *Impact Assessment Cooperation Agreement between Canada and British Columbia*, on August 6, 2021, the Province of BC made a request to the federal Minister of Environment and Climate Change to approve the substitution of the provincial assessment process under the *Environmental Assessment Act* (EAA) for the federal process under the IAA.

If the substitution request is approved by the Minister, the Province would commit to meet the federal legislative requirements for the remainder of the assessment process and fulfill the conditions for substitution under the IAA set out in the Cooperation Agreement and the Substitution Decision.

The EAO and IAAC conducted a comment period on the Project from August 30, 2021, to September 29, 2021. As part of this process, EAO posted the IPD on its public registry, the EAO Project Information Centre, and IAAC posted the IPD on the Canadian Impact Assessment Registry, on July 19, 2021, requesting input from Indigenous Nations and the public as well as technical advisors (federal authorities, provincial ministries, local and Indigenous Governments, and the United States' federal and state agencies).

On June 6, 2022, the Province of BC and TCG announced that they had entered into the first consent-based decision-making agreement under section 7 of the *Declaration on the Rights of Indigenous Peoples Act* (*Declaration Act,* SBC 2019, c 44). The Consent Agreement is tied to the EAA, section 7(b), which allows the provincial government to establish an agreement with an Indigenous Nation to specify that a reviewable project within an area may not proceed without the consent of the Indigenous Nation. The Consent Agreement establishes a Collaboration Team comprising TCG's Lands Director and the EAO Project Lead (as well other designated individuals) to seek consensus and promote collaboration between the two parties at various stages of the assessment process, including:

- deciding whether the Project should proceed to Process Planning;
- establishing what information and assessment requirements are necessary to support both parties' decision-making, including with regards to Skeena's Application for an Environmental Assessment Certificate;
- assessing the EAO's draft Environmental Assessment Report and draft Environmental Assessment Certificate, including any conditions.

The Collaboration Team will also assist the parties to the Consent Agreement in collaboratively reviewing Skeena's Application for an Environmental Assessment Certificate. In addition, TCG will conduct an independent Tahltan Risk Assessment and prepare a Tahltan Risk Assessment Report, setting out TCG's conclusions on whether the Project is likely to cause significant residual or cumulative effects to Tahltan Values. Once the EAO process concludes, the Tahltan Risk Assessment Report will inform TCG's decision on whether or not to consent to the Project.

A Coordinated Regulatory Authorizations Process Charter is being finalized between Skeena Resources, Tahltan Nation, and the Province of BC. The Process Charter is an outcome of a Memorandum of Understanding signed in early 2021 between the parties and establishes a strategic approach to coordinating regulatory processes for the Project.

The Project is located within the provincial Cassiar Iskut-Stikine Land and Resource Management Plan (CIS LRMP; ILMB 2000), which encompasses approximately 5.2 million ha. The CIS LRMP is a sub-regional integrated plan that establishes a framework for land use and management objectives. Skeena Resources is not aware of any Indigenous land use plans overlapping the Project area. Skeena Resources has been informed about the Tahltan Stewardship Initiative (TSI)

and Lands Governance Framework that is being advanced by the Tahltan Nation and looks forward to further updates and understanding of that important work. Skeena Resources has not identified any federal regional assessments, studies or plans that have been undertaken in the Project area under sections 92 or 93 of the IAA. The *Strategic Assessment of Climate Change* was deemed a strategic assessment conducted under section 95 of the IAA and applies to all designated projects under the IAA. No federal funding has been requested and no federal support is being provided for the Project.

The TCG Lands Department are developing Tahltan Environmental Assessment Strategy Framework, including Tahltan-specific Application Information Requirements, which include strategic policy and operational components and supports, to guide participation, inclusion of Tahltan Knowledge, and decision-making for projects proposed in Tahltan territory. The Tahltan Environmental Assessment Strategy Framework are grounded in Tahltan laws and values and guided by the Declaration of the Tahltan Tribe (Tahltan Nation 1910) and the Tahltan Resource Development Policy (TCC 1987), among other documents. As the Project is located within Tahltan territory, TCG indicated that it will be assessed using this approach.

The *Nisg̲a'a Final Agreement* is a treaty and land claims agreement which came into effect in 2000. This Agreement establishes three categories of lands with different specified Nisg̲a'a interests: Nisg̲a'a Lands, the Nass Wildlife Area, and the Nass Area. The Agreement affords title to Nisg̲a'a Nation within Nisg̲a'a Lands and defines the rights of Nisg̲a'a Nation to self-government and law-making authority in this area. Chapter 10 of the *Nisg̲a'a Final Agreement* establishes the requirements for environmental assessments for projects that are either on Nisg̲a'a Lands or may reasonably be expected to have adverse environmental effects on residents of Nisg̲a'a Lands, Nisg̲a'a Lands or Nisg̲a'a interests set out in the Agreement. The Project mine site is 16.8 km from the Nisg̲a'a Nass Area, 49.9 km from the Nass Wildlife Area, and 157.8 km from Nisg̲a'a Lands. Project activities in these areas comprise transportation and concentrate hauling along highways 37 and 37A to the Port of Stewart for marine concentrate shipping. Skeena Resources will continue to engage with Nisg̲a'a Nation to ensure that the Project and the assessment are meeting *Nisg̲a'a Final Agreement* requirements.

Skeena Resources will continue to work with Gitanyow Hereditary Chiefs Office on applying the Gitanyow Wilp Sustainability Assessment Process to the Project.

Skeena Resources will also continue to engage with Tsetsaut Skii km Lax Ha to support its participation in the environmental assessment process and its own decision-making.

A summary of potential provincial and federal authorizations required for the Project are provided in Table 1 and Table 2, respectively. The tables identify anticipated amendments to existing authorizations (summarized in Section 3.4) as well as new authorizations. Permit requirements will be confirmed by regulatory authorities during the assessment process. The Project is anticipated to be compatible with all known government policies.

Table 1 Summary of Potential Provincial Permits, Licences and Approvals Required for the Project

Authorization	Responsible Agency	Legislation
Amendment to Permit M-197	EMLI	*Mines Act*, Health, Safety and Reclamation Code for Mines in BC
Explosives Storage and Use Permit	EMLI	*Health, Safety and Reclamation Code s.8*
Water System Construction Permit Water System Operating Permit	Northern Health	*Drinking Water Protection Act*, Drinking Water Protection Regulation
Food Facility - Health Approval Application	Northern Health	*Drinking Water Protection Act*
Industrial Camp Notification	Northern Health	*Industrial Camps Regulation*
Sewage Registration	ENV	*Environmental Management Act,* Municipal Wastewater Regulation
Amendment to *Environmental Management Act* (Effluent) Permit 10818	ENV	*Environmental Management Act*
Environmental Management Act (Air Emissions Permit)	ENV	*Environmental Management Act*
Hazardous Waste Registration	ENV	*Environmental Management Act,* Hazardous Waste Regulation
Fuel Storage Registration	ENV	*Environmental Management Act*
Water Licence	MOF	*Water Sustainability Act*
Approval for Works in and about a Stream (Section 11)	MOF	*Water Sustainability Act*
Investigation or Inspection Permit	MOF	*Heritage Conservation Act*, RSBC 1996, c. 187
Site Alteration Permit	MOF	*Heritage Conservation Act*
Occupant Licence to Cut	MOF	*Forest Act*
Road Use Permit	MOF	*Forest Act*
Amendment to Special Use Permit	MOF	*Forest Act*
Fish Collection Permit	LWRS	*Wildlife Act*
Wildlife Permit	LWRS	*Wildlife Act*
Licence of Occupation	LWRS	*Land Act*, RSBC, 1996, c. 245
Access Permit	MOTI	*Transportation Act*

Table 2 Summary of Federal Permits, Licences and Approvals Possibly Required for the Project

Authorization	Responsible Agency	Legislation
Explosives Permit	Natural Resources Canada	*Explosives Act* R.S.C., 1985, and Explosives Regulations, (SOR/2013-211)
Fisheries Authorization	Fisheries and Oceans Canada	*Fisheries Act*
Migratory Bird Permit	ECCC	*Migratory Birds Convention Act*
Species at Risk Permit	ECCC	*Species at Risk Act*
Environmental Emergency Registration	ECCC	*Canadian Environmental Protection Act, 1999* Environmental Emergency Regulations
Nuclear Safety Authorization	Canadian Nuclear Safety Commission	*Nuclear Safety and Control Act*
Radio Licence	Industry Canada	*Radio Communication Act*
Navigable Waters Approval	Transport Canada	*Canadian Navigable Waters Act*
Transportation of Dangerous Goods Permits	Transport Canada	*Transportation of Dangerous Goods Act*
Strategic Assessment of Climate Change	ECCC	Section 95 of the IAA

Project Description

The Project would restart mining at the past-producing Eskay Creek Mine, which operated as an underground mine from 1994 to 2008. The Project will be a gold-silver open pit mine with an estimated total annual production of 3.0 Mt/year in Years 1-5 and up to 3.7 Mt/year in Years 6-9 (8,225 tpd to 10,140 tpd). The Project is expected to have a 14-year mine life (i.e., from Construction to Closure). Production process at the Project will include ore mined via an open pit and hauled to an adjacent crusher and processed using conventional milling and flotation to recover a gold-silver concentrate.

The Project will make use of facilities and infrastructure of the closed Eskay Creek Mine, which has been in care and maintenance since 2008—including existing disturbed areas, tailings/waste rock storage areas/waterbodies, and waste disposal locations—and will also require new infrastructure, including a new mill. Project access will be via the Eskay Creek Mine Access Road, a multi-use industrial road constructed in the early 1990s. The Project will involve construction, operation, decommissioning and closure of an open pit mine and mill operation, concentrate transport and associated infrastructure, and activities at the former underground mine site. Once into the Operations phase, the 2008 mine infrastructure will be decommissioned, as it will sit adjacent to the proposed open pit.

New Project infrastructure will include:

- construction of embankments to existing Tom MacKay Storage Facility (TMSF) to increase waste storage capacity including tailings and waste rock;
- 20 km transmission line to mine site;
- substation to connect to existing transmission lines near the Forrest Kerr and Volcano Creek hydroelectric generating facilities;
- open pits (North and South);
- overburden and topsoil stockpiles;
- Waste Rock Storage Facility (WRSF);
- surface and diversion water management structures;
- haul roads and light vehicle roads;
- processing area, including ore process plant, hazardous waste storage facility, and other buildings and facilities;
- detonator and explosives magazines and explosives bulk storage;
- mine infrastructure facility;
- tailings and reclaim water pipelines;
- helipad for emergency situations;
- security buildings;
- warehouse and laydown areas;
- modular worker accommodations; and
- water treatment facilities for sewage, potable water, and contact water (if required).

Skeena Resources has undertaken significant design work for the Project since the submission of the IPD in July 2021. Additional engineering work for the Feasibility Study (FS; e.g., water management, design, mitigation planning) will continue into 2022 to be reflected in materials prepared by Skeena Resources as part of the regulatory process. A summary of Project design and updates is presented in Section 4.0.

Planning for the Project is anticipated to occur over a two- to three-year period and will be concurrent with the environmental assessment regulatory process (2021-2024) preceding Project development and will include completion of engineering studies (i.e., the FS), regulatory engagement, and permitting. The regulatory schedule will be determined in collaboration with EAO, IAAC, and TCG.

Construction of the Project is planned to take two years and will include pre-stripping, stockpiling, construction, and commissioning activities. The estimated operating mine life is nine years. The site closure process at the end of the mine life will take approximately three years. Progressive reclamation will start in the latter part of Operations and will continue during the Closure phase. Monitoring of the closed facility is expected to be a requirement of future permits and licences.

Project Location

The Project is located within the territory of the Tahltan Nation and the asserted traditional territory of the Tsetsaut Skii km Lax Ha. Three Tahltan communities are located north/northeast of the Project:

- Iskut (135 km north; 170 km via road);
- Dease Lake (190 km northeast; 253 km via road); and
- Telegraph Creek (142 km north; 362 km via road).

The Project is within the Regional District of Kitimat-Stikine (RDKS) on provincial Crown land mineral tenures held by Skeena Resources. The coordinates of the centre of the mineral deposit are approximately 56° 39′ 13.9968″ N and 130° 25′ 44.0004″ W. The existing tenures held by Skeena Resources, comprising a total of 5,745.5 hectares (ha), include 43 mineral claims, four gravel lot claims, eight mineral leases, and two surface leases with the areas adjacent to the Project under other ownership (Section 7.3). Canarc Resources Corp. (Canarc) has a 33% carried interest in several mining leases. All operating decisions related to the property are exclusively those of Skeena Resources. Skeena Resources, as the operator, has acquired historical liabilities from Barrick Gold Inc. Canarc carries severed liability for the property.

No federal lands will be used to carry out the Project. The Project is not near First Nation land as defined in subsection 2(1) of the *First Nations Land Management Act*. The Project will be within a 136 to 224 km distance to the Federal Lands (Indian Reserves) of the Indigenous communities of Iskut, Tahltan, and Gitanyow. The mine site is 16.8 km from the Nisga'a Nass Area, 49.9 km from the Nass Wildlife Area, and 157.8 km from the Nisga'a Lands, as defined in the *Nisga'a Final Agreement Act*. Any seasonal or temporary residences identified by Indigenous groups or community members will be identified and included in the environmental assessment undertaken to fulfill TCG, EAO, and IAAC requirements.

Alternatives to and Alternative Means of Carrying out the Project

Skeena Resources is considering potential alternatives to the Project that are technically and economically feasible and directly related to the Project. The possible alternatives are:

- Not undertaking the Project;
- Changing the timing of the Project; or
- Changing the location of the Project.

The 'no Project' alternative will not provide the positive social and economic effects associated with the Project's development and will not fulfill the purpose of the Project. The second alternative will generally have the same environmental effects as those associated with proceeding with the Project as proposed. The third alternative, changing the Project's location, is not possible. The environmental, social, and economic effects associated with the alternatives to the Project will be further reviewed through the assessment process.

An initial alternatives assessment was completed during the Preliminary Economic Assessment (PEA) in 2019, and a suite of trade-off studies were undertaken during the Pre-feasibility Study (PFS) to assess alternatives and refine the approaches to carry forward into the ongoing FS. Alternative means for carrying out the Project that are technically and economically feasible and directly related to the project were considered and included: ore processing; tailings and waste rock storage management, location and technology; camp facilities; waste and water management; on-site materials transport; and worker transport and rotation. Alternative ways to undertake the Project will continue to be assessed during the FS and environmental assessment process. Skeena Resources will collaborate with THREAT to complete an alternatives assessment for Project components. The outcomes of the assessment will be presented in the Application. Skeena Resources will adapt methods for the alternatives assessment from the *Guidelines for Assessment of Alternatives for Mine Waste Disposal* (ECCC 2016).

Project Need, Purpose, and Benefits

The Project is needed to supply precious metals to global markets to support industrial development needs, including the technology, health, automotive, and aerospace sectors, as well as consumer and investment demand.

The purpose of the Project is to undertake responsible and sustainable resource extraction of gold and silver concentrate from a previously mined deposit (i.e., redevelopment of a brownfield mine). The Project will foster economic growth and prosperity in BC, particularly northwestern BC, while supporting capacity building, employment, and benefits to local Indigenous Peoples and communities in alignment with the objectives of the BC Mining Jobs Task Force (2018). The Project will be designed, constructed, operated, and decommissioned to meet all applicable BC and Canadian environmental and safety standards and practices.

Skeena Resources is committed to developing the Project in a sustainable manner that will contribute to the local, provincial, and national economies, and will create employment opportunities locally, regionally, and beyond. Skeena Resources is nearing completion of an FS for the Project and, due to securities regulations which limit disclosure, will provide updates to the economic estimates appearing in this report once this study is completed and publicly released. Based on the previously released Prefeasibility Study, the Project's estimated capital cost is $455 million Canadian (CDN). An additional $81 million in sustaining capital expenditures is expected during the life of the Project, for a total capital cost of $536 million. The expected annual operating cost is $135 million CDN. Much of these costs would be spent in northern British Columbia, employing local and Indigenous contractors and employees. The Project will generate tax revenue for local, provincial, and federal governments. Skeena Resources' current estimate of direct Project employment is 338 person-years during pre-production, 880 person-years during Construction, and 3,870 person-years during Operations (a total of 5,088 person-years); as well as additional contractor/consultant employment. Additional employment benefits will be created for workers in supplier industries and in businesses benefiting from workers spending their income. Once the FS is released publicly, the Project benefits estimates will be updated.

Engagement

Skeena Resources is committed to early, inclusive, and meaningful engagement with Indigenous Peoples, governments, communities, and other stakeholders during the federal and provincial assessment processes. To date, Skeena Resources has engaged with TCG, federal and provincial government agencies, as well as the following Indigenous groups: the Tahltan Nation, Tsetsaut Skii km Lax Ha, Nisga'a Nation, Gitanyow Nation, and Métis Nation British Columbia.

Skeena Resources initiated engagement on its exploration program with the Tahltan Nation in January 2015. Since then, Skeena Resources' engagement with the Tahltan Nation has developed into a multifaceted relationship with TCG and Tahltan members. Skeena Resources hosted two virtual information sessions with members of the Tahltan Nation in June 2021 and a Tahltan Community Engagement Session was hosted in partnership with TCG, IAAC, and EAO during the public comment period in September 2021. Skeena Resources works closely with community leadership on planning in-person community visits.

Skeena Resources initiated engagement with Tsetsaut Skii km Lax Ha in spring 2018 and had an opportunity to engage in-person in August 2020. Skeena has continued dialogue into May 2022, providing Tsetsaut Skii km Lax Ha with the draft Initial Project Description for review and comment in the first quarter of 2021, and also requesting TSKLH's input on their preferred method for engagement on draft documents.

Skeena Resources held introductory meetings with Nisga'a Lisims Government in March 2021, and in April 2022, initiated participation in an assessment under Section 10 of the Nisga'a Final Agreement. Skeena Resources finalized a Confidentiality Agreement with Nisga'a Lisims Government in May 2022 and will continue to work with this government as part of its assessment process.

Skeena Resources held introductory meetings with the Gitanyow Nation during which the Gitanyow Hereditary Chiefs Office expressed interest in the Eskay Creek Revitalization Project participating in the Pilot Program for the Gitanyow Wilp Sustainability Assessment Process. Skeena Resources will continue to work with Gitanyow Hereditary Chiefs on applying this process to the Project and addressing their interests and concerns.

Skeena sent an introductory letter to Métis Nation of British Columbia in June 2021 but has not received a response. Métis Nation of British Columbia did not submit comments during the public comment period on the Initial Project Description.

In total, since July 2021, Skeena Resources has had over 119 engagements with federal and provincial government agencies, the Tahltan Nation, Tsetsaut Skii km Lax Ha, Nisga'a Nation and Gitanyow Nation and the public. This includes over 99 meetings with Tahltan leadership, four presentations to local governments and two public virtual information sessions hosted by TCG, EAO and IAAC. In July 2021, Skeena Resources developed a website to provide updated information on the Project and engagement opportunities. Skeena Resources also set up a dedicated e-mail address for public comments, monitored daily by Skeena Resources' Engagement Coordinator. An Engagement Plan submitted in July 2021 (Skeena Resources

2021b) has helped guide activities to date and will continue to inform engagement for the regulatory processes to come.

In the list below, Skeena Resources provides a brief synthesis of what it understands to be the key themes in the issues and comments received, as identified by IAAC and EAO in the JSOIE. Skeena Resources has tracked and responded to each of these comments separately, and provides responses to the summary of comments in the JSOIE prepared by IAAC and EAO (in Appendix I) and has revised the DPD to provide some of the additional information requested by reviewers. Skeena Resources anticipates that many of the comments and recommendations in the JSOIE will be addressed in subsequent phases of the Project's environmental assessment process. The Hybrid Application Information Requirements (Hybrid AIR) is currently being developed and will be finalized in the Process Planning phase.

- **Indigenous Nation Information Exchange:** Interest in receiving additional information regarding the Project itself and in sharing information—including Indigenous Knowledge—to be considered in the process, as well as considerations and approaches for appropriately reflecting that knowledge in the EAC Application and other process documents.
- **Tahltan Nation Assessment Process:** Requirements for the assessment process itself as well as the EAC Application in alignment with Tahltan Knowledge and values, risk assessment, and decision-making by the Tahltan Nation, and regulatory role in the environmental assessment process.
- **Accidents, Malfunctions, and Public Safety:** Concerns about the potential for impacts to the environment (including air quality, water quality, wildlife), contamination of drinking/ recreational water and traditional foods, vehicle accidents, open pit flooding and tailings storage facility failure, incident communications and geotechnical stability.
- **Alternative Means of Carrying Out the Project:** Concerns about waste management, mining techniques (i.e., open pit vs underground), and pit development alternatives, as well as some recommended approaches for the alternatives assessment to be provided in the EAC Application.
- **Atmospheric Environment:** Recommendations for parameters and approaches that should be used in the effects assessment for air quality to be provided in the EAC Application. Request for clarification regarding the overland conveyor and an amendment to the list of potential mitigations.
- **Greenhouse Gas Emissions:** Suggestions for methodology for calculation of the Project's GHG emissions and potential contribution to climate change, interest in mitigations of emissions, and recommendations for the approach to effects assessment to be used in the EAC Application.
- **Cumulative Effects:** Concerns about impacts to Indigenous communities and the Project's additions to cumulative effects of resource development in the region, as well as recommendations for the approach to effects assessment to be used in the EAC Application.
- **Differential Impacts on Diverse Persons and Groups:** Several recommendations relating to relevant data and methodologies to be used as part of the effects assessment in the EAC Application.

- **Economic Conditions:** Requests for workforce projections and additional social and economic information to be included in the EAC Application and considerations for Skeena Resources for enhancement of economic opportunities for Indigenous and local groups.
- **Effects of the Environment on the Project, including Climate Change:** Recommendations relating to the effects assessment approach used in the EAC Application, consideration of the impacts of climate change on the Project, and concerns about the sufficiency of baseline information.
- **Fish and Fish Habitat:** Concerns about impacts to fish (including salmon and hooligan/ eulachon) and fish habitat from potential effects on water quality in short and longer time periods; potential for impacts tied to trucking and shipping, accidents, and transboundary impacts; and reliance on specific data sources. Recommendations for monitoring approaches and mitigation measures to be considered in the EAC Application. Additional concerns expressed regarding the potential consequences to Indigenous interests should the Project affect fish populations or fish habitat directly or through effects to water quality.
- **Geology, Geochemistry, and Geological Hazards:** Requests for additional detail and clarifications on the Project design.
- **Human Health:** Concerns relating to potential Project effects on noise, vibration, and air quality and recommendations on approaches to assessing these and other effects to human health (including Health Impact Assessment).
- **Water Quality and Processes:** Concerns about effects to surface and groundwater quality and quantity, including drinking water, the potential for transboundary effects, inquiries regarding water treatment and management options being considered, and recommendations on approaches for water balance modelling and approaches to be used in the EAC Application.
- **Post-operation Condition of the Project:** Concerns raised about potential long-term effects to land and water, mitigation approaches, reclamation and closure conditions, geotechnical and geochemical stability, water quality, and Tahltan land uses.

Emissions, Waste and Discharges

Greenhouse gas (GHG) emission calculations were updated based upon estimates from the Feasibility Study in progress. GHG emissions will be generated directly by the Project from construction and mining activities and calculations were completed following the *Strategic Assessment of Climate Change*. Based on the direct and acquired energy GHG emissions for the Construction, Operations and Reclamation and Closure phases of the Project, the total net GHG emissions summed over all years of the Project are 768,506 t CO_2e. The maximum annual net GHG emissions for the Construction phase of the Project are in Year -1 (32,924 t CO_2e). The maximum annual net GHG emissions during the Project are in Year 3 (90,977 t CO_2e). Annual net GHG emissions for decommissioning and closure are estimated to be the same for all years with 23,107 t CO_2e. Section 4.5.1.2 further outlines the calculations undertaken and the total net emissions for the Construction (79,867 t CO_2e), Operations (619,319 t CO_2e), and Closure (69,320 t CO_2e) phases.

Air emissions from the Project will be limited to a few point sources, which will require an *Environmental Management Act* permit (e.g., garbage incinerator, assay lab exhaust, dust collector exhausts, ventilation fans from process tanks, propane dryer for concentrate). There will also be dispersed sources which will not require permits, including GHG emissions from mobile and stationary equipment, and fugitive dust. A management and mitigation plan will minimize air emissions and fugitive dust and mitigate potential effects to biophysical and human receptors.

Project construction, processing, and mining activities will generate air contaminants, which may include:

- point source emissions potentially containing particulates (e.g., dust fans, ventilations systems) as Total Suspended Particulates (TSP), and size fractions PM_{10} and $PM_{2.5}$;
- fugitive dust, consisting of TSP, PM_{10} and $PM_{2.5}$, with metals constituents among the particulate load associated with disturbance of fine materials in various activities (e.g., including vehicle traffic, construction, concentrate hauling, maintenance, as well as mining activities such as blasting, dumping, quarrying, road building, stripping, stockpiling, grading, snow clearing); wind and rain erosion may also generate fugitive dust from stockpiles and surfaces; and
- criteria air contaminants, including oxides of nitrogen (NOx), PM_{10}, $PM_{2.5}$, sulphur dioxide (SO_2), volatile organic compounds (VOCs), diesel particulate matter (DPM) and carbon monoxide (CO), due to the combustion of diesel, gasoline, and propane fuels by vehicles, non-road equipment, process plant, power supply (backup diesel generators) and heating units.

Waste generated by the Project will include:

- waste rock;
- tailings;
- other wastes from both hazardous and non-hazardous sources (e.g., office, domestic waste and vehicle maintenance wastes);
- sewage; and
- hydrocarbon contaminated soil (in the event of spills or leaks).

Hazardous waste materials such as spoiled reagents, waste petroleum products and used batteries will be generated throughout the life of the Project. Storage facilities will facilitate the segregation and inventory of the various hazardous waste streams generated during the Project.

The Project will manage releases of contact water (e.g., seepage from the WRSF, process water, tailings and pit dewatering, treated sewage) separately from diversion of non-contact water from upstream catchments that has not been in contact with mine workings. Water discharge monitoring will be a fundamental component of the Environmental Management System and permit management. Water discharge monitoring will be informed by the lengthy record of effluent discharge monitoring at the three permitted discharge locations (sites TM1, W20, and D7). Water emissions will meet existing or future provincial permit limits and national (i.e., MDMER) standards prior to discharge.

Water management planning, water quality/quantity modelling, and mitigation planning is underway by Skeena Resources to inform the early stages of the environmental assessment process (e.g., Water Model Plans), potential effects and related mitigation measures (e.g., source term controls), and to inform Indigenous peoples, reviewers, and designers of the outcomes. Skeena Resources is committed to sharing of early information with the Tahltan Nation and reviewers to appreciate mitigation approaches, model structures and approaches, early results, and innovations to address potential impacts. Skeena Resources will engage with the Technical Advisory Committee (TAC) and specialist sub-groups to discuss development of the Project, modelling approaches, outcomes and mitigations, and create an approach to fulfill the requirements for both the EAC Application and regulators. By engaging with oversight committees or specialist sub-groups of the TAC, Skeena Resources anticipates a comprehensive dialogue to support information sharing and consideration of Tahltan sustainability and risk requirements.

Project Environment and Human Context

Sections 8.1, 8.2, and 8.3 provide an overview of existing physical, biological, and human environment conditions in the Project area based upon a suite of historic and recent information. Biophysical studies were completed to support the 1993 application for a Mine Development Certificate (as described in Section 5.2.1) for the Eskay Creek Mine and later permit amendments. Skeena Resources completed a gap assessment of these early 1990s studies and monitoring data over the past two decades and undertook additional environmental, social, economic, heritage, and health studies in 2020 and 2021 to address refinement of the Project design and to reflect current regulatory requirements in support of provincial and federal environmental assessment submissions. Environmental studies for other projects also exist and provide regional information and context to inform the regulatory applications. Tahltan information and knowledge for the territory will be incorporated into the process and applications as Skeena Resources and THREAT develop information sharing agreements.

Physical Environment

The Project is located on the Prout Plateau, as shown on the report cover photo. The Prout Plateau is a rolling subalpine upland, with an average elevation of 1,100 masl, on the eastern flank of the Boundary Ranges of the Coast Mountains between the Unuk River (just south) and Iskut River (north of the Project). The Iskut River and upper Unuk River watersheds in the area near the mine site is characterized by steep mountains with isolated plateaus, high precipitation, shallow soils, many steep small tributaries, and the large river corridors draining westward to the ocean. Relief (or variation in elevation) over the Prout Plateau ranges from 500 m in the TMSF area to over 1,000 m between the Unuk River and Ketchum Creek valleys and highest points. The Project is at approximately 800 m elevation in the Tom MacKay Creek watershed. Mountain slopes are heavily forested while the subalpine terrain around the Project reflects sparser forest cover and parkland forest type.

The mean annual total precipitation at the Project area is estimated to be 2,700 mm, based on updated monitoring and modelling information from past two years (TEEM 2021). The majority (55% to 71%) of annual precipitation falls as snow between September and May. The average

temperature ranges from -10.4 degrees Celsius (°C) in January to +15 °C in July (EC 2013). Expected extreme temperatures range from -40 °C to +30 °C (SRK 2019).

Biological Environment

There are three biogeoclimatic ecosystem classification (BEC) zones in the Project area around Prout Plateau: Mountain Hemlock (MH) and Engelmann Spruce-Subalpine Fir (ESSF) zones around the mine site and Volcano Creek, and transitional Interior Cedar Hemlock (ICH) zone at lower elevation along the Eskay Creek Mine Access Road (BC FLNRORD 2021b; Government of BC 1988). The Project is situated near the transition from the wetter coastal Mountain Hemlock and Coastal Western Hemlock zones to the relatively drier interior zones (ESSF and ICH), which still have significant precipitation.

The Project area provides habitat for a variety of wildlife species. Large wildlife species recorded within the Project area of the Iskut and Unuk rivers include black bear, moose, and mountain goat. Small mammals recorded in the Project area include American marten, wolverine, voles, and hoary marmot. Furbearing mammals with suitable habitat in the Project area include grizzly bear, wolf, lynx, ermine, mink, fisher, least weasel, and snowshoe hare (HKP 1993). Mid and lower elevation areas provide habitat for porcupine, northern flying squirrel, and red squirrel. Plovers, Canada goose, harlequin duck, and numerous passerine species have been recorded in the area. Raptors recorded in the area include bald eagle, sharp-shinned hawk, and owls. Upland breeding birds (migratory birds) include varied thrush, pine siskin, fox sparrow, hermit thrush, Wilson's warbler, dark-eyed junco, Townsend's warbler, yellow-rumped warbler, ruby-crowned kinglet, sooty grouse, golden-crowned sparrow, and Pacific wren.

Biophysical inventory mapping identified the Project area is potentially suitable for woodland caribou and moose (MOE 1982). While there have been incidental observations of caribou in the regional area, there are no known herds in the region, as caribou do not use ICH and ESSF BEC zones for habitat. The mine site is not overlapped by any caribou herd ranges shown on provincial range mapping (Government of BC 2019).

Since the 1990s, no fish have been observed or captured in the upper tributaries of the Unuk River in the immediate vicinity of the Project during multiple sampling events, typically due to the lack of fish access from low elevation fish bearing stream reaches, which contain extensive barriers and cascades. Sampling over the past three decades occurred in headwater lakes (Albino Lake, Little Tom MacKay Lake, and the TMSF), Eskay Creek, Ketchum Creek, Tom MacKay Creek, and other small streams immediately adjacent to the mine site and downstream. Salmon species (pink, chum, chinook, and sockeye), Dolly Varden, and cutthroat trout were observed 7-8 km downstream of the former Eskay Creek Mine in the Unuk River but cannot migrate up Ketchum Creek to the mine site.

Human Context

The Project is located at the southern boundary of Electoral Area D of the RDKS and the northern edge of Electoral Area A. Electoral Area D includes the Eskay Creek Mine Access Road and transmission line in the Iskut River watershed, Bob Quinn Lake Aerodrome, Iskut, Telegraph

Creek, Tatogga, as well as several Tahltan reserve communities (Iskut 6, Telegraph Creek 6/6A and Guhte Tah 12), covering an area of 28,137 km^2 (Statistics Canada 2017d). Electoral Area A includes the mine site within the Unuk River watershed. Electoral Area F includes the northern section of Tahltan territory and Tahltan communities, but not the mine site. While not an exhaustive summary of all communities in the northwest area which may interact with the Project's workforce or supply chain, an overview of key communities is provided and additional communities will be included in the EAC Application.

Many of the smaller communities in Electoral Areas A and D have predominantly Indigenous populations that are spread across the large territory as well as situated in the main regional centres of Smithers and Terrace. Approximately one-third of the 40,000 to 45,000 people in the region are Indigenous, which is higher than the provincial average (MSBEC 2005).

Economic activity in the Project area is strongly tied to the mineral exploration and mining sectors. Exploration activity and interest in mineral resources in Northwest BC dates back to the mid-1800s (Visual Capitalist 2016) and much earlier for the Tahltan Nation. The first major discovery was the Premier Gold Mine in 1918, the Snip Gold Mine in 1964, and the underground Eskay Creek Mine in 1988. Presently, primary resource industries, principally mining and forestry, comprise a key proportion of the larger regional (northwest and west central BC) employment market at 4.6% and 2.6% respectively and are important to Tahltan communities and members working in regional communities (WorkBC, Regional Labour Market Information 2020; Pretium 2014). Public sector services (Band administration, health and social services) provided a high proportion of employment in Tahltan territory prior to 2013, followed by mining and exploration, and support services (SNDS 2007, *in* Pretium 2014).

There is well-developed infrastructure in the region, including a paved road that intersects with Highway 16 near Kitwanga and extends to the Yukon border (Highway 37) and to port facilities in Stewart (Highway 37A). The 335 km Northwest Transmission Line, built in 2012, runs from Terrace to Bob Quinn Lake and north to the Red Chris Mine. There are three hydroelectric facilities (Forrest Kerr [about 16 km northwest of the Project], Volcano Creek [about 12 km northwest), and McLymont Creek [about 42 km north]) owned by Axium Infrastructure Inc., in which Tahltan Nation has an equity position.

Tahltan community surveys, interviews, and review of government data was undertaken in 2021 (after the IPD was submitted) to gather baseline social, economic, land use, and cultural information for Tahltan territory into baseline reports. These included both online and in-person surveys of Tahltan communities and members by surveyors with sensitivity training and experience. The 2021 survey was a joint undertaking by Skeena Resources, TCG representatives, and Newcrest to document social and economic conditions, opinions, and concerns around mining projects, and identify issues or barriers which can be influenced by mining projects.

The Project is located within the North West Regional Hospital District (NWRHD), the largest of 23 Regional Hospital Districts in the Province. The Hospital District has the same boundaries as the entire RDKS, North Coast Regional District (formerly Skeena-Queen Charlotte Regional District), and the western portion of the Regional District of Bulkley-Nechako, serving approximately 80,000 residents in three regional districts. Collectively there are 26 municipalities and electoral areas plus the Nisga'a Nation. The NWRHD supports two health authorities

(Northern Health and Nisga'a Valley Health) and 16 community facilities. The Project is within the Northwest Health Service Delivery Area and the Snow Country Local Health Area.

Potential Effects

Table 3 presents a list of potential effects of the Project (a duplicate of the first columns of Table 10-2). Note the bolded text indicates text that has been revised or added since the submission of the IPD. As part of the Application Development and Review stage of the environmental assessment process, analysis will focus on the Project's effects on specific components, which will be identified in collaboration with Indigenous Peoples, government agencies, and the public. Feedback to date on potential effects and mitigations has been incorporated into the table since the IPD. Tahltan values will be identified and incorporated into the assessment through collaboration with THREAT, particularly as part of the Hybrid AIR document.

Table 3 Preliminary List of Potential Effects of the Project (duplicate of the first two columns of Table 10-2)

Bolded text has been added or revised since submission of the IPD.

Component	Potential Effect
Indigenous Interests	
Physical and Cultural Heritage, Current Use of Lands and Resources for Traditional Purposes, Sites of Historical, Archaeological or Cultural Importance, Indigenous Rights and Title	• Generally, these potential effects are related to the Project's potential impacts to the biophysical environment, the Project's footprint, **ancillary activities, and resulting use or value by Indigenous Peoples of those resources as part of social, cultural, and related interests.** These could, in combination, potentially affect exercising of **Indigenous Rights, impact Indigenous Title,** and influence land uses in and around the Project. • **Examples of these effects could include (note some of which overlap or are a consequence of the biophysical effects listed later in this table):** ▪ **loss of food security (traditional foods);** ▪ **loss of lands with native habitats and associated wildlife;** ▪ **impacts to soils, waters and fish habitat;** ▪ **loss of habitat for migratory birds;** ▪ **localized climatic changes due to potential emissions during construction, operation and decommissioning;** ▪ **loss of access and consequential inability to conduct activities in the Project area;** ▪ **impacts to sacred sites and other cultural and heritage-sensitive areas; and** ▪ **cumulative effects.**
Indigenous Peoples' **Environmental, Cultural,** Health, Social or Economic Conditions	• Generally, these potential effects are related to the Project's potential impacts to the biophysical environment and to social and economic factors (e.g., related to food security, transmission of knowledge, employment). These could, in combination, potentially affect legal, spiritual, and cultural practices; transmission of traditional culture**,** knowledge, and law; **relationship of the land to Tahltan way of life and future generations**; and improve employment and economic opportunities. • **Examples of these effects on Indigenous interests or communities could include (note some of which overlap or are a consequence of the biophysical effects listed later in this table):** ▪ **loss of food security (traditional foods);** ▪ **loss of lands with native habitats and associated wildlife;** ▪ **impacts to soils, waters and fish habitat;** ▪ **loss of habitat for migratory birds;** ▪ **localized climatic changes due to potential emissions during construction, operation and decommissioning;** ▪ **social well-being and economic prosperity; and** ▪ **cumulative effects.**

Bolded text has been added or revised since submission of the IPD.

Component	Potential Effect
Indigenous Interests (cont'd)	
Nisg̲a'a Nations Treaty Rights and Obligations Under *Nisg̲a'a Final Agreement*	• **Potential effects on treaty protected rights from Project traffic and shipping in the Nass Area, Portland Canal or NWA which may be related to biophysical, wildlife or accidents and malfunctions pathways and may be addressed via those assessments.**
Physical Environment	
Air Quality and GHG Emissions	• **Metal and** fugitive dust emissions from material handling, ventilation of buildings/crushers, blasting, vehicle travel, shipping and processing can increase ambient particulate matter concentrations that can negatively affect human and wildlife health, and increases in dust fall deposition can affect vegetation, **wildlife, migratory birds, aquatic life**, and waterbodies. • **Emissions from the incinerator and combustion emissions** from vehicles and equipment can result in increases in ambient concentrations of nitrogen dioxide (NO_2), sulphur dioxide (SO_2) and other contaminants that can negatively affect human health and vegetation. • **Removal of vegetation can result in impacts on carbon sinks (to be specified by area in next iteration of DPD with FS engineering data).** • **Potential impacts on the Province being able to meet its targets under the *Greenhouse Gas Reduction Targets Act*.**
Noise and Vibration	• Noise from mining can result in increases in noise levels for human and wildlife receptors**, including migratory birds.** • Vibrations from blasting and equipment may affect human and wildlife receptors, **including migratory birds.** • Specific impacts of noise on human health will be identified as part of the Human Health Risk Assessment. • Vibration can impact geotechnical stability near mine site infrastructure.
Geology, Soils and Terrain	• Loss of soil profile and changes to terrain from vegetation removal, overburden removal, waste storage rock, and development of open pit mine. • Changes to soil quality due to changes in soil chemical and physical characteristics during mining and reclamation activities. • Long-term storage of soils leading to loss of soil productivity. • **Natural and mining induced earthquakes.** • **Changes to the stability of natural slopes and landslide run out paths from construction and operations.**
Groundwater	• **Changes to groundwater quality and quantity from ML/ARD (e.g., waste piles, pits, underground mine), seepage and downstream effects, chemical contamination (e.g., fuel spills), or overextraction.** • **Changes to potable water source.** • Changes to groundwater quality and quantity from mining interaction with groundwater table resulting from changes to topography, including disturbance to bedrock and surficial materials. • Changes to groundwater quality interactions between groundwater and mine-influenced surface water. • Changes to groundwater quality from water infiltration (e.g., through waste rock, pit walls, mine pits).

Bolded text has been added or revised since submission of the IPD.

Component	Potential Effect
Physical Environment (cont'd)	
Hydrology and Surface Water Quality	• Changes in water quality downstream of the mine site within the Unuk River or Volcano Creek watersheds from discharge of treated mine contact water **(e.g., from re-opening or dewatering of underground workings),** site runoff erosion and sedimentation, blasting residue leaching, interactions with groundwater, accidents and malfunctions, or ML/ARD risks. • Potential effects could change concentrations of key parameters including metals, physical parameters (e.g., pH, temperature, turbidity, TSS), which affect suitability to downstream uses, toxicity to aquatic life, and nutrient levels. • Changes in flow regime, **hydrograph timing and magnitude, impoundment storage,** and sediment loading in watercourses which may influence erosion and deposition. • Changes in groundwater-surface water interactions. • **Potential changes in surface water quality related to malfunctions or accidental release of products or chemicals during hauling, trucking or shipping.**
Biological Environment	
Fish and Fish Habitat/Aquatic Resources	• Direct loss or change in quantity of aquatic habitat due to mine infrastructure (including the TMSF) **or accidental releases.** • Change in quantity and quality of aquatic habitat resulting from alteration of stream flows. • **Change in fish mortality or productivity due to changes in fish habitat.** • Change in water quality **downstream of mine site** resulting in potential health effects to aquatic resources and aquatic species (e.g., fish **[including salmon and hooligan/eulachon]**, benthic invertebrates, amphibians, and birds). • Change in amount, suitability, migration, and distribution of habitats (including sediment quality) for fish or aquatic organisms from road upgrades, sediment/erosion inputs at stream crossings, or along the transmission line right-of-way. • **Potential changes to marine aquatic resources from marine shipping incidents.** • **Potential changes to freshwater aquatic resources from mine site or transportation accidents and malfunctions.** • **Potential changes to rare, sensitive, or culturally important species and ecosystems.**
Vegetation and Ecosystems	• Loss or alteration of ecosystems, vegetation, and wetlands **(including rare, sensitive, or culturally important vegetation, species, and ecosystems)** from land clearing and mine construction, **which can result in impacts to carbon sinks.** • Health effects on vegetation due to changes in air, water, soil quality, and dust deposition. • Deposition of dust on plants and soil, which can result in uptake of metals to plants, which are then consumed by wildlife.
Wildlife and Wildlife Habitat (including Species of Conservation Concern)	• Loss or alteration of wildlife habitats, **including rare, sensitive, or culturally important ecosystems and** migratory bird habitat, from land clearing and mine construction. Sensory disturbance to wildlife (light, helicopters, and noise). • Disruption of wildlife (e.g., bears, small furbearers) seasonal movement patterns in regional and local landscapes. • Direct mortality of wildlife due to vehicle-wildlife collisions **from Project-related traffic.** • **Direct mortality due to greater human access to seasonally important habitat areas.** • Indirect mortality from mine operations. • Changes to population dynamics, potentially including moose, bears, and small furbearers due to changes to predator-prey dynamics. • Health effects on wildlife due to changes in air, water, vegetation, and soil quality.

Bolded text has been added or revised since submission of the IPD.

Component	Potential Effect
Biological Environment (cont'd)	
Wildlife and Wildlife Habitat (including Species of Conservation Concern; *cont'd*)	• **Other changes to rare, sensitive, or culturally important species, including Species at Risk.** • Loss of riparian habitats affecting water birds and amphibians that use lentic and lotic environments. • **Loss or alteration of ecosystems, vegetation, and wetlands, including wetland function and extent.** • **Potential changes to wildlife or wildlife habitat from accidents and malfunctions at the mine site.**
Social	
Community Health and Well-being	• Changes to and/or maintenance of community and individual health and well-being (e.g., COVID-19). • Provincial and local economic stimulus. • Employment, income, local government revenue generation and gross domestic product benefits. • Health and safety of workers and public. • Changes to wage and non-wage economy, and traditional practices, due to Project-driven changes in hunting, trapping, and gathering. • Changes to local population and demographics due to Project-driven labour market changes. • Changes to local community services and infrastructure due to either Project demand or Project-driven population change**, including effects of additional traffic on local roads and highways**. • Potential effects to families from rotational work schedules and travel distance from home. • **Changes that are experienced differently by gender or diverse populations, and subgroups within those populations (GBA Plus consideration).**
Health	
Human Health	• Change to particulate matter concentrations (e.g., $PM_{2.5}$ and PM_{10}) which may cause health risk to workforce. • Deposition of dust to plants and soil, which can result in uptake of metals to plants which are then consumed by people. • **Potential impacts to access, availability and quality of foods harvested from the landscape (e.g., plants, animals).** • Health effects due to changes in water quality. • Increased levels of noise and traffic causing stress or harm, such as sleep disturbance. • Changes to and/or maintenance of individual health (e.g., COVID-19). • **Changes that are experienced differently by gender or diverse populations, and subgroups within those populations (GBA Plus consideration).**
Human and Terrestrial Wildlife Health	• **Deposition of dust to water, plants and soil, which can result in uptake of metals and chemicals (e.g., polycyclic aromatic hydrocarbons) from mining to plants, wildlife, and fish which are then consumed by people and wildlife (e.g., amphibians, terrestrial and aquatic birds, mammals) and may impact their health.** • Water runoff may contribute to changes in water quality to downstream waterbodies which may impact health of humans, fish, and wildlife. • **Changes that are experienced differently by gender or diverse populations, and subgroups within those populations (GBA Plus consideration).**

Bolded text has been added or revised since submission of the IPD.

Component	Potential Effect
Economic	
Economic	• Provincial and local economic stimulus via Project procurement and contracting for goods and services, and via personal services and consumer spending of employees. • Changes to employment, employment income, and training. • Changes to gross domestic product (GDP). • Changes to local government revenues and expenditures. • **Changes that are experienced differently by gender or diverse populations, and subgroups within those populations (GBA Plus consideration).**
Commercial and Public Land Use	• Changes to opportunities associated with public and tenured land and resources, including changes to use of, or access to, certain public lands and waters, and availability of certain species. • **Changes that are experienced differently by gender or diverse populations, and subgroups within those populations (GBA Plus consideration).**
Heritage	
Heritage Resources	• Effects to heritage resources during **construction, operation, or decommissioning,** including land clearing, mining, and associated infrastructure**.** • **Potential impacts to culture from loss or degradation of heritage resources and culturally sensitive sites.**
Components of the Environment that Are within the Legislative Authority of the Federal Government	
Fish and Fish Habitat	• Direct loss or change in quantity of aquatic habitat due to mine infrastructure. • Change in quantity and quality of aquatic habitat resulting from alteration of stream flows. • **Change in fish mortality or productivity due to changes in fish habitat.** • Change in water quality resulting in potential health effects to aquatic resources and aquatic species (e.g., fish ***[including salmon and hooligan/eulachon]*****,** benthic invertebrates, amphibians, and birds). • Change in amount, suitability, migration, and distribution of habitats (including sediment quality) for fish or aquatic organisms from road upgrades, sediment/erosion inputs at stream crossings, or along the transmission line right-of-way.
Aquatic Species as defined by SARA	• There are no SARA-listed species in the vicinity of the Project.
Migratory Birds	• Loss or alteration of migratory bird habitat from land clearing and mine construction **and operation**.
Potential Effects Outside of BC and Canada	
Potential Effects outside of BC within Canada	• No potential effects are anticipated outside of BC within Canada **and evaluation of potential effects will be scoped for assessment in the Hybrid AIR, during Process Planning, and presented in the EAC Application**.
Potential Effects on Federal Lands	• No potential effects are anticipated on Federal lands.
Potential Effects Outside of Canada	• No potential effects to air, water, other VCs, or wildlife extending outside of BC.

Closing

The DPD builds on the provincial and federal IPD document submitted by Skeena Resources. It satisfies the requirements of the provincial and federal environmental assessment processes under EAA and IAA. Skeena Resources will continue to engage to further evaluate and shape the Project design and the development of the EAC Application.

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APPENDICES

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LIST OF CONTRIBUTORS TO THE DETAILED PROJECT DESCRIPTION

Contributors	Credentials	Section(s)	Relevant Experience
Skeena Resources Engineering Team	Professional engineers	All	Extensive professional level experience
Steve Jennings Manager, Environmental Assessment Skeena Resources	B.Sc., R.P.Bio.	All	20 years' experience in environmental studies
Marc Wen Senior Partner Tahltan ERM Environmental Management (TEEM)	M.Sc., B.Sc., R.P.Bio.	All	25+ years' experience in impact assessment
Nicole Bishop Principal Consultant TEEM	B.Sc.	All	14 years' experience
Jackie Lerner Principal Consultant TEEM	Ph.D., EP	All	25 years' experience
Jesse Chambers Senior Consultant TEEM	M.Sc., B.Sc.	All	10 years' experience
Jocelyne Plourde Sustainability Project Manager Skeena Resources	M.Eng., EIT (AB)	All	7 years' experience
Emily Milne Engagement Coordinator Skeena Resources	M.Eng. GIT	6.0, 7.0 and 8.0, Appendices C to H	4 years' experience
Freda Campbell Community Relations Manager Skeena Resources	EMBA	6.0, 7.0 and 8.0, Appendices C to H	20+ years' experience
Tahltan Heritage Resource Environmental Assessment Team (THREAT)	Professional engineers and scientists	Review of document, text contribution to Tahltan Central Government Assessment section, text contributions to Initial Project Description that have been carried forward into Detailed Project Description	A Tahltan led body of Tahltan expertise with technical experts conducting reviews on major projects.

ACRONYMS AND ABBREVIATIONS

Acronym / Abbreviation	Definition
AATD	Average Annual Trips per Day
AATW	Average Annual Trips per Week
ABA	Acid Base Accounting
AG	Acid generating
AGA	Annual general assembly
AIA	Archaeological Impact Assessment
AOA	Archaeological Overview Assessment
ARD	Acid Rock Drainage
ASF	Albino Storage Facility (waste rock)
ATV	All-terrain vehicle
Barrick	Barrick Gold Corporation (former owner of the historic Eskay Creek Mine)
BAT	Best available technology
BC	British Columbia
BC CDC	British Columbia Conservation Data Centre
BMPs	Best Management Practices
BWG	Bilateral Working Group
CAC	Criteria Air Contaminants
Canarc	Canarc Resources Corp.
CCAA	British Columbia *Climate Change Accountability Act, 2007*
CCME	Canadian Council of Ministers of the Environment
CDA	Canadian Dam Association
CDN	Canadian
CEAA	Canadian Environmental Assessment Agency (now IAAC)
CIS LRMP	Cassiar Iskut-Stikine Land and Resource Management Plan
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
COVID-19	Coronavirus disease 2019
CRPOT	Closure and Reclamation Planning Oversight Team
DPD	Detailed Project Description

Acronym / Abbreviation	Definition
DPM	Diesel particulate matter
EA	Environmental Assessment
EAA	British Columbia *Environmental Assessment Act, 2018*
EAC	Environmental Assessment Certificate
EAC Application	Skeena Resources' Application for an Environmental Assessment Certificate / Impact Statement for the Eskay Creek Revitalization
EAO	British Columbia Environmental Assessment Office
EC	Environment Canada (now Environment and Climate Change Canada)
ECCC	Environment and Climate Change Canada (formerly Environment Canada)
EMLI	British Columbia Ministry of Energy, Mines and Low Carbon Innovation
EMPR	British Columbia Ministry of Energy, Mines and Petroleum Resources
EMS	Environmental Management System
ENV	British Columbia Ministry of Environment and Climate Change Strategy
EPIC	British Columbia Environmental Assessment Agency's Project Information Centre
ESD	Environmental and Social Design
ESSF	Engelmann Spruce-Subalpine Fir
FLNRORD	BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development
FNHA	First Nation Health Authority
FPIC	Free, prior, and informed consent
FS	Feasibility Study
GBA Plus	Gender Based Analysis Plus
GCM	Global Climate Model
GCP	Geochemical Characterization Plan
GDP	Gross Domestic Product
GHC	Gitanyow Hereditary Chiefs
GHG	Greenhouse gas
GOC	Geochemistry Oversight Committee
HCT	Humidity cell test
HHRA	Human Health Risk Assessment

Acronym / Abbreviation	Definition
HIA	Health Impact Assessment
HKP	Hallam Knight Piésold
Hybrid AIR	Hybrid Application Information Requirements
IAA	*Impact Assessment Act, 2019*
IAAC	Impact Assessment Agency of Canada
IBA	Impact Benefit Agreement
ICH	Interior Cedar Hemlock
ILMB	Integrated Land management Branch
Indigenous Groups	Tahltan Nation, Tsetsaut Skii km Lax Ha, Nisg̲a'a Nation, Gitanyow Nation
Indigenous Peoples	Tahltan Nation, Tsetsaut Skii km Lax Ha, Nisg̲a'a Nation, Gitanyow Nation and the Métis
IPD	Initial Project Description
IUCN	International Union for Conservation of Nature
JSOIE	Joint Summary of Issues and Engagement
LNG	Liquid Natural Gas
LWRS	British Columbia Ministry of Land, Water and Resource Stewardship
LV	Light vehicle
MDC	Mine Development Certificate
MDMER	Metal and Diamond Mining Effluent Regulations
MH	Mountain Hemlock
MIBC	Methl isobutyl carbinol
ML/ARD	Metal Leaching/Acid Rock Drainage
MMER	Metal Mine Effluent Regulations
MNBC	Métis Nation British Columbia
MOF	British Columbia Ministry of Forests
MOTI	British Columbia Ministry of Transportation and Infrastructure
MoU	2015 Memorandum of Understanding and Cooperation between the State of Alaska and Province of BC
NPAG	Non-Potentially Acid Generating
NFA	Nisg̲a'a Final Agreement

Acronym / Abbreviation	Definition
NGA	National Greenhouse Accounts
NLG	Nisga'a Lisims Government
NoW	*Mines Act* Notice of Work
NP/AP	Neutralizing Potential/Acid Potential
NWA	Nass Wildlife Area
NWRHD	Northwest Regional Hospital District
PAC	Project Assessment Certificate
PAG	Potentially Acid Generating
PAX	Potassium amyl xanthate
PCIC	Pacific Climate Impacts Consortium
PDSA	Post-disturbance site assessment
PEA	Preliminary Economic Assessment
PFS	Pre-feasibility Study
Project	Proposed Eskay Creek Revitalization by Skeena Resources Ltd.
Proponent	Skeena Resources Limited
RCMP	Royal Canadian Mounted Police
RDBN	Regional District Bulkley Nechako
RDKS	Regional District Kitimat-Stikine
ROM	Run-of-mine
SAAC	Strategic Assessment of Climate Change
SAG	Semi-autogenous grinding
SARA	*Species at Risk Act*
SBT	Stewart Bulk Terminals (concentrate loadout facility, Port of Stewart)
SEITC	Southeast Alaska Indigenous Transboundary Commission
SF	Storage facilities
Skeena Resources	Skeena Resources Limited
SNDS	Skeena Native Development Society
SOP	Standard operating procedure
SRK	SRK Consulting Limited

Acronym / Abbreviation	Definition
SUP	Special Use Permit
TAC	Technical Advisory Committee
TBD	To be determined
TCG	Tahltan Central Government
TdAIR	Tahltan Draft Application Information Requirements
TDS	Total dissolved solids
TEASF	Tahltan Environmental Assessment Strategy Framework
TEEM	Tahltan ERM Environmental Management (consultant)
THREAT	Tahltan Heritage Resources and Environmental Assessment Team
TIA	Tailings Impoundment Area
TK	Tahltan Knowledge
TLUS	Traditional Land Use Study
TMSF	Tom MacKay Storage Facility
TRTFN	Taku River Tlingit First Nation
TS	Technical Sample Program
TSI	Tahltan Stewardship Initiative
TSKLH	Tsetsaut Skii km Lax Ha
TSP	Total suspended particulates
TSS	Total suspended solids
VC	Valued Component
VIS	Virtual information session
VMS	Volcanogenic massive sulphide
VWP	Vibrating wire piezometers
WMP	Water Management Plan
WQG	Water Quality Guidelines
WRSF	Waste Rock Storage Facility
WSAP	Gitanyow Wilp Sustainability Assessment Process
WTP	Water Treatment Plant
WWNI	Wilp Wixo'oskwhl Nisga'a Institute

SYMBOLS AND UNITS OF MEASURE

Symbol / Unit of Measure	Definition
%	percent
°C	degrees Celsius
AMSL	above mean sea level
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CDN	Canadian (dollars)
g/t	grams per tonne
ha	hectare
km	kilometre
km^2	square kilometres
kV	kilovolt
kW	kilowatt
kWh	kilowatt hour
L/s	litres per second

Symbol / Unit of Measure	Definition
m	metre
m^3	cubic metres
mm	millimetre
m^3/s	cubic metres per second
m^3/day	cubic metres per day
mg/L	milligrams per litre
masl	metres above sea level
Mm^3	million cubic metres
Mt/year	million tonnes per year
MW	megawatt
NO_2	nitrogen dioxide
SO_2	sulphur dioxide
T	tonne
tpd	tonnes per day

1.0 INTRODUCTION

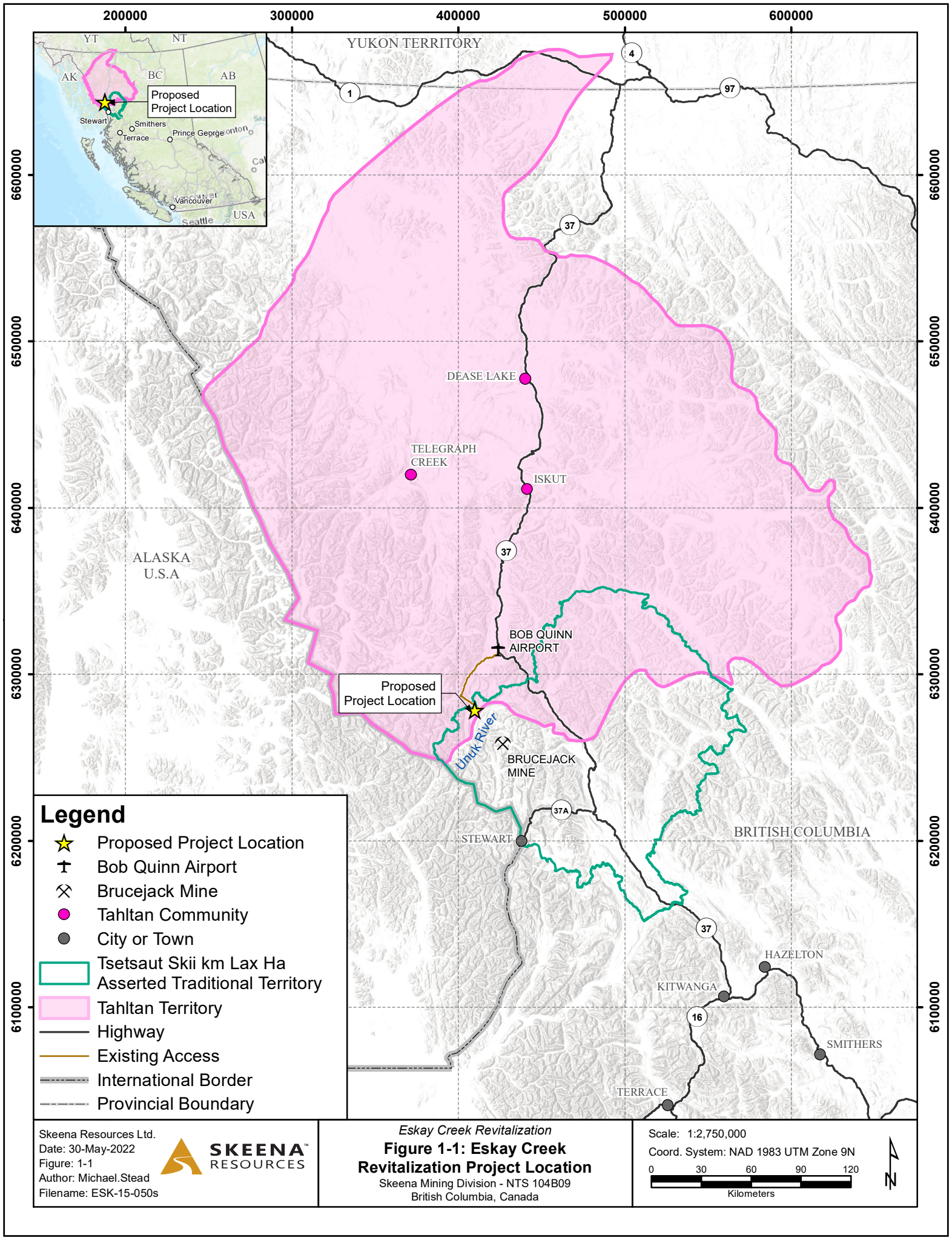
Key updates to this section:

This section is updated to provide a short account of the Project's progress through the assessment process since issuance of the Initial Project Description in July 2021, and to make reference to the Tahltan Environmental Assessment Strategy Framework (described in more detail in Section 5.0). An overview of the key themes that emerged through early engagement feedback on the Initial Project Description and draft Detailed Project Description is included as Section 1.2. Note that feedback from reviewers of the Draft DPD since March 2022 as well as some minor project updates are reflected in this version of the DPD.

Skeena Resources Limited (Skeena Resources) is proposing the Eskay Creek Revitalization Project (the Project) to restart mining at the past-producing Eskay Creek Mine. The Project will be an open pit gold-silver mine with an estimated total annual production of 3.0 Mt/year in Years 1 to 5 and up to 3.7 Mt/year in Years 6 to 9 (8,225 tpd to 10,140 tpd).

The Project is located in northwestern British Columbia (BC), approximately 135 kilometres (km) south of Iskut and 83 km northwest of Stewart (Figure 1-1). Access to the mine site is via the Eskay Creek Mine Access Road, a 59 km all-season gravel road, which connects to Highway 37 (Stewart-Cassiar Highway) near Bob Quinn Lake Aerodrome. The Project is located within the territory of the Tahltan Nation (TCG 2021) and the asserted traditional territory of the Tsetsaut Skii km Lax Ha (TSKLH). The southern portion of the concentrate haul route along Highway 37 near Meziadin Junction and westward along Highway 37A to Stewart passes through the territories of the Gitanyow Nation and Nisga'a Nation. The closest local Métis chartered community, represented by the Métis Nation British Columbia (MNBC), is in Terrace, BC.

Since 2020, Tahltan Central Government (TCG) and Skeena Resources have worked collaboratively in defining an entry point into the provincial and federal assessment processes for the Revitalization Project. An important outcome of this collaborative approach was TCG's July 2021 request to the BC Minister of Environment and Climate Change Strategy for the Project to be designated as reviewable under Section 11 of the British Columbia *Environmental Assessment Act* (administered by the British Columbia Environmental Assessment Office [EAO]). Skeena Resources fully supported this request to the Province, and the Minister designated the Project as reviewable under the Act on July 30, 2021. The Project also meets the definition of a designated project under regulations to the *Impact Assessment Act* (administered by the Impact Assessment Agency of Canada [IAAC]). TCG is also reviewing the Project against TCG's Environmental Assessment Strategy Framework and the requirements of the recently signed Consent Agreement between BC and TCG under the *Declaration on the Rights of Indigenous Peoples Act* to inform TCG's binding decision on the Project. Further details about all three assessment processes are provided in Section 5.0.



Skeena Resources Ltd.
Date: 30-May-2022
Figure: 1-1
Author: Michael.Stead
Filename: ESK-15-050s

SKEENA RESOURCES

Eskay Creek Revitalization

Figure 1-1: Eskay Creek Revitalization Project Location

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:2,750,000
Coord. System: NAD 1983 UTM Zone 9N

0 30 60 90 120
Kilometers

N

The Early Engagement phase of the Project's regulatory process began in July 2021, when Skeena Resources' Initial Project Description (IPD) and Engagement Plan were accepted by EAO and IAAC and published on the EAO Project Information Centre (EPIC) and the Canadian Impact Assessment Registry (Skeena Resources 2021a, 2021b). The EAO and IAAC solicited comment on the IPD from technical advisors (including Indigenous governments, federal authorities, provincial ministries, local governments, and United States' federal and state agencies), Indigenous groups, and the public between August and October 2021. These comments were compiled and summarized by IAAC and EAO and provided to Skeena Resources in October 2021 as the Joint Summary of Issues and Engagement (JSOIE; IAAC and EAO 2021).

TCG, represented by Tahltan Heritage Resources Environmental Assessment Team (THREAT) and Lands Director, provided review and contributed text to the IPD; these contributions are replicated in this DPD with THREAT's input.

Preparation of this DPD to address the JSOIE and feedback on the IPD is part of the coordinated assessment process, which falls within the federal Planning phase and at the end of the provincial Early Engagement phase. In this part of the process, EAO, IAAC, and TCG will seek consensus to decide if the Project information and issues have been adequately addressed, and if a federal substitution decision can be made. As part of the Process Planning phase, a joint terms of reference document known as the Hybrid Application Information Requirements (Hybrid AIR) will be prepared. This Hybrid AIR will set out all three decision-makers' requirements for Skeena Resources' Application for an Environmental Assessment Certificate (pursuant to EAA) and Impact Statement (pursuant to IAA)—a single document referred to hereafter as the EAC Application. The Hybrid AIR will be drafted by Skeena Resources with input from THREAT and will be finalized by IAAC, EAO, and TCG. More information about all phases of the assessment process is found in Section 5.0.

The DPD aligns with guidance provided in EAO's *Early Engagement Policy* (EAO 2019) and IAAC's *Guide to Preparing an Initial Project Description and a Detailed Project Description* (IAAC 2019).

1.1 Purpose of the Detailed Project Description

The purpose of the DPD is to provide an update to the July 2021 IPD, including refinements to the Project design, and to describe how Skeena Resources has addressed, or intends to address, the issues raised during engagement and summarized in the JSOIE (IAAC and EAO 2021). The objectives of the DPD are to:

1. summarize key issues and concerns and Skeena Resources' approach to resolving them in the DPD or how the issues will be addressed in future phases;
2. update the list of potential positive and negative effects of the Project to inform Process Planning;
3. describe outcomes of engagement with Indigenous Peoples, regulators, stakeholders and public that informed the DPD and plans for follow-up engagement;

4. provide an update on information relating to the Project that has changed since the issuance of the IPD and show how comments received on the IPD have been considered, or will be considered as more information becomes available; and
5. provide an overview of the anticipated regulatory path for the Project, including work to incorporate TCG's information requirements and the combined federal and provincial assessment approach.

Appendix I provides Skeena Resources' direct responses to the issues raised in the JSOIE.

1.2 Key Themes in Feedback on the Initial Project Description

To meet the objectives described in the preceding section, Skeena Resources is required to demonstrate how issues documented in the JSOIE—as well as those identified through Skeena Resources' own engagement efforts—are addressed in this DPD or will be addressed in future phases of the assessment process.

In the list that follows, Skeena Resources provides a brief synthesis of what it understands to be the key themes in the issues and comments received, as identified by IAAC and EAO (2021), as well as a summary of its response. The full list of JSOIE comments and Skeena Resource responses is presented as Appendix I, along with cross-references to where changes resulting from JSOIE comments can be found in the DPD. Skeena Resources acknowledges and greatly appreciates reviewers' time and effort spent on consideration of the IPD.

- **Indigenous Nation Information Exchange:** Interest in receiving additional information regarding the Project itself and in sharing information—including Indigenous Knowledge—to be considered in the process, as well as considerations and approaches for appropriately reflecting that knowledge in the EAC Application and other process documents.
    - Skeena Resources appreciates the opportunity to share information, including Indigenous Knowledge. In response to comments on this theme, Skeena Resources has documented some of the avenues by which it has exchanged information with Indigenous Nations in the DPD (Sections 5.1, 6.0, 7.0, and Appendices C through I), and is committed to continuing to engage with Indigenous Nations to share information throughout the environmental assessment process. In addition, Skeena Resources is working with Tahltan Nation and the governments of BC and Canada to prepare the Hybrid AIR, which will incorporate the requirements of the Tahltan Environmental Assessment Strategy Framework, including requirements relating to Tahltan Knowledge (Section 5.1). Skeena Resources and TCG are developing a formal Knowledge Sharing Agreement to structure information exchange and respect knowledge ownership, forms of use, information distribution, and stewardship.
- **Tahltan Nation Assessment Process:** Requirements for the assessment process itself, as well as the EAC Application in alignment with Tahltan Knowledge and values, decision-making by the Tahltan Nation, and environmental assessment process.
    - Skeena Resources is pleased to be working with Tahltan Nation to prepare process documents, including the Hybrid AIR, which will incorporate the requirements of the Tahltan Environmental Assessment Strategy Framework, as well as collaborating

through shared information and ongoing workshops to integrate information into the environmental assessment process. This work to create a new assessment approach is intended to appropriately consider Tahltan values and aligns with Tahltan approaches to assessment. This ongoing process is documented in this DPD (Sections 5.1, 6.1.1, 7.1, Appendices C and I).

- **Accidents, Malfunctions, and Public Safety:** Concerns raised about the potential for impacts to the environment (including air quality, water quality, wildlife), contamination of drinking/recreational water and traditional foods, vehicle accidents, open pit flooding and tailings storage facility failure, incident communications and geotechnical stability.
    - Skeena Resources has expanded details about the Project's tailings storage facility in the DPD (Section 4.1.3.2 and Appendix I), as well as added specific acknowledgements of the potential for impacts to the environment and to human health as a result of accidents and malfunctions at the Tom MacKay Storage Facility (TMSF) or involving vehicles (Sections 8.3.7 and 10.0). An updated assessment of vehicle accident frequency on highways 37 and 37A is provided in Section 4.1.1.2, with no meaningful increase in incident expected. The requirement to assess the potential effects of accidents and malfunctions at the Project will be included in the Hybrid AIR and this requirement will be reflected in the EAC Application. Skeena Resources will propose that this requirement will include specific reference to the types of impacts noted by reviewers. The Hybrid AIR will be finalized during the Process Planning phase.
- **Alternative Means of Carrying Out the Project:** Concerns about waste management, mining techniques (i.e., open pit vs underground), and pit development alternatives, as well as some recommended approaches for the alternatives assessment to be provided in the EAC Application.
    - Skeena Resources has included additional details about the ongoing geochemical characterization program conducted for the Project in the DPD (Section 3.5.2), as well as details on pit development timing (Appendix I). The requirement to conduct an alternatives assessment for the Project will be included in the Hybrid AIR and this requirement will be reflected in the EAC Application. The Hybrid AIR will be finalized during the Process Planning phase.
- **Atmospheric Environment:** Recommendations for parameters and approaches that should be used in the effects assessment for air quality to be provided in the EAC Application. Request for clarification regarding the overland conveyor and an amendment to the list of potential mitigations.
    - Skeena Resources has clarified the description of the overland conveyor and noted the need for a fugitive dust management plan in the DPD (Sections 4.1.2, 4.5.1.1, 10.0, and Appendix I). The requirement to describe the approach to assessing effects on air quality, including the topics raised by reviewers, will be included in the Hybrid AIR and this requirement will be reflected in the EAC Application. The Hybrid AIR will be finalized during the Process Planning phase.
- **Greenhouse Gas Emissions:** Suggestions for methodology for calculation of the Project's GHG emissions and potential contribution to climate change, interest in

mitigations of emissions, and recommendations for the approach to effects assessment to be used in the EAC Application.

- Skeena Resources has added several potential vectors for impacts to the Project to the DPD, including the potential for impacts on carbon sinks (Sections 4.5.1, 10.0, and Appendix I). Preliminary GHG calculations for the Project have been updated to reflect the Project at the DPD stage. The requirement to describe the approach to assessing effects of the Project on GHG emissions will be included in the Hybrid AIR and this requirement will be reflected in the EAC Application. The Hybrid AIR will be finalized during the Process Planning phase.

- **Cumulative Effects:** Concerns about impacts to Indigenous Peoples and territories and the Project's additions to cumulative effects of resource development in the region, as well as recommendations for the approach to effects assessment to be used in the EAC Application.
  - Skeena Resources has modified the depiction of the conceptual water balance model (to include upstream and downstream sampling nodes), expanded the discussion of potential cumulative effects (including the potential for impacts on carbon sinks), and added to the list of other developments to be considered in the cumulative effects assessment to the DPD (Sections 4.5.1, 10.2, and Appendix I). THREAT has also provided perspectives and guidance about Tahltan requirements relative to this topic (Section 5.1). Skeena Resources will continue to engage with Indigenous Peoples to further understand and address the Project's potential impacts. The requirement to describe the approach to assessing the cumulative effects of the Project will be included in the Hybrid AIR and this requirement will be reflected in the EAC Application. The Hybrid AIR will be finalized during the Process Planning phase.
- **Differential Impacts on Diverse Persons and Groups:** Several recommendations relating to relevant data and methodologies to be used as part of the effects assessment in the EAC Application.
  - Skeena has added specific acknowledgement of the potential for impacts of this type to the DPD (Section 10.0 and Appendix I). Programs and mitigation strategies for the social impacts of the Project will be developed and informed by a Gender Based Analysis Plus (GBA Plus) approach. The requirement to consider the impacts to diverse populations differentiated by gender and other factors will be included in the Hybrid AIR and the EAC Application will also include a GBA Plus approach. The Hybrid AIR will be finalized during the Process Planning phase.
- **Economic Conditions:** Requests for workforce projections and additional social and economic information to be included in the EAC Application and considerations for Skeena Resources for enhancement of economic opportunities for Indigenous and local individuals and businesses.
  - Skeena Resources has added additional information on workforce projections and community social and economic profiles to the DPD (Sections 4.3, 8.3.5, 10.0, and Appendix I). Skeena Resources will consider mitigation measures suggested by commenters as part of its ongoing Project planning. Skeena Resources has ongoing discussions and engagement with local Project stakeholders to discuss and support

training and hiring. Skeena Resources and the Tahltan Nation (as represented by TCG) have had annual Communication Agreements in place since 2016 relative to other sites, and the Eskay Creek property was added to the 2018 Agreement when Skeena Resources optioned into the property. Skeena Resources also entered into an Opportunities Sharing Agreement in February of 2020 with the Tahltan Nation (as represented by TCG) to maximize contracting and employment opportunities for Tahltan members and businesses. Skeena anticipates that at the conclusion of the FS in 2022, updated data for the Project will be provided on economic benefits (e.g., taxes generated, capital costs), as well as employment and related benefits. The Hybrid AIR will include requirements to describe the Project's potential benefits, including job opportunities for Indigenous groups and local residents, economic opportunities for local businesses and services, and training opportunities. The Hybrid AIR will be finalized in the Process Planning phase.

- **Effects of the Environment on the Project, including Climate Change:** Recommendations relating to the effects assessment approach used in the EAC Application, consideration of the impacts of climate change on the Project, and concerns about the sufficiency of baseline information.
    - Skeena Resources has provided some clarifications and some additional information on the use of older baseline data (Section 8.0 and Appendix I). A summary of the climate change model predictions is included to characterize parameters that may be affected (Section 9.0). The requirement to describe the approach to assessing the effects of the environment on the Project will be included in the Hybrid AIR and this requirement will be reflected in the EAC Application. The Hybrid AIR will be finalized during the Process Planning phase.
- **Fish and Fish Habitat:** Concerns about impacts to fish (including salmon and hooligan/ eulachon) and fish habitat from potential effects on water quality in short and longer time periods; potential for impacts tied to trucking and shipping, accidents, and transboundary impacts; and reliance on specific data sources. Recommendations for monitoring approaches and mitigation measures to be considered in the EAC Application. Additional concerns expressed regarding the potential consequences to Indigenous interests should the Project affect fish populations or fish habitat directly or through effects to water quality.
    - Skeena Resources has noted the Project's potential to affect fish via dust deposition and disturbance of habitat along the Eskay Creek Mine Access Road corridor, through accidents and malfunctions, or effects to water quality and has provided additional information on fish and fish barriers in Ketchum Creek (Sections 8.2.3 and 10.0, and Appendix I). Given the non-fish-bearing status of streams and lakes at the mine site on Prout Plateau, consideration of downstream effects on the fish-bearing sections and fish populations of the Unuk River at the junction with Ketchum Creek will be included through consideration of water quality effects and modelling and will be scoped in the Hybrid AIR. The requirement to describe the approach to assessing the Project's impacts to fish and fish habitat, including the use of appropriate data sources, transboundary impacts, and proposed mitigation measures and monitoring plans, will be included in the Hybrid AIR and this requirement will be reflected in the EAC Application.

- **Geology, Geochemistry, and Geological Hazards:** Requests for additional detail and clarifications on the Project design.
    - Skeena Resources has provided additional information on the TMSF, deposition of tailings at the existing Eskay Creek Mine, the preliminary geotechnical program, subaqueous column tests, and the conceptual Closure and Reclamation Plan (Sections 3.5.2, 4.2.2, 10.0, and Appendix I). A comprehensive geochemical characterization program has been underway since 2020 and, along with historical data, provides the foundation to manage Metal Leaching/Acid Rock Drainage (ML/ARD) risks, information management strategies on waste rock/tails, closure planning, water quality modelling and predictions, and risk management. Addressing geochemical risks in the Hybrid AIR and EAC Application, sharing model plans, and developing the assessment approaches during Process Planning will provide opportunities to update participants in the environmental assessment process on the work being done to mitigate these risks. The geochemical characterization work has been fundamental to updating the TMSF sizing and waste management approach.
- **Human Health:** Concerns relating to potential Project effects on noise, vibration, and air quality and recommendations on approaches to assessing these and other effects to human health, including Indigenous consumption of country foods and Health Impact Assessment (HIA).
    - Skeena Resources has provided additional information on healthcare facilities and services in communities as well as on current health permits and approvals (Sections 3.4, 8.3.6, and Appendix I). The requirement to describe the approach to providing a Human Health Risk Assessment, including identification of types and sources of contaminants of potential concern and exposure pathways (e.g., via changes in acoustics and air quality), will be included in the Hybrid AIR and this requirement will be reflected in the EAC Application. The Hybrid AIR will be finalized during the Process Planning phase.
- **Water Quality and Processes:** Concerns about effects to surface and groundwater quality and quantity, including drinking water and the potential for transboundary effects, inquiries regarding water treatment and management options being considered, and recommendations on approaches for water balance modelling and approaches to be used in the EAC Application.
    - Skeena Resources has undertaken comprehensive baseline programs to characterize water quality conditions, provided clarifications regarding the groundwater baseline characterization program and water quality programs, and noted the Project's potential effects to surface and groundwater quality through the mechanisms suggested by reviewers in the DPD (Sections 3.5.2, 4.5.3, 8.1.1, and Appendix I). Modelling of water quality for the Project is ongoing and will be fundamental to water management and mitigation planning in 2022 as the FS is being completed. Skeena Resources will engage with the Technical Advisory Committee (TAC) and water sub-groups to solicit feedback and provide updates on the development and progress (e.g., interim information, model setup, baseline inputs) of water modelling during the next assessment phases. Skeena Resources anticipates that this engagement will clarify its approach, including how concerns are considered in mitigation planning.

The requirement to describe the approach to assessing impacts to water quality will be included in the Hybrid AIR and this requirement will be reflected in the EAC Application. The Hybrid AIR will be finalized during the Process Planning phase.

- **Post-operation Condition of the Project:** Concerns raised about potential long-term effects to land and water, mitigation approaches, reclamation and closure conditions, geotechnical and geochemical stability, water quality, and Tahltan land uses.
    - Skeena Resources has provided additional information on the geochemical characterization program (Section 3.5.2), closure and reclamation approaches (Section 4.2.2), and water management facilities and water management planning (Section 4.1.5). Modelling of water quality for the Project is ongoing and will be fundamental to water management and mitigation planning in 2022 as the FS is being completed. As noted above, engagement with the TAC and water sub-groups will provide a forum for feedback and updates as modelling and mitigation is being developed in the next assessment phases. The requirement to describe these matters, including providing details around land use planning, will be included in the Hybrid AIR and this requirement will be reflected in the EAC Application. The Hybrid AIR will be finalized during the Process Planning phase.

2.0 PROPONENT INFORMATION

There are no updates to this section.

The Project proponent, Skeena Resources, is a junior Canadian mining exploration company focused on developing prospective precious metal properties in northwestern BC's Golden Triangle region. Skeena Resources is publicly traded on the Toronto stock exchange and other exchanges (TSX: SKE.TO, OTCQX: SKREF, NYSE: SKE). Proponent contact information is provided below.

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Chief Executive Officer:	Walter Coles CEO Skeena Resources Ltd. Email: wcoles@skeenaresources.com Phone: (604) 684-8725
President:	Randy Reichart President Skeena Resources Ltd. Email: rreichert@skeenaresources.com Phone: (647)-824-8874
Principal Contact for the Impact Assessment:	Steve Jennings Environmental Assessment Manager Skeena Resources Ltd. Phone: (250) 877-9946 Email: stevejennings@skeenaresources.com
Alternate Contact for the Impact Assessment:	Justin Himmelright Senior Vice President, External Affairs & Sustainability Skeena Resources Ltd. Email: jhimmelright@skeenaresources.com Phone: (604) 684-8725

3.0 PROJECT BACKGROUND

Key updates to this section:

Early engagement on the Project included feedback requesting more information related to the geochemical characterization program and use of existing infrastructure.

Changes made to Section 3.0 include an updated description of Project benefits, updates to the disturbance footprint for infrastructure existing prior to construction of the Project (e.g., 2021 mine site and 2023/24 Technical Sample), and additional information relating to the geochemical characterization program. Additional revisions were made to enhance the organization of information previously provided.

3.1 Project Need, Purpose, and Benefits

The Project is needed to supply precious metals to global markets to support industrial development needs, including the technology, health, automotive, and aerospace sectors, as well as consumer and investment demand.

The purpose of the Project is to undertake responsible and sustainable resource extraction of gold and silver concentrate from a previously mined deposit (i.e., redevelopment of a brownfield mine). The Project will foster economic growth and prosperity in BC, particularly northwestern BC, while supporting capacity building, employment, and benefits to local Indigenous Peoples and communities in alignment with the objectives of the BC Mining Jobs Task Force (2018). The Project will be designed, constructed, operated, and decommissioned to meet all applicable BC and Canadian environmental and safety standards and practices, and will include Tahltan Nation input and involvement.

The Project would restart mining as an open pit operation at the past producing Eskay Creek Mine. As reported in the IPD based on the 2021 Pre-feasibility Study (PFS), the Project's expected average annual production of precious metals is 0.29 million ounces of gold and 8.7 million ounces of silver. The Project's estimated capital cost as of July 2021 PFS is $455 million Canadian (CDN). An additional $81 million CDN in sustaining capital expenditures is expected during the life of the Project, for a total capital cost of $536 million CDN. The expected annual operating cost is $135 million CDN. Much of these costs would be spent in Northern BC, employing local and Indigenous contractors and employees. The Project would generate tax revenue for local, provincial, and federal governments. Skeena Resources is nearing completion of a Feasibility Study (FS) for the Project and, due to securities regulations which limit disclosure, will provide updated financial information for the numbers reported above (including decommissioning costs) once the FS is completed and publicly released.

Skeena Resources is committed to developing the Project in a sustainable manner that will contribute to the local, provincial, and national economies, and will create employment opportunities locally, regionally, and beyond. Skeena Resources' current estimate of direct Project

employment is 338 person-years during pre-production, 880 person-years during Construction, and 3,870 person-years during Operations (a total of 5,088 person-years); as well as additional contractor/consultant employment. By the fifth year of production, the mine will have a workforce of approximately 400, including salaried and hourly workers; an increase of 104 workers compared to the estimate in the IPD. Additional employment benefits will be created for workers in supplier industries and in businesses benefiting from workers spending their income. A small-scale workforce will support ongoing monitoring and site management during closure and reclamation. Further analyses concerning the potential economic and other benefits of the Project are being conducted by Skeena Resources and will be provided as part of the EAC Application. No federal funding has been requested and no federal support is being provided for the Project.

3.2 Project Location

The Project is located within the Regional District of Kitimat-Stikine (RDKS) in the Golden Triangle region of BC, 295 km northwest of Smithers and 265 km northwest of Terrace (467 km and 451 km via road, respectively; see Figure 1-1). The coordinates of the centre of the mineral deposit are approximately 56° 39′ 13.9968″ N and 130° 25′ 44.0004″ W. The Project is located within the territory of the Tahltan Nation and the asserted traditional territory of the TSKLH. Three Tahltan communities are located north/northeast of the Project:

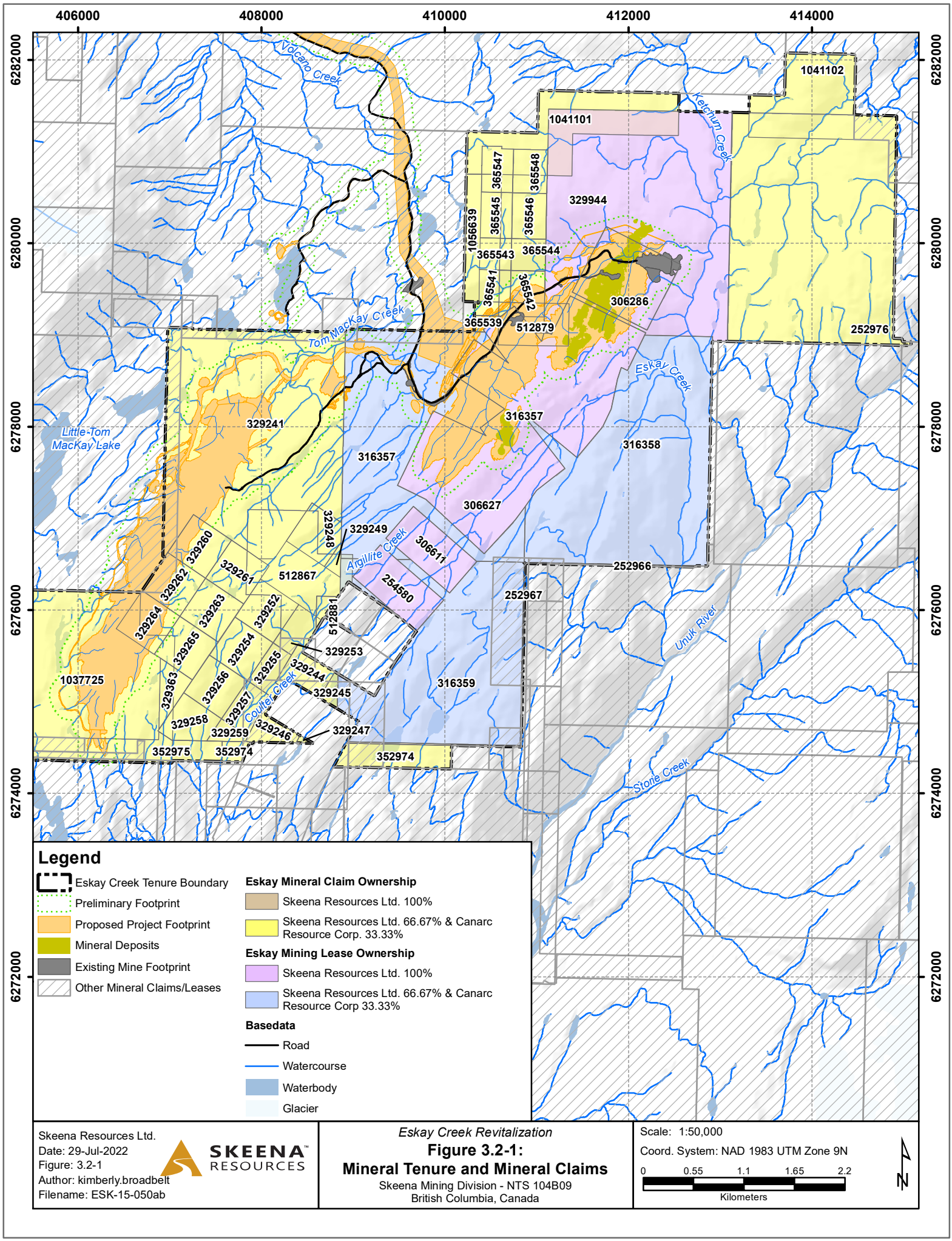
- Iskut (135 km north; 170 km via road);
- Dease Lake (190 km northeast; 253 km via road); and
- Telegraph Creek (142 km north; 362 km via road).

Stewart is the closest non-Indigenous community to the Project (83 km to the south; 261 km via road). The Project is approximately 40 km from the BC-Alaska border, within the headwater tributaries of the Unuk River watershed, a transboundary river. The Unuk River originates in the mountains northeast and southeast of the Project and crosses into Alaska before discharging into the Pacific Ocean (Figure 1-1).

The Project is located on provincial Crown land. The existing tenures held by Skeena Resources, comprising a total of 5,745.5 hectares (ha), include 43 mineral claims (3,815.2 ha), 4 gravel lot claims (100 ha), 8 mineral leases (1,830.3 ha), and two surface leases (Figure 3.2-1) with the areas adjacent to the Project under other ownership (Section 7.3). Canarc Resources Corp. (Canarc) has a 33% carried interest in several mining leases. All operating decisions related to the property are exclusively those of Skeena Resources. Skeena Resources, as the operator, has acquired historical liabilities from Barrick Gold Inc. Canarc carries severed liability for the property.

No federal lands will be used to carry out the Project. Distances from the mine site to federal lands are listed in Table 3.2-1. The Project is not near First Nation land as defined in subsection 2(1) of the *First Nations Land Management Act*. The mine site is 16.8 km from the Nisga'a Nass Area, 49.9 km from the Nass Wildlife Area, and 157.8 km from the Nisga'a Lands, as defined in the *Nisga'a Final Agreement Act*.

Any seasonal or temporary residences identified by Indigenous groups or community members will be identified and considered in the EAC Application.



Skeena Resources Ltd.
Date: 29-Jul-2022
Figure: 3.2-1
Author: kimberly.broadbelt
Filename: ESK-15-050ab

SKEENA RESOURCES

Eskay Creek Revitalization

Figure 3.2-1:
Mineral Tenure and Mineral Claims

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:50,000
Coord. System: NAD 1983 UTM Zone 9N

0 0.55 1.1 1.65 2.2
Kilometers

N

Table 3.2-1 Distance to Federal Lands (Indian Reserves)

Indigenous Group	Indian Reserve	Distance from the Mine Site (km)
Iskut	Kluachon Lake 1	136
	Iskut 6	137
	Stikine River 7	146
Tahltan	Guhthe Tah 12	147
	Telegraph Creek 6	147
	Telegraph Creek 6a	148
	Tahltan 1	156
	Hiusta's Meadow 2	159
	Tahltan 10	159
	Tahltan Forks 5	172
	Classy Creek 8	173
	Upper Tahltan 4	175
	Salmon Creek 3	185
	Tatcho Creek 11	196
	Tatl'ah Indian Reserve No. 13	203
	Dease Lake 9	206
Gitanyow	Gitanyow 3a	209
	Gitanyow 1	214
	Gitanyow 2	224

3.3 Project History, Status, and Existing Infrastructure

The Project area has been the focus of considerable exploration activity dating back to initial prospecting in 1932, which has continued to present day. Exploration drilling in 1988 led to the discovery of the deposit that would become the underground Eskay Creek Mine, an underground gold-silver mine that operated from 1994 to 2008.

The Eskay Creek Mine was initially developed by Prime Resources Group Inc., which was acquired by Homestake Canada Inc. in 1999 and subsequently merged with Barrick Gold Inc. in 2001. Over its 14-year mine life, approximately 2.2 million tonnes of ore were mined, with cut-off grades ranging from 12 g/t to 15 g/t gold equivalent for mill ore and 30 g/t gold equivalent for direct ship smelter ore (Ausenco 2019).

The Eskay Creek Mine has been in care and maintenance since 2008 when mining operations ceased, with ongoing site reclamation and treatment of water (up to 2014, when required) from underground operations. As of 2011, the Eskay Creek Mine was considered a 'Recognized Closed Mine' under the federal Metal Mine Effluent Regulations (MMER, now the Metal and Diamond Mining Effluent Regulations, MDMER) of the *Fisheries Act*.

Skeena Resources acquired the Eskay Creek Mine from Barrick Gold Corporation's wholly-owned subsidiary, Barrick Gold Inc., in August 2020. In November 2021, Skeena Resources initiated the process to amend existing permits to authorize collection of a technical/bulk sample of ore (referred to as the Technical Sample Program in 2023/24), in order to establish the metallurgy and processing studies needed to advance to a full development of the Revitalization Project.

To discuss the footprint and disturbance from historic (i.e., existing or decommissioned) and proposed Project infrastructure beyond 2021, the timelines and applicable components are reflected below:

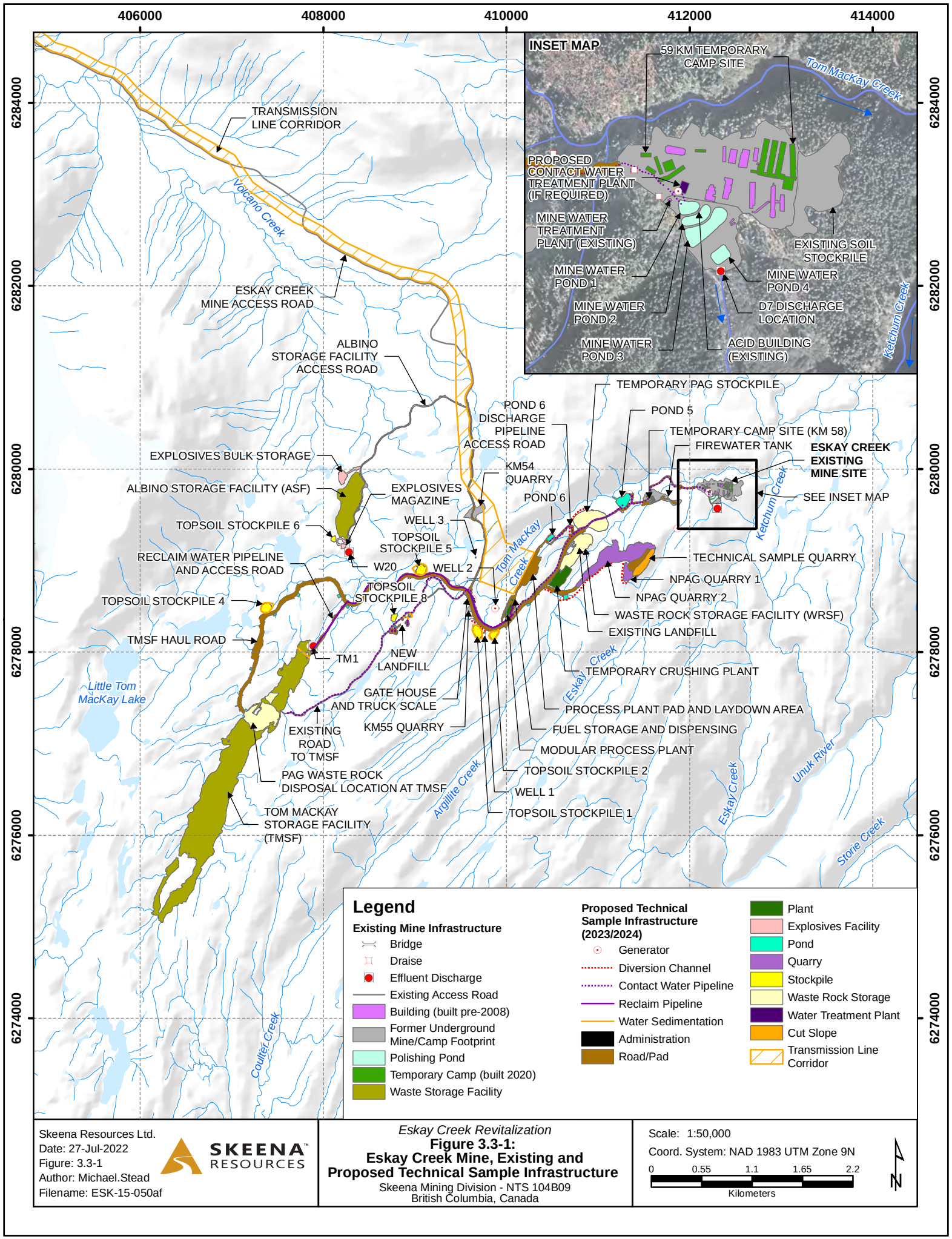
1. **Eskay Creek Underground Mine Site as of 2021:** This includes infrastructure constructed and operated for the underground mine site between 1994 and 2008, as well as the 2009-2021 period of care and maintenance when the mine site was partially reclaimed and decommissioned. Additional mineral exploration occurred since 2017,including minor upgrades in 2020/21 after Skeena Resources purchased the mine site. Upgrades at the mine site to support maintenance and monitoring activities, as well as substantial exploration programs, required additional temporary camps and accommodations were built at km 58 and km 59. The area associated with the mine site and waste management/disposal as of 2021 was about 126 ha, including 26 ha of land disturbance and site roads and 97 ha of waterbodies (i.e., the ASF and TMSF). Some of the disturbance areas are still in use (e.g., existing dormitory buildings and water treatment buildings, temporary camps, access roads and water ponds at the Eskay Creek Mine site, small roadside borrow quarries at 54 and 55 km) and some have been partially reclaimed (e.g., pre-2008 tailings pipeline to the TMSF). This does not include the Eskay Creek Mine Access Road footprint. In 2021, 90 ha of tree clearing for the Technical Sample Program footprint was authorized by BC regulators and TCG, and completed. The infrastructure existing on site as of 2021 is shown in Figure 3.3-1 and summarized in Tables 3.3-1, 3.3-2, 4.1-1, and 4.1-2. The area proposed for the Technical Sample is also shown in Figure 3.3-1 and summarized in Tables 4.1-1 and 4.1-2.
2. **Proposed Technical Sample Program in 2023/24:** Approximately 90 ha of new disturbance will be needed to construct the infrastructure for the Technical Sample, and was logged in 2021 (see above). Approximately 169 ha of new tenure will also be obtained for the proposed substation (near Volcano Creek generating station and the proposed junction with the existing 287 kV transmission line) and the transmission line right-of-way connecting to the mine site, subject to permitting approaches still under consideration. These additional 259 ha of proposed footprint will be authorized under permit applications later in 2022/23 to amend the existing *Mines Act* and *Environmental Management Act* and ancillary permits held by Skeena Resources to enable the Technical Sample Program to proceed. The infrastructure footprint proposed for the Technical Sample is shown in Figure 3.3-1 and summarized in Tables 4.1-1 and 4.1-2.

3. **Proposed Revitalization Project after execution of the Technical Sample:** Approximately 334 ha of new development beyond the combined Technical Sample and existing mine site footprint will be required for the Revitalization Project. The Revitalization Project will capture the footprints of the existing mine site (with the exception of the Albino Storage Facility [ASF]), as well as the Technical Sample footprint and infrastructure. The area proposed for the Revitalization Project is shown in Figures 4.1-1 and 4.1-2 and summarized in Tables 4.1-1 and 4.1-2.

Table 3.3-1 presents infrastructure comprising the existing Eskay Creek Mine (as of 2021), including components that remain in use or physical extent, as well as those that were decommissioned as part of mine Closure prior to 2021. Components which are no longer existing on the mine site are noted in Table 3.3-1 as decommissioned and are not shown in Figure 3.3-1.

Table 3.3-1 Existing Active and Decommissioned Infrastructure at the Eskay Creek Mine

Status	Eskay Creek Mine Component
Developed / Active	• Underground workings above 735 masl (inactive but not flooded) • Three ventilation shafts • Eskay Creek Mine Access Road (actively maintained) • Tom MacKay Storage Facility (TMSF) and associated TM1 discharge site • Albino Storage Facility (ASF) and associated W20 discharge site • Burn pit and landfill • Topsoil storage area located at the Eskay Creek Mine site (adjacent to the existing buildings and km 59 temporary camp) • Lower mine dewatering station, fuel farm, concentrate ore bins, two water supply tanks and pipelines • Water treatment buildings (small buildings for lime and acid addition which have not been used since 2014) and four mine water settling ponds (ponds 1-4), which actively receive treated sewage and upper/lower mine water and discharge to the authorized D7 discharge site • On-site accommodation at 58 km (temporary camp) and 59 km (temporary camp at Eskay Creek Mine site)
Fully / Partially Decommissioned	• Underground workings below 735 masl (flooded) • Three mine portals (sealed) • Two former exploration camps (seeded) • Pre-2008 tailings pipeline to the TMSF (removed, not shown on Figure 3.3-1) • Pre-2008 access road to the TMSF which contained the tailings pipeline (partially reclaimed, shown on Figure 3.3-1) • Explosives and detonator magazines (decommissioned, not shown on Figure 3.3-1 and removed from site; proposed explosives and magazine facilities for the Technical Sample are shown on Figure 3.3-1) • Administration buildings, warehouse, maintenance and carpentry shop, assay lab, and residence at the Eskay Creek Mine site (partially decommissioned, and several remaining buildings shown on Figure 3.3-1) • Quarries (note- historic small borrow areas at km 54 and 55 which are not at same locations as proposed TS quarries)



Skeena Resources Ltd.
Date: 27-Jul-2022
Figure: 3.3-1
Author: Michael.Stead
Filename: ESK-15-050af

SKEENA RESOURCES

Eskay Creek Revitalization

Figure 3.3-1:
Eskay Creek Mine, Existing and Proposed Technical Sample Infrastructure

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:50,000
Coord. System: NAD 1983 UTM Zone 9N

0 0.55 1.1 1.65 2.2
Kilometers

N

Figure 3.3-1 shows two distinct groups of infrastructure; (1) existing infrastructure as of 2021 from the historic Eskay Creek Mine and 2020/21 upgrades (e.g., additional temporary camps for ongoing exploration and maintenance), and (2) the proposed additional infrastructure to be built and operated in 2023/24 for the proposed Technical Sample Program.

Mine water discharges are authorised through an existing *Environmental Management Act* (EMA) Permit, PE-10818. There are three authorized discharge locations: TM1 is the permitted discharge location for the TMSF, W20 is the permitted discharge location for ASF, and D7 is the permitted discharge location for underground mine water and mine site surface drainage. TM1 and W20 water quality results remain at steady state and below permitted parameters identified within Permit PE10818. Permitted discharge flow rates exist for discharge location D7 only, all other permitted discharge locations are based on flow-through discharge (per natural hydrograph). The maximum permitted discharge rate for D7 is 6,000 m^3/day. Average maximum flow between 2020 and 2021 is 2,219 m^3/day. Minimum flow in April is 249 m^3/day and maximum flow during freshet (June to July) is 3,127 m^3/day.

The mine water pond treatment system consists of four ponds (ponds 1-4) that remove sediment and, as required (i.e., during the underground mining phase), chemically treated water to achieve a discharge quality per the requirements outlined in Permit PE-10818. The ponds are lined with high-density polyethylene (HDPE) and are gravity fed into each pond. The ponds receive upper and lower mine water (with lime addition prior to 2014 only into Pond 1), sulfuric acid or ferric sulfate addition (into Pond 2 prior to 2014 as needed), surface runoff from the mine site (into Pond 3), and treated sewage effluent (into Pond 4). Note that Ponds 1-4 will be maintained into the Operations period as part of the Project's water management system until no longer needed to managing underground mine water, then decommissioned and reclaimed.

In addition to ponds 1-4, a water treatment system is part of the authorized works, including water treatment buildings and reagent dosing into Pond 1. This includes manual lime addition to precipitate metals and pH balancing with sulphuric acid prior to discharge. The water treatment buildings have not been used since 2014. Figure 3.3-2 provides an overview of the existing mine water treatment system and its components.

Reclamation activities since 2007 have included:

- Dismantling and removal of some mine infrastructure at the Eskay Creek Mine site, including mill building, 60% of accommodations building, assay lab building, aggregate storage facility, truck scale, cold storage facilities, backfill plant, mill thickener, and administration building.
- Decommissioning underground workings below 735 metres above sea level (masl), which were allowed to flood.
- Dismantling the 2008 tailings discharge pipeline to the TMSF along the old access road and burying the line within the mine site footprint.
- Sealing underground portals and two of the three ventilation raises.
- Seeding two former exploration camp sites.

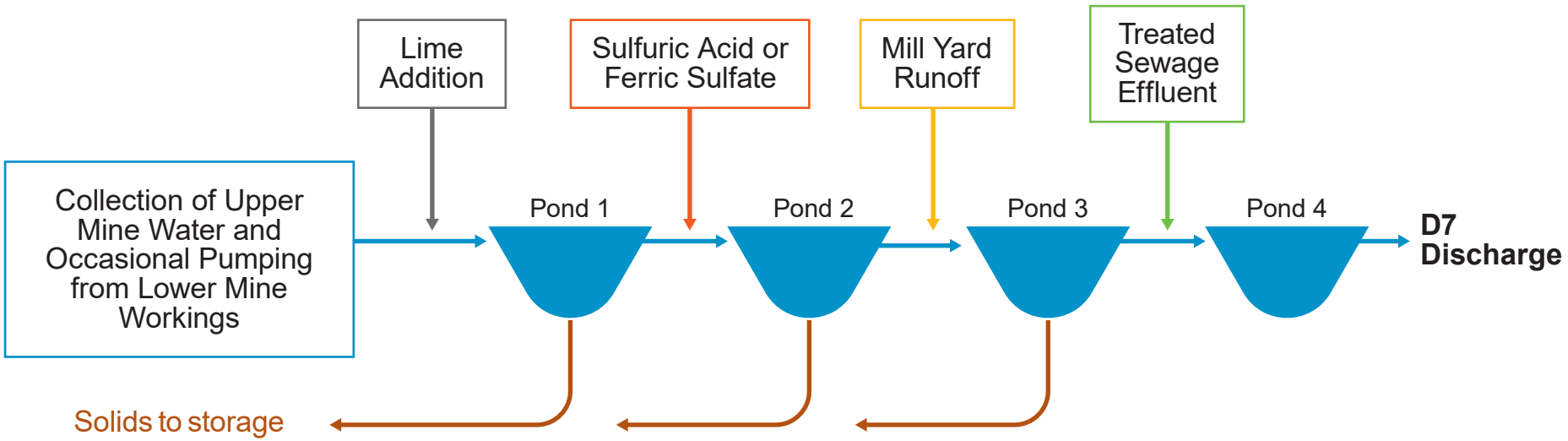


Figure 3.3-2: Overview of Existing (Acid/Lime) Mine Water Treatment Plant

At the end of 2018, the total disturbed land area for reclamation management was 25.9 ha (*2018 Annual Reclamation Report Eskay Creek Mine Permit M-197*, Barrick 2019). Table 3.3-2 provides a breakdown of the disturbed and reclaimed areas as of 2018; no changes occurred in 2019 while under Barrick ownership (Barrick 2019). Minor additional disturbance of drill pad locations occurred prior to 2020, but are covered under Skeena Resources' *Mines Act* exploration permit MX-1-11.

Table 3.3-2 Summary of Reclaimed Areas at Eskay Creek Mine, Pre-2020

Disturbance	Total Area Disturbed (ha)	Area Recontoured (ha)	Area Seeded or Planted (ha)	Area Revegetated (ha)
		Areas in these 3 columns are subset of Total Area Disturbed (left column)		
Small waste rock pile situated within the Albino Storage Facility (ASF) Tailings Impoundment Area (TIA) waterbody footprint	1.98	1.98	(n/a - underwater)	(n/a - underwater)
Mine site dormitory buildings (built pre-2008), e.g., various small buildings including bunkhouses, administration, shops (Figure 3.3-1)	5.01	1.04	(n/a - in use)	(n/a - in use)
Roads	5.90	-	-	-
Linear features	1.75	-	-	-
Other[1]	11.25	-	6.66	5.70
Total	**25.89**	**3.02**	**6.66**	**5.70**

[1] Excluding the ASF and TMSF tailings impoundment areas totaling 97 ha (i.e., formerly waterbodies and not disturbed land) because tailings are underwater and no reclamation is required. Excluding the Eskay Creek Mine Access Road which is required for reclamation access and exploration activities. Excluding 2020/21 tree clearing for the Technical Sample.

3.4 Existing Permits and Approvals

Table 3.4-1 identifies the existing permits, licences and approvals held by Skeena Resources for the Eskay Creek Mine while in care and maintenance. Under existing permits, Skeena Resources fulfills care and maintenance obligations, plans for Reclamation and Closure, and conducts advanced exploration. Proposed permit amendments over the next two years will occur separately from the Project as part of Reclamation and Closure, site maintenance and advanced exploration.

Table 3.4-1 Summary of Existing Federal and Provincial Permits, Licences and Approvals

Authorization	Responsible Agency	Legislation	Purpose
Metal Mining and Diamond Effluent Regulations (MDMER, formerly MMER since 2002, and previously the MMLER) Schedule 2 amendment for Albino Lake	ECCC	*Fisheries Act*	Designated Albino Lake as a tailings/waste rock storage site (TIA) under the MMLER prior to 2002 which was included under Schedule 2 of the MMER when that came into law
MDMER Schedule 2 amendment for TMSF	ECCC	*Fisheries Act*	Designated Tom MacKay Lake as a tailings impoundment area (TIA) and for storage of tailings/waste rock[2]
MDMER Recognized Closed Mine/Care and Maintenance Status	ECCC/EMPR	*Fisheries Act/ Mines Act*	Mine status became Recognized Closed Mine under the federal MDMER (formerly MMER; Care and Maintenance status under *Mines Act* permit)
Section 22 Exemption	Transport Canada	*Navigable Waters Protection Act*	Federal exemption from designation as a navigable water body of TMSF (formerly Tom MacKay Lake) under SOR/2005-226 due to TIA classification under Schedule 2
Mine Development Certificate MDC (#94-01)	EAO	*Mine Development Assessment Act*[1]	Issued for the Eskay Creek underground mine project in 1994
Project Approval Certificate PAC (#M00-01)	EAO	*Environmental Assessment Act*[1]	Issued for the construction and use of Tom MacKay Lake for the storage of waste rock and tailings from the existing Eskay Creek Mine in 2000
Permit M-197	EMPR	*Mines Act*	Authorizes fuel storage, operations, closure, and reclamation and abandonment
Multi-Year Area Based Permit MX 1-11	EMPR	*Mines Act*	Authorizes exploration on mineral tenures. Required to file annual exploration plan for drill program and trails
Effluent Discharge Permit PE 10818	BC Ministry of Environment and Climate Change Strategy (ENV)	*Environmental Management Act*	Authorizes discharge from ASF, TMSF (known as W20, TM1 respectively) and D7 (mine site) with specific sampling, monitoring, and permit limits per location Authorizes sewage treatment plant for the camp and, for mine water/surface runoff, a sulphuric acid/ferric sulphate drip system, lime treatment plant, settling ponds and related appurtenances
Effluent Discharge Permit PE 109217	ENV	*Environmental Management Act*	Authorizes passive discharge from underground workings (temporary permit, expired Dec. 2020)
Waste Authorization PR 12977	ENV	*Environmental Management Act*	Authorizes storage of camp refuse, inert construction material, sewage sludge, and on-site landfill and incinerator operation

Authorization	Responsible Agency	Legislation	Purpose
Hazardous Waste Registration BCG100778	ENV	*Hazardous Waste Regulation*	Hazardous waste generator registration for on site hazardous waste generation
Special Use Permit S17635	BC Ministry of Forests (MOF)	*Forest Act*	Authorizes use of road between km 39.5 (junction with Coast Road) and km 53.8 (mine site)
Road Use Permit	MOF	*Forest Act*	Use of the Bob Quinn Forest Service Road mainline and spur (from 0 to 2 km)
Lease 740715	MOF	*Land Act*	Authorizes use of Tom MacKay Lake for surface activities associated with TMSF
Lease 6205507/634309	MOF	*Land Act*	Authorizes use of Albino Lake for surface activities related to ASF
Occupant Licence to Cut L-51659	MOF	*Forest Act*	Authorizes cutting and of timber for designated mine activities
Occupant Licence to Cut L-51780	MOF	*Forest Act*	Authorizes cutting and of timber for designated mine activities
Occupant Licence to Cut L-51924	MOF	*Forest Act*	Authorizes cutting and of timber for designated mine activities
Water Licence C107796	MOF	*Water Sustainability Act*	Authorizes extraction and use of water for camps and mine equipment from Eskay and Argillite creeks
Water Licence C114327	MOF	*Water Sustainability Act*	Authorizes the diversion and storage of flow for industrial use (tailings storage)
Waste Management Septage and Municipal Sewage Waste Permit 5360-09-02-03	Regional District of Kitimat-Stikine	*Environmental Management Act*	Authorizes storage of septage and sewage from Eskay Creek exploration camp to be tipped at Meziadin Landfill
120-person Camp (59 km) Water Supply Construction Permit No. 16W-567 and subsequent permit to operate km 58 Camp Water Supply Construction Permit No. 16W-561 and subsequent permit to operate km 58.5 29-person temporary camp Waterworks construction Waiver 16W-570 and permit to operate North Spoils Camp Waterworks construction Waiver 16W-568	Northern Health	*Drinking Water Protection Act*	Water supply construction and operating permits for temporary, seasonal and year-round camps

Authorization	Responsible Agency	Legislation	Purpose
120-person Camp (59 km) Permit to Operate Food Services Establishment km 58 Camp Permit to Operate Food Services Establishment km 58.5 29-person Camp Permit to Operate Food Services Establishment	Northern Health	*Food Premises Regulation*	Permit to operate food services such that food services are operated in an approved manner to prevent a health hazard
km 58 camp holding tank installation km 58.5 29-person temporary camp holding tank installation North Spoils Camp holding tank installation	Northern Health	*Sewage System Regulation*	Operate small sewage systems – to holding tanks

[1] As noted earlier in this section, under the transition provisions in the EAA 2018 its predecessor Acts, #MDC94-01 and #M00-01 are deemed to be environmental assessment certificates under EAA.

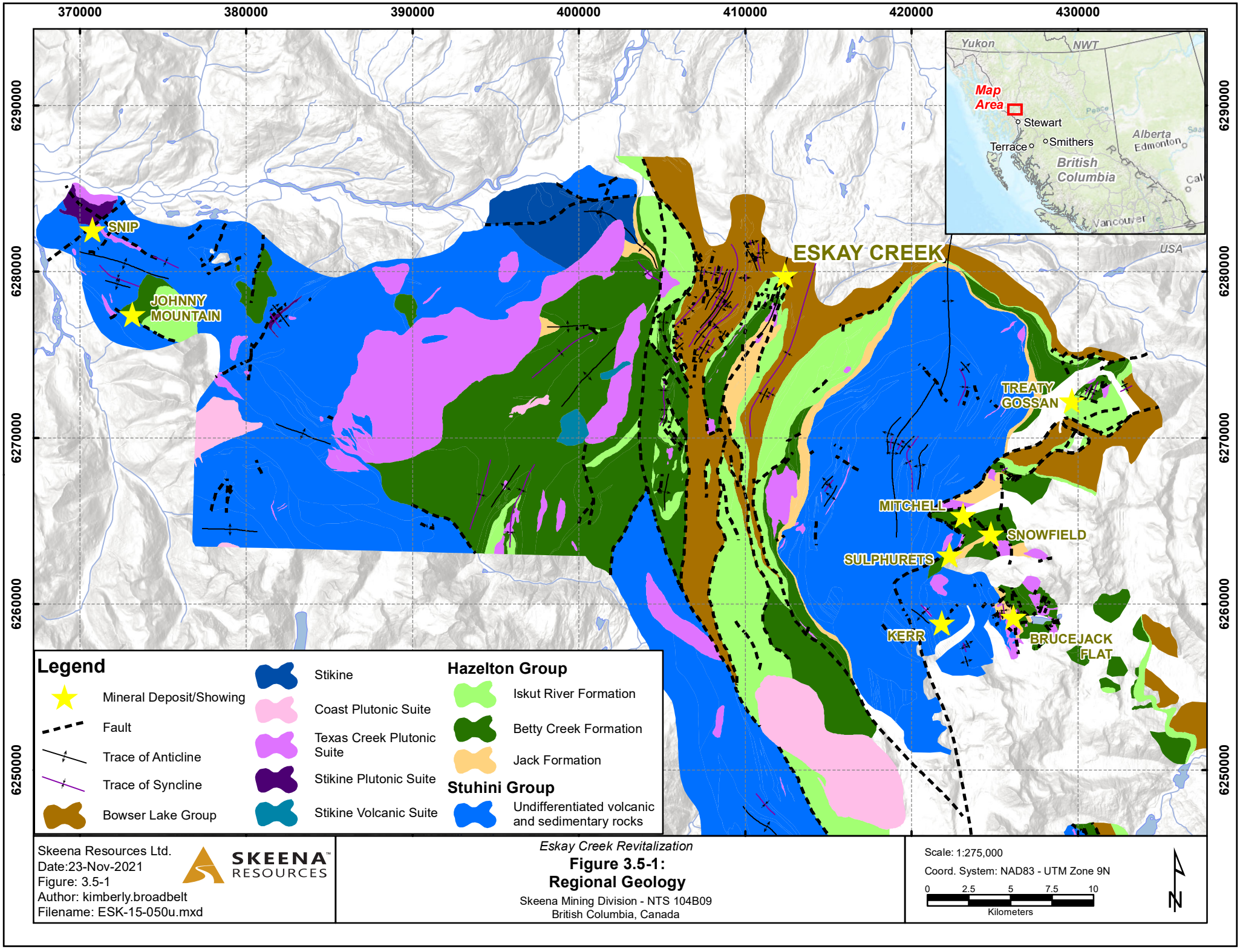
[2] With regard to the *Navigable Waters Protection Act,* a *Proclamation Exempting Tom MacKay Lake from the Operation of Section 22 of Act* was issued by the Government of Canada in 2005.

3.5 Geology and Mineralization

The Eskay Creek Mine deposit is classified as an example of a high-grade, precious metal rich epithermal volcanogenic massive sulphide deposit. The Project is located along the western margin of the Stikine Terrane, within the Intermontane Tectonic Belt of the Northern Cordillera. It is hosted within the Jurassic rocks of the Stikinia Assemblage at the stratigraphic transition from volcanic rocks of the uppermost Hazelton Group to the marine sediments of the Bowser Lake Group (Figure 3.5-1).

The Project geology encounters three primary lithology units: andesite interbedded with mudstone, contact mudstone, and rhyolite. Andesite interbedded with mudstone overlays the contact mudstone, which overlays the rhyolite. Mineralization is primarily hosted within the rhyolite, contact mudstone and interbedded mudstones in the andesite unit as shown in the stratigraphic column in Figure 3.5-2.

Acid rock drainage (ARD) is known to be a potential concern for the Project based on past mining and geochemical test work. The rhyolite and contact mudstone units were identified as potentially acid generating (PAG) while the results for the interbedded mudstones in the andesite were variable, with both PAG and non-potentially acid generating (NPAG) samples.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ESKAY CREEK
TREATY GOSSAN
MITCHELL
SNOWFIELD
SULPHURETS
KERR
BRUCEJACK FLAT
Yukon
NWT
Map Area
Stewart
Terrace
Smithers
Alberta
Edmonton
British Columbia
Vancouver
USA
Legend
Mineral Deposit/Showing
Fault
Trace of Anticline
Trace of Syncline
Bowser Lake Group
Stikine
Coast Plutonic Suite
Texas Creek Plutonic Suite
Stikine Plutonic Suite
Stikine Volcanic Suite
Hazelton Group
Iskut River Formation
Betty Creek Formation
Jack Formation
Stuhini Group
Undifferentiated volcanic and sedimentary rocks
Skeena Resources Ltd.
Date:23-Nov-2021
Figure: 3.5-1
Author: kimberly.broadbelt
Filename: ESK-15-050u.mxd
SKEENA RESOURCES
Eskay Creek Revitalization
Figure 3.5-1:
Regional Geology
Skeena Mining Division - NTS 104B09
British Columbia, Canada
Scale: 1:275,000
Coord. System: NAD83 - UTM Zone 9N
0 2.5 5 7.5 10
Kilometers
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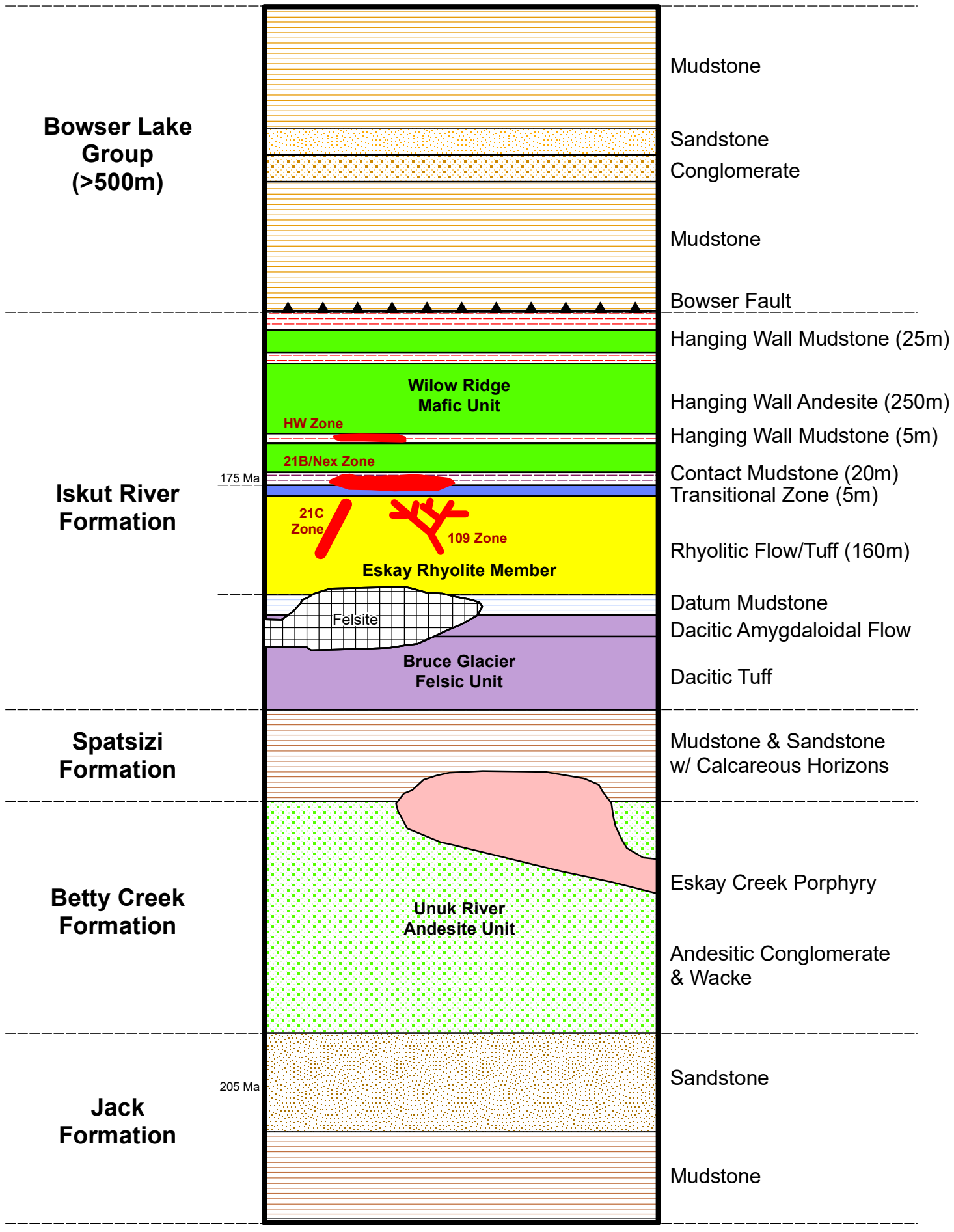
SKEENA RESOURCES

Figure 3.5-2 - Stratigraphic Section



3.5.1 2021 Geological Resource Estimate

Skeena Resources (2021c) updated the mineral resource estimate for the Project in April 2021. The updated Open Pit constrained resources at a 0.7 grams per tonne (g/t) gold equivalent cut-off grade includes a combined Measured and Indicated resource of 5.12 million gold equivalent ounces within 37.7 million tonnes at an average gold equivalent grade of 4.2 g/t and an Inferred resource of 0.23 million gold equivalent ounces within 5.2 million tonnes at an average gold equivalent grade of 1.4 g/t. In-fill drilling in 2019 and 2020 was successful at converting significant amounts of the Inferred resource category to the Measured and Indicated categories. Skeena Resources' adjusted overall mine plan (presented in Section 4.2) considers how to mine and develop this increased potential.

3.5.2 Geochemistry and Characterization Program

A waste geochemical characterization program is currently being completed for the mine plan to inform mitigation, effects assessment and closure planning, particularly in relation to post-closure water management scenarios and risks. In 2020, SRK was retained to complete the geochemical baseline investigations and geochemical source term water quality prediction for Project components, as well as to develop an ML/ARD management plan for the Project to support mine planning, engineering, facility design, water management, assessment and permitting, waste management, and long-term mitigation of potential effects. Leveraging existing geochemical data from previous geochemical investigations (MEMI 1994; AMEC 2007; AMEC 2017), a Geochemical Characterization Plan (GCP) was developed to inform both the geochemical baseline and geochemical source terms for Project components. Table 3.5-1 summarizes Project components and their associated investigations and test work.

Table 3.5-1 Summary of Project Components and Associated Investigations and Test Work

Project Component	Investigations	Test Work
Waste Rock and Pit Walls	2020 and 2021 Exploration Core Sampling: Continuous downhole sampling of select 2019/2020/2021 drillholes from Skeena Resources exploration programs	Phase 1: Acid Base Accounting (ABA), elemental analysis, select mineralogy
		Phase 2: Humidity cells tests and subaqueous column tests
		Phase 3: Field barrel leachate testing
Legacy Tailings	2020 Tom MacKay Historical Tailings Sampling: Sample collection of water quality, pore water, and historical tailings within Tom MacKay Lake	Solids: ABA, elemental analysis, mineralogy Pore water: General parameters, anions and nutrients, major and trace elements
Tailings and Ore Material	2020 Tailings and Ore Program: Collected select tailings and ore samples from the Pre-feasibility Metallurgy Program	Phase 1: ABA, elemental analysis, mineralogy
		Phase 2: Humidity cells tests and subaqueous column tests

Project Component	Investigations	Test Work
Tailings and Ore Material *(cont'd)*	2021 Tailings and Ore Program: Collected select tailings and ore samples from the Feasibility Metallurgy Program	Phase 1: ABA, elemental analysis, mineralogy
		Phase 2: Humidity cells tests and subaqueous column tests
Overburden / Infrastructure Waste Rock	2020 Overburden / Infrastructure Waste Rock Program: Collected select soil samples from test pitting portion of the Pre-feasibility Geotechnical Program	ABA, elemental analysis, select mineralogy
	2021/2022 Overburden / Infrastructure Waste Rock Program: Collected select soil and rock samples from test pits and boreholes of the Feasibility Geotechnical Program	ABA, elemental analysis, select mineralogy, humidity cell testing (started December 2021)
Water Treatment Facility Sludge (if required)	To be completed with future development of water treatment plant, if one is required	N/A

Historical and 2020 and 2021 test work indicated that PAG and NPAG units for the waste rock and pit walls are identified based on rock type. Rhyolite and contact mudstone are predominantly PAG, while the hanging wall andesite is mainly NPAG. The hanging wall sediments are a mix of PAG and NPAG materials. In October 2020, field kinetic tests were initiated with the construction of field barrels, where leachate was sampled in when it was produced during the summer months. Humidity cell testing and subaqueous columns were initiated in February 2021. Kinetic test work is ongoing, with existing results used to support the understanding of how materials are expected to behave geochemically. The volume of PAG and NPAG materials continues to be refined as test work continues. In 2021, results were incorporated into a pit block model, which has been utilized to support development of mine planning, including TMSF deposition, WRSF design, and pit scheduling.

Tailings test work from the 2020 and 2021 metallurgy programs indicated that the ore processing will produce two tailings streams: rougher tailings and cleaner tailings. Based on the results from the ongoing test work, rougher tailings are considered NPAG, while cleaner tailings are considered PAG. The 2020 sampling of legacy tailings in the TMSF showed they were classified as PAG.

In 2020, samples of overburden (represented by unconsolidated materials underlying topsoil and above bedrock) and waste rock from infrastructure developments were analyzed with test results showing variable ARD classification, including both PAG and NPAG classification. The waste rock to be excavated for the development of infrastructure (e.g., process plant, stockpile pads, linear features, haul roads) in the Project is predominantly from the Bowser Lake Group Sediments (BLGS). Results from testing of the BLGS show that it has variable ARD potential, including a mix of PAG and NPAG classification, and has variable sulphide content. In 2021, the sampling program was expanded to improve understanding of the spatial distribution of ARD potential of overburden and infrastructure waste rock. Kinetic test work was also initiated in 2021. Additional sampling of overburden and BLGS materials will be collected in 2022 from planned test pit and boreholes within the footprints of infrastructure developments. At a minimum, samples will be

collected from 13 boreholes and 24 planned test pits planned in the 2022 field season. The distribution of PAG materials within infrastructure developments will continue to be assessed as more data become available. The implementation of an adaptive ML/ARD management plan during the construction phase of infrastructure sites will be used to inform how PAG materials from overburden and BLGS are identified, effectively segregated and managed to prevent formation of acidic conditions.

The test work to date indicates potential to expose PAG materials in cuts during construction of infrastructure developments. Potential mitigation strategies that will be implemented on PAG cut surfaces in infrastructure developments are focused on eliminating water contact with PAG material, and include lining, grouting, and reducing PAG exposure. Mitigation options that have been proposed include the following:

- Placement of non-PAG waste rock as a pad on exposed PAG cut surfaces. The effect of the non-PAG rock will be to deliver dissolved alkalinity to the PAG rock surface which may prevent the onset of acidic conditions in the PAG rock. The thickness of the non-PAG rock should be such that infiltrating water is at chemical saturation with respect to calcium carbonate (calcite). Site barrel data was used to determine material specifications to achieve this objective which are 1 m thickness of <25 mm materials with <0.5% sulphur.
- Grouting of fractures exposed in PAG cuts to minimize water contact and oxygen ingress
- Placement of a mud slab or concrete on exposed PAG cut surfaces to reduce water contact.
- Use of liners to isolate flow in exposed PAG cuts within water management ditching.

Test work for this program is ongoing, but the Project design assumes that management of excavated overburden and infrastructure development in rock classified as PAG will include placement strategies to mitigate formation of acidic conditions and reduce risk for ML/ARD. Mitigations have also been proposed to minimize the risk of formation of acidic conditions in rock cuts exposing PAG material. Potential mitigation strategies that will be implemented on PAG cut surfaces in infrastructure developments are focused on eliminating water contact with PAG material, and include lining, grouting, and reducing PAG exposure. The distribution of PAG materials within infrastructure developments will be reassessed as more data become available.

Currently, the geochemistry baseline, ML/ARD management plan and source term water quality predictions for Project components are under development. Source terms support water quality modelling efforts, as shown in Figure 4.1-8, ahead, and inform risks associated with ML/ARD including neutral metal leaching.

Given the importance of geochemistry to Project planning, Skeena Resources has initiated a Geochemistry Oversight Committee (GOC) consisting of the company's management team with experienced consultants encompassing engineering, geochemistry, water management, environmental baseline, environmental assessment, and permitting expertise. The intent of this committee is for SRK, as Qualified Professional for the geochemistry program on the Project, to guide the GOC with Skeena Resources' input and ensure key geochemistry considerations, risks, approaches, analyses, and outcomes are integrated into the Project. THREAT representatives have recently joined this committee to provide input on design and mitigation strategies, as well

as insight and perspectives to help Skeena Resources understand their interests and concerns. Regulators and other parties will be engaged with the GOC on results and early findings during the Readiness Decision and Process Planning phases to solicit regulatory perspectives on adequacy and approach to geochemical characterization and mitigation planning. The GOC is anticipated to provide leadership and a regular form for coordination to address geochemical information sharing and solutions for the Project.

4.0 PROJECT DESCRIPTION

Key updates to this section:

The Project design described in the Detailed Project Description is based on both the 2020 Pre-Feasibility Study (Ausenco 2021) and the interim Feasibility Study currently in progress. Engineering design work, optimization, water quality modelling, mitigation planning, and mine planning remains to be done for the Project during the Readiness Decision, Process Planning and Application Development phases. Early Engagement feedback from the public, regulators, Indigenous Groups, and stakeholders helped inform updates to Project design. The explosive magazine location was moved based on Early Engagement feedback from TCG to create a more compact Project footprint; all Project infrastructure is now located within the Tom MacKay Creek watershed, with a minor footprint of the South pit touching the Eskay Creek drainage.

Most engagement feedback was not on the Project design but pertained to information presented in the DPD or to the approach to be taken in the Project assessment. Skeena Resources recognizes the high importance of water and waste management to reviewers and presents additional information on both topics in Section 4.1.5 and 4.5.2. Design refinements will continue to be made in response to engagement, feedback, and ongoing engineering and environmental studies in the next EA process phases. As water modelling and mitigation planning continues, Skeena Resources is committed to sharing updates and development of modelling approaches and preliminary outcomes with the technical reviewers, TAC and water sub-groups once available in 2022.

This section provides an updated overview of Project components and activities, including additional information on traffic volumes (Section 4.1.1.2) presented as a response to engagement on the IPD. Also included is updated information on the location of a new Construction/Early Operations North Spoils Camp as well as alternative locations for the Permanent Camp on Coulter Creek Road and near the Process Plant. The table below provides a high-level summary of the changes to the Project components made between submission of the Initial Project Description and preparation of this Detailed Project Description.

Project Component	High-level Description of Changes
Life of Mine	The updated life of mine is 9 years of Operations, as opposed to 8 to 11 years, as estimated in the IPD. Progressive reclamation will start in the latter part of Operations and will continue during the 3-year Reclamation and Closure phase.
Annual Production	Estimated total annual production is expected to be 3.0 Mt/year for Years 1-5 and up to 3.7 Mt/year for Years 6-9 (8,225 tpd to 10,140 tpd), an increase from the annual production of 2.5 Mt/year to 3.0 Mt/year (6,850 tpd to 7,800 tpd) listed in the IPD. This reflects the current Feasibility Study approach to expand the milling capacity in the Process Plant in Year 5 with addition of milling capacity in that year resulting in Years 6 to 9 having higher throughput. The expected annual production of precious metals is 0.29 million ounces of gold and 8.7 million ounces of silver, up from the 0.25 million ounces of gold and 6.9 million ounces of silver expected in the IPD.

Project Component	High-level Description of Changes
Technical Sample	More details about the Technical Sample Program are now available: this program will test mineral processing and recovery methods associated with the processing of the Eskay Creek ore, prior to advancing to full development of the Revitalization Project. In November 2021, Skeena Resources submitted a Pre-Application Project Description to TCG and the Provincial Mine Review Committee for the Technical Sample as part of the process of applying for an amendment of the existing *Mines Act* and *Environmental Management Act* permits. The Technical Sample Program (shown in Figure 3.3-1) will involve the use of existing infrastructure from the historic mine site, as well as construction of new infrastructure. The Technical Sample development will result in a total of 259 ha of area, of which 90 ha will be new infrastructure while 169 ha will be tenure for the transmission line right-of-way. This is in addition to the use of the existing 123 ha of the historic underground Eskay Creek Mine area. Initial tree clearing occurred in 2021 on a portion of the footprint (about 90 ha). Starting in 2024, the Revitalization Project will utilize infrastructure and development areas created for the Technical Sample in 2022-2023.
Workforce	There will be approximately 400 employees by Year 5, when the mill expansion occurs, compared to the IPD estimate of 214 employees.
Transmission Line	A number of power supply agreements are in development to support the Project, allowing for a new 69 kV transmission line, 20 km in length, from a new substation that draws power from the existing 287 kV transmission line fed by the Volcano Creek, McLymont, and Forrest Kerr hydroelectric facilities to the mine site. (The IPD included a connection to the Bob Quinn Substation, 56 km from the mine site, that is no longer being considered.) Previously referred to as the powerline to mine site.
Embankments	Three starter embankments at the north end of the TMSF will be constructed and, by end of mine life, will merge into one north side embankment. In addition, a south embankment will be required and will be constructed during Operations. (Only three separate north embankments were planned in the IPD based upon earlier design of a lower final water elevation in the TMSF.) Height of embankments increased to a final elevation of 1,122 m, with closure water elevations at 1,120 m and tailings/waste rock maximum elevations of 1,115 m. The south embankment will require non-contact water management of which several options are being considered, including discharge to Coulter Creek watershed, or pump back into the TMSF, and will be evaluated through detailed design for the Application development. The north and south embankments are of different design type (geosynthetic liner versus clay core respectively).
TMSF	At the end of mine life, the TMSF will store 26.4 Mt of tailings and 84 Mt of PAG rock; the IPD had estimated 23.9 Mm^3 of tailings and 50.4 Mm^3 of PAG waste rock. Approximately 34 Mt of additional PAG waste rock will be stored in the TMSF, which was considered NPAG in the PFS design and disposed of onto the WRSF in the IPD.
WRSF	NPAG waste rock will be deposited in two locations: approximately 80% to 90% (133.1 Mt) stored in the WRSF that will be located to the west of the North Pit with the remainder in the In-Pit WRSF. NPAG waste rock will be used for creek diversion berms associated with the tunnel. Previous NPAG waste rock volumes were approximately 161.26 Mt in the IPD. The WRSF footprint will be similar between IPD and DPD designs, with the facility height decreasing slightly in the DPD versus the July 2021 PFS design in the IPD.
Water Sources	Skeena is assessing two potential groundwater sources for drinking water, fire water, and fresh water for process plant uses via two drill holes installed in 2021, with testing in 2022.

Project Component	High-level Description of Changes
Water Management Plan	The Water Management Plan is still in development pending the outcome of water quality modelling work and FS study completion and management options for contact water (additional information is provided in Section 4.1.5). Mitigation plans, and water treatment (if required), are still in development pending modelling outputs. Engagement with regulators and TAC will be key to share progress updates and information on the initial results and model construction and rationale.
Water Treatment Planning	Water quality modelling is underway for the Technical Sample and Revitalization Project to inform the Water Management Plan for the Project. If a water treatment plant is needed for the Technical Sample it may continue to be used for Construction and Operations phases of the Revitalization Project, pending water modelling outcomes in late 2022/early 2023. Skeena Resources acknowledges the TCG perspective and criteria related to long-term water treatment.
2 km Laydown	New laydown adjacent to Bob Quinn substation to support equipment mobilization, material management and transfer between highway and off-highway tractors due to limited space at mine site, and to control traffic on the access road.
Explosives Facility	Relocated to be within the Tom MacKay Creek and Albino Lake watershed.
Topsoil Stockpiles	The proposed stockpiles for the Revitalization Project will be at locations used by Technical Sample stockpiles (Figure 4.1-1), instead of as shown in IPD.
Haul Road Refinement	Skeena Resources has made minor adjustments to the road layout to better suit field conditions and updated survey data.
Camp Accommodations	An update has been made since the IPD. Camp accommodations for the Project will include a Construction/Early Operations camp (built in year -2) based at the North Spoils area (an area disturbed over a decade ago) adjacent to km 37 of the Eskay Creek Mine Access Road. Workers will be bused from the camp to the mine site daily. The Construction/Early Operations Camp will require separate permits as it will not be part of the mine site, but instead be built early in the Construction phase and persist for 5 or 6 years. The Permanent Camp adjacent to the Process Plant will be built in Year 3 of Operations and be used into the Closure phase, which would eliminate the need to continue with the North Spoils Camp. Two alternate locations for the Permanent Camp (depicted in Figure 4.1-1) are under consideration within 5 km of the mine site on Skeena Resources' permitted mine area, and the North Spoils camp is also being considered as a third alternate location for the Permanent Camp. The alternatives assessment for the Project will consider camp locations and potential issues. Regardless of specific location, the Construction/Early Operations and Permanent camps will be similar and host 300 camp beds in single occupancy rooms, in a triple stack modular portable configuration. Water, sewer, power, and clearing requirements are being assessed to define permitting requirements and if any supplemental baseline data is required in 2022.
Geochemical classification	Geochemical classification characterization has progressed (further information is provided in Section 3.5.2).
Reclaim / closure planning	Reclamation and Closure planning has progressed since the IPD (a brief information update is provided in Section 4.2.2 with additional advancement of the planning in conjunction with TCG anticipated for late 2022/23).

The following sections provide a description of the Project itself, including components, phases activities, anticipated workforce, design and siting constraints, emissions and wastes, alternatives to the Project and alternative means of carrying out the Project.

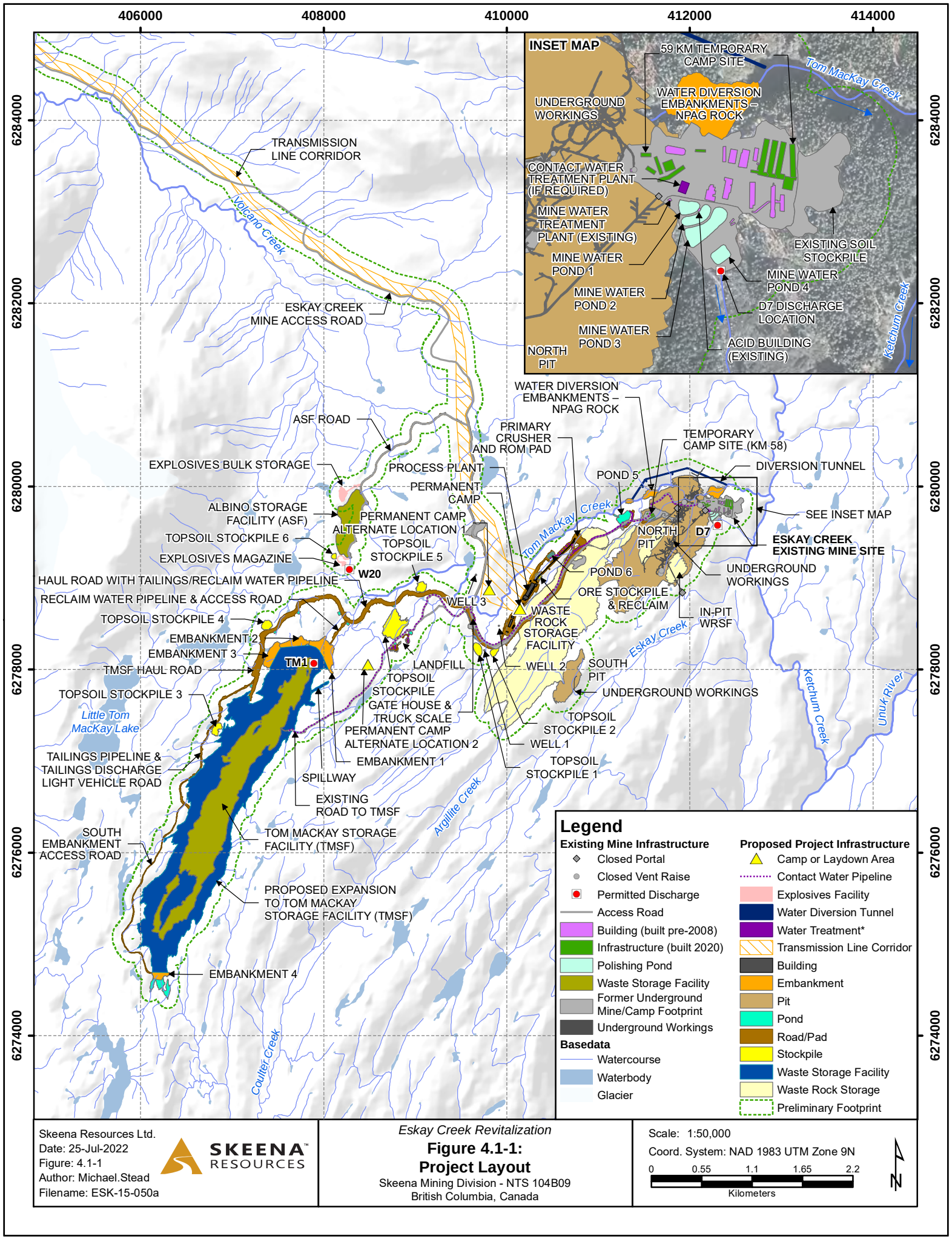
4.1 Project Components

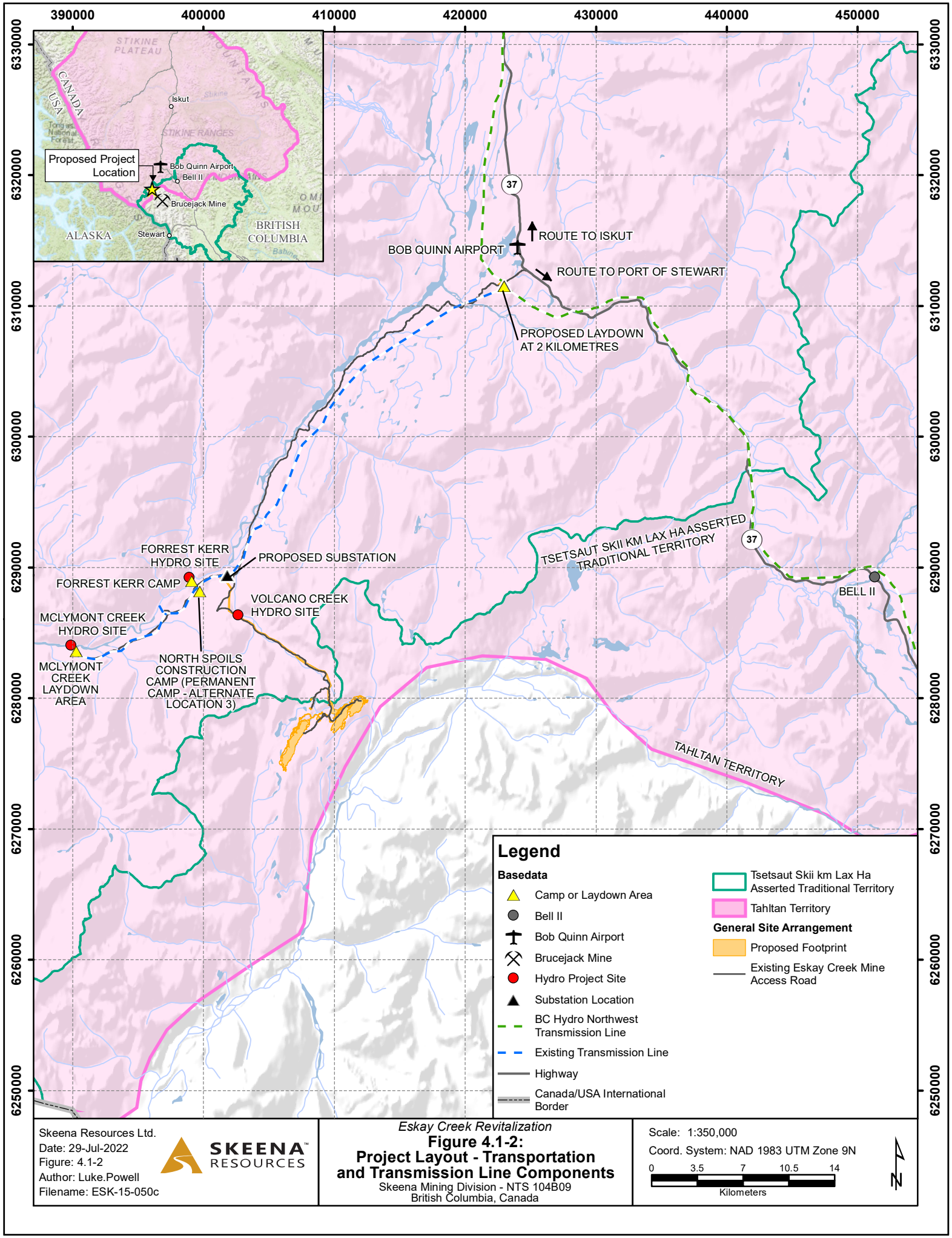
The Project components are identified in Table 4.1-1, while Figures 4.1-1 and 4.1-2 show the proposed Project layout based on the updates underway as part of the Feasibility Study (FS). The final location, size and dimensions of Project components will be determined following completion of additional engineering studies. These studies, along with consideration of environmental constraints and feedback from government agencies, Indigenous Nations, and the public, will inform the detailed mine plan. All components included in the right-hand column of Table 4.1-1 will be included in the effects assessments undertaken as part of the EAC Application, and detailed scoping of the Project will occur leading up to the Process Order and Hybrid-AIR finalization. The IPD showed the combined project components of the existing Eskay Creek Mine site and Technical Sample in one column, but for the DPD, the components of each group are now listed separately in Table 4.1-1.

The Project will be a standard truck and shovel open pit mine. Project access will be via the Eskay Creek Mine Access Road, a multi-use industrial road constructed in the early 1990s. Project activities during the Planning, Construction, Operations, Closure, and Post-closure phases are summarized in Section 4.2.

Ore will be mined via an open pit, hauled to an adjacent crusher, transported by conveyor to the mill stockpile, and processed using conventional milling and flotation to recover a gold-silver concentrate (Figure 4.1-3). Waste rock from the pit designated as NPAG will be hauled to the Waste Rock Storage Facility (WRSF) immediately adjacent to the North Pit, while PAG waste rock will be hauled to the TMSF. NPAG rock will be used as construction material for pads and berms throughout the site. The concentrate will be trucked from the mine site south to the Port of Stewart along provincial highways 37 and 37A and shipped to offshore smelters and refineries for processing.

By the end of the Technical Sample, approximately 385 ha of development will have been permitted at the Eskay Creek Mine Site, and an additional 334 ha of development will be needed by the end of the Operations phase for the Revitalization Project (Table 4.1-2). Excluding the footprint of the existing Eskay Creek Mine Access Road and ASF (12.8 ha), the total estimated direct physical footprint of the proposed Project will be 706 ha. This 706 ha includes the open pits, WRSF, TMSF, process plant, landfill, overburden and topsoil stockpiles, haul roads, and light vehicle access roads at the mine site. This area represents a surface footprint expansion of about 334 ha beyond the historical mine footprint and proposed Technical Sample (i.e., existing disturbance footprint for the former Eskay Creek Mine under the proposed Project footprint; Table 4.1-2). The proposed Project footprint does not overlap all of the historic Eskay Creek Mine footprint. The existing disturbance of the historic underground Eskay Creek Mine is approximately 126 ha, inclusive of the 97 ha of waterbody footprint for the ASF and TMSF. The IPD showed the combined footprints of the existing Eskay Creek Mine site and Technical Sample in one column, but for the DPD, the footprints of each group are now listed separately in Table 4.1-2.


406000
408000
410000
412000
414000
6284000
6282000
6280000
6278000
6276000
6274000
INSET MAP
59 KM TEMPORARY CAMP SITE
Tom MacKay Creek
WATER DIVERSION EMBANKMENTS – NPAG ROCK
UNDERGROUND WORKINGS
CONTACT WATER TREATMENT PLANT (IF REQUIRED)
MINE WATER TREATMENT PLANT (EXISTING)
EXISTING SOIL STOCKPILE
MINE WATER POND 1
MINE WATER POND 4
MINE WATER POND 2
D7 DISCHARGE LOCATION
MINE WATER POND 3
ACID BUILDING (EXISTING)
NORTH PIT
Ketchum Creek
TRANSMISSION LINE CORRIDOR
Volcano Creek
ESKAY CREEK MINE ACCESS ROAD
WATER DIVERSION EMBANKMENTS – NPAG ROCK
ASF ROAD
PRIMARY CRUSHER AND ROM PAD
TEMPORARY CAMP SITE (KM 58)
EXPLOSIVES BULK STORAGE
PROCESS PLANT
DIVERSION TUNNEL
PERMANENT CAMP
POND 5
ALBINO STORAGE FACILITY (ASF)
PERMANENT CAMP ALTERNATE LOCATION 1
Tom MacKay Creek
SEE INSET MAP
TOPSOIL STOCKPILE 6
TOPSOIL STOCKPILE 5
NORTH PIT
D7
ESKAY CREEK EXISTING MINE SITE
EXPLOSIVES MAGAZINE
W20
POND 6
UNDERGROUND WORKINGS
HAUL ROAD WITH TAILINGS/RECLAIM WATER PIPELINE
RECLAIM WATER PIPELINE & ACCESS ROAD
WELL 3
ORE STOCKPILE & RECLAIM
IN-PIT WRSF
TOPSOIL STOCKPILE 4
WASTE ROCK STORAGE FACILITY
EMBANKMENT 2
EMBANKMENT 3
Eskay Creek
TM1
TMSF HAUL ROAD
LANDFILL
WELL 2
SOUTH PIT
TOPSOIL STOCKPILE 3
TOPSOIL STOCKPILE
UNDERGROUND WORKINGS
Ketchum Creek
Unuk River
Little Tom MacKay Lake
GATE HOUSE & TRUCK SCALE
TOPSOIL STOCKPILE 2
PERMANENT CAMP ALTERNATE LOCATION 2
WELL 1
TAILINGS PIPELINE & TAILINGS DISCHARGE LIGHT VEHICLE ROAD
EMBANKMENT 1
TOPSOIL STOCKPILE 1
SPILLWAY
EXISTING ROAD TO TMSF
Argillite Creek
SOUTH EMBANKMENT ACCESS ROAD
TOM MACKAY STORAGE FACILITY (TMSF)
PROPOSED EXPANSION TO TOM MACKAY STORAGE FACILITY (TMSF)
EMBANKMENT 4
Coulter Creek
Legend
Existing Mine Infrastructure
Closed Portal
Closed Vent Raise
Permitted Discharge
Access Road
Building (built pre-2008)
Infrastructure (built 2020)
Polishing Pond
Waste Storage Facility
Former Underground Mine/Camp Footprint
Underground Workings
Basedata
Watercourse
Waterbody
Glacier
Proposed Project Infrastructure
Camp or Laydown Area
Contact Water Pipeline
Explosives Facility
Water Diversion Tunnel
Water Treatment*
Transmission Line Corridor
Building
Embankment
Pit
Pond
Road/Pad
Stockpile
Waste Storage Facility
Waste Rock Storage
Preliminary Footprint
Skeena Resources Ltd.
Date: 25-Jul-2022
Figure: 4.1-1
Author: Michael.Stead
Filename: ESK-15-050a
SKEENA RESOURCES
Eskay Creek Revitalization
Figure 4.1-1:
Project Layout
Skeena Mining Division - NTS 104B09
British Columbia, Canada
Scale: 1:50,000
Coord. System: NAD 1983 UTM Zone 9N
0
0.55
1.1
1.65
2.2
Kilometers
N



Skeena Resources Ltd.
Date: 29-Jul-2022
Figure: 4.1-2
Author: Luke.Powell
Filename: ESK-15-050c

SKEENA RESOURCES

Eskay Creek Revitalization

Figure 4.1-2:
Project Layout - Transportation and Transmission Line Components

Skeena Mining Division - NTS 104B09
British Columbia, Canada

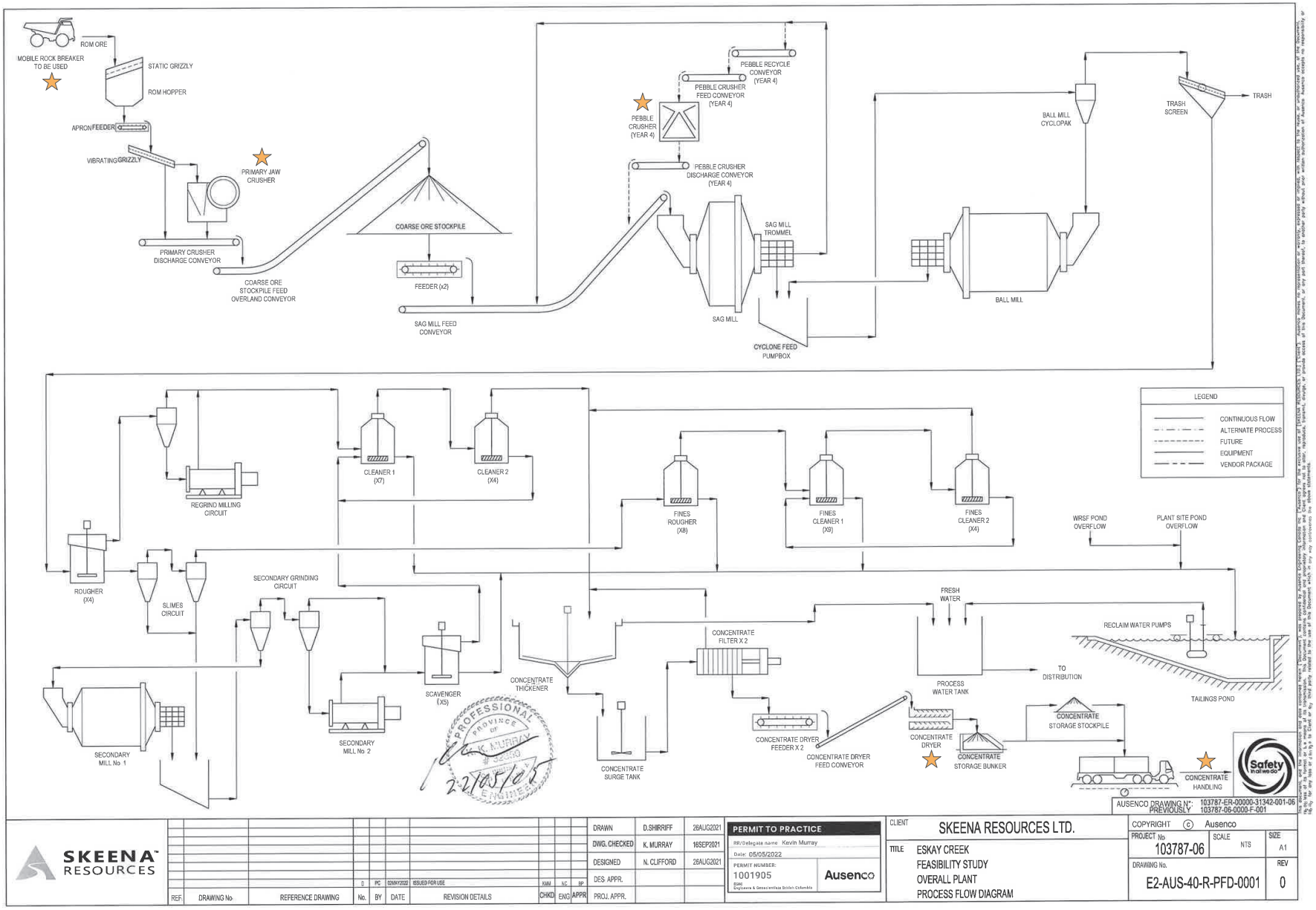
Scale: 1:350,000
Coord. System: NAD 1983 UTM Zone 9N
0 3.5 7 10.5 14
Kilometers
N

Table 4.1-1 Summary of Project Components and Status (existing, construct, or operate)

Project Component	Eskay Creek Mine		Eskay Creek Revitalization Project
	Existing Mine (as of 2021)	Technical Sample[1]	
Eskay Creek Mine Access Road to Project site, which joins Highway 37 at km 293	E	O	O
Tom MacKay Storage Facility (TMSF)	E	C (disposal of PAG rock and tailings in existing waterbody)	C (expanded size due to new embankments)
Open pits	-	-	C (North and South Pits)
Rock quarries	E (at km 54 and 55)	C (new locations for TS quarry and NPAG quarries)	C (in footprint of North Pit)
Overburden and topsoil stockpiles	E (beside km 59 camp)	C (new locations)	C (expansion of Technical Sample stockpiles)
Transmission line to mine site (20 km in length)	-	C (right-of-way only)	C (install transmission line)
Substation	-	-	C
Waste Rock Storage Facility (WRSF)	-	C	C (expansion beyond Technical Sample extent)
Surface and diversion water management structures including ponds, sumps, and ditches	E	C	C
Water treatment facilities including: proposed water treatment plant (if required), use of existing water treatment buildings and mine water settling ponds (ponds 1-4), and D7 discharge location for construction and early operation years	E	C (if needed)	O (if needed)
Tom MacKay Creek diversion tunnel around the North Pit	-	-	C
Haul roads between the mine, the WRSF, stockpiles, the TMSF, the crusher, and the mine maintenance facilities	-	C	C
Light vehicle roads	E	C	C
Contact water pipeline from Pond 5 to TMSF, reclaim water pipeline from TMSF to process plant	-	C	O
Tailings pipeline from process plant to TMSF following haul road	-	-	C
Primary crusher and feed conveyor to the process plant stockpile	-	C	C

Project Component	Eskay Creek Mine		Eskay Creek Revitalization Project
	Existing Mine (as of 2021)	Technical Sample[1]	
Ore stockpile pad	-	C (temporary)	C (expanded footprint)
Processing infrastructure including: • Process Plant • First aid, assay lab, warehouse, maintenance, and administration • Propane tank storage • Incinerator • Treatment plants for potable water from new wells and sewage treatment • On-site high voltage main substation connected to new transmission line	-	-	C
Eskay Creek Mine Site - existing facilities with temporary camps (58 km and 59 km), including incinerator	E	O	O (decommission during operations)
Laydown pad and temporary crushing plant adjacent to Process Plant	-	C (laydown pad, modular process plant, fuel storage)	C (expanded footprint for Permanent Camp, process plant, truck shop, warehouse, administration, electrical substation)
Hazardous Waste Storage Facility (existing facility will be used until Year 1)	E	O	C
Detonator and explosives magazines and explosives bulk storage	-	C	O
Mine Infrastructure Facility (km 56) including: • Vehicle maintenance, truck parking and wash facilities • Fuel and lube storage • Mine dry	-	C (fuel and lube storage)	C (vehicle maintenance and mine dry)
Helipad for emergency situations	E	O	C
Security buildings	E	C	O
Warehouse and laydown areas	E	O	C
Modular worker accommodations in two new camps (Construction/Early Operations Camp and Permanent Camp)		-	C
Landfills	E	C	O
2 km laydown area (Bob Quinn)	-	C	O

Notes:
E = Existing components
C = Components that will be constructed and/or expanded and operated
O = Components to be operated based on construction in an earlier phase
[1] Section 3.3 describes infrastructure remaining at the mine site as of 2021 and the anticipated infrastructure footprint in place by the end of the Technical Sample program, immediately prior to construction of the Revitalization Project.



★ *Potential point sources for criteria air contaminants include: mobile equipment, crushers, concentrate dryer, mill building (not on figure), and assay lab (not on figure)*

Source: Ausenco (2021).

Figure 4.1-3: Process Flow Diagram

Table 4.1-2 Updates to Estimated Footprints of Components for Existing Mine Site, Proposed Technical Sample and Revitalization Project

Project Component	Eskay Creek Historic Mine Site (2021) Affected Area (ha)	Additional Technical Sample (TS) Area (ha)	Additional Area for Revitalization Project (ha)	Cumulative Total Area (ha)
Tom MacKay Storage Facility (TMSF)	85.6 (waterbody)	0.2	135.7 (expansion of TMSF due to new embankments)	221.6
Open pits/	-	-	70.2 (proposed North and South pits beyond TS quarry shape)	70.2
Rock quarries	2.2 (at km 54 and 55)	15.4 (new locations)	-	17.6
Overburden and topsoil stockpiles	1.6 (beside km 59 camp)	9.9 (new locations)	4.8 (expansion of Technical Sample stockpiles)	16.3
Transmission line and substation	-	169.2 (right-of-way only)	0.0 (installation of transmission line and substation)	169.2
WRSF (not including the In-Pit WRSF footprint)	0.0	12.6 (NPAG WRSF, temporary crushing plant)	100.0 (expansion beyond Technical Sample extent)	112.6
Surface and diversion water management structures including ponds, sumps, and ditches	1.8 (at km 59 mine site)	2.7 (new ponds 5 and 6, new small sumps/ponds)	3.6 (operate ponds 5 and 6)	8.1
Haul roads and light vehicle roads [1]	13.9 (ASF road, pre—2008 TMSF access road)	39.0 (TMSF haul road, reclaim water and NPAG quarries access)	2.3 (tailings discharge light vehicle road, south embankment light vehicle road, short new roads)	55.1
Primary crusher and feed conveyor, ore stockpile pad	0.0	2.6 (temporary PAG stockpile)	0.0 (expanded temporary PAG stockpile)	2.6
Process Plant and adjacent laydown pad / temporary crushing plant	0.0	11.0 (laydown pad, modular process plant)	3.5 (expanded footprint for Permanent Camp, process plant, warehouse, administration, electrical substation)	14.5

Project Component	Eskay Creek Historic Mine Site (2021) Affected Area (ha)	Additional Technical Sample (TS) Area (ha)	Additional Area for Revitalization Project (ha)	Cumulative Total Area (ha)
Mine Infrastructure Facility (proposed at km 56) and other buildings (existing 59 km)	5.9 (existing mine at 59 km)	6.1 (new polygon at 56 km)	0.9 (minor expansion of the Technical Sample polygon at 56 km; truck shop and mine dry)	12.9
Detonator and explosives magazines and explosives bulk storage	0.9 (decommissioned)	2.2 (proposed beside ASF)	0.0 (maintain buildings)	3.1
Landfills	1.3	1.0 (proposed at new location)	0.0 (utilize Technical Sample landfill)	2.3
Albino Storage Facility (ASF; not used for TS or Revitalization Project)	12.8 (waterbody)	0.0	0.0	12.8
Temporary disturbance for construction beyond design footprint/polygon but not exceed preliminary footprint (green dashed line in Figure 4.1-1)	-	-	TBD during construction planning; likely not more than 10%-20% of potential area	TBD
Total	**126.0**	**259.4**	**333.6**	**719.1**
Cumulative Areas (addition of successive columns)	**126.0**	**385.4**	**719.1**	

Note: Preliminary footprints and locations of infrastructure may change as detailed engineering studies and optimization work proceeds further in 2022. Temporary ground disturbance for the Revitalization Project may extend up to 100 m beyond design polygons/footprint of components shown in Figure 4.1-1 to enable construction but will remain within the green dashed line (maximum extent of preliminary footprint) indicated in Figure 4.1-1. Note that rounding is used on estimated areas.
[1] Does not include permitted Eskay Creek Mine Access Road of 8.11 ha. Tailings, reclaim water and contact water pipelines are within the road right-of-way disturbance.

The Project will use existing infrastructure at the Eskay Creek Mine (see Section 3.3) as much as is practical, including the Eskay Creek Mine Access Road, the TMSF to store waste rock and tailings, and the TM1 discharge location from the TMSF, D7 discharge site for four settling ponds (ponds 1-4) and the water treatment buildings. Proposed infrastructure built as part of the Technical Sample, including the haul road to the TMSF, will also be utilized for the Revitalization Project.

4.1.1 Access, Traffic/Shipping, Accommodation, and Power

4.1.1.1 Access

Highway 37 and the Eskay Creek Mine Access Road are the main access corridors to the Project from Highway 16 and local communities. The Eskay Creek Mine Access Road is a 59 km private industrial road operated by Coast Mountain Hydro Services (0 km to 43.5 km) and Skeena

Resources (43.5 km to 59 km). The road is shared with Coast Mountain Hydro Services, operator of the three hydroelectric facilities nearby, as well as exploration and logging companies.

The Project workforce will be transported to the Project in vehicles provided by the company, which will likely pick up in select communities, such as Telegraph Creek, Dease Lake, Iskut, Terrace, and Smithers. Personnel from outside the region may be flown into a regional airport at either Smithers, Terrace, or Dease Lake and then transported via company vehicle or buses to the site. The Bob Quinn Lake Aerodrome may also be utilized to transport workers in and out of the site and for emergencies.

The existing Eskay Creek Mine Access Road will be sufficient to support the Revitalization Project.

4.1.1.2 Traffic/Shipping

Anticipated Project vehicle traffic includes:

- concentrate hauling to the Port of Stewart for shipment to third-party smelters;
- delivery of construction supplies to the Project site;
- delivery of operating supplies; and
- transit of personnel to and from the Project site.

The Project will require construction materials—including building supplies, mill equipment, cable, piping, and construction equipment—to be trucked to the Project site from various locations throughout BC and potentially out of province, primarily via Highway 37 at the intersection with Highway 16. In addition, during the mine life, consumable materials will be needed for:

- processing (grinding media, reagents);
- mining (explosives); and
- other purposes (food, camp supplies, maintenance materials).

These consumables are expected to be sourced from various locations, but it is anticipated that Smithers or Terrace, both situated along Highway 16 just west and east of Kitwanga respectively, will be the main point for supplies, materials, and construction equipment.

Traffic information, monitoring locations, and estimated total concentrate tonnage to be hauled were updated to reflect FS data. Traffic along highways 37 and 37A has changed with the economic drivers in the region; measured traffic volumes in recent years are lower than estimates from 5 to 10 years ago. Estimates for the average annual trips per day (AATD) from 2011 to 2020 for the Project transportation routes are summarized in Table 4.1-3.

The Highway 37/37A transportation route is also used by other projects in the area, including Newcrest's Red Chris Mine and Brucejack Mine. Seabridge's approved KSM Project plans to use this transportation route as well (Table 4.1-4).

Table 4.1-3 2011-2020 Traffic Use for Highways 37 and 37A near Meziadin Junction in Average Annual Trips per Day

Year	Average Annual Trips per Day		
	Highway 37 at Nass River Bridge 47-014NS (10 km south of Meziadin Junction)	Highway 37 Meziadin Lake Junction 47-016NS (2 km north of Meziadin Junction)	Highway 37A Windy Point Bridge 47-015EW (west of Meziadin Junction)
2011	519	192	243
2013	479	-	240
2014	675	390	216
2017	746	154	292
2020	429	290	161
Average	**570**	**257**	**231**

Source: Tahltan-Allnorth (2021).

Table 4.1-4 Predicted Traffic Volume of Projects using Highways 37 and 37A in Average Annual Trips per Day

Project	Average Annual Trips per Day	
	Highway 37	Highway 37A
Eskay Creek Revitalization	23	18
Red Chris Mine	39	28
Brucejack Mine	12	11
KSM Project	85	36
Total	**159**	**93**

Source: Tahltan –Allnorth (2021).

A key outcome of the updated traffic study prepared by Tahltan-Allnorth (2021) is that significant capacity on Highways 37 and 37A exists to support the increased traffic volume resulting from the Project. Estimates of concentrate truck hauling and Project traffic were revised through the FS study based on an average of 200,000 tonnes of higher grade concentrate produced per year versus the IPD (which was about 50% higher tonnage per year of lower grade concentrate in IPD). The capacity for Highway 37 is 6,048 one-way trips per day, and historical peak actual traffic counts for highways 37 and 37A are 1,014 and 917 one-way trips per day, respectively.

During peak operations for the Project, highway traffic along Highway 37A (Meziadin Junction to Stewart) may increase by up to 8% relative to current traffic levels due mainly to the hauling of concentrate to the Port of Stewart. All other phases of the Project (i.e., when no concentrate truck hauling occurs: construction and closure phases) will only constitute a 1% increase in existing traffic levels. The traffic estimate for the Project of 23 trips per day will account for 0.4% of the

Highway 37 traffic and will be a fraction of a percentage of the highway design capacity, and considers a few years of the peak concentrate haul around the middle of operations years after the mill expansion; and daily trips per day for concentrate haul will be lower during both the initial few years of operations and last couple years.

The traffic study (Tahltan-Allnorth 2021) also calculated changes in incident frequency based upon the projected Project traffic increase from recent traffic volumes (incident frequency refers to any incident whether it was property damage, a vehicle collision, or vehicle collision with an animal). The predicted change in incident frequencies was less than 1% change for highways 37 and 37A, which is considered a negligible change overall in incident frequency.

The Bob Quinn Lake Aerodrome is approximately 37 km northeast of the Eskay Creek Mine site, 60 km by road or 1 hour by vehicle. It includes an airstrip and heliport. It is a public use facility that is managed by the Bob Quinn Lake Airport Society, administered by a Board of Directors consisting of volunteers mainly from the resource and aviation industries. Skeena Resources is currently using the aerodrome to bring personnel to site for the exploration and geotechnical investigations. The Project will use the aerodrome to supplement ground-based transportation in and out of the Project area and for medical emergencies. The degree to which the aerodrome will be used on a regular basis has not yet been determined for the Project, but current and foreseeable use of one or two charter aircraft to transport crews to and from population centers, is expected every two weeks.

During Operations, the Project will require concentrate shipping of up to 200,000 dry metric tonnes on average annually. Skeena Resources does not anticipate that the Project will increase the marine traffic of ore transport ships using the Port of Stewart via the Portland Canal. The port facilities in Stewart were expanded a decade ago and were approved for berthing and loading up to 180 vessels/year (DFO 2009, Stewart Bulk Terminals [SBT] July 2022 personal communication). Marine traffic at the Port is estimated at 30 vessels/year, including an average of 15 ore transport ships loaded at SBT. Ore transport ships have multiple individual hold bins per ship (3 to 5 individual holds of up to 12,000 dry metric tonnes [dmt] per hold bin), and is common that ore transport ships call at Stewart with under-utilized onboard capacity. Since each ship arrival/loading and departure event is costly, multiple mines split the costs per ship and achieve most efficient loading and vessel size per trip. Currently, SBT loads ore transport ships approximately every three weeks with concentrate shipping from Red Chris and Brucejack mines and did the same in years' past with previously operating mines (Huckleberry Mine, Silvertip Mine and Wolverine Mine). Bulk concentrate gets loaded into individual hold bins (typically in lots of 10,000 dmt of concentrate). SBT reports that recent volumes have been one to three individual hold bins of up to 10,000 dmt per ship for each trip (typically one hold bin per mine, with each ship carrying concentrate from one or more mines), based on the mine production rates and Port warehouse capacity for storage of excess concentrate in advance. Should additional concentrate need to be shipped in the future (e.g., Skeena Resources concentrate), then ore transport ships will fill more holds per trip and may use larger vessels, instead of increasing the number of trips.

The SBT facilities service several mining operations and have capacity for Skeena Resources to store up to 16,000 dmt of concentrate. Since concentrate shipping is closely regulated by Transport Canada, particularly with tolerances for maintaining specific moisture content

(i.e., moist sand appearance), concentrate is protected from any ingress of water or loss of runoff to prevent environmental issues. The warehouse is a concrete, leak-proof building and truck off-loading occurs via an efficient tipper or dump system in the warehouse. Typically concentrate arrives at SBT over three- to four-week period in advance of a ship's arrival. Ships typically berth, load and depart within a 24- to 30-hour period once every three weeks. Concentrate is typically loaded into a ship within three to six weeks from when it is produced at a mine. Ownership of ore concentrate, and the care and control of the concentrate, typically changes from the ore producer (e.g., Skeena Resources) to a concentrate buyer or smelter once loaded into a ship at SBT (considered Free On Board typically at the SBT). Additional information will be gathered to inform the EAC Application preparation.

Current (i.e., July 2022) volumes of ore concentrate shipping and scenarios is based on discussions with SBT; the analysis that will form the basis for the EAC Application analysis will be informed by future discussions. Care and control of the concentrate from mine site to Port of Stewart will likely remain with Skeena Resources given the anticipated use of an experienced third-party concentrate shipping contractor to the Port. Trucking contractors will be required to have insurance and emergency response plans to address the nature of the cargo hauled.

4.1.1.3 Accommodation

The Eskay Creek Mine site has existing camp facilities from the historical mine site and from additional facilities (i.e., temporary camps at 58 and 59 km) that were installed in 2020. These existing capabilities include the following (see Figure 4.1-1):

- dormitory building at the existing Eskay Creek Mine site (constructed prior to 2008, currently used as Administration building), with the majority of the dormitory modules removed in 2020 and the balance of rooms repurposed as offices, training room, water sample prep, health and safety, and medical facilities;
- 120-person temporary camp at km 59 (at the existing Eskay Creek Mine site) with generators, incinerator, potable water treatment plant and sewage treatment plant;
- 29-person skid temporary camp at km 58;
- 78-person temporary camp at km 58; and
- 13-person skid camp unassembled and stored at the North Spoils laydown area (off-site, at the same location as the North Spoils Construction/Early Operations camp described below).

These facilities can support approximately 230 staff and will be used to support the construction of the Project; they will be decommissioned early in the Operations phase.

Two additional camps will be required for the Project:

- Construction/Early Operations Camp situated at the North Spoils area adjacent to km 37 of the Eskay Creek Mine Access Road (approximately 20 km from the mine site). This camp will host 300 rooms and be built on an existing disturbed laydown area early in the Construction phase. The camp will be utilized until Year 4 of Operations, at which time

the Permanent Camp at the mine site will provide all required accommodations. The Construction/Early Operations Camp will require separate permits from the mine site for camp, water, sewage, and utilities and will be decommissioned mid-way through the mine life. This camp is being considered as a potential location for the Permanent Camp. This location plus three other locations around the mine site are being considered.

- The Permanent Camp will be situated at the Process Plant area and will be integrated into the utilities infrastructure at the mine site. Alternate locations for the Permanent Camp are under investigation in 2022 within several kilometres of the mine and within Skeena Resources' permitted mine area along the Eskay Creek Mine Access Road and Coulter Creek Road (two of these locations are depicted in Figure 4.1-1, the third is at the North Spoils area described above). The alternate locations will be considered in the Alternatives Assessment and may require separate infrastructure (water, sewer, power) if situated away from the Process Plant area. The Permanent Camp will host 300 rooms. This camp will be built in Year 3 of Operations and persist throughout the mine life to the Closure phase and then be decommissioned.

4.1.1.4 Power

Power for the Project will rely on the existing hydroelectric power grid nearby, requiring construction of a new 69 kV transmission line and connection to a new substation located 2 km past the existing Volcano Creek hydroelectric facility. The substation will draw power from the existing 287 kV transmission line fed by the Volcano Creek, McLymont Creek, and Forrest Kerr hydroelectric facilities. The new 20 km transmission line to the Eskay Creek Mine site will be constructed alongside the existing Eskay Creek Mine Access Road (Figure 4.1-2). Environmental and engineering studies are ongoing for the transmission line route. Partial clearing of the tenured route as part of the preparatory work for the Technical Sample will prepare the right-of-way.

4.1.2 Open Pit Mine Development

The North Pit will be developed in several phases proceeding from the south end (i.e., the location of the Technical Sample quarries and ore pit) and extending northward through Tom MacKay Creek at the end of mine life. The South Pit will be developed in one phase from Year 6 to Year 9 (Figure 4.1-1). The North Pit development will be deepest at its most northerly section towards the end of the mine life and will extend across the non-fish-bearing Tom MacKay Creek. Construction of a water diversion tunnel for the creek will be required early in the mine life; the conceptual design for this tunnel is complete.

The North Pit intersects a portion of the existing underground workings along its northern half within the pit shell, which will be captured as the pit develops deeper in the last few years of mine life. Best management practices for advancing open pit mining operations through existing underground voids will be incorporated into the development of a mine plan. Backfilling mined-out stopes and drifts will provide a measure of integrity relative to voids. Many of the stopes in the underground mine were backfilled with a cement/gravel mixture in Operations, although some infrastructure (e.g., cables, piping, drill casing) may also be encountered. Careful surveying, probe drilling, and mapping of historic developments will be key to safely developing the open pit through the underground, particularly where drifts were not backfilled. Standard operating procedures (SOPs) will be developed with consultation of qualified professionals.

Figure 4.1-4 shows a current schematic of the Project to develop the resources defined along the North Pit margin under and across Tom MacKay Creek. The proposed pit extents will be refined based on additional resource modelling with updated pit shells, milling rates in the mine plan, and geotechnical investigations. The current design for the pits has the following approximate dimensions:

- **North Pit:** 1,640 m by 800 m, with a depth of 225 m below topography; and
- **South Pit:** 520 m by 235 m with a depth of 95 m below topography.

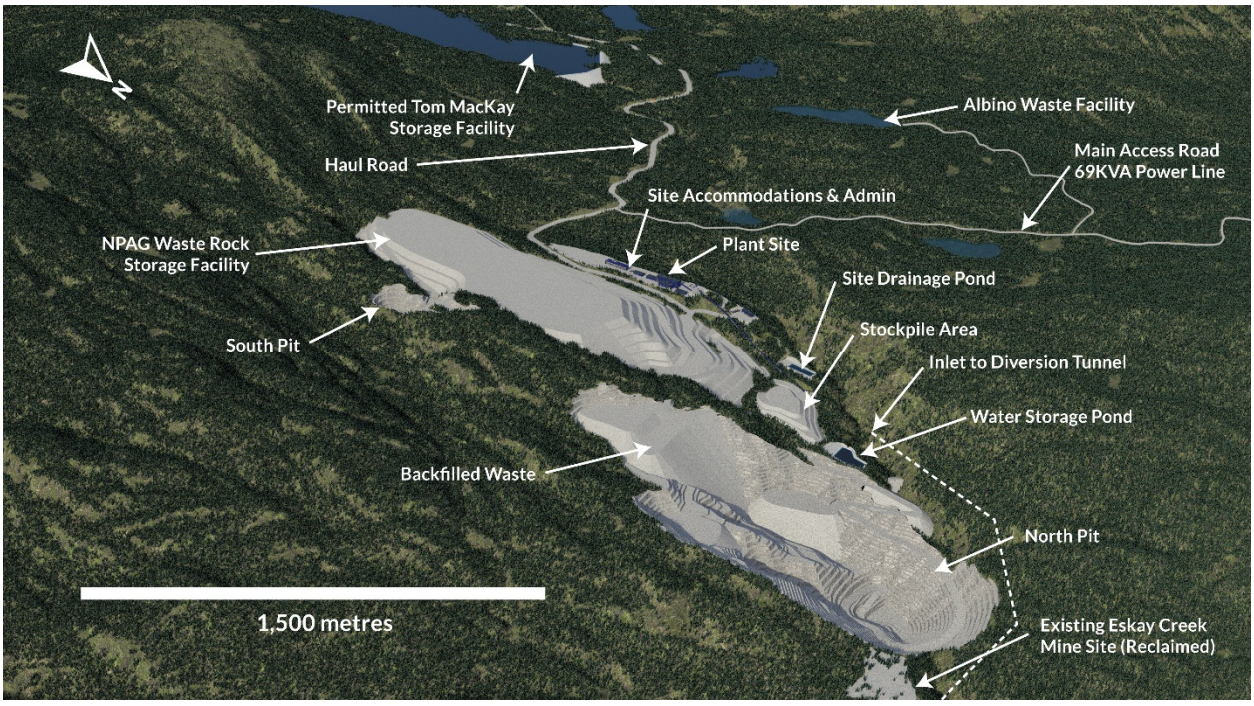


Figure 4.1-4 Schematic Layout for Eskay Creek Revitalization Project (from Pre-feasibility Study)

Ore from the pits will be trucked to the primary crusher, located to the west of the North Pit and north of the WRSF (Figures 4.1-1 and 4.1-4). Ore will be stockpiled by the primary crusher (to allow blending), transported to the crusher, crushed, and then transported by an overland conveyor over approximately 0.5 km to the process plant (Section 4.1.3.1), located west of the WRSF.

During the later years of mine life, when the northern and deepest section of the North Pit is excavated, NPAG waste rock will be deposited around the south margins of the North Pit as an In-Pit WRSF, and will also be used to cover the pit walls to create stable landforms for Closure.

Pit water management will include pit dewatering during the Operations phase, and snow and runoff management via control structures, including sumps and ditches, for both Operations and Closure phases. At closure, water will collect in the mined-out North Pit to form a pond (i.e., pit lake) and inundate the deepest section of the pit walls, underlying portions remaining of the former underground mine, and the tunnel diversion, will be managed as long as required. Long-term water management strategies will be developed during the design phase for post-closure water

quality and quantity management across the site. Water quality modelling of the pit lake is considered as part of Section 4.1.5.

4.1.3 Processing Facilities and Expansion of Tom MacKay Storage Facility

4.1.3.1 Process Plant

Skeena Resources selected the preferred process plant location based on trade-off studies at the PFS stage. The process plant will be located adjacent to the shops, warehouse, permanent camp, and new administration buildings (process flow chart in Figure 4.1-3). The plant will process ore at rates of 3.0 Mt/year to 3.7 Mt/year for the 9-year mine life with average head grade of 3.2 g/t of gold and 94 g/t of silver. The process plant is designed to operate two shifts per day, 365 days per year, with an overall plant availability of 92%. The process plant feed will be supplied from the Eskay Creek open pit mine and the process plant will produce gold concentrate to be sold to refineries.

The process plant relies upon conventional milling of ore and flotation processing without the use of cyanide. The process components listed below are illustrated in Figure 4.1-3 and briefly described below:

- single stage crushing circuit (jaw), fed from the open pit mine;
- coarse ore stockpile fed by an overland conveyor from primary jaw crusher with a reclaim system to convey crushed ore to the primary grinding circuit;
- primary grinding circuit including a semi-autogenous grind (SAG) mill, pebble crusher (installed at Year 4), and ball mill in closed circuit with hydrocyclones;
- flotation circuit involving conventional concentrate regrind, cleaning, hydrocycloning and separation of an ore concentrate;
- concentrate thickening, filtration, drying, and storage;
- concentrate load-out by way of front-end loader filling concentrate transportation;
- pumping of water from TMSF for use in the process circuit; and
- final tailings pumping to the TMSF.

The primary grinding circuit for Year 1 to Year 4 will consist of a SAG mill and ball mill in a closed circuit with classifying cyclones. The ore becomes harder and more competent after the first four years of operation, and hence a pebble crusher will be installed into the primary grinding circuit at the end of Year 4 and will start operating in Year 5. The primary grinding circuit is designed for a product size of 80% (P80) of 100 µm. The SAG mill will be driven by a single 3.8 MW variable speed motor system, and the ball mill will be driven by a 4.9 MW fixed speed motor system. Ore will be ground by steel balls added into the SAG mill and ball mill to maintain grinding efficiency.

The coarse ore will be ground as a slurry in the SAG mill, and following discharge, the oversize material will be reground in the pebble crusher (after year 5) and SAG mill, following which all undersize material is further ground in the ball mill, to achieve the ground ore particle size suitable for the flotation circuit. Process water additions and cyclones will ensure optimum slurry densities throughout. Trash and broken mill balls will be removed by screening to a trash bin.

Maintenance activities in the grinding circuit area will be serviced by the mill area crane, which will be used for ball mill charging duties and maintenance activities. Spillages in the grinding and classification area will be pumped by the mill area sump pump into the cyclone feed pump box.

The ground ore slurry leaving the grinding circuit is conveyed to the flotation circuit. The flotation circuit is designed to produce a finely ground ore concentrate that contains recoverable economic minerals, while that portion of the ground ore devoid of recoverable economic minerals (i.e., tailings) is discharged to the TMSF. Flotation is a solid-liquid separation technique wherein the pulped ore is combined with gas (usually air) bubbles and reagents to float the higher density economic mineral bearing particles to the surface of the liquid-ore suspension whereupon the economic minerals are then separated and recovered.

The flotation circuit will consist of roughers, scavengers, fines roughers, cleaners, and fines cleaners flotation, along with regrinding of rougher concentrate, slimes classification of rougher tailings and secondary grinding prior to scavenger flotation. The equipment is designed to successively recover and separate out economic minerals that may not have been recovered in initial stages of the flotation circuit. This may require regrinding of larger mineral particles to separate economic minerals from gangue (un-mineralized rock) and passing through the flotation circuit again. The regrind mill will target a discharge size P80 of 15 µm, the slimes classification overflow will target a size P80 of 20 µm, and the secondary regrinding circuit will target a final discharge P80 of 30 µm.

A rougher concentrate is produced at the first stage of the flotation circuit. The initial rougher concentrate is normally subjected to further stages of flotation to reject more of the undesirable minerals that also reported to the froth, in a process known as cleaning. Multiple stage cleaner flotation cells (cleaners for reground ore and slimes) are used to reject more of the undesirable minerals that also reported to the froth, and further concentrate economic minerals. The final product of the cleaner stages results in concentrates that are combined in a pumpbox prior to being sent to the concentrate thickener. Concentrate from the concentrate thickener will be moved through a surge tank to be filtered and dried prior to stockpiling and shipment off-site to Stewart.

Reagents used in the flotation circuit will include potassium amyl xanthate (PAX; collector), copper sulphate (promoter), methyl isobutyl carbinol (MIBC; frother), and flocculant for thickening.

The process plant will generate tailings, which will be pumped through a pipeline to the Tom MacKay Storage Facility, described in the following section.

4.1.3.2 Tom MacKay Storage Facility

The existing TMSF covers 84.4 ha and is approximately 3.8 km long and 0.5 km wide (Figure 4.1-1, Photos 4.1-1 and 4.1-2). The TMSF waterbody ranges in depth from 10 m at the south end to 42 m in the north–central section of the lake. The existing volume of the TMSF is 12.9 million cubic metres (Mm^3) at elevation 1,079 masl, which is the current outlet elevation. The existing TMSF was used from 2001 to 2008 and contains approximately 0.41 Mm^3 of tailings (i.e., about 11% of the existing waterbody volume). The TMSF in its current configuration (i.e., without the Project's proposed embankments) has capacity to contain an additional 8.1 Mm^3 of tailings (Ausenco 2019).

Photo 4.1-1 **Tom MacKay Storage Facility, looking south from location of proposed north embankment (middle embankment).**

Photo 4.1-2 **Tom MacKay Storage Facility, looking at the south half of the existing facility with natural containment from surrounding ridges. Harrymel Creek is situated in the background on the right at the base of the mountain slopes (just out of view), while the Unuk River Valley is on the background left. The fourth TMSF embankment will be situated at the south end just past the end of the existing waterbody in the photo.**

The TMSF is a designated Tailings Impoundment Area (TIA) under Schedule 2 of the federal MDMER Regulations of the *Fisheries Act* and is also provincially permitted under the *Mines Act* and *Environmental Management Act* for tailings and waste rock storage (see Section 3.4). Discussions with federal agencies in July 2021 identified that expansion of the existing TMSF onto non-fish-bearing waterbodies (i.e., inflowing small tributaries) immediately adjacent to the existing waterbody footprint will not trigger the need for amendment of the existing designation as a TIA. There is an existing permitted discharge point (Site TM-1) into Tom MacKay Creek at the north end of the TMSF which is monitored routinely since 1994 for water quality and quantity (Figure 4.1-1).

Table 4.1-5 presents Skeena Resources' estimates for waste storage in the TMSF by the end of mine life based on FS modelling and refinements in waste classification and handling criteria. Additional refinements in waste quantities will occur as pit development models and geotechnical pit wall criteria are updated with FS work.

Table 4.1-5 Total Tonnage of Waste Storage in TMSF, End of Mine Life

Waste Rock (Mt)	Tailings (Mt)	Total (Mt)
84.0	26.4	110.4

No embankments exist on the TMSF presently (Photos 4.1-1 and 4.1-2), but three starter embankments at the north end will be constructed to expand the TMSF. New construction will consist of three embankments at the north end, which will merge into one north embankment at by end of the mine life through two raises in height, and one south embankment of clay core design at the south end of the TMSF (Figure 4.1-1). The TMSF footprint will be approximately 225 ha by end of mine life (Figure 4.1-1). Preliminary design considerations are discussed below, and additional geotechnical site investigations will occur in 2022 to inform foundation, soil and groundwater conditions near the impoundment locations for subsequent detailed design.

The embankments at the Project will be designed in accordance with Canadian Dam Association (CDA) *Dam Safety Guidelines* (CDA 2013), which also provides guidelines to classify embankments and set design criteria, in terms of the consequence of failure. Based on the classification criteria in Health, Safety and Reclamation Code for Mines in British Columbia guidance document (BC Ministry of Energy and Mine 2016, Section 3.4) and CDA's Dam Safety Guidelines for potential downstream consequences to natural resources (i.e., fish and fish habitat in Unuk River), the classification category is 'very high' for the TMSF impoundments. No human habitation exists downstream of the TMSF along Tom MacKay and Ketchum creeks, and there are no known high value archaeological features. However, the environmental values of fish and fish habitat, including spawning and rearing habitat in the Unuk River, resulted in the 'very high' classification. This classification influences the geotechnical and hydrological factors which must be considered in the design and reflects the consideration of known downstream values, particularly environmental ones.

The overall design objective of the TMSF is to contain waste rock and tailings and manage water to protect the regional groundwater and source water resources during operations and over the long-term (post-closure). These embankments will impound water to create an expanded TMSF footprint and higher water elevation to cover tails and PAG waste rock. The TMSF embankments are designed to be founded on bedrock and the embankment structures will have low permeability characteristics and components to limit seepage.

TMSF embankment construction will be staged such that major raises in embankment elevation occur at three stages of the mine life (initial construction of the north embankments, early operations, and mid-mine life operations) followed by work during the Closure phase for final capping and grading of embankments. The starter embankments will consist of an upstream low permeability layer, a transition layer (filter), then the rock shell (NPAG waste rock). Both the low permeability layers and transition zones will be keyed into bedrock. A geomembrane liner will be installed upstream over the low permeability layer. Small diameter riprap will cover the geomembrane to protect it from the elements. Based on the 2021 geotechnical program, grouting of the bedrock may be added if the bedrock is found to be highly fractured in the geomembrane anchor area, low permeability layer and filter areas. The final buildout by end of mine life will consist of one large embankment on the north end of TMSF and one south embankment.

The north embankments will be built with downstream embankment construction methods including an upstream liner and successive expansion of fill in a downstream direction to increase the embankment crest elevation and total width (Figure 4.1-5). NPAG waste rock from the open pit will be utilized as the primary construction material along with speciality materials as needed (membranes, gravel, filter layers, clay, etc.). The south embankment will be different construction technique as it will have water on both sides, retain tailings on the north side and will be a clay core design overlain with filter material and NPAG waste rock on each face. The south embankment will have water on both sides of the embankment due to the upper portions of the Tom MacKay Creek watershed draining to the toe of the embankment. Design details for the south embankment are being advanced based on planned geotechnical investigation of foundation conditions in 2022. To assist with water quality management at the north end of the TMSF, a floating turbidity fence will be installed in the open water of the TMSF between the north embankment faces and the submerged waste rock to control the passage of fine-grained suspended solids into the water during waste rock dumping. Phase 1 of the TMSF construction involves building three small starter embankments on the north end at an elevation of 1,092 masl during the construction years. The starter embankments will increase the water elevation of the TMSF from 1,079 masl to 1,089 masl. Phase 2 of the TMSF embankment construction will increase the embankment height to 1,107 masl and add the starter portion of the south embankment. The second phase of the embankment raise will increase the water elevation from 1,089 masl to 1,104 masl. Phase 3 of the TMSF construction will increase the north and south embankments to an elevation of 1,122 masl. The final embankment raise will increase the water level from 1,104 masl to 1,118 masl by end of operations. The water level will be at 1,118 masl by end of operations and increase to 1,120 masl at closure to maintain the 5 m water cover with final embankment crest elevation of 1,122 masl. A spillway will be in place at 1,120 masl to control the water elevation at closure and will discharge at the natural hydrograph flows during the post-closure period (i.e., higher in spring runoff, lower discharge in summer and winter per natural runoff cycle).

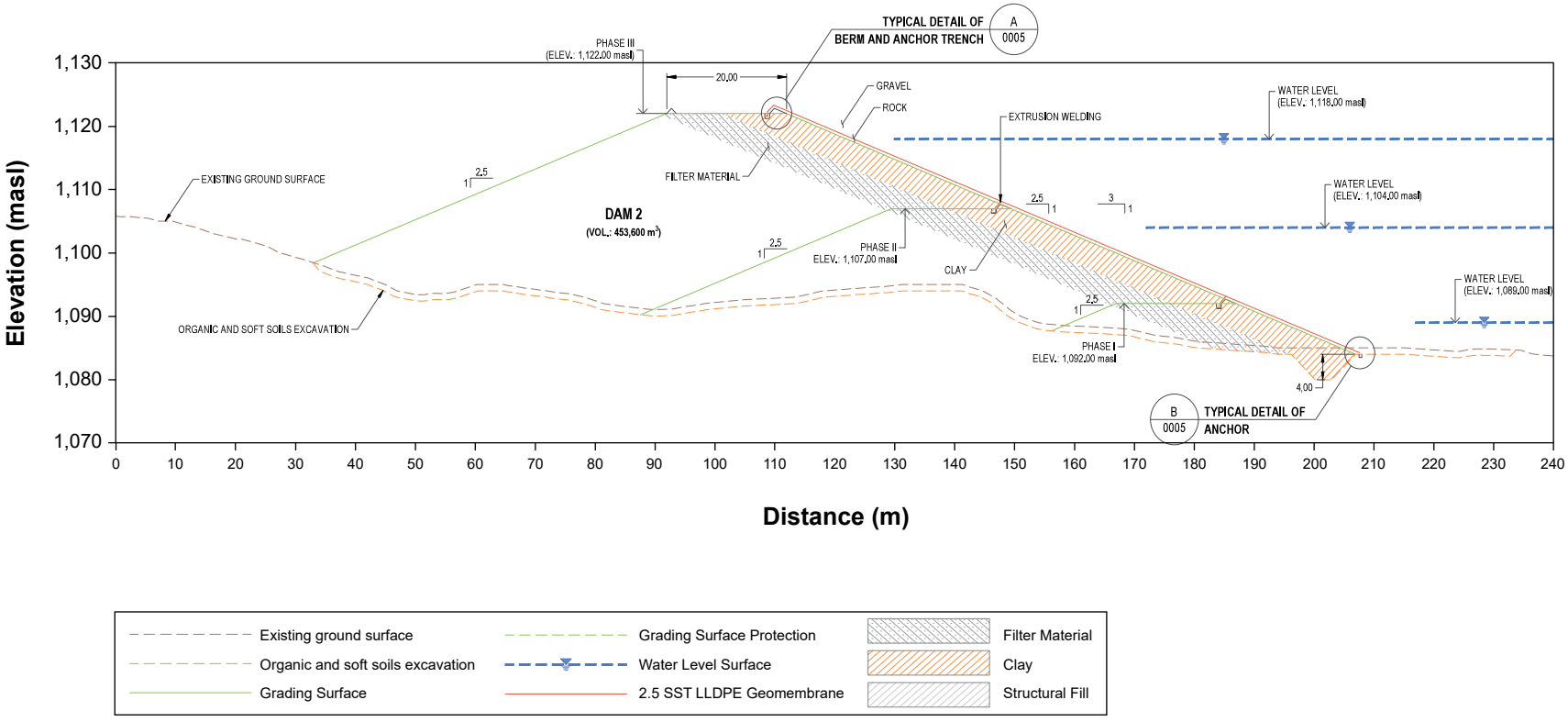


Figure 4.1-5: Typical North Embankment Cross-section

In operations, the southern third of the TMSF (upstream end between submerged waste rock causeways and South Embankment) will be used to deposit slurry tailings and the northern two -thirds of the TMSF (downstream end) to deposit PAG waste rock. PAG waste rock deposition will use a causeway approach in two steps, depositing waste across the waterbody from west to east and then excavating the aerial portion and depositing immediately adjacent but below the water level. The causeways will be constructed 2 m above the water surface with a crest width of 65 m to provide sufficient operating area for haul trucks, dozers, and a dragline excavator.

Once a causeway has advanced across the TMSF from west to near the east shoreline with about 2 m of freeboard above the water level, the next causeway will be constructed immediately adjacent. During the construction of the adjacent causeway, a dozer and dragline excavator will excavate the upper 5 m of the completed causeway and submerge (i.e., place) the waste rock below the water's surface to minimize sediment migration toward the north due to excavation operations. This will ensure waste rock which forms the aerial portion of the completed causeway is excavated and placed below the water surface within a short amount of time to minimize potential for ARD. Once the submerging work is done on the completed causeway, the final height of the completed causeway will be about 3 m below the operating level of the water surface.

Phase 1 of the TMSF involves placing three small embankments on the north end of the facility at an elevation of 1,092 masl. This phase will be completed during the construction years. Phase 2 of the TMSF will increase the embankment height to 1,107 masl and add the south embankment. Phase 3 of the TMSF will increase the north and south embankments to an elevation of 1,122 masl.

Water management options are currently being evaluated as part of water management planning. The deposited waste rock/tailings will reach a maximum elevation of 1,115 masl at the end of the mine life, with 5 m of water cover and final water elevation of 1,120 masl, while maintaining a minimum freeboard of 2 m during the design storm event, below the embankment crest of 1,122 masl.

For closure, additional NPAG waste rock will be placed on the upstream side of the embankment to provide additional long-term protection of the low permeability layer and filter zones. Closure plans for the TMSF are being developed by the Closure and Reclamation Planning Oversight Team (CRPOT). TMSF closure will consist of removing the tailings discharge line and barge, process water pipeline, the pit dewatering pipeline, sealing the through-dam penstock, and the reclaim of any road not required for post-closure monitoring. The tailings and PAG waste rock will remain subaqueous under a water cover. Surface runoff from the TMSF watershed will flow through the permanent spillway. The spillway design elevation is based on a requirement to maintain a minimum 5 m water cover over the waste materials. The design level for the spillway invert is 1,120.0 masl.

Tailings will be in the form of a slurry in the process plant and transported to the TMSF by way of a pipeline. The tailings pipeline and water return line will be constructed within the road alignment of the proposed haul road to the TMSF. The tailings pipeline will continue from the shoreline to a floating barge on the TMSF. The pipeline will extend below the water surface close to the bottom of the TMSF to maximize settling and minimize mixing of fine particles into the upper water column. A flocculant will be added to the tailings to facilitate settling. The barge will be moved around on the surface of the facility to evenly distribute the tailings at the southern third of the TMSF. The PAG waste rock will be trucked and placed in lifts as causeways across the north two -thirds of the TMSF impoundment, then submerged and maintained in a flooded state over the long-term.

4.1.4 Waste Rock Storage and Waste Rock Storage Facilities

The Project will include two waste rock storage facilities for NPAG: the WRSF and the In-Pit WRSF. The WRSF will be a valley fill rock dump located in the Argillite Creek drainage adjacent to the western extent of the North and South pits. The In-Pit WRSF will store waste rock that is generated from the north section of the North Pit later in the mine life, which is then backfilled into the south portion of the North Pit, to fill available space. The In-Pit WRSF does not add additional disturbance to the Project. Skeena Resources will investigate storage within the pit to help cover PAG wall rock as a mitigation approach for potential long-term ML/ARD risks.

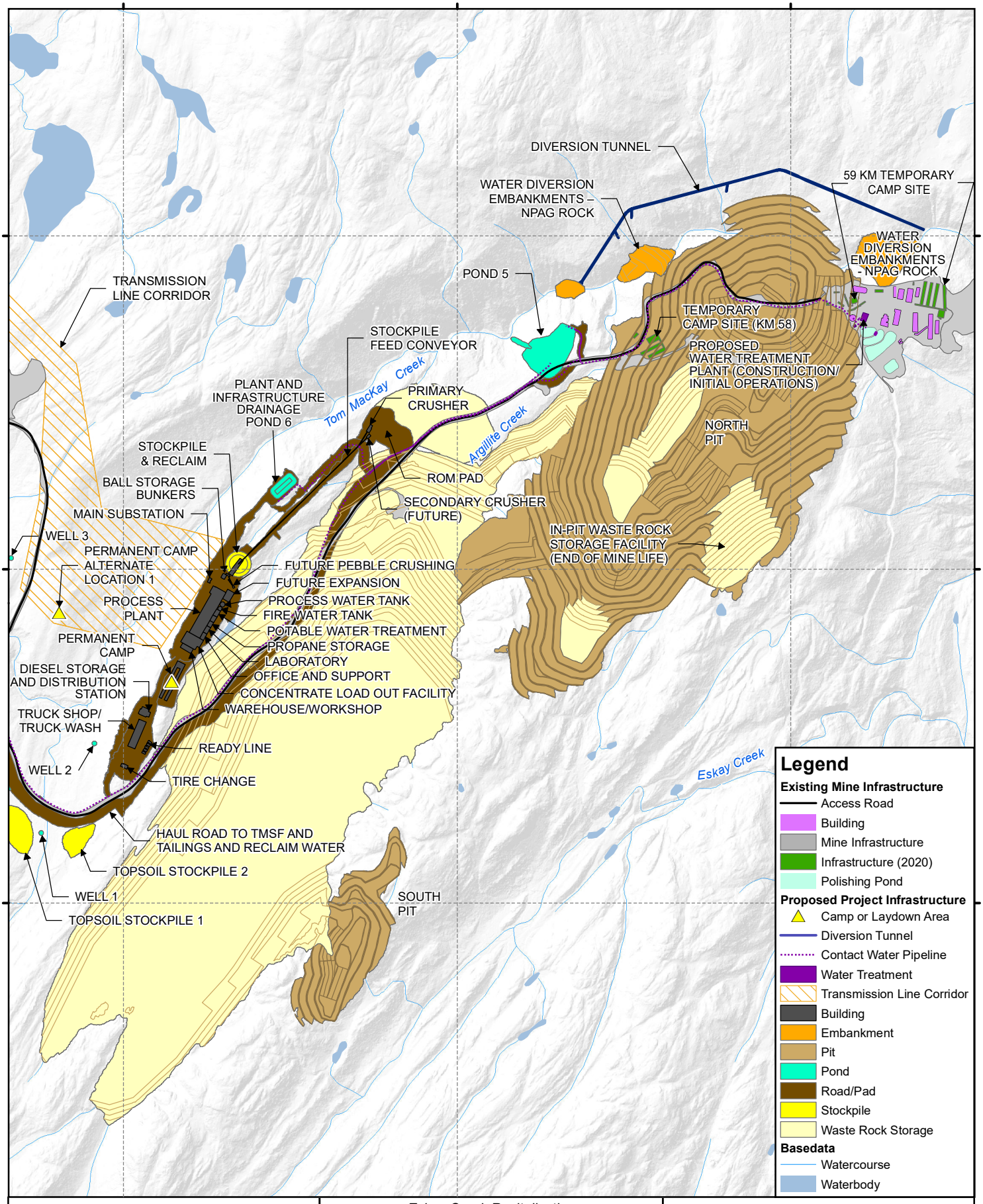
No changes to the footprint of the WRSF have occurred since the IPD, but the quantities of NPAG to store have been refined based on updated geochemical classification criteria and waste management approach. An updated waste rock classification and waste management approach classified an additional 28 million tons of waste rock as PAG for storage in the TMSF. The WRSF will cover an approximate area of 100 ha, with potential to store between 130 and 150 million tonnes of NPAG waste rock; 133 Mt of NPAG material will be stored at this facility based on the current classification system being used for the Project.

NPAG waste rock generated from the pits will be placed into the WRSF immediately west of the North Pit, and, later in the mine life, along the southern portions of the North Pit as an In-Pit WRSF (Figures 4.1-1, 4.1-3, 4.1-6). NPAG waste rock will also be utilized for fill and to create containment berms along Tom MacKay Creek to separate the North Pit from the stream channel sections. The PAG waste rock will be placed subaqueously in the TMSF to prevent oxidation.

Currently the FS reclamation plan has the pits being backfilled with the source material from the NPAG WRSF. Progressive reclamation during operations will take into account the final closure objectives. Water management around and through the WRSF will consist of diversion ditches and coarse road underdrains to convey Argillite Creek water from the upslope portion of the watershed past the WRSF. A rock drain that goes underneath the WRSF is considered non-contact water and will flow into Tom MacKay Creek; this may be considered contact water if water quality modelling indicates so. The perimeter ditches are considered contact and will flow into Pond 5.

Due to the steepness of the terrain, it is not possible to construct non-contact water diversions in the southeast section of the WRSF and a combination of contact/non-contact water will likely report to Pond 5.

Concurrent with operations and at closure, the WRSF will be contoured for stability, landscape aesthetics and reclamation. Salvaged topsoil and/or growing medium will be added, and the facility revegetated with native species. The details of closure and reclamation will be developed through the Project design and permitting process.



Skeena Resources Ltd.
Date: 27-Jul-2022
Figure: 4.1-6
Author: Michael.Stead
Filename: ESK-15-050b

SKEENA RESOURCES

Eskay Creek Revitalization

Figure 4.1-6: Proposed Infrastructure, Waste Rock Storage Facility and Pits

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:15,000
Coord. System: NAD 1983 UTM Zone 9N
0 0.15 0.3 0.45 0.6
Kilometers
N

4.1.5 Water Management Facilities and Water Balance

A comprehensive Water Management Plan (WMP) will be included with the application based on the conceptual water balance represented in Figure 4.1-7 (updated since IPD). The following section provides an overview of the conceptual water management plan and details its goals and approaches.

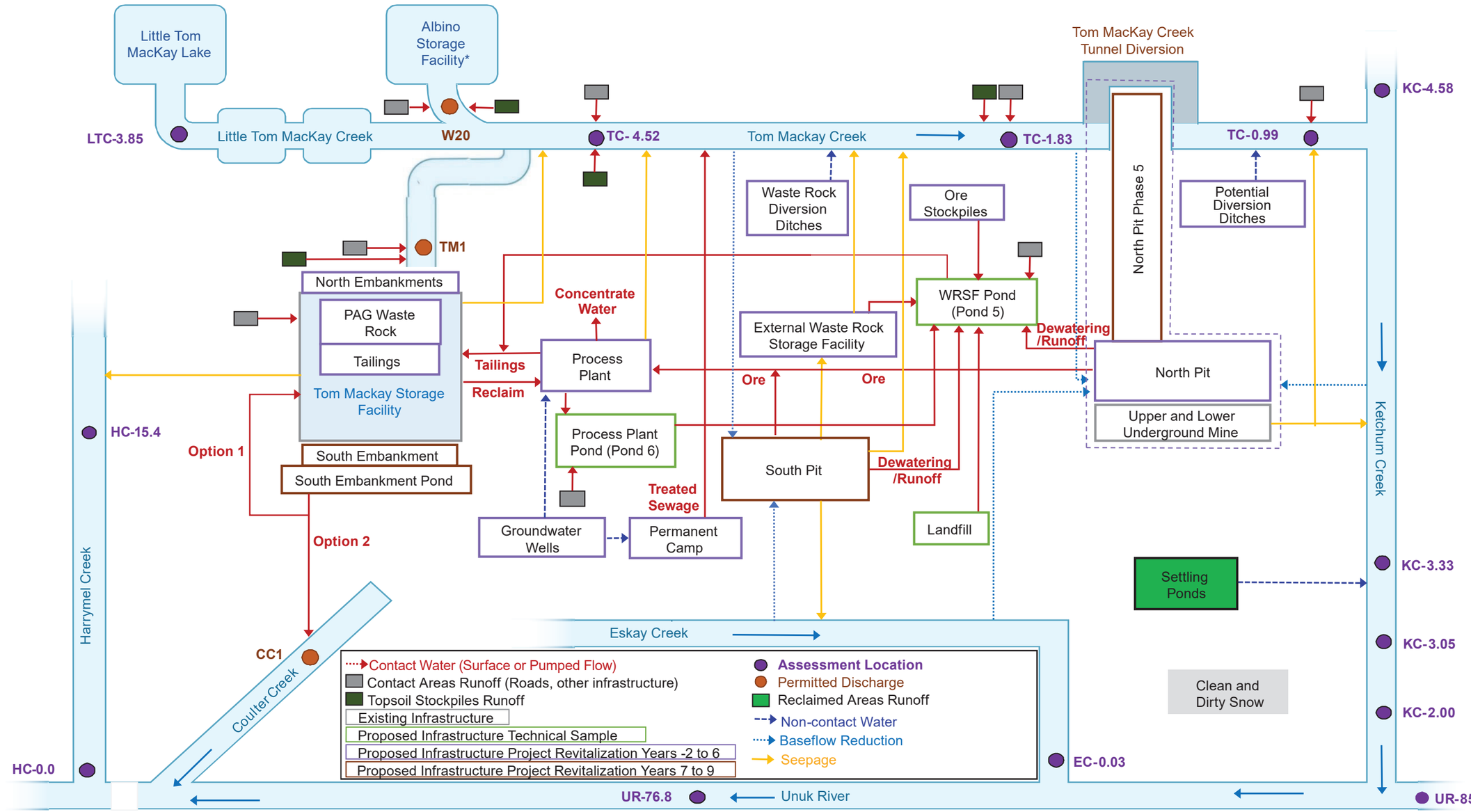
The Project's water management facilities (represented on Figure 4.1-1, 4.1-2, 4.1-3) will include:

- use of berms, culverts, diversion channels and tunnel, and creek crossings to divert un-impacted non-contact water around disturbed areas to natural drainages;
- collection ditches and sedimentation ponds to manage sediment laden runoff from exposed soils (construction areas, laydowns and staging areas, roads, soil stockpiles, etc.);
- collection ditches, sumps, pipes, pumps and collection ponds (Figure 3.3-1) to collect mine contact water which may require treatment or management;
- a pit dewatering system including perimeter groundwater wells to limit recharge to the pit and depressurize pit walls;
- routing of contact water from collection ponds and the open pits to the mill for use as process water/tailings discharge to the TMSF, subject to modelling outcomes;
- continued use of existing mine water management system including:
    - use of permitted discharge points for release of existing mine contact water;
    - use of existing/permitted water treatment capability at the mine site to manage underground mine water discharge quality;
    - continued use and management of permitted TMSF water impoundment and permitted discharge locations at the outlet of the facility; and
    - continued management of permitted ASF water impoundments and permitted discharge location at the outlet of the facility;
- addition of a new liquid effluent discharge location from a camp facility to Tom MacKay Creek for treated sewage (if not directed out to the TMSF with other contact water); and
- reuse of process plant water.

Strategies for water management include collecting surface water from disturbed areas to:

- mitigate risks of soil erosion from disturbed areas affecting surface water quality;
- recycle contact water whenever possible;
- minimize exposure between contact water and PAG surfaces;
- manage snow dumps and runoff to avoid impacts onto adjacent watercourses;
- treat mine contact water as required; and
- monitor water quality to meet discharge standards prior to discharge.

REVITALIZATION PROJECT OPERATIONS (Year 7 to Year 9) – Option 1



*Note: The Albino Storage Facility is not part of the development of the Technical Sample or Revitalization Project; it is existing infrastructure of the historic Eskay Creek Mine.

Figure 4.1-7 Conceptual Water Balance

As Skeena Resources continues to develop the proposed draft Hybrid AIR and the EAC Application, Skeena will discuss with THREAT the rationale for any treatment technologies proposed, should treatment be required, and how Tahltan interests, Tahltan Sustainability/Risk Criteria (e.g., avoidance of long-term treatment) and information requirements will be met.

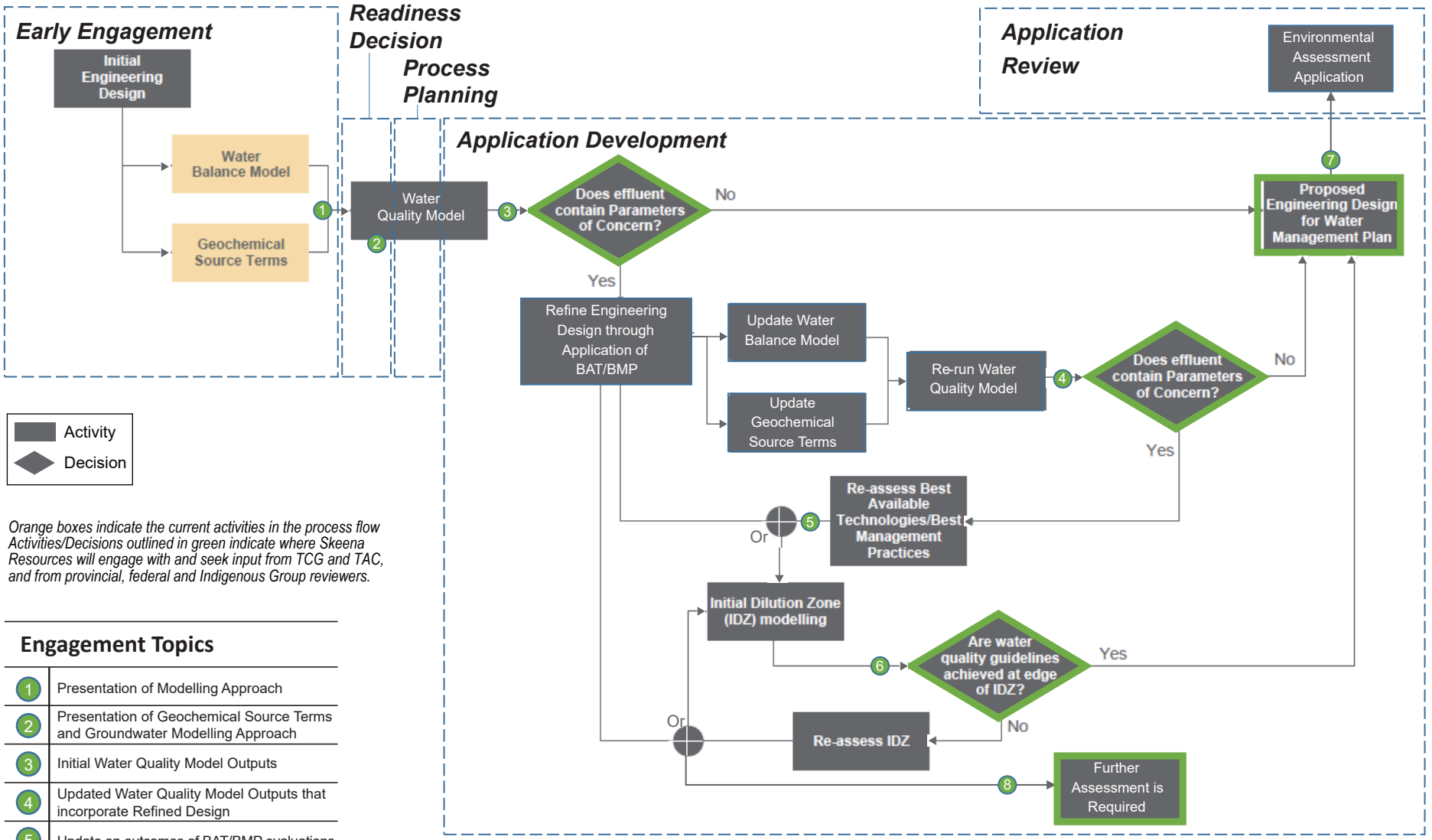
Skeena Resources' water management planning is an iterative process of mitigation by design, as shown in Figures 4.1-8 and 4.1-9, and will solicit input and feedback from TAC and water subgroups during the next phases of the assessment process as modelling progresses. Preliminary engineering designs are run through water balance and water quality models to identify parameters of concern. Based on an understanding of the model outputs, the designs are modified, where possible. This first includes optimization through evaluation of factors such as: infrastructure sizing, source control measures, timing of flow releases, and other best management practices. The models are then re-run with the updated design to screen for parameters of concern. Once such optimizations are exhausted (multiple iterations may be required), if parameters of concern continue to be predicted, then water treatment or initial dilution zone studies will be considered.

While water quality model predictions are not yet available, based on current understanding of the site, current geochemical characterization, and water management challenges common to mining operations, the types of water quality parameters that may be identified as parameters of concern include:

- suspended solids (from deposition of tailings and waste rock in TMSF);
- nitrates (from blasting residues);
- antimony (historical evidence from ASF); and
- dissolved metals such as cadmium and zinc (current management of underground water at D7).

These parameters can all be managed using well-understood mitigation and treatment methods (e.g., coagulation, breakpoint chlorination, flocculation, settling and filtration).

Skeena Resources will also engage provincial authorities (e.g., EMLI, ENV) as well as TCG, other members of the TAC, and Indigenous Nations, at key decision points in the water management planning process (see diamond shapes in Figure 4.1-8) – especially in relation to the identification and selection of any planned water treatment technologies. As shown in Figure 4.1-8, Skeena Resources anticipates multiple points of engagement at key points during the water management planning and decision-making process. The majority of this process will be worked through during the Process Planning phase, while key mitigation and water quality outcomes will be assessed during the Application Development phase.



Orange boxes indicate the current activities in the process flow
Activities/Decisions outlined in green indicate where Skeena Resources will engage with and seek input from TCG and TAC, and from provincial, federal and Indigenous Group reviewers.

Engagement Topics

1	Presentation of Modelling Approach
2	Presentation of Geochemical Source Terms and Groundwater Modelling Approach
3	Initial Water Quality Model Outputs
4	Updated Water Quality Model Outputs that incorporate Refined Design
5	Update on outcomes of BAT/BMP evaluations
6	Present Initial IDZ Model Outputs
7	Draft Water Management Plan for Inclusion in EAC Application
8	If necessary, where above process does not result in feasible outcome

Figure 4.1-8: Water Management Planning Decision Making Process

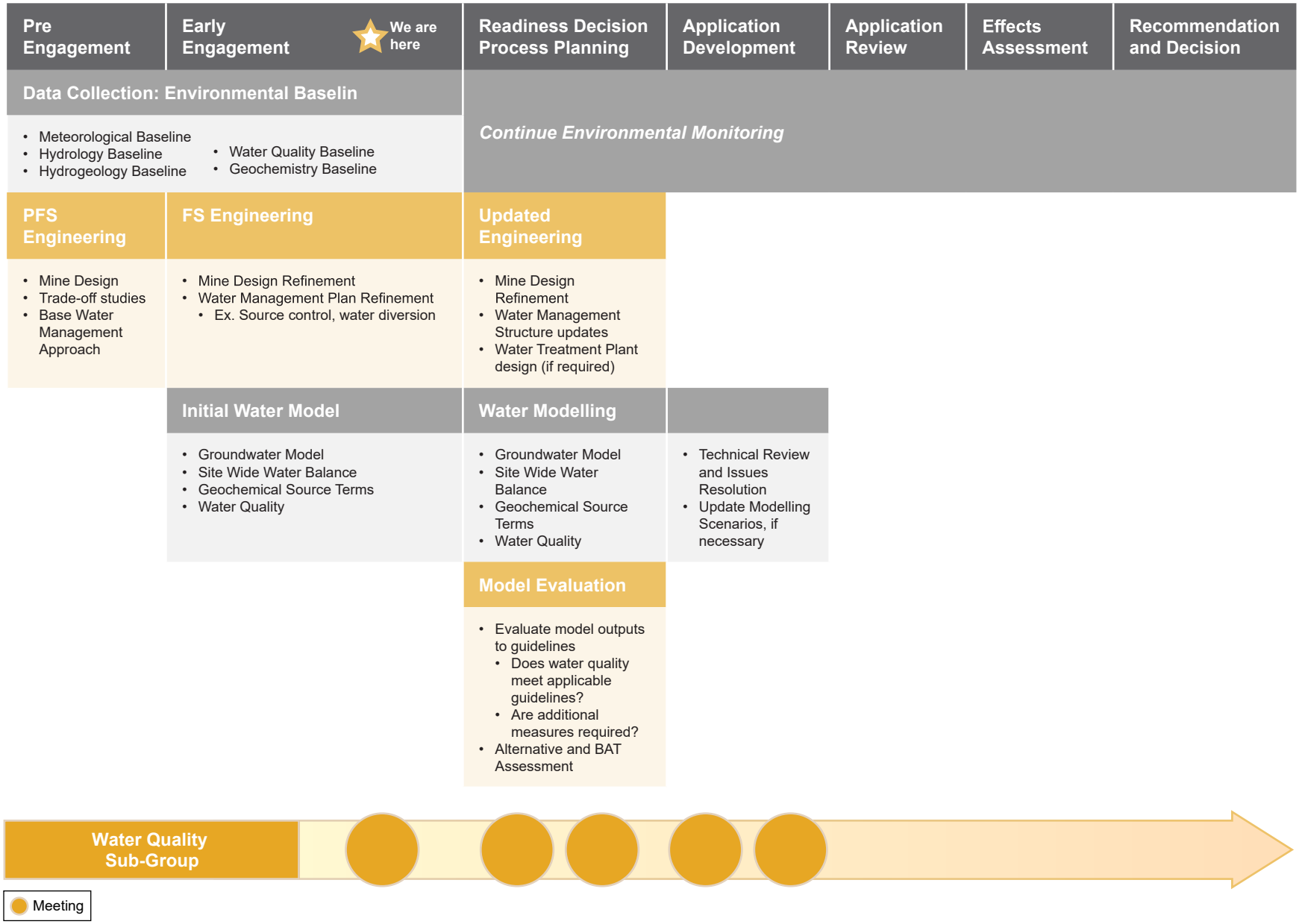


Figure 4.1-9: Eskay Creek Water Development Path

Goals and approaches of the WMP will include:

- engineering designs to manage the physical requirements of collection, movement, and distribution of contact, non-contact and processing/wastewater;
- baseline studies of hydrology, hydrogeology, water quality, meteorology, geochemistry, terrain stability and soils to inform understanding of existing conditions, modelling efforts, and water management decision-making;
- water balance and modelling of surface/groundwater/process water quality and quantity for construction, operations and closure (Figure 4.1-7);
- discharge planning including characterization of existing discharges to the receiving environment, performance history, regulatory requirements, and characterization of proposed discharges in terms of quality, location, and mitigation measures;
- discharge mitigation planning to review water treatment rationale and characterization, impacts within surface and groundwater modelling, effects assessment and Best Available Technology;
- mitigation and monitoring as well as adaptive management approaches;
- regulatory requirements for water management, primarily through water quality interactions with the receiving environment, and mitigation approaches to minimize potential impacts to water quality for construction, operations and closure phases;
- existing and potential water quality mitigation;
- Tahltan Nation sustainability and risk criteria related to water, particularly for operations and closure; and
- geotechnical and geochemical influences on water management, engineering design, and water quality.

Information on the existing mine water treatment system can be found in Section 3.3.

Skeena Resources has also formed a Water Oversight Team: a multi-disciplinary group comprising representatives from Skeena Resources and its consulting team of subject matter experts. The Water Oversight Team is a collaborative forum that is intended to lead to sound decision-making and consistent implementation in the planning and development of water-related components of the Project.

4.1.6 Project Water Use

Preliminary hydrogeological and hydrology studies indicate that water sources within the Project area near the mine site will be adequate to meet the Project's water requirements. Water will be required for ore processing, camp operation and employee use, equipment washing, dust suppression, and fire supply.

Potable water will be supplied from groundwater wells and treated and stored within the potable water tank. Two groundwater wells were drilled in 2021 as shown on Figure 4.1-1. Testing of quality and quantity is ongoing in 2022.

Freshwater requirements for the processing facility (including gland water, makeup water, potable uses, and fire water) are currently estimated at 37 litres per second (L/s) on average. During operations, process water will be reclaimed from the TMSF. In alignment with ESD principles, Skeena Resources will use water conservation technology as part of the detailed Project development.

4.2 Project Phases and Activities

4.2.1 Construction and Operation

The estimated operating mine life is nine years (Table 4.2-1). Construction of the Project is planned to take two years and will include pre-stripping, stockpiling, construction, and commissioning activities. Mining operations will have an estimated total annual production of 3.0 million tonnes per year (Mt/year; equivalent to 8,225 tonnes per day [tpd]) during Years 1 to 5, and increase to 3.7 Mt/year (equivalent to 10,140 tpd) during Years 6 to 9, as a result of a mill expansion in Year 5. The site closure process at the end of the mine life will take approximately three years. Progressive reclamation will start in the latter part of operations and will continue during the closure phase. Monitoring of the closed facility is expected to be a requirement of future permits and licences.

Planning over a two- to three-year period will be concurrent with the environmental assessment regulatory process (2021-2024) preceding Project development and will include completion of engineering studies (i.e., the FS), regulatory engagement, and permitting. Table 4.2-1 summarizes activities of each Project phase.

4.2.2 Closure and Reclamation

Skeena Resources initiated the Closure and Reclamation Planning Oversight Team (CRPOT) in September 2021. The CRPOT is comprised of geochemists, engineers, water modellers, and environmental and reclamation specialists, as well as representatives from THREAT.

The purpose of the CRPOT is to support closure and reclamation of current mine operations, progressive mine reclamation, closure, and post-closure. The current focus of the CRPOT is closure and reclamation planning related to feasibility design, environmental assessment, and permitting. The CRPOT facilitates a pathway for incorporating Tahltan Knowledge and land use objectives, considering Tahltan values, and engaging community.

Skeena Resources hosted seven CRPOT workshops in fall/winter of 2021/2022 and advanced the development of a draft closure and reclamation vision statement, draft land use objectives, discussed the biophysical environment, geochemical and geotechnical design measures, water management, and social transitioning. For the technical topics discussed, the objectives, success criteria, risks and gaps for reclamation and closure planning were developed to structure additional information gathering and engagements in 2022 and 2023 for the H-AIR, design and final DPD. The workshops share historical and new life-of-mine data, regulatory requirements, environmental geochemistry, groundwater, and surface water model information that further advances reclamation and closure design. The workshops supported mutual understanding of closure and reclamation design and how to incorporate and understand Tahltan Sustainability and Risk Criteria.

Table 4.2-1 Updated Summary of Project Activities by Phase

Project Phase	Activities
Construction (2 years)	• Site clearing/grubbing • Stockpiling topsoil and other material suitable for reclamation or construction uses • General earthworks, site levelling, foundations, buried services • Construction and use of haul roads, pre-stripping pit development • Construction of Process Plant, pipelines, crushing/sizing facility, pipelines, power supply, processing • Construction of mine infrastructure facilities, crusher, overland conveyor • Discharge and reclaim pipelines and adjustments to the reclaim barge setup for the Technical Sample • Construction of electrical transmission line, high voltage and medium voltage substations, site medium voltage distribution system • Construction of water management systems, such as drainage ditches, modifications of the modular or mine water treatment plants as needed to support expected discharges, and water collection sumps and pond • Transportation of materials and supplies by third parties to support mine and camp operations • WRSF, including underflow drains • Low grade ore stockpile for process plant feed • Permanent explosives magazine, or use of magazine/storage setup for Technical Sample • Development of camp facilities, administration building, warehousing, assay lab, medic and first aid • Security gate • Use of laydowns, landfill, side roads developed during Technical Sample or creation of new ones • Development of on-site utilities and services, including camp facilities • Commissioning • Infrastructure constructed as part of the Technical Sample (Figure 3.3-1) has been factored into the layout of the Revitalization Project to overlap and reuse.
Operations (9 years)	• Mining the North and South pits, including drilling, blasting and excavation activities • TMSF containment embankment construction and subsequent raises • Transportation of ore to process plant and waste rock to WRSF and TMSF • Mineral processing • Complete plant expansion in Year 5 for throughput increase in Year 6 • Transportation of tailings to TMSF via tailings pipeline and construct embankment raises and spillway • Contact water will be diverted to the process plant to be pumped to the TMSF, or treated to achieve discharge criteria • Transportation of concentrate to Stewart for shipping to overseas smelters • Transportation of materials and supplies to support mine and camp operations • Maintenance activities of infrastructure (e.g., roads and transmission line rights-of-way) • Progressive reclamation of disturbed areas where possible, including optimization of In-Pit WRSF to mitigate potential for ML/ARD from pit walls • Stockpiling topsoil and other material suitable for reclamation or construction uses • Reclamation planning and reporting • Environmental monitoring and implementing EMS

Project Phase	Activities
Reclamation and Closure (3 years)	• Demolition and removal of processing and mine support facilities • Removal and disposal of hazardous wastes/materials • Recontouring landforms for stability and alignment with adjacent undisturbed areas to the extent possible • Sampling and remediating any contaminated soils • Seeding and planting with native species • Deactivation of mine site roads, pipelines and distribution transmission lines at site. Access may be maintained for monitoring purposes. • Removal and reclamation of transmission line from Volcano Creek may occur, should it not be required for long-term power needs at site during the post-closure phase. • Utilization of topsoil and overburden piles to recontour and scarify disturbed areas as appropriate • Placement of cover over the WRSFs • Environmental monitoring • Maintenance of water treatment (if required, pending water quality modelling/mitigation planning) and water management structures to achieve stable long-term drainage and water quality objectives. These features may persist into Post-Closure depending on model outcomes and mitigation approaches to support Project approvals.
Post-Closure (in accordance with permit conditions)	• Environmental monitoring water quality and reclamation success • Engineered inspections for TMSF embankment and WRSFs • Implementation of follow-up measure, maintenance and repairs as required

The existing land use objectives for the Eskay Creek Mine (*Mines Act* Permit M-197) Closure and Reclamation Plan (Barrick 2007) are to:

1. rehabilitate surface disturbances to productive land use similar to prior to mine construction;
2. rehabilitate forest and shrubland wildlife habitat; and
3. achieve similar forest production and similar or greater wildlife productivity over the entire disturbance area.

Skeena Resources will update the closure concepts and land objectives with the CRPOT and stakeholders in fall 2022 to inform Process Planning, EAC Application development, modelling/ effects assessments, mitigation planning, alternatives assessment, and design. Going forward, end land use will simply be described as land use objectives to address Tahltan requirements.

The closure vision statement and land use objectives and approaches are being developed in collaboration with Tahltan Nation representatives. Based on the collaborative work to date, the following are preliminary versions of the draft vision statement, land use objectives, and closure and reclamation approaches to meet these objectives. These statements, objectives and approaches will evolve and may change through the continued workshops and engagements. Skeena Resources will also consider land use objectives identified by TSKLH.

4.2.2.1 Draft Vision Statement

Skeena Resources and THREAT are collaboratively developing a draft vision statement that acknowledges the Project's location on Tahltan land, Tahltan relationships to the land, and the well-being of Tahltan people who continue to work with the land.

The current draft closure and reclamation vision is to collaboratively develop and deliver integrated, responsible, and progressive mine closure and reclamation plans that will guide planning, decisions, and implementation, from mine design to post-closure, to re-establish and maintain a connection to the land for future generations.

The current vision for mine closure and reclamation is to be built on Tahltan Knowledge, community guidance, innovation, and best available technologies. The intent is to limit adverse biophysical, cultural and social impacts and increase community benefits by returning the land to a condition consistent with Tahltan Laws along with Stewardship Principles, in addition to be in alignment with regulatory commitments and associated agreements such as impact benefit agreements.

4.2.2.2 Draft Land Use Objectives

The draft land use objectives, developed to date in collaboration with THREAT, are to:

- return land to Tahltan land use objectives based on community feedback and direction;
- rehabilitate surface areas disturbed by mining-related activities to a self-sustaining land use and biophysical conditions similar to that which occurred prior to mine construction;
- return the land and water to a state that is sustainable, meaning not requiring mitigations and treatment in perpetuity, and that treatment of the land and water in perpetuity to maintain them at near normal levels will not be required;
- re-establish water pathways to a state that is sustainable;
- create and re-establish landforms that are geotechnically and geochemically stable in accordance with regulatory requirements; and
- build in closure design contingencies and identify opportunities for other potential land uses and include contingency for social transition programs.

4.2.2.3 Draft Closure and Reclamation Approaches

The draft closure and reclamation approaches, developed in collaboration with THREAT, are current to January 2022 and are planned to be shared with the Tahltan community through ongoing engagement. The draft approaches are to:

- plan and design mining activities that are integrated with closure and reclamation and allow for adequate resources to implement the closure plan;
- seek continual improvement in the design and implementation of the closure and reclamation process and in the strategy that utilizes innovative technologies and evidence-based monitoring results; and
- engage and integrate existing baseline and community knowledge of the land and enable ongoing community stewardship and fully participate in the closure and reclamation process.

4.2.2.4 Ongoing Engagement

Skeena Resources acknowledges the importance of Tahltan community engagement in the design and development of the Closure and Reclamation Plan. Skeena Resources plans to collaborate with THREAT through engagement sessions with Tahltan community members in 2022; these sessions are intended to further closure planning (e.g., review of draft closure plan).

Consideration of closure and reclamation approaches includes engagement and development of a comprehensive Closure and Reclamation Plan in conjunction with Tahltan requirements and land uses and will be updated as the mine design evolves, and as new information becomes available. Closure and reclamation planning requirements will be outlined in the Hybrid AIR and assessed in the EAC Application. The Hybrid AIR will be finalized during the process planning phase.

4.3 Project Workforce

Table 4.3-1 presents workforce estimates by Project phase.

Table 4.3-1 Predicted Workforce

Project Phase	Length of Time (years)	Workforce Estimate
Construction	2 years (Year -2 to -1)	800 person-years (maximum 790 workers, median 490 workers)
Operation	9 years	3,870 person-years (maximum 410 workers, median 400 workers)
Closure	3 years	Small-scale work force to support ongoing monitoring and site management
Post-Closure	As per permit requirements	A small crew of maintenance staff appropriate for the level of post-closure activities

Skeena Resources expects that approximately 50% of the Project positions will be filled by northern BC residents or from the rest of BC, Alberta and Saskatchewan. In 2004, the Eskay Creek Mine employed 349 people and 33% were Tahltan Nation members (Barrick 2004). The former mine's workforce provides an indicator of the Project's potential employment benefits to local communities. Skeena Resources is actively engaged with a range of local, provincial and Tahltan contractors and suppliers to plan, develop additional capacity and source labour for Project needs. Because of the region's history of mineral exploration and operating/closed mines (Eskay Creek, Snip, Brucejack, Red Chris), Skeena Resources expects there will be suitability trained and experienced workers as well as workers with transferable skills in the region.

Baseline social and economic reports will also inform of the status of employment and capacity within surveyed communities to support the Project. A labour force study will help identify the potential sources and origins of workers and will be summarized in the EAC Application. The workforce will be housed in camp accommodations on the Project site.

4.4 Project Design or Siting Constraints

The Project design is guided by the Environmental and Social Design (ESD) principles that were established with Tahltan Nation representatives (refer to Section 6.0). Another key principle influencing design is minimization of new disturbance by re-utilizing existing disturbed areas and keeping infrastructure to one watershed (i.e., Tom MacKay Creek), as much as possible. This consideration greatly influences Skeena Resources' decisions regarding the location, sizing and layout of infrastructure. Refinements to design of the process plant and related buildings targeted a more compact design to minimize dispersion, reduce foundation drill/blast requirements, and improve snow management. Development of the Technical Sample within the proposed footprint of the Revitalization Project is another way of minimizing overall footprint disturbance.

A summary of Project design components and their design flexibility at the Feasibility Study level is provided in Table 4.4-1 and reflects updates since the IPD of July 2021. Alternatives for several components (e.g., mining method, worker accommodation) were considered during the 2019 Preliminary Economic Assessment (PEA) alternatives analysis (see Table 4.8-1 in Section 4.8), which informed whether the components were considered fixed or flexible in the IPD. Additional study and design work through the FS engineering phase resulted in resolution of key aspects to confirm preferred approaches and identify if additional information is needed. Detailed design beyond the level of information required to support the Feasibility Study and EA needs will be required to support future permit applications after the EA process. All design components must meet applicable standards, such as the *Health, Safety and Reclamation Code for Mines for British Columbia* and *Dam Safety Guidelines*, and the results of engineering investigations.

Table 4.4-1 Assessment Design Siting Flexibility at Feasibility Study Level

Design Component	Fixed or Flexible (FS)	Comment	Design Refinement Approach
Location of ore body	Fixed	• Not applicable, the location of the orebody cannot be changed	• Not applicable
Mining method (i.e., open pit)	Fixed	• Not applicable based on 2019 assessment (i.e., identified ore reserves were un-economic for underground mining)	• Not applicable
Ore processing	Fixed	• Alternative mill locations have been assessed at the Prefeasibility study level. Engineering has advanced one location of the ore processing plant in the Feasibility Study. • The engineering for the ore processing (i.e., mill) was advanced through the feasibility study. No major changes to the ore processing design are expected.	• Not applicable
Mineral tenure and surface lease	Fixed	• Not applicable	• Not applicable

Design Component	Fixed or Flexible (FS)	Comment	Design Refinement Approach
Concentrate transportation	Fixed	• Bulk transportation by truck to the port of Stewart is the confirmed approach	• Not applicable
Location of historical TMSF	Fixed	• Not applicable	• Not applicable
Tailings Management	Flexible	• The location of the tailing's facility is set at the Tom MacKay Storage Facility. • During operations, the tailings disposal system is designed with an in-line flocculant and manifold system to settle the tailings effectively. • The tailings will have a water cover of 5 m at closure and slightly less during operations as the TMSF fills. • South Embankment design requires more geotechnical investigation in 2022.	• The water that collects on the south side of the south embankment will need be modeled for water quality. If water quality shows mitigation is required, appropriate design changes will be conducted. • Test pits will be conducted for the south embankment in the summer of 2022. These test pits will inform if design changes are required.
Waste rock management	Flexible	• The waste rock storage facility will be utilized for the NPAG rock and the TMSF will be utilized for the PAG rock. • The underdrain design for Argillite Creek may be modified once feedback from the water quality model is received.	• Once the water quality model is completed it will be determined if mitigations to the WRSF underdrain design is required to reduce seepage from the WRSF to the creek.
Location of camp facilities	Flexible	• Alternative locations for the permanent camp are being reviewed.	• Alternatives assessment of 3 potential permanent camp locations is being completed.
On-site material transport routes	Fixed	• Haul road and access road design	• Not Applicable
Power source and infrastructure	Fixed	• Hydropower grid connection with connection at Volcano Creek • No major changes to the right-of-way expected.	• Not Applicable
Water source and management	Flexible	• Two groundwater wells have been drilled for potable water, fire water, and process water. The wells require verification. • Water treatment requires water quality information to complete design if required.	• Water wells will be verified in the summer of 2022 with pump tests. • Water quality model will inform water treatment design if required. Skeena is currently working on a water quality model.

Design Component	Fixed or Flexible (FS)	Comment	Design Refinement Approach
Tom MacKay Creek - Tunnel diversion around North Pit	Fixed location, flexible design	• Current design status is PFS.	• Detailed design will be advanced to support permitting requirements.
Water management for contact/non-contact water	Flexible	• Water management plan is at FS level.	• Adjustments to FS design are possible to support permitting and, if needed, water quality mitigations.
Effluent discharge locations and mitigation planning	Flexible	• The project is planning on the following discharge locations: D7, Tom MacKay Storage Facility. • Discharge to Coulter Creek and the sedimentation ponds require further review.	• Sedimentation pond designs for the haul road are in progress. • Water on the south side of the south embankment will discharge to coulter creek pending water quality results.
Solid waste management	Fixed	• Landfill, incinerator, and a hazardous waste storage facility are planned for the project	• Not Applicable
Worker transportation	Fixed	• Use of Bob Quinn airstrip • Road transportation from Smithers, Dease Lake or Terrace airports • Road transportation from local communities	• Not Applicable
Worker accommodation	Fixed	• Not applicable (i.e., daily transport from town to site for workers not feasible)	• Not Applicable
Worker schedule	Fixed	• 14x14 or 7x7 schedule	• Not Applicable
Borrow source locations	Fixed	• Quarries have been identified	• Not Applicable
Vehicular access	Fixed	• Access road to mine site is currently in place	• Not Applicable

4.5 Emissions, Wastes, and Discharges

Key updates to this section:

Early engagement on the Project included feedback requesting more information related to carbon sinks and land use change emissions. Feedback from Indigenous Peoples about water use and management, the range of JSOIE comments about water and water quality concerns, as well as the Tahltan perspectives and Sustainability/Risk Criteria, have been considered in Appendix I, and where additional information is available, included in the DPD.

Changes made to Section 4.5 include updated GHG emission calculations and land use change calculations based upon estimates from feasibility studies in progress. The total net GHG emissions for the Project presented in the DPD are 115% greater than those presented in the IPD. The change in GHG emissions estimate is largely driven by greater expected diesel use, the addition of a propane dryer (10% of total), and accounting for emissions from land use (10% of total). Discharge planning is developing in conjunction with the Feasibility Study and a discharge of non-contact water to Coulter Creek, depending on if pumpback is utilized, may be required and will be assessed as part of the water modelling in progress.

This section includes a general discussion of anticipated direct Project emissions to air, land, and water, including estimated GHG emissions.

4.5.1 Air Emissions and Greenhouse Gases

4.5.1.1 Air Emissions

Air quality is an important environmental factor in ensuring the conservation and health of local vegetation, wildlife, and humans. Air emissions from the Project will be limited to a few point sources, which will require an *Environmental Management Act* permit (e.g., garbage incinerator, assay lab exhaust, dust collector exhausts, ventilation fans from process tanks). There will also be dispersed sources which will not require permits, including GHG emissions from mobile and stationary equipment, and fugitive dust. A management and mitigation plan will minimize air emissions and fugitive dust and mitigate potential effects to biophysical and human receptors.

Project construction, processing, and mining activities will generate air contaminants, which may include:

- point source emissions potentially containing particulates (e.g., dust fans, ventilations systems) as Total Suspended Particulates (TSP), and size fractions, PM_{10} and $PM_{2.5}$;
- fugitive dust, consisting of TSP, PM_{10} and $PM_{2.5}$, with metals constituents among the particulate load associated with disturbance of fine materials in various activities (e.g., including vehicle traffic, construction, concentrate hauling, maintenance, as well as mining activities such as blasting, dumping, quarrying, road building, stripping, stockpiling,

grading, snow clearing); wind and rain erosion may also generate fugitive dust from stockpiles and surfaces; and

- criteria air contaminants, including oxides of nitrogen (NOx), PM_{10}, $PM_{2.5}$, sulphur dioxide (SO_2), volatile organic compounds (VOCs), diesel particulate matter (DPM) and carbon monoxide (CO), due to the combustion of diesel, gasoline and propane fuels by vehicles, non-road equipment, process plant, power supply (backup diesel generators) and heating units.

A baseline air quality monitoring program initiated in 2020 focused on data collection related to SO_2, NO_2, O_3, PM_{10}, $PM_{2.5}$, dust deposition, and metal deposition. The Project is in a remote location, far from communities (83 km away from Stewart, BC) and with no significant nearby air emission sources. Because of this lack of significant nearby emission sources, CO and VOCs were not included in the baseline air quality monitoring program. TSP data were also not collected; instead, subsets of the TSP parameter—PM_{10} and $PM_{2.5}$ data, which are important because particulates may be inhaled into the respiratory system—were collected to inform the human health risk assessment.

The air contaminants discussed result from anthropogenic combustion processes or fugitive dust generating activities. Because of the Project's remote location with no significant nearby emissions, regional air quality monitoring data will be used to characterize most baseline air contaminants. To augment this data, local on-site dust and metal deposition were measured in 2020 to support future human health and ecological risk assessment studies.

An air quality and dust control management plan will be developed and implemented prior to the start of Project construction to manage point and non-point air emissions. Mitigation for airborne emissions may include using cyclones and wet scrubbers for particulate collection in buildings, stabilizing and revegetating soil stockpiles, watering haul roads during non-freezing conditions, placing covers on loaded and empty haul truck beds, and minimizing the use of diesel generators. The management plans will need to include monitoring and reporting as well as a trigger-action-response plan.

4.5.1.2 Greenhouse Gases

GHG emission calculations were updated based upon estimates from FS studies in progress. GHG emissions will be generated directly by the Project from construction and mining activities and following the *Strategic Assessment of Climate Change* (SACC [(ECCC 2020]), net GHG emissions are quantified as:

> Net GHG emissions = Direct GHG emissions + Acquired energy GHG emissions - Avoided domestic GHG emissions - Offset measures.

Net GHG emissions are calculated for the construction, operations, and decommissioning/closure phases of the Project.

Direct Emissions

Direct GHG emissions are generated by activities that are within the defined scope of the Project and include:

- emissions from mobile and stationary combustion;
- emissions from land use change; and
- emissions from industrial processes.

Estimates of diesel fuel usage for mobile and stationary sources and explosives amounts are used to calculate the direct GHG emissions for the Project. In addition, propane will be used to heat buildings. It is assumed the estimated direct GHG emissions totals are a reasonable initial estimate for the purposes of this DPD.

Table 4.5-1 shows the diesel, propane and explosives amounts for each year of the Project and the associated direct GHG emissions for those years. No estimates of fuel, propane or explosives usage are available for the closure phase; it is assumed that the annual direct GHG emissions for this phase are equivalent to the direct emissions during the first year of construction less emissions from land use changes.

GHG emission factors for diesel, propane and blasting fuel were obtained from values published by Environment and Climate Change Canada (ECCC 2019). Emission factors for emulsion were obtained from National Greenhouse Accounts (NGA) Factors (Australian Government 2008).

Total construction phase direct GHG emissions are estimated to be 79,867 t CO_2e (carbon dioxide equivalent), total operations phase direct GHG emissions are estimated to be 563,320 t CO_2e, and total decommissioning/closure phase direct GHG emissions are estimated to be 56,546 t CO_2e. Therefore, total direct emissions for the Project are estimated to be 699,733 t CO_2e.

Acquired Energy Emissions

Acquired GHG emissions are associated with the generation of electricity, heat, steam, or cooling, purchased or acquired from a third-party for the Project. Acquired energy GHG emissions for the Project include emissions associated with the generation of purchased or acquired electricity from BC Hydro. The estimated total acquired electricity per year is provided in Table 4.5-2.

BC Hydro's GHG intensity is 40.1 tonnes CO_2e/GWh (Province of BC 2022). Based on this intensity, the annual acquired energy GHG emissions for the Project are provided in Table 4.5-2. To be conservative, it is assumed this annual amount for the decommissioning/closure phases of the Project is equivalent to the acquired emissions in the last year of operations. Based on these annual amounts, the total acquired energy GHG emissions for all phases of the Project is 68,773 t CO_2e.

Table 4.5-1 Project Direct Greenhouse Gas Emissions by Year in Carbon Dioxide Equivalent

Year of Operation[1]		-3	-2	-1	1	2	3	4	5	6	7	8	9	C1-C3
Emissions Source	**Units**													
Diesel	litres	6,874,446	6,325,839	9,987,029	15,956,901	22,950,776	25,149,189	24,233,439	22,085,923	22,226,659	18,699,473	7,448,614	755,494	-
Blasting Fuel	litres	65,495	7,824	98,781	410,941	560,146	577,842	510,451	449,525	437,448	333,762	71,853	0	-
Emulsion (explosives)	tonnes	1,110	133	1,674	6,965	9,494	9,494	8,652	7,619	7,414	5,657	1,218	0	-
Propane	litres	0	0	0	6,005,702	5,795,448	5,089,442	4,746,133	5,498,183	4,588,614	4,046,050	3,393,089	3,565,417	-
Diesel GHG emissions	CO_2e (t)	18,484	17,009	26,853	42,905	61,710	67,621	65,159	59,384	59,763	50,279	20,028	2,031	-
Blasting Fuel GHG emissions	CO_2e (t)	176	21	266	1,105	1,506	1,554	1,372	1,209	1,176	897	193	0	-
Emulsion GHG emissions	CO_2e (t)	189	23	285	1,184	1,614	1,614	1,471	1,295	1,260	962	207	0	-
Propane GHG emissions	CO_2e (t)	0	0	0	9,296	8,970	7,877	7,346	8,510	7,102	6,262	5,252	5,518	-
GHG emissions from Land Use	CO_2e (t)	5,521	5,521	5,521	5,521	5,521	5,521	5,521	5,521	5,521	5,521	5,521	5,521	
Total Direct GHGs	CO_2e (t)	24,370	22,573	32,924	60,010	79,321	84,187	80,869	75,919	74,822	63,921	31,201	13,071	18,849 per year
Total GHG Emissions	**CO_2e (t)**	**79,867**			**563,320**									**56,546**

[1] The construction phase of the Project is denoted by negative year values, the operations phase positive year values, and the closure phase by the letter “C” before the year.

Table 4.5-2 Project Indirect Greenhouse Gas Emissions by Year in Carbon Dioxide Equivalent

Year of Operation[1]		-3	-2	-1	1	2	3	4	5	6	7	8	9	C1-C3
Emissions Source	**Units**													
Electricity	kWh	0	0	0	207,281,796	198,578,554	169,326,683	155,112,219	186,259,352	148,578,554	126,109,726	99,052,369	106,184,539	-
Electricity GHG emissions	CO_2e (t)	0	0	0	8,312	7,963	6,790	6,220	7,469	5,958	5,057	3,972	4,258	4,258 per year
Total Electricity GHG emissions	**CO_2e (t)**	**0**			**55,999**									**12,774**

[1] The construction phase of the Project is denoted by negative year values, the operations phase positive year values, and the closure phase by the letter “C” before the year.

Land Use Emissions

Changes to land use and vegetation can create carbon sources or carbon sinks. Clearing of vegetation creates carbon sources and restoration of vegetation causes carbon sinks over time. Land use carbon sources and sinks are evaluated for the Project using land use area change, and carbon source/sink emission factors for grasslands and forests. These are evaluated for the maximum extent of the Project's land use disturbance.

For the purpose of GHG calculations, grass/herb and shrub/herb land use categories are grouped as grasses, and all forest maturity stages are grouped as forest. Wetland areas are excluded, as wetlands can act as either a net carbon source or a carbon sink, and represent a relatively small area. Areas with less than 10% vegetation cover are excluded from GHG calculations.

CO_2 emission factors for grassland loss and re-growth are estimated using the Intergovernmental Panel on Climate Change (IPCC) methodology (IPCC 2003). It is assumed that grassland will not be burned during land clearing activities; therefore, only CO_2 emissions from grassland soil are considered. A default grassland soil carbon stock of 71 tonnes carbon (C) / ha is used in the calculation, which has default factors with base values of one and is applicable for sandy soils in cold, moist climates. Carbon biomass is then converted to CO_2 mass using a multiplier of 44/12 (molecular weight conversion factor; IPCC 2003), resulting in an emission factor of 70 tonnes CO_2/ha for grasslands. This factor can be used for both carbon sources and carbon sinks, because the total carbon biomass loss is replaced once the cleared areas are fully revegetated.

CO_2 emission factors for forest loss and re-growth are estimated using an emission factor of 255 tonnes CO_2e/ha published in the British Columbia Greenhouse Gas Inventory Report 2012 (BC MOE 2013). This inventory report presents two emission factors: 255 tonnes CO_2e/ha for agriculture related deforestation, and 530 tonnes CO_2e/ha for settlement-related deforestation. The 255 tonnes CO_2e/ha value is chosen because land use changes from the Project are similar to agriculture-related deforestation, not settlement-related deforestation. (The 2012 BC inventory report is the latest report containing a detailed methodology description and analysis. The more recent BC inventory reports do not include the same level of methodology descriptions and emission factors.) For the purposes of this GHG study, the 255 tonnes CO_2e/ha emission factor is assumed to be for CO_2 only. This factor is also used for both carbon sources and carbon sinks, because the total carbon biomass loss is replaced once areas are fully revegetated. Land use change GHG sources and sinks for CH_4 and N_2O were not evaluated because CO_2 is the dominant GHG of concern for land use change.

Project land use areas are calculated using Terrestrial Ecosystem Mapping (TEM) data. The TEM data's first decile are used to group by land use categories, and the data are then clipped to the Project footprint. The resulting areas, presented in Table 4.5-3, represent the loss of vegetation for the Project.

Table 4.5-3 Project Vegetation Land Use Loss

Grasses[1] (ha)		Forest (ha)				Total Area (ha)
Grass/Herb	Shrub/Herb	Pole Sapling	Young Forest	Mature Forest	Old Forest	
97.9	75.8	1.3	0.2	66.2	14.7	**256.2**

Notes:
Wetland area was excluded because wetlands can act as either a net carbon source or a carbon sink.
[1] For the purpose of GHG calculations, Grass/Herbs and Shrub/Herbs are grouped under Grasses.

The estimated future land use change carbon sources for the Project are summarized in Table 4.5-4, along with calculation input data. It is estimated that there will be a net land loss of 174 ha of grassland and 82 ha of forests, resulting in a total carbon source of 66,250 t CO_2. This value averaged over the 12 years of construction and operation equates to an average annual carbon source of 5,521 t CO_2/year.

Table 4.5-4 Land Use Changes and Carbon Emissions

Assessment Parameter	Units	Vegetation		Total
		Grasses	Forests	
Net land loss	ha	174	82	-
Emission factor[1]	tonnes CO_2/ha	260	255	-
Total CO_2 sources	tonnes CO_2	45,235	21,015	**66,250**
Total annual CO_2 sources, averaged per year for construction and operation (12 years)	tonnes CO_2/year	3,770	1,751	**5,521**

Notes and sources: Values are rounded.
[1:] Emission factors for grasses based on Intergovernmental Panel on Climate Change methodology (IPCC 2003). Emission factors for forests based on ENV methodology (BC MOE 2013).

CO_2 Captured and Stored, Avoided Domestic Greenhouse Gas Emissions, and Offset Credits

The three negative terms of the net GHG equation that are shown with zero values in Table 4.5-5 are not expected to be important contributors to the net GHG calculations for the Project. At this point in time, Skeena has not pursued plans for CO_2 capture and storage, or offset credits. Skeena will be assessing these as the Project advances. There are currently no provincial or federal standards for project-related GHG emissions. The Project is not currently expected to directly contribute to avoided domestic GHG emissions.

Table 4.5-5 Maximum Greenhouse Gas Emissions during Construction, Operations, and Closure

Project Phase	Maximum Net Emissions	Acquired Energy Emissions	Direct Emissions	Avoided Domestic GHG Emissions	Offset Measures
	Maximum Annual CO_2e (t)				
Construction	32,924	0	32,294	0	0
Operations	90,977	8,312	84,187	0	0
Closure	23,107	4,258	18,849	0	0

Net Greenhouse Gas Emissions

Based on the direct and acquired energy GHG emissions for the construction, operations and decommissioning/closure phases of the Project, the total net GHG emissions summed over all years of the Project are 768,506 t CO_2e.The maximum annual net GHG emissions for the construction phase of the Project are in Year -1 (32,924 t CO_2e). The maximum annual net GHG emissions during the Project are in Year 3 (90,977 t CO_2e). Annual net GHG emissions for decommissioning/closure are estimated to be the same for all years with 23,107 t CO_2e. Table 4.5-5 presents a summary of maximum emissions by project phase. Table 4.5-6 shows the total net emissions for the construction (79,867 t CO_2e), operations (619,319 t CO_2e) and closure (69,320 t CO_2e) phases.

Table 4.5-6 Total GHG Emissions during Construction, Operations, and Closure

Project Phase	Total Net Emissions for the Project by Phase	Total Net Emissions for the Project
	CO_2e (t)	
Construction	79,867	768,506
Operations	619,319	
Closure	69,320	

4.5.2 Waste

Waste generated by the Project will include:

- waste rock;
- tailings;
- other wastes from both hazardous and non-hazardous sources (e.g., office, domestic waste and vehicle maintenance wastes);
- sewage; and
- hydrocarbon contaminated soil (in the event of spills or leaks).

A significant management issue for the Project will be the prevention and control of ML/ARD from the tailings, and any acid generating or PAG waste rock that is produced during mine development or operations. The Project will create waste rock from mine development and tailings as a by-product of mineral processing. The waste streams will be managed on site as follows:

- NPAG waste rock will be deposited in two locations: 127 Mt at the WRSF and 5.8 Mt in pit. The rest of the NPAG waste rock will be utilized for construction.
- PAG waste rock (84 Mt) will be deposited subaqueously in the TMSF (refer to discussion in Section 4.1.3), which is already permitted for waste rock storage.
- PAG tailings (23.9 Mt) and NPAG tailings (2.5 Mt) will be deposited subaqueously in the TMSF (refer to discussion in Section 4.1.3), which is already permitted for tailings storage.

To manage the potential for ML/ARD, the Project has incorporated design features and mitigation measures that are consistent with waste and water best management practices, including:

- water treatment (if required); and
- subaqueous storage of all tailings.

Seepage management designs and approaches are being developed through the FS and will be incorporated into the Final DPD to reflect the individual structures and components in a visual format.

Waste management will be a key element of the EMS and related management plans for the Project. Non-hazardous waste will be managed by segregating industrial and domestic waste into appropriate streams. Project-related waste collection and storage facilities will include:

- one or more incinerators for domestic/putrescible waste;
- separate waste collection areas for recyclables;
- industrial waste streams for off-site storage; and
- sewage effluent and sludge for on-site storage.

The management of waste collection areas will follow regulatory requirements and best management practices, and be described in management plans, for the safety of workers and environment, including SOPs for spill management, fire safety, and wildlife attractants.

Hazardous waste materials such as spoiled reagents, waste petroleum products and used batteries will be generated throughout the life of the Project. Storage facilities will facilitate the segregation and inventory of the various hazardous waste streams generated during the project. A separate secure storage area will be established with appropriate controls and best management practices to ensure the safety of workers and the environment. Hazardous materials will be labelled and stored in appropriate containers for shipment to approved off-site storage facilities. Waste streams will be tracked in accordance with federal and provincial regulations, such as the federal *Transportation of Dangerous Goods Act, 1992* (SC 1992, c 34).

4.5.3 Water Discharges

The Revitalization Project will manage releases of contact water (e.g., seepage from the WRSF, process water, tailings and pit dewatering, treated sewage) separately from diversion of non-contact water from upstream catchments that has not been in contact with mine workings. Water discharge monitoring will be a fundamental component of the EMS and permit management. Water discharge monitoring will be informed by the lengthy record of effluent discharge monitoring at the three permitted discharge locations (sites TM1, W20, and D7). Water emissions will meet existing or future provincial permit limits and national (i.e., MDMER) standards prior to discharge.

Management of contact water will be guided by a Water Management Plan that will incorporate measures respecting Tahltan perspectives, regulatory limits, and opportunities and limitations at the site (see Section 4.1.5). Water modelling and water management planning is currently underway and are critical determinants of discharge locations based upon predicted quality and if mitigations are required. Several options for contact water are being considered:

1. Direct contact water into lined ditches and holding/collection ponds downslope of mine infrastructure for testing and assessment. If discharge limits can be met without treatment, water can be released to Tom MacKay Creek or Ketchum Creek via existing or new discharge points.
2. Where contact water quality is not suitable for direct discharge, mix contact water from collection ponds with the tailings at the process plant and then discharge to the TMSF via the tailings pipeline. The TMSF is approved for deposition of contact water into the facility and governed by the quality of the discharged effluent to meet permit limits.
3. If modelling indicates that discharge to the TMSF is not a suitable strategy, contact water can be treated directly and then discharged to adjacent Tom MacKay Creek or Ketchum Creek via existing or new discharge points. Initial approaches to water treatment mitigation for operations will be updated as the modelling outputs are generated in early 2022; modelling outputs will also inform detailed approaches that will be developed as required.

Initial approaches to water management will be revised as the Water Management Plan and water modelling outputs are available at the conclusion of the FS in 2022.

4.6 Mitigation and Management Plans

The following is a list of potential mitigation and management plans that Skeena Resources anticipates will be required as part of the EMS for the Project:

- Air Quality and Dust Management Plan;
- Mine Emergency Response Plan;
- Avalanche Hazard Management Plan;
- Erosion and Sediment Control Plan;
- Spill Contingency Plan;

- Construction Environmental Management Plan;
- Soil Management Plan;
- Metal Leaching/Acid Rock Drainage Management Plan;
- Mine Site Water Management and Monitoring Plan;
- Aquatic Effects Monitoring Plan (updates to current protocols);
- Discharge Management Plan;
- Vegetation Management Plan;
- Invasive Plant Management Plan;
- Wildlife Management Plan;
- Archaeological and Paleontological Management Plan;
- Community Effects Monitoring and Management Plan;
- Occupational Health and Safety Management Plan;
- Mine Site Traffic Control Plan;
- Chemicals and Materials Storage, Transfer and Handling Plan;
- Hazardous Materials Management Plan;
- Waste (Refuse and Emissions) Management Plan; and
- Reclamation and Closure Plan.

During the course of regulatory and community engagement, additional management plans may be identified for development.

4.7 Alternatives to the Project

Skeena Resources is considering potential alternatives to the Project that are technically and economically feasible and directly related to the Project. The possible alternatives are:

1. Not undertaking the Project;
2. Changing the timing of the Project; or
3. Changing the location of the Project.

The ‘no Project’ alternative will not provide the positive social and economic effects associated with the Project’s development and will not fulfill the purpose of the Project. The second alternative will generally have the same environmental effects as those associated with proceeding with the Project as proposed. The third alternative, changing the Project’s location, is not possible. The environmental and social and economic effects associated with the alternatives to the Project will be further reviewed through the assessment process.

4.8 Alternative Means of Carrying Out the Project

This section considers potential alternative means of carrying out the Project that are technically and economically feasible, including through the use of best available technologies. An initial alternatives assessment was completed during the PEA in 2019, and a suite of trade-off studies were undertaken during the PFS stage to assess alternatives and refine the approaches to carry forward into the ongoing FS. Alternatives will continue to be assessed during the FS and environmental assessment process. Table 4.8-1 summarizes the alternatives assessment work that has been completed to date.

Table 4.8-1 Project Alternatives Assessment Based on Preliminary Economic Assessment, 2019

Component	Alternatives Considered	Preferred Option
Ore processing location	• Process ore on site • Ship ore offsite to processing facilities with spare capacity	Processing ore on site is preferred given the grades and volume of material to be transported and lack of nearby processing capacity. On-site processing is the only economically viable option.
Ore processing	• Different milling techniques • Different metal separation techniques • Different reagent selection	Best available technologies will be used to maximize metal recovery. Preferred milling options to maximize metal recovery based on current test work include SAG, flotation, and concentrate dewatering. Optimization works will continue into the FS stage in 2022.
Mining method	• Open pit • Underground	A mineral resource model was developed for both open pit and underground mining methods at the PEA stage. The ore grades for the near surface ore body are lower grade than for the historical underground (1995-2008) operation. The 2019 PEA and July 2021 PFS presents an open pit mining method, and this method is the basis of the FS stage in 2022. The mineral resource (distribution, grade) and economic studies associated with the Eskay deposit indicate that underground mining methods are not viable or efficient. The economic viability of the Project is dependent on open pit mining methods.
Concentrate Transportation	• Rail • Shipping	The preferred option is to truck the concentrate to the Port of Stewart for marine shipping and distribution to offshore smelters. There is no rail terminal close to the mine site, which makes rail transportation impractical.
Infrastructure (General)	• Reuse existing infrastructure • Build new infrastructure	The preferred option is to reuse the existing Eskay Creek Mine infrastructure where practical to reduce the amount of additional disturbance and cost. New facilities will be built as needed to support the mine plan in consideration of the ESD principles.
Power	• Connect to provincial grid • On-site diesel, hydroelectric, wind, solar or combination	The preferred option is to connect to the existing power grid at the Volcano Creek, McLymont Creek, and Forrest Kerr hydroelectric facilities. The main consideration is the connection point to the grid. A mix of hydrocarbon and electric powered equipment is being assessed. The effect on GHG emissions from these equipment alternatives will be considered.

Component	Alternatives Considered	Preferred Option
Tailings Management	• Conventional wet vs thickened vs paste vs filtered tailings for storage • Siting of tailings facility • TMSF • ASF • Co-mingling of tailings in WRSF • Storage in existing mine infrastructure	The current preferred option for storage is conventional wet slurry, although suggestions for alternate methods provided during engagement (i.e., in the JSOIE) will be taken into consideration. A best available technology (BAT) assessment is underway to determine the final storage method. The preferred storage option is to reduce new disturbance by placing tailings into the existing TMSF, which has capacity, and then expanding the TMSF as necessary to store the remaining tailings; Skeena Resources is reviewing other options.
	• Embankment construction method • Dry or wet cover on TMSF at closure	Building the embankment using cement and earth/rock is preferred to a cyclone NPAG tailings embankment. Water retaining structure requirements for the embankment will guide the design and construction techniques that can be considered. Wet and dry covers for the tailings have been assessed, and a wet cover is the preferred option, with test work ongoing for tailings. Wet cover addresses geochemical risk and acid drainage/leaching, while managing a dry facility is more challenging in a wet climate. The existing facility is in a natural basin; maintaining a dry cover in that location will have significant footprint and management impacts (diversion works, pumping, and long-term active management at closure). A wet cover provides the best option for long-term closure and management, and also provides the best proven method for environmental protection from PAG wastes. This technique is proven broadly in industry, including specifically at the Eskay site (ASF). Closure options are being considered with THREAT input and anticipated future Tahltan membership input into future land use objectives.
Waste Rock Management	• Storage methodology including PAG waste rock into TMSF or ASF or isolating PAG, or co-mingling waste with tailings or NPAG • Location of ore, waste rock, overburden, soil, and snow stockpiles • Waste Hauling method (Railveyor vs Truck)	The preferred option for waste rock storage selected by considering PFS trade-off studies of alternatives, optimization studies on geochemistry, and ESD principles developed with THREAT. During mine operations from 1994 to 2008, PAG waste rock was stored subaqueously at the ASF. The current location of the WRSF and In-Pit WRSF has been carried from the PFS into FS. The location at Argillite Creek is economically feasible and makes use of a natural valley. Location of stockpiles will focus on minimizing handling of material, haul distance and grades; as well as any potential biophysical, water quality or social effects. Waste transport methods were evaluated since a large quantity of PAG rock must be relocated from the open pits to subaqueous storage in the TMSF.

Component	Alternatives Considered	Preferred Option
Waste Management (hazardous and solid)	• Solid waste storage: on-site/ off-site landfill vs incineration • Hazardous waste storage on site vs off-site • Management of hydrocarbon contaminated materials through on-site bioremediation vs off-site storage	The preferred option is on-site landfill and incineration for solid/putrescible, however, trade-off studies are still underway. The preferred option for storage of hazardous waste is at offsite approved facility. Both of the options for hydrocarbon contaminated materials are being reviewed.
Water Management	• Alternative groundwater well locations • Alternative water treatment systems • Alternative discharge locations	The preferred option for water management has not been determined as studies are underway to optimize treatment configurations. It is anticipated that standard water treatment methods can achieve water quality objectives during operations, but alternative approaches will be investigated (e.g., passive, closure covers). Skeena is developing a Water Management Plan (WMP) to integrate mitigation, modelling, discharge planning and approaches for water treatment during operations. Water modelling available in 2022 will inform the WMP.
Logistics (transportation and accommodation)	• Worker accommodations on-site vs off-site • Worker transportation	The preferred option is to provide accommodation for workers on site. There are no existing local accommodation options. Forrest Kerr accommodation can be used during construction to reduce the need for temporary accommodation facilities. Existing accommodations on the Eskay Creek Mine site will be used during construction and other advanced exploration activities, but will be decommissioned during the mine life due to proximity to the blast radius of the North Pit. Worker transportation will be subject to where workers may come from.

Skeena Resources will collaborate with THREAT to complete an alternatives assessment for appropriate Project components. The outcomes of the assessment will be presented in the Application. Skeena Resources will adapt and simplify methods for the alternatives assessment from the *Effects Assessment Policy* (EAO 2020) and *Guidelines for Assessment of Alternatives for Mine Waste Disposal* (ECCC 2016). The analysis will follow the six steps listed below.

1. Identify candidate alternatives.
2. Conduct a pre-screening for fatal flaws.
3. Characterize alternatives within six accounts (Technical [for engineered structures], Environmental, Economic, Social, Cultural, and Health) and define sub-accounts and indicators/criteria, and other risks.
4. Develop a multiple accounts analysis to identify indicators and criteria to differentiate between alternatives, developing scales (from 1 to 6) for each that are:
    a. Operational, such that the scale should be relevant and able to accommodate any other realistically conceivable alternative that may be added at a later time;

   b. Reliable, in that different parties should arise at the same score given the same scale and background information;
   c. Relevant to the indicator being scored; and
   d. Justifiable, so that any external party should agree that the scale is reasonable.

5. Conduct a sensitivity analysis.
6. Document the process.

5.0 REGULATORY AND POLICY FRAMEWORK

Key updates to this section:

This section is revised, based on early engagement feedback, to add information about the Tahltan Central Government's role in and process for decision-making as part of the Project assessment. It also presents a discussion of Tahltan Environmental and Social Design Principles that was previously found in another part of the IPD (Section 5.1). The text also includes an updated description of the provincial and federal assessments with a diagram of the substituted environmental assessment process and an account of activities since the publication of the IPD (Section 5.2).

The following sections describe the regulatory and policy framework for the Project, and under the BC *Environmental Assessment Act* (EAA; SBC 2018, c 51) and the Canadian *Impact Assessment Act* (IAA; SC 2019, c 28, s 1), as well as the other permits and approvals anticipated to be required.

The Tahltan Central Government (TCG) is the administrative governing body of the Tahltan Nation; the Tahltan Heritage Resources Environmental Assessment Team (THREAT) provides technical support to TCG's Lands Department and to Tahltan Leadership. EAA is administered by the BC Environmental Assessment Office (EAO), while the IAA is administered by the Impact Assessment Agency of Canada (IAAC).

5.1 Tahltan Central Government Assessment

Since 2020, Tahltan Central Government (TCG) and Skeena Resources have worked collaboratively in defining an entry point into the provincial and federal assessment processes for the Revitalization Project. An important outcome of this collaborative approach was TCG's July 2021 request to the BC Minister of Environment and Climate Change Strategy for the Project to be designated as reviewable under Section 11 of the British Columbia *Environmental Assessment Act* (administered by the British Columbia Environmental Assessment Office [EAO]). Skeena Resources fully supported this request to the Province, and the Minister designated the Project as reviewable under the Act on July 30, 2021.

On June 6, 2022, the Province of BC and TCG announced that they had entered into the first consent-based decision-making agreement under section 7 of the *Declaration on the Rights of Indigenous Peoples Act* (*Declaration Act,* SBC 2019, c 44). The Consent Agreement is tied to the EAA, section 7(b), which allows the provincial government to establish an agreement with an Indigenous Nation to specify that a reviewable project within an area may not proceed without the consent of the Indigenous Nation.

The Consent Agreement establishes a Collaboration Team comprising TCG's Lands Director and the EAO Project Lead (as well other designated individuals) to seek consensus and promote collaboration between the two parties at various stages of the assessment process, including:

- deciding whether the Project should proceed to Process Planning;
- establishing what information and assessment requirements are necessary to support both parties' decision-making, including with regards to Skeena's Application for an Environmental Assessment Certificate;
- assessing the EAO's draft Environmental Assessment Report and draft Environmental Assessment Certificate, including any conditions.

The Collaboration Team will also assist the parties to the Consent Agreement in collaboratively reviewing Skeena's Application for an Environmental Assessment Certificate. In addition, TCG will conduct an independent Tahltan Risk Assessment and prepare a Tahltan Risk Assessment Report, setting out TCG's conclusions on whether the Project is likely to cause significant residual or cumulative effects to Tahltan Values. Once the EAO process concludes, the Tahltan Risk Assessment Report will inform TCG's decision on whether or not to consent to the Project.

A Coordinated Regulatory Authorizations Process Charter is being finalized between Skeena Resources, Tahltan Nation, and the Province of BC. The Process Charter is an outcome of a Memorandum of Understanding between the parties and establishes a strategic approach to coordinating regulatory processes for the Project.

5.1.1 Tahltan Environmental Assessment Strategy Framework

The TCG Lands Department are implementing Tahltan Environmental Assessment Strategy Framework (TEASF), which include strategic and operational components and supports and guides participation and decision-making for projects proposed in Tahltan territory. The TEASF are grounded in Tahltan laws and values and guided by the *Declaration of the Tahltan Tribe* (Tahltan Nation 1910) and the *Tahltan Resource Development Policy* (TCC 1987), among other documents. As the Project is located within Tahltan territory, the Tahltan Nation has determined it will be assessed using this TEASF.

As part of the decision-making process associated with this approach, TCG issued the Tahltan draft Application Information Requirement (TdAIR) for the Project, on October 6, 2021, which identifies Tahltan requirements for conducting environmental assessments specific to the Project area. The TdAIR provides directions from TCG on scope, criteria, scales, methods, values, and effects assessment to be captured in the overall assessment process. To gain an in depth understanding of the TdAIR, Skeena Resources led (and is continuing to lead) collaboration sessions with representatives from THREAT, EAO, and IAAC to discuss specific topics related to the TdAIR contents (see Section 6.2.1 for more details).

Consensus was reached among representatives of THREAT, EAO, IAAC, and Skeena Resources to have a single terms of reference for assessment of the Project, known as the Hybrid Application Information Requirements (Hybrid AIR). The H-AIR will include requirements of EAO, TCG and IAAC. Tahltan Knowledge, perspectives, and interests (in relation to the TdAIR) will be incorporated

into process documents and the assessment approaches planned for the EAC Application developed to meet provincial and federal process requirements, including permitting (see Section 5.2.1).

5.1.2 Tahltan Environmental and Social Design Principles

Skeena Resources understands that TCG will evaluate the Project design against environmental and social design (ESD) principles developed from the *Tahltan Resource Development Policy,* in addition to other requirements (TCC 1987). Table 5.1-1 paraphrases these ESD principles and provides an overview of how Skeena Resources' approach has been guided by each principle.

Table 5.1-1 Skeena Resources' Approach to Adhering to Tahltan Environmental and Social Design Principles

Tahltan Environmental and Social Design Principle: *The development will…*	**Skeena Resources' Approach**
1) Not pose a threat of irreparable environmental damage	• Eskay Creek underground mine site has been monitored since historical production began in 1994 and has collected a large database of environmental data (1994 to 2020); Skeena Resources will use historical and current baseline data to help inform project development and operations. • Skeena Resources will incorporate Tahltan Sustainability Criteria into the Project development. • Through collaboration with the Tahltan Nation, Skeena Resources will undertake the Project assessment with attention to Tahltan requirements and values. • Skeena Resources will adhere to regulations and permit conditions. • Skeena Resources will undertake work in accordance with environmental management plans and monitoring requirements, including contingency planning. • Skeena Resources has adapted Archaeological assessments for the Project and mine site in response to Tahltan direction to also include post-impact assessments of older disturbances and future disturbances.
2) Not jeopardize, prejudice or otherwise compromise the outstanding Tahltan aboriginal rights claims.	• Skeena Resources acknowledges Tahltan Rights and Title and is committed to reconciliation with Indigenous peoples through responsible and sustainable mining development.
3) Provide more positive than negative social impacts on Tahltan people.	• Skeena partnered with TCG and Newcrest Mining to develop and conduct a Tahltan Community Survey with the goal of better understanding the social impacts of the mining industry on communities. • Since 2017, Skeena has awarded over $92 million in contracts to Indigenous-owned and affiliated businesses. • Since 2017, Skeena has contributed $152,000 to community initiatives. Initiatives have included: Telegraph Creek rebuilding after 2018 wildfire, Dease Lake High School graduation, Healthy Active Tahltans, Dease Lake Fishing Derby, Dease Lake Recreation Centre, Tour de Telegraph, and sponsorships for local hockey teams. • Skeena seeks to work with and support local communities in building partnerships. Skeena accepts requests for financial donations or in-kind contributions to support community-based initiatives that build economic, social, and cultural capacity.

Tahltan Environmental and Social Design Principle: *The development will…*	**Skeena Resources' Approach**
	• Skeena is working with communities to donate infrastructure from the Project that is no longer in use; most recently, this included the donation of two bridges. • Skeena is partnering with in-Territory schools to bring Tahltan high school students who are passionate about art to the 2022 Dempsey Bob exhibit opening in Whistler, BC. Skeena plans on regularly partnering with Tahltan schools to support artistic, athletic, and academic programs for Tahltan youth. • Skeena is working directly with community leadership to ensure that donations directly benefit community youth.
4) Provide opportunity for the widest possible opportunity for education and direct employment-related training for Tahltan people in connection with the project.	• Skeena supports TCG-led in-Territory training programs by guaranteeing employment opportunities to successful training program graduates; this support allows for TCG to access financial resources to offer the training. • In 2020, Skeena launched a student mentorship program with the Tahltan Nation. The purpose of the program is to provide university students and recent post-secondary graduates with an opportunity to work in all aspects of the Project's development. The goal of the program is to prepare the mentees for roles in management and provide opportunities for them to connect with Tahltan territory and culture. ▪ At present, there are six Tahltan mentees working in various roles throughout the Project. These roles include Junior Project Engineer-in-Training, Warehouse Intern, and Investor Relations Intern. ▪ To ensure that mentees' education and training, professional development, and Tahltan culture education is supported, Skeena hopes to partner with TCG's Education and Training Department. ▪ To share their experiences, encourage, and support youth to participate in education and employment opportunities in the mining industry, Skeena supported the Tahltan mentees to speak with Tahltan youth at the 2022 AME Roundup. • Skeena will continue to post job opportunities and recruit Tahltan employees through Tahltan On-track employment program.
5) Provide opportunity for substantial equity participation by Tahltan peoples in the total project.	• In 2021, Skeena Resources and the TCG entered into an investment agreement where TCG became equity participants in Skeena. • The Eskay Creek Revitalization Project will be subject to the finalization of an Impact Benefit Agreement (IBA). The content of IBA agreements is typically held confidential by Indigenous Nations and the mineral development Companies involved. The generic contents of such agreements typically include provisions related to share in the revenues generated by the project and equity participation of Indigenous Nations in the Project. IBA negotiations in respect of the Eskay Creek Revitalization Project are currently underway.
6) Provide opportunity for the widest possible development of Tahltan business opportunities over which the developer may have control or influence.	• Skeena will continue weekly meetings with the TCG Employment and Contracts Director to ensure TCG is aware of upcoming contract and employment opportunities. • Skeena is developing a prequalification process that is open for businesses of every size and capacity. • In 2022, Skeena will start an Entrepreneurship Program. The objective of the program is to empower local Indigenous entrepreneurs.

Tahltan Environmental and Social Design Principle: *The development will…*	Skeena Resources' Approach
7) Assist the Tahltan to accomplish the objectives stated above by providing financial and managerial assistance and advice where deemed necessary.	• Skeena provides capacity funding, and financial and managerial assistance to implement and support the initiatives noted above.

5.1.3 Tahltan Cumulative Effects Assessment

TCG provided the following text relating to Tahltan Cumulative Effects Assessment:

> *Similar to Tahltan Effects Assessment approaches, a back- and fore-casting of changes in the identified Tahltan Areas of Interests is required with the inclusion of the additional potential projects identified by Tahltan.*
>
> *The determination of relevant projects, areas to be measured, downstream and lateral effects is a shared responsibility of all parties. Tahltan require to be involved in the final decision on this matter to ensure consistency using Tahltan and western science requirements for the cumulative effects assessments in the environmental assessment for this project.*
>
> *The cumulative effects methodology and assessment must meet the below requirements to the satisfaction of Tahltan;*
>
> - *Identify potential cumulative effects to each Tahltan Value selected by comparing the existing and future conditions. The effects of past and existing activities (activities that have been carried out) are to be used to contextualize the current state of Tahltan Values. Climate change is to be considered as part of future conditions or provide a rationale to justify the exclusion of climate change impacts on Tahltan Values;*
> - *Describe the mitigation measures that are technically feasible to eliminate or reduce adverse cumulative effects, including:*
>   - *The criteria or rationale used to determine technically feasible mitigation measures and their relation to Tahltan sustainability and risk criteria;*
>   - *An assessment of the effectiveness of the measures and adaptive management measures applied to mitigate the cumulative effects;*
>   - *An assessment of the risks associated with both the ability and the inability to manage or mitigate these effects; and*
>   - *Quantify, and evaluate residual cumulative effects using the project specific effects as described above.*
>
> *The outcomes of the cumulative effects assessment are part of the overall suite of information being assessed against the Tahltan sustainability and risk criteria, will be a factor in the developing the Tahltan Assessment Report and subsequent decision documents.*

5.2 British Columbia *Environmental Assessment Act* and Canadian *Impact Assessment Act*

5.2.1 Previous Approvals under the *Environmental Assessment Act (and predecessor legislation)*

The past producing Eskay Creek Mine has two certificates issued under BC legislation that pre-dates the EAA, but are considered Environmental Assessment Certificates (EACs) under the provisions of the EAA and its predecessor Acts.

The original application in 1993 underwent regulatory review and on March 29, 1994, a Mine Development Certificate (MDC 94-01) was issued by the then Ministry of Energy, Mines and Petroleum Resources (now Ministry of Energy, Mines, and Low Carbon Innovation), with the concurrence of the then Ministry of Environment, Lands and Parks (now Ministry of Environment and Climate Change Strategy). The MDC was issued to Prime Resources Group Inc. for the development of the Eskay Creek Mine to enable initial construction and operation, followed by amendments over the next couple years to increase production and build an on-site mill in 1997. A proposed mill for the underground operation was considered in 1993 in the vicinity of Houston BC, but this was never permitted or constructed.

A Project Approval Certificate (PAC M00-01), was issued for the expanded mine on July 21, 2000, following a combined provincial and federal assessment. The federal requirement was for a screening-level review process under the *Canadian Environmental Assessment Act* (CEAA; 1992) to permit waste storage in Tom MacKay Lake (a non-fish-bearing alpine lake). Listing of the two Tailings Impoundment Areas (TIA) for the Eskay Creek Mine occurred in 2002 under the amended federal *Metal Mining Effluent Regulations*.

Homestake Canada Inc. acquired Prime Resources Inc. on January 1, 1999, and merged with Barrick Gold Inc. (Barrick) in 2001. Barrick was the holder of PAC M00-01 and was the successor by amalgamation of Prime Resources Group Inc., who was the holder of MDC 94-01. Skeena Resources acquired the Eskay Creek Mine from Barrick Gold Corporation's wholly-owned subsidiary, Barrick Gold Inc., in August 2020.

On August 12, 2020, Barrick and Skeena Resources jointly submitted an application to transfer 100% of both MDC 94-01 and PAC M00-01 to Skeena under section 33 of EAA.

5.2.2 Current Assessment Regulatory Process

The Revitalization Project is required to undergo review under both EAA and IAA. As noted in Section 5.1, on July 16, 2021, TCG sent a formal request to the BC Minister of Environment and Climate Change Strategy (ENV) to have the Minister designate the Project as reviewable under section 11 of the EAA (TCG 2021); Skeena Resources supported this request in a letter sent on the same day (Skeena Resources 2021d). The EAO's Chief Executive Assessment Officer issued a legal order under section 11 of the EAA designating the Project as reviewable on July 30, 2021 (EAO 2021). The Project is also federally reviewable under the IAA's *Physical Activities*

Regulations based on new mill construction, daily production over 5,000 tpd and more than 50 percent increase in the mine operating area (Table 5.2-1).

Table 5.2-1 Federal Impact Assessment Act*, Physical Activities Regulation*

Section	Physical Activity
Physical Activities Regulations, federal *Impact Assessment Act*	
19(c)	The expansion of an existing mine, mill, quarry or sand or gravel pit in one of the following circumstances: (c) in the case of an existing metal mine, other than a rare earth element mine, placer mine or uranium mine, if the expansion would result in an increase in the area of mining operations of 50% or more and the total ore production capacity would be 5,000 tpd or more after the expansion
18(d)	The construction, operation, decommissioning and abandonment of one of the following: (d) a new metal mill, other than a uranium mill, with an ore input capacity of 5,000 tpd or more

Skeena Resources entered the provincial environmental assessment process with the submission of the IPD on July 19, 2021. The IPD provided a high-level description of the evolving project design and regulatory process. Skeena Resources also submitted the *Eskay Creek Revitalization Engagement Plan* (Skeena Resources 2021b), as required by section 13(1) of the EAA and in accordance with EAO guidance (EAO 2019). This Engagement Plan provided a summary of Skeena Resources' engagement to date on the Project, and laid out the company's plans to engage with Indigenous Peoples, federal and provincial government agencies, local governments, and potentially affected public during the regulatory process.

Pursuant to the *Impact Assessment Cooperation Agreement between Canada and British Columbia* (the Cooperation Agreement; Government of Canada 2020), on August 6, 2021, the Province of BC made a request to the federal Minister of Environment and Climate Change (ECCC) to approve the substitution of the provincial assessment process under EAA for the federal process under IAA. If the substitution request is approved by the Minister (anticipated to occur around 180 days after acceptance of the IPD), EAO commits to meet the federal legislative requirements for the remainder of the environmental assessment process and fulfill the conditions for substitution under the IAA set out in the Cooperation Agreement and the Substitution Decision. At the end of the environmental assessment process, the EAO will provide its report to both the provincial Ministers and the federal Minister of Environment and Climate Change for their consideration and decision.

The EAO and IAAC conducted a comment period on the Project from August 30, 2021, to September 29, 2021; as part of this process, EAO posted the IPD on its public registry, the EAO Project Information Centre, and IAAC posted on the Canadian Impact Assessment Registry on July 19, 2021, requesting input from Indigenous Nations and the public as well as technical advisors (federal authorities, provincial ministries, local and Indigenous Governments, and the United States' federal and state agencies).

During this stage of the process, Skeena Resources also engaged directly with Indigenous Governments, provincial and federal regulators, and other groups.

On November 5, 2021, EAO and IAAC issued a Joint Summary of Issues and Engagement (JSOIE; EAO and IAAC 2021) for the Project that described the comments and concerns collected during the Early Engagement period. Skeena Resources has considered the comments received through this comment period and its own engagement efforts; responses to the JSOIE comments are presented in Appendix I and reflected in many of the updates to this DPD, or will be addressed during development and review of the Hybrid AIR. Responses to technical advisors, Federal Authority, and Indigenous Nation comments on the IPD have been directly tracked and responded to, and are shared with the EAO, TCG and IAAC as a separate document. Some information requests will be addressed after completion of the FS during subsequent phases.

As noted in Section 5.1, in June 2022, during the development of this DPD, the Province of BC and TCG announced that they had entered into the first consent-based decision-making agreement under section 7 of the *Declaration on Act* (*Declaration Act,* SBC 2019, c 44), which will shape the process for the Project assessment.

The timeline for a substituted federal review and provincial environmental assessment process are summarized in Table 5.2-2. This timeline is still in development and subject to change based on engineering design studies and discussions with TCG, EAO, and IAAC. Appropriate seasonal work windows will be incorporated into the Project construction schedule. No other seasonal timing constraints have been identified.

Table 5.2-2 Proposed Environmental Assessment and Impact Assessment Schedule and Project Milestones

Milestone/Activity	Start Date[1]	End Date[1]
Skeena Resources engagement with TCG about the Project and regulatory process	2018	Ongoing
Skeena Resources engagement with EAO and IAAC about the Project and potential regulatory process	2020	Ongoing
Skeena Resources engagement with TCG, TSKLH, Nisga'a, Gitanyow, local governments and stakeholders about the Project and regulatory process and Indigenous interests	Q2 2021	Ongoing
Early Engagement		
Skeena Resources submits IPD to the EAO and IAAC	Q3 2021	Q3 2021
EAO makes substitution request		Q3 2021
IAAC and EAO issue Joint Summary of Issues and Engagement (JSOIE) and direction for DPD		Q4 2021
FS produces interim designs and draft versions of Management Plans (e.g., water, water treatment, waste management, conceptual reclamation/closure)		Q3 2022
Skeena Resources submits DPD to EAO and IAAC		Q3 2022
Readiness Decision		
IAAC issues notification regarding Impact Assessment Determination		Q3 2022
Federal Minister issues substitution decision		Q3 2022
EAO concludes Readiness Decision phase		Q4 2022

Milestone/Activity	Start Date[1]	End Date[1]
Process Planning		
EAO undertakes process planning and issues Process Order	Q3 2022	Q1 2023
Application Development and Review		
Skeena Resources submits EAC Application to EAO	Q1 2023	Q3 2023
EAO provides direction to Skeena Resources for revised EAC Application	Q4 2023	Q1 2024
Skeena Resources submits revised EAC Application	Q1 2024	Q2 2024
Effects Assessment and Tahltan Risk Assessment		
EAO refers Assessment Report, recommended EAC conditions, and recommendations to provincial Ministers and the federal Minister	Q2 2024	Q4 2024
Recommendation and Decision		
Canada Decision Statement issued	Q4 2024	Q4 2024
BC Environmental Assessment Certificate issued	Q4 2024	Q4 2024
Post-Certificate		
Permitting	*	*
Construction	*	*
Mining operations	*	*

[1] Dates in this table refer to calendar years rather than fiscal years.
* Schedule to be determined in collaboration with EAO, IAAC, and TCG.

5.3 Other Provincial and Federal Permits, Licences, and Approvals Required for the Project

A summary of potential provincial and federal authorizations that may be required for the Project are provided in Table 5.3-1 and Table 5.3-2, respectively. The tables identify anticipated amendments to existing authorizations (summarized in Section 3.4) as well as new authorizations. Permit requirements will be confirmed by regulatory authorities during the assessment process. The project is anticipated to be compatible with all known government policies.

Table 5.3-1 Summary of Potential Provincial Permits, Licences and Approvals Required for the Project

Authorization	Responsible Agency	Legislation	Purpose	Authorization	
				New	Existing
Amendment to Permit M-197	EMLI	*Mines Act*, Health, Safety and Reclamation Code for Mines in BC	Approves the new mine plan and reclamation program	X	X
Explosives Storage and Use Permit	EMLI	*Health, Safety and Reclamation Code s.8*	Required prior to explosives magazine is located, erected, built, put into service, or modified		X
Water System Construction Permit Water System Operating Permit	Northern Health	*Drinking Water Protection Act*, Drinking Water Protection Regulation	Authorizes construction and operation of potable water supply system for camp and process plant.	X	X
Food Facility - Health Approval Application	Northern Health	*Drinking Water Protection Act*	Approves opening and operation of food service facility	X	X
Industrial Camp Notification	Northern Health	*Industrial Camps Regulation*	Notification of industrial camp	X	X
Sewage Registration *Environmental Management Act*	ENV	*Municipal Wastewater Regulation*	Authorizes sewage treatment plant	X	X
Amendment to *Environmental Management Act* (Effluent) Permit 10818	ENV	*Environmental Management Act*	Authorizes discharges from sedimentation ponds, tailings storage facility, seepage		X
Environmental Management Act (Solid Waste) Permit 12977	ENV	*Environmental Management Act*	Authorizes discharges for solid waste disposal		X
Environmental Management Act (Air Emissions) Permit	ENV	*Environmental Management Act*	Authorizes air emission discharges from new sources (e.g., incinerator and process plant)	X	
Hazardous Waste Registration	ENV	*Environmental Management Act* Hazardous Waste Regulation	Registers hazardous waste transfer facility, plant truck shop		X

Authorization	Responsible Agency	Legislation	Purpose	Authorization	
				New	Existing
Fuel Storage Registration	ENV	*Environmental Management Act*	Authorizes fuel storage	X	
Water Licence	MOF	*Water Sustainability Act*	Authorizes storage, use or diversion of surface water or groundwater for one or more purposes	X	
Approval for Works in and about a Stream (Section 11)	MOF	*Water Sustainability Act*	Approves changes in or about a stream	X	
Investigation or Inspection Permit	MOF	*Heritage Conservation Act*, RSBC 1996, c. 187	Authorizes the undertaking of an archaeological impact assessment (AIA)	X	
Site Alteration Permit	MOF	*Heritage Conservation Act*	Authorizes alteration of an archaeological site (should any be identified and impacted by the Project)	X	
Occupant Licence to Cut	MOF	*Forest Act*	Authorizes cutting and removal of timber on Crown land	X	
Road Use Permit	MOF	*Forest Act*	Authorizes use of existing Road	X	X
Amendment to Special Use Permit	MOF	*Forest Act*	Amends existing Special Use Permits for Eskay Creek Mine Road (if required)	X	X
Fish Collection Permit	FLNRORD	*Wildlife Act*	Authorizes fish salvage (e.g., data collection)	X	
Wildlife Permit	FLNRORD	*Wildlife Act*	Authorizes amphibian / small mammal capture and release	X	
Licence of Occupation	FLNRORD	*Land Act*, RSBC, 1996, c. 245	Authorizes occupation of Crown land (e.g., temporary borrow and gravel pits, construction staging areas)	X	
Access Permit	MOTI	*Transportation Act*	Oversize load movement on provincial highways	X	

Table 5.3-2 Summary of Potential Federal Permits, Licences and Approvals That May be Required for the Project

Authorization	Responsible Agency	Legislation	Purpose	Authorization	
				New	Existing
Explosives Permit	Natural Resources Canada	*Explosives Act* R.S.C., 1985, and Explosives Regulations, (SOR/2013-211)	Authorizes manufacture, store and use of explosives		X
Fisheries Authorization	Fisheries and Oceans Canada	*Fisheries Act*	Provides required authorization if the Project will result in the harmful alteration, disruption or destruction of fish habitat or death of fish	X	
Migratory Bird Permit	ECCC	*Migratory Birds Convention Act*	Provides required authorization if nesting habitats used by migratory birds may be impacted or if Project activities occur during nesting season (e.g., clearing of vegetation)	X	
Species at Risk Permit	ECCC	*Species at Risk Act*	Authorizes an activity affecting listed wildlife species, any part of its critical habitat or the residences of its individuals	X	
Environmental Emergency Registration	ECCC	Environmental Emergency Regulations	Registers substances over specified volumes site must have suitable emergency response plan for the substances	X	
Nuclear Safety Authorization	Canadian Nuclear Safety Commission	*Nuclear Safety and Control Act*	Authorizes possession of instruments containing radioactive material, such as nuclear density gauges (portable and fixed)	X	
Radio Licence	Industry Canada	*Radio Communication Act*	Authorizes use of radio equipment on site	X	
Navigable Waters Approval	Transport Canada	*Canadian Navigable Waters Act*	Authorizes works that take place within navigable waters that do not meet works established under the Minor Works Order and which may interfere with navigation	X	
Transportation of Dangerous Goods Permits	Transport Canada	*Transportation of Dangerous Goods Act*	Authorizes transportation and handling of dangerous goods	X	
Strategic Assessment of Climate Change	ECCC	Section 95 of the IAA	Strategic Assessment of Climate Change was deemed a strategic assessment conducted under section 95 of the IAA and applies to all designated projects under the IAA	X	

5.4 Nisga'a Final Agreement

The Nisga'a Final Agreement (NFA) is a treaty and land claims agreement which came into effect in 2000 (Government of Canada, Government of BC, and Nisga'a Nation 2000). The NFA establishes three categories of lands with different specified Nisga'a interests: Nisga'a Lands (approximately 2,000 km^2), the Nass Wildlife Area (NWA; more than 16,000 km^2), and the Nass Area (approximately 27,000 km^2, incorporating Nisga'a Lands and the NWA within it). The NFA affords title to Nisga'a Nation within Nisga'a Lands and defines the rights of Nisga'a Nation to self-government and law-making authority in this area. The NFA also specifies Nisga'a Nation rights to access and make use of natural resources in the NWA and the Nass Area (NLG, Province of BC, and Government of Canada 1998). Chapter 10 of the NFA establishes the requirements for environmental assessments for projects that are either on Nisga'a Lands or may reasonably be expected to have adverse environmental effects on residents of Nisga'a Lands, Nisga'a Lands or Nisga'a interests set out in NFA. Skeena Resources will continue to engage with Nisga'a Nation to ensure that the Hybrid AIR and EAC Application, or alternate assessment, will meet NFA requirements.

5.5 Other Requirements and Agreements

The Project is located within the Unuk River watershed in the Ketchum Creek and Tom MacKay Creek watersheds, approximately 40 km upstream from the Alaska/BC border across the Unuk River. The Unuk River watershed, and proposed/operating mines within it, fall under the *2015 Memorandum of Understanding and Cooperation* (MoU) between the State of Alaska and Province of BC, like other transboundary rivers. The MoU formalizes the mutual agreement to protect and enhance the shared environment, including transboundary rivers, watersheds, and fisheries, for the benefit of both jurisdictions. The MoU established a Bilateral Working Group (BWG), which had three priorities: establish and oversee a technical working group on water monitoring; look for opportunities to build on and enhance participation in mine project environmental assessments and permitting; and identify and share reports on mine discharges, operations, and closures.

In November 2017, the BWG approved a two-year joint water quality monitoring program to collect and share seasonal aquatic information in the Taku, Stikine, and Unuk watersheds, in order to characterize aquatic conditions. The joint water quality monitoring program was designed to characterize the overall health of the transboundary watersheds and monitor potential impacts from mining operations and other industrial development. The sampling program operated in 2018 and 2019, collecting water quality, sediment quality, and benthic invertebrate and fish tissue chemistry data. The Taku River Tlingit First Nation (TRTFN) and TCG have been involved in the monitoring program. The latest monitoring report was released in March 2020 (Torunski 2020). As of May 2021, the BWG recommended that the water quality monitoring program not continue after finding good agreement between BC and Alaska results and mining proponent monitoring programs. The collected data did not show measurable impact to Alaskan waters from historical mining activities in BC, particularly in the Unuk River, with one operating mine (Brucejack Mine), the closed Eskay Creek Mine, and the proposed KSM Project (Government of BC news release February 25, 2021).

6.0 SUMMARY OF ENGAGEMENT

Key updates to this section:

The order of several major sections of the IPD has been revised to flow more logically; this section, which originally followed the section on Indigenous Interests (Section 7.0) in the IPD, now precedes that section. Additions to this section include summaries of Skeena Resources' engagement activities with different communities, governments, and organizations on behalf of the Project, as well as descriptions of planned future engagement. Feedback described through this section has been incorporated through the DPD or will be considered in future phases of the regulatory process.

Skeena Resources is committed to early, inclusive and meaningful engagement with Indigenous Peoples, governments, communities, and other stakeholders during the federal and provincial assessment processes. To date, Skeena Resources has engaged with Tahltan Central Government, federal and provincial government agencies, the Tahltan Nation, Tsetsaut Skii km Lax Ha (TSKLH), Nisga'a Nation, Gitanyow Nation, and Métis Nation British Columbia (MNBC). Engagement activities and methods have taken into account COVID-19 restrictions, travel advisories and protective measures, which have affected Skeena Resources' planned "in-person" engagement with communities and Indigenous Peoples. Alternative methods for engagement (video-conferencing and virtual town halls and workshops) were implemented with input from Indigenous Peoples and community leadership.

The following sections report on the outcomes of Skeena Resources' engagement activities, which were guided by the Engagement Plan for the Project described in Section 5.2.2 of the July 2021 IPD (Skeena Resources 2021b). Skeena Resources was able to accomplish many of the planned activities in the Engagement Plan, although some intended events and engagement did not happen as planned, particularly with the Nisga'a Nation, Gitanyow and TSKLH. Skeena Resources continues to develop relationships and respond to comments to understand Indigenous interests and approaches.

The principles for Skeena Resources' approach to engagement are to:

- Foster cooperation and understanding through transparent, honest, frequent and timely plain language communication with Indigenous Peoples, communities and stakeholders to clearly communicate potential impacts, opportunities and potential solutions associated with the Project;
- Communicate Project plans and activities openly and gather feedback; work to address any concerns including where possible, refining the Project or developing mitigation measures;
- Meet the Indigenous and public consultation requirements of the new provincial environmental assessment and federal impact assessment processes, including public comment periods where feedback will be provided to the government and company; and

- Commit to incorporating principles of GBA Plus and working with the communities to mitigate barriers that limit participation and engagement from specific groups in each community. GBA Plus goes beyond biological (sex) and socio-cultural (gender) differences and considers:
    - assumptions that are informing policy development (e.g., social factors, norms, or stereotypes);
    - who could be left behind or not captured (various groups and genders) by policies;
    - who is consulted when developing policies (those directly affected and risk of being left behind); and
    - the data used to develop policies.

A summary of the proposed engagement methods and materials Skeena has used and will continue to use to during the next steps of the regulatory processes are provided in Table 6-1.

Table 6-1 Proposed Engagement Methods and Materials

Engagement Methods	Engagement Materials
• Hybrid in-person/virtual community events • Virtual community information sessions • Virtual presentations for local governments and elected leadership • In-person, virtual and phone meetings with Indigenous leadership and agency representatives • Site tours • Technical workshops • Participation in community events • Written correspondence	• Quarterly newsletter • Project website • Videos of project components with 3-dimensional renderings • Question and answer documents • Recorded virtual presentations • Brochures and information sheets • Maps and figures • Letters

During the preparation of this DPD and responses to feedback, Skeena Resources has continued to engage with the different stakeholder groups described in this section; for the purposes of completing this document, engagement activities have been summarized up to the end of June 2022. Skeena Resources has and will continue to engage on the Project using a variety of accessible mediums such as social media posts, printed brochures, online videos, and virtual information sessions.

6.1 Summary of Engagement with Indigenous Peoples of Canada

Skeena Resources' approach to Indigenous engagement is guided by the federal *Principles Respecting the Government of Canada's Relationship with Indigenous Peoples* (Government of Canada 2018), BC's *Draft Principles that Guide the Province of British Columbia's Relationship with Indigenous Peoples* (Province of British Columbia 2018) and the *United Nations Declaration on the Rights of Indigenous Peoples* (United Nations 2007).

Skeena Resources has also identified the following engagement objectives with Indigenous Peoples:

- provide opportunities for transparent and meaningful dialogue with Indigenous Peoples to inform Skeena Resources of their interests in the Project;
- facilitate assessment by the Indigenous Peoples of potential Project effects to Indigenous Title, Rights and interests and identify the mitigations to remove or reduce potential effects;
- identify the process for incorporating Indigenous knowledge, interests and concerns in the assessment process;
- identify opportunities for Skeena and Indigenous Peoples to work collaboratively and mutually benefit in relation to the Project; and
- support IAAC and the EAO's goals with respect to Indigenous Rights, knowledge, and reconciliation.

Skeena Resources has identified the Tahltan Nation, TSKLH, Nisga'a Nation and Gitanyow Nation and the Métis (collectively referred to as Indigenous Peoples) as being potentially impacted by the Project. The Project is within the Tahltan Territory and TSKLH asserted traditional territory. Highways 37 and 37A pass through the Nass and Nass Wildlife Areas (as defined in the Nisga'a Final Agreement) of the Nisga'a Nation and the traditional territory of the Gitanyow Nation.

The JSOIE (described in Section 5.2) stated that, as of October 29, 2021, the Tahltan Nation was a 'confirmed participating Indigenous nation under the EAA (2018)'. Skeena Resources understands that other contacted nations may yet self-identify to the EAO. Skeena Resources acknowledges the Nisga'a Nation does not need to identify as a 'participating Indigenous nation' under EAA, as the NFA establishes obligations on governments under Chapter 10.

6.1.1 Engagement with Tahltan Nation Membership

6.1.1.1 Summary of Engagement Activities

Skeena Resources initiated engagement on its exploration program with the Tahltan Nation in January 2015. Since then, Skeena Resources' engagement with the Tahltan Nation has developed into a multifaceted relationship with the TCG, (including leaders, THREAT, Directors) and Tahltan members. Skeena works closely with community leadership when planning community events and follows guidance and direction from the Iskut Band and Tahltan Band. This section summarizes engagement with Tahltan membership, while engagement with the TCG and THREAT is described in Section 6.2.1.

Skeena hosted two virtual information sessions with members of the Tahltan Nation on June 23 and 26, 2021. A Tahltan Community Engagement Session was hosted in partnership with TCG, IAAC and EAO during the public comment period on September 22, 2021. Skeena's Community Relations Manager also hosts regular in-person Community Visits in Dease Lake, Iskut and Telegraph Creek with Skeena representatives attending virtually. Skeena works closely with community leadership on planning in person community visits and has rescheduled over ten community information sessions due to community COVID-19 concerns or deaths in community.

Table 6.1-1 is a summary of engagement with Tahltan members from February 2021 to April 2022, along with specific outcomes relating to those activities. Section 7.1 summarizes interests and concerns relating to the Project that Skeena Resources heard during these engagement sessions.

Table 6.1-1 Summary of Engagement with Tahltan Membership from February 2021 to June 2022

Date	Activity	Description	Outcomes
February 25, 2021	Request for Interview letters sent to 30 key Tahltan community members	Letters requesting interviews to inform the Skeena/Newcrest/ TCG collaborative Social Baseline Study sent to 18 key Tahltan community members.	Skeena and Newcrest conducted 16 interviews.
March 11, 2021 – June 10, 2021	12 Interviews of key Tahltan Community Members	Interview of 12 key Tahltan informants with Skeena and Newcrest representatives to help inform the development of the Tahltan Social Baseline Survey.	Results of interview guided Social Baseline Oversite Committee in development of Tahltan Social Baseline Survey.
June 23, 2021	Eskay Creek Revitalization Project Tahltan Virtual Information Session	Skeena hosted a virtual information session for Tahltan members with a total of 7 participants. Topics raised included: transboundary, traffic, potential risk of ARD and metal leaching, and employment and contract opportunities.	Concerns raised during this engagement are reflected in Table 7.1-1 in Section 7.1.
June 26, 2021	Eskay Creek Revitalization Project Tahltan Virtual Information Session	Skeena hosted a virtual information session for Tahltan members with 1 participant.	Due to the lack of participation, the Skeena Vice President of Sustainability offered to have a one-on-one call with the Tahltan Member to address any interests or concerns related to the project.
September 16, 2021	Eskay Creek Revitalization Project Virtual Information Session hosted in partnership with TCG, EAO and IAAC	Public information session with presentations on the regulatory process from THREAT, EAO, and IAAC, and an introduction to the Project from the Skeena team. A total of 11 participated. Topics raised: transboundary, cumulative effects, economic/ employment opportunities, education/training opportunities.	Provided awareness of the EAO and IAAC's public comment period on the Project and the opportunity to submit comments into the regulatory process.
September 17, 2021	Tahltan Social Baseline Survey Community Visit	Skeena and Newcrest representatives were present in person to assist community members filling out the Tahltan Nation Social Community Survey.	Feedback received during Tahltan community visit will be included in Tahltan Social Baseline Report.

Date	Activity	Description	Outcomes
September 21, 2021	Eskay Creek Revitalization Project Virtual Information Session hosted in partnership with TCG, EAO and IAAC	Public information session with presentations on the regulatory process from THREAT, EAO, IAAC, and an introduction to the Skeena team. A total of 11 participated. Concerns and interests raised: engagement with transboundary communities/Indigenous groups, transportation.	Provided awareness of the EAO and IAAC's public comment period on the Project and the opportunity to submit comments into the regulatory process.
September 22, 2021	Eskay Creek Revitalization Project Tahltan community Information Session hosted in partnership with TCG, EAO, and IAAC	Tahltan information session with presentations on the regulatory process from THREAT, EAO, and IAAC, and an introduction to the Project from the Skeena Sustainability team. Time allotted for questions from participants. Total of 13 participants. Topics raised: water, engagement with other Indigenous Nations, transboundary communities/ Indigenous groups, transportation.	Provided awareness of the EAO and IAAC's public comment period on the Project and the opportunity to submit comments into the regulatory process.
September 24, 2021	Tahltan Social Baseline Survey Community Visit	Skeena and Newcrest representatives were present in person to assist community members filling out the Tahltan Nation Social Community Survey.	Feedback received during Tahltan community visit will be included in Tahltan Social Baseline Report.
September 28, 2021	Tahltan Social Baseline Survey Community Visit	Skeena and Newcrest representatives were present in person to assist community members filling out the Tahltan Nation Social Community Survey.	Feedback received during Tahltan community visit will be included in Tahltan Social Baseline Report.
October 1, 2021	Tahltan Social Baseline Survey Community Visit	Skeena and Newcrest representatives were present in person to assist community members filling out the Tahltan Nation Social Community Survey.	Feedback received during Tahltan community visit will be included in Tahltan Social Baseline Report.
December 6, 2021	Letter from Skeena Community Relations Manager to Tahltan Emergency Management Committee	Letter congratulating the Tahltan Emergency Management Committee (EMC) on winning the 2021 AME David Barr Award.	Skeena will continue to work with the Tahltan EMC to protect Tahltan communities.
December 9, 2021	Skeena Community Relations Manager hosted in person information session in Iskut, BC with the rest of the Skeena team joining virtually. TCG Lands Director participated and contributed answers during Q&A	Skeena Community Relations Manager lead a presentation introducing the Skeena team and the Eskay Creek Revitalization Project. Questions raised about: Engagement Transboundary Indigenous Groups, Tahltan EA Strategy, and education for high school students about mining.	Skeena's Community Relations Manager will continue to host regular in person community information sessions pending COVID-19 precautions. Questions and concerns raised during the event will dictate future community information session topics.

Date	Activity	Description	Outcomes
December 10, 2021	Letter from Skeena Community Relations Manager to TCG President and Board of Directors	Letter sent introducing Skeena's Community Relations Manager, an update on the Eskay Creek revitalization Project, and encouraging TCG leadership to contact them with any questions.	Skeena to continue to maintain consistent communication with TCG leadership.
	Letter from Skeena Community Relations Manager to Tahltan Nation Development Corporation Board	Letter sent introducing Skeena's Community Relations Manager, providing an update on the Eskay Creek Revitalization Project, and encouraging TNDC to contact them with any questions.	Skeena to continue to maintain consistent communication with TNDC.
December 16, 2021	Skeena Community Relations Manager hosted an in-person community information session in Dease Lake, BC with the rest of the Skeena team participating virtually. TCG land director participated virtually and contributed answers to the Q&A	Skeena Community Relations Manager lead a presentation introducing the Skeena team and the Eskay Creek Revitalization Project.	Skeena's Community Relations Manager will continue to host regular in person community information sessions pending COVID-19 precautions. Questions and concerns raised during the event will dictate future community information session topics.
January 17, 2022	Virtual meeting with Skeena Community Relations Manager, Skeena Engagement Coordination and School District 87 management	Meeting to discuss opportunity for School District 87 students to participate in a Skeena sponsored trip to a Tahltan artist exhibit in Whistler, BC.	Skeena to partner with School District 87 for the trip to ensure it follows all protocols.
January 20, 2022	Virtual meeting with Skeena Community Relations Manager, Skeena Engagement Coordinator and Klappan School Principal	Meeting to discuss the opportunity for Klappan School students to participate in a Skeena sponsored trip to a Tahltan artist exhibit in Whistler, BC.	N/A
February 2, 2022	In person presentation from Skeena VP Sustainability, Skeena VP Communications, Skeena VP Operations to TCG leadership	Presentation provided an update on the Eskay Creek Revitalization project and planned work for 2022.	Skeena to continue to consistently communicate with TCG leadership and provide regular updates on the Eskay Creek Revitalization Project.
April 14, 2022	Skeena Community Relations Manager and Regulatory Specialist hosted an in-person community information session in Telegraph Creek, BC with the rest of the Skeena team participating virtually	Skeena Community Relations Manager led a presentation introducing the proposed Technical Sample at the Eskay site, the EA process, and Skeena's Indigenous Entrepreneurship Program.	Skeena's Community Relations Manager will continue to host regular in person community information sessions pending COVID-19 precautions. Questions and interests raised during the event will inform future community information session topics.

Date	Activity	Description	Outcomes
April 28, 2022	Skeena Community Relations Manager and Regulatory Specialist hosted an in-person community information session in Dease Lake, BC with the rest of the Skeena team participating virtually	Skeena Community Relations Manager led a presentation introducing the proposed Technical Sample at the Eskay site, the EA process, and Skeena's Indigenous Entrepreneurship Program.	Skeena's Community Relations Manager will continue to host regular in person community information sessions pending COVID-19 precautions. Questions and interests raised during the event will inform future community information session topics.
May 4, 2022	Community Newsletter sent to residents of Dease Lake, Iskut and Telegraph Creek via mail.	Newsletter updating community members and governments on the Eskay Creek Revitalization Project and Skeena's community initiatives.	Skeena will publish community newsletters quarterly to keep community members and governments updated on the Project.
May 12, 2022	Skeena Community Relations Manager and Regulatory Specialist hosted an in-person community information session in Iskut, BC with the rest of the Skeena team participating virtually	Skeena Community Relations Managers hosted an in-person community visit with Skeena representatives joining virtually. Updated communities on the Project's Environmental Assessment and introduced Skeena's Entrepreneurship Program.	Skeena's Community Relations Manager will continue to host regular in person community information sessions pending COVID-19 precautions. Questions and interests raised event will dictate future community information session topics.
May 26, 2022	Skeena Community Relations Manager, Engagement Coordinator, Sustainability Coordinator, Mine Manger and Regulatory Specialist hosted an in-person community information session in Iskut, BC with the rest of the Skeena team participating virtually	Skeena Community Relations Manager hosted an in-person community event with Skeena representatives joining both in person and virtually. The focus of the meeting was on topics community members raised in previous community visits including additional information on Tom MacKay Storage Facility, Project impacts on Hwy 37/37a traffic and employment opportunities.	Skeena's Community Relations Manager will continue to host regular in person community information sessions pending COVID-19 precautions. Questions and interests raised during event will dictate future community information session topics.
May 27, 2022	Skeena Tahltan Mentees presented at Dease Lake School in Dease Lake BC	Skeena Tahltan mentees presented to students and staff, and discussed their roles at Skeena, the Eskay Creek Revitalization Project and employment opportunities.	Skeena's presentations at community high schools were in direct response to a comment received during a previous community visit. Skeena will continue to work with community members on addressing interests.
May 30, 2022	Skeena Tahltan Mentees presented at Tahltan School in Telegraph Creek BC	Skeena Tahltan mentees presented to students and staff, and discussed their roles at Skeena, the Eskay Creek Revitalization Project and employment opportunities.	Skeena's presentations at community high schools were in direct response to a comment received during a previous community visit. Skeena will continue to work with community members on addressing interests.

Date	Activity	Description	Outcomes
May 31, 2022	Skeena Tahltan Mentees presented at Klappan School in Iskut BC	Skeena Tahltan mentees presented to students and staff, and discussed their roles at Skeena, the Eskay Creek Revitalization Project and employment opportunities.	Skeena's presentations at community high schools were in direct response to a comment received during a previous community visit. Skeena will continue to work with community members on addressing interests.
June 2, 2022	Skeena Community Relations Manager hosted an in-person community information session in Iskut, BC with the rest of the Skeena team participating virtually	Skeena Community Relations Manager hosted an in-person community event with Skeena representatives joining both in person and virtually. The focus of the meeting was on topics community members raised in previous community visits including additional information on Tom MacKay Storage Facility, Project impacts on Hwy 37/37a traffic and employment opportunities.	Skeena's Community Relations Manager will continue to host regular in person community information sessions pending COVID-19 precautions. Questions and interests raised during event will dictate future community information session topics.
June 16, 2022	Skeena Community Relations Manager and Regulatory Specialist hosted an in-person community information session in Telegraph Creek BC, BC with the rest of the Skeena team participating virtually	Skeena Community Relations Manager hosted and in-person community event with Skeena representatives joining both in person and virtually. The focus of the meeting was on topics community members raised in previous community visits including additional information on Tom MacKay Storage Facility, Project impacts on Hwy 37/37a Traffic and employment opportunities.	Skeena's Community Relations Manager will continue to host regular in person community information sessions pending COVID-19 precautions. Questions and interests raised during event will dictate future community information session topics.

* Skeena's Sustainability Team includes: VP Sustainability, EA Manager, Manager of Permitting and Compliance, Advisor Indigenous & External Affairs, Community Relations Manager, Sustainability Project Manager and Engagement Coordinator.

6.1.1.2 Planned Future Engagement

Skeena is committed to frequent and transparent communication with the Tahltan Nation and will continue to engage with Tahltan members regarding their interests related to the project. Skeena will continue to consider and address feedback received during engagements with Tahltan Nation members, including:

- hosting hybrid in-person/virtual community events: the Skeena Community Relations Manager will host in-person information sessions in Dease Lake, Telegraph Creek and Iskut that will also be accessible virtually; these sessions will occur on a regular schedule (approximately every six weeks) and the coordination support with the Tahltan Band staff and Iskut First Nation staff has been essential;

- planning community engagement sessions at appropriate times and with guidance from THREAT to receive feedback on proposed land use objectives developed by the Closure and Reclamation Planning Oversight Team; and
- continuing to meet the commitments of the Communication Agreement with TCG.

6.1.2 Engagement with Tsetsaut Skii km Lax Ha

6.1.2.1 Summary of Engagement Activities

Skeena Resources initiated engagement with TSKLH in spring 2018 and had an opportunity to engage in-person in August 2020. Skeena has continued dialogue into May 2022 (refer to Appendix D for a comprehensive summary of engagement activities). Skeena Resources provided TSKLH with the draft IPD for review and comment in the first quarter of 2021, and also requested TSKLH's input on preferred method for engagement on draft documents.

Table 6.1-2 provides a summary of engagement activities with TSKLH. Section 7.2 summarizes interests and concerns relating to the Project that Skeena Resources heard during these engagement sessions.

Table 6.1-2 Summary of Engagement with Tsetsaut Skii km Lax Ha, February 2021 to June 2022

Date	Activity	Description	Outcomes
February 9, 2021	Email from VP Sustainability to Chief	Shared draft version of IPD/Engagement Plan and offered to meet to discuss.	Meeting planned with TSKLH leadership.
February 16, 2021	Email and letter from Chief to VP Sustainability	Interested in meeting and need time to review the documents.	Scheduled meeting on February 19 to follow up.
February 19, 2021	Call with Chief and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	Discussion re: rights and title and capacity funding to review documents.	Skeena expressed support and is waiting on TSKLH confirmation to move capacity funding.
March 1 and 8, 2021	Emails between Chief to VP Sustainability	Discussion re rights and title and capacity funding to review documents.	Skeena expressed support and is waiting on TSKLH confirmation to move capacity funding.
April 5, 2021	Email from Advisor Indigenous & External Affairs to Chief	Shared interim report related to Heritage and Culture in Project area.	N/A
April 14, 2021	Email from Skeena Advisor Indigenous & External Affairs to Chief	Shared annual exploration permit report that was submitted.	No response.
July 19, 2021	Email from Skeena VP Sustainability to Chief	Email providing draft capacity funding agreement.	No response.

Date	Activity	Description	Outcomes
July 2021	Biweekly virtual meeting with Skeena Community Relations Manager and Sustainability Project Manager and TSKLH Business Owner	Meeting regarding upcoming contracting opportunities.	Skeena will continue to meet with TSKLH business entity to communicate opportunities.
August 2021	Biweekly virtual meeting with Skeena Community Relations Manager and Sustainability Project Manager and TSKLH Business Owner	Meeting regarding upcoming contracting opportunities.	Skeena will continue to meet with TSKLH business entity to communicate opportunities.
September 2021	Biweekly virtual meeting with Skeena Community Relations Manager and Sustainability Project Manager and TSKLH Business Owner	Meeting regarding upcoming contracting opportunities.	Skeena will continue to meet with TSKLH business entity to communicate opportunities.
October 2021	Biweekly virtual meeting with Skeena Community Relations Manager and Sustainability Project Manager and TSKLH Business Owner	TSKLH business representative unavailable to meet during October.	Skeena will continue to reach out to TSKLH business entity to communicate opportunities.
November 2021	Biweekly virtual meeting with Skeena Community Relations Manager and Sustainability Project Manager and TSKLH Business Owner	TSKLH business representative unavailable, meeting shifted to as-needed basis.	Skeena will continue to reach out to TSKLH business entity to communicate opportunities.
November 19, 2021	Call with TSKLH business owner and Skeena Community Relations Manager	Biweekly meetings moved to calls on an as-needed basis.	Skeena Community Relations Manager will continue to check in with TSKLH business owner regularly and schedule calls as needed.
December 2, 2021	Email from Skeena Community Relations Manager to TSKLH Business owner	Invitation to meet in person in early December in Hazelton, BC.	Meeting scheduled, but cancelled due to COVID-19.
January 1, 2022	Skeena Community Relations Manager texted TSKLH business owner	Invitation to meet in person in late January in Hazleton, BC.	Timing did not work for Business Owner. Skeena Community Relations Manager will continue to invite to meetings.
January 24, 2022	Letter from Skeena Community Relations Manager to TSKLH Chief	Letter updating TSKLH leadership on the EA process and invitation to meet at their earliest convenience.	In person meeting scheduled in Vancouver for February 1, 2022.
February 1, 2022	In person meeting with Skeena VP Sustainability and Community Relations Manager and TSKLH Business owners	Meeting to discuss contracting opportunities at the Eskay Site and how Skeena can support the growth of the business.	Skeena Community Relations Manager to support development of business's policies.

Date	Activity	Description	Outcomes
April 7, 2022	Letter from Skeena Community Relations Manager to TSKLH Chief	Skeena provided draft DPD to TSKLH leadership requesting feedback and provided draft capacity funding agreement requesting to meet with TSKLH Chief in person in Hazelton in late May.	Skeena will continue to reach out to TSKLH leadership requesting their input on EA documents and requesting the development of Agreements to facilitate their participation with the Project.
April 26, 2022	Call from Skeena Community Relations Manager to TSKLH Business Entity	Skeena Relations Manager reached out to TSKLH business entity regarding contracting opportunities at the Eskay site and to offer to meet with business entity in person in Hazelton BC in late May.	Skeena will continue to work with the TSKLH business entity on providing contracting opportunities at the Eskay Creek site.
May 5, 2022	E-mail from TSKLH Chief to Skeena Community Relations Manager	E-mail confirming interest in meeting with Skeena Community Relations Manger in person in late May.	Unable to meet due to scheduling conflicts. Skeena will continue to reach out to TSKLH leadership offering to meet in person to discuss TSKLH interests and concerns.
June 30, 2022	Phone call from Skeena Relations Manager to TSKLH Business Entity	Call updated business entity on the development of Skeena Entrepreneurship Program.	Skeena will continue to support Indigenous business owners.

6.1.2.2 Planned Future Engagement

Skeena Resources will continue to engage with the TSKLH business entity to communicate any upcoming opportunities and provide any requested support to building the business's capacity. Skeena Resources will continue to request meetings with TSKLH leadership to update TSKLH on the Project throughout subsequent phases of the assessment process.

6.1.3 Engagement with Nisga'a Nation

6.1.3.1 Summary of Engagement Activities

Skeena Resources held introductory meetings with Nisga'a Lisims Government (NLG) in March 2021. In April 2022, Skeena initiated participation in an assessment under Section 10 of the Nisga'a Final Agreement. Skeena finalized a Confidentiality Agreement with NLG in May 2022 and will continue to work with NLG on their assessment process. Table 6.1-3 provides a summary of engagement activities with Nisga'a Nation. Section 7.3 summarizes interests and concerns relating to the Project that Skeena Resources heard during the course of engagement.

Table 6.1-3 Summary of Engagement with the Nisg̲a'a Nation from February 2021 to June 2022

Date	Activity	Description	Outcomes
February 16, 2021	Letter to NLG President sent by email with a hard copy delivered by regular mail	Introduction to the Eskay Creek Revitalization Project and invitation to meet with Skeena Sustainability Team.	Meeting planned for March 4, 2021.
March 4, 2021	Virtual Meeting with Skeena VP Sustainability, NLG President, Chairperson of the Council of Elders, NLG CEO, Executive Chairperson, NLG Secretary Treasurer	Introductory meeting regarding the Eskay Creek Revitalization Project with representatives from the Nisg̲a'a Lisims Government. Skeena representatives presented on the Company and Project and answered questions.	Skeena Resources will engage with Nisg̲a'a Nation, the EAO and the Agency during the review of the draft DPD in December 2021/ January 2022 via letter, a Project Presentation, and coordination phone calls.
January 24, 2022	Letter from Skeena Community Relations Manager to NLG President	Invitation to meet regarding the Eskay Creek Revitalization Project EA Process.	Skeena will schedule a meeting with NLG at their earliest convenience.
April 4, 2022	E-mail from Skeena Community Relations Manager to NLG President, NLG CEO, NLG Land Director and NLG Lands Officer	Skeena Community Relations Manager provided NLG with a copy of the draft DPD.	Skeena will work with NLG on completing an assessment under Section 10 of the Nisg̲a'a Final Assessment.
April 5, 2022	Virtual Meeting with Skeena Community Relations Manager, Skeena VP Communications, Skeena Engagement Coordinator, NLG Lands Director, NLG Lands Officer, NLG legal advisors, NLG technical advisors	Skeena VP Sustainability led presentation introducing Skeena Resources, the Eskay Creek Revitalization Project, and the potential effects of the Project on Nisg̲a'a Treaty Rights.	Skeena will work with NLG on completing an assessment under Section 10 of the Nisg̲a'a Final Assessment.
May 19, 2022	E-mail from Skeena Community Relations Manager to NLG Lands Director, NLG Lands Officer, NLG legal advisors, NLG technical advisors	Skeena Community Relations Manager reached out to NLG with an update on the EA process and offering to collaborate on the development of the Nisg̲a'a section of the hybrid AIR.	Skeena will send draft Nisg̲a'a section of the AIR and draft confidentiality agreement.
May 20, 2022	Phone call with NLG Lands Officer and Skeena Community Relations Manager	NLG Lands Officer acknowledged update from Skeena Community Relations and requested draft Nisg̲a'a section of AIR.	Skeena will send draft Nisg̲a'a section of the AIR and draft confidentiality agreement.
May 23, 2022	E-mail from Skeena Engagement Coordinator to NLG Lands Officer	Skeena provided draft Nisg̲a'a section of the AIR and draft Confidentiality Agreement.	Skeena will continue to develop the Confidentiality Agreement with NLG and work with NLG on the development of the scope of the Nisg̲a'a Assessment under Section 10 of the NFA.

Date	Activity	Description	Outcomes
June 20, 2022	E-mail from NLG Lands Officer to Skeena Engagement Coordinator	NLG provided NFA Section 10 assessment documents after the completion of a Confidentiality Agreement between NLG and Skeena	Skeena will use the guidance documents and continue to work with NLG on the assessment of the Project under Section 10 of the NFA

6.1.3.2 Planned Future Engagement

Skeena Resources will engage with Nisga'a Nation, EAO and IAAC throughout subsequent phases of the assessment process. Skeena Resources acknowledges the comments in Nisga'a Nation's letter to the EAO of September 8, 2021 and the requirements of the NFA.

6.1.4 Engagement with Gitanyow Nation

6.1.4.1 Summary of Engagement Activities

Skeena held introductory meetings with the Gitanyow Nation during which the Gitanyow Hereditary Chiefs Office expressed interest in the Eskay Creek Revitalization Project participating in the Pilot Program for the Gitanyow Wilp Sustainability Assessment Process (WSAP). Skeena will continue to work with GHC on applying the WSAP to the Project and addressing their interests and concerns. Table 6.1-4 provides a summary of engagement activities with Gitanyow Nation along with specific outcomes relating to those activities. Section 7.4 summarizes interests and concerns relating to the Project that Skeena Resources heard during these engagement sessions.

Table 6.1-4 Summary of Engagement with Gitanyow Nation from February 2021 to June 2022

Date	Activity	Description	Outcomes
February 16, 2021	Letter sent to Simogyet Malii, President of Gitanyow Hereditary Chiefs	Introduction to the Project and invitation to meeting with the Skeena Sustainability Team.	Meeting scheduled for March 9, 2021.
March 9, 2021	Introductory meeting with Skeena VP Sustainability, Skeena Sustainability Coordinator, Simogyet Malii, President of Gitanyow Hereditary Chiefs, Executive Director of Gitanyow Hereditary Chiefs and Head Fish Biologist at Gitanyow Fisheries Authority	Introductory meeting regarding the Eskay Creek Revitalization project. Skeena representatives presented on the Company and Project and answered questions.	Skeena will continue to engage with Gitanyow Nation regarding their interests related to the Project. Indicated interest in regular communication about the Project and greater understanding of Gitanyow interests around fisheries, Meziadin area, workforce capabilities/skills, education, land use planning and sustainability approaches.
January 24, 2022	Letter from Skeena Community Relations Manager to Gitanyow Hereditary Chiefs Office	Letter inviting Gitanyow Hereditary Chiefs Office President to meet regarding the Gitanyow Wilp Sustainability Assessment Process.	Virtual meeting scheduled for late January.

Date	Activity	Description	Outcomes
February 25, 2022	Virtual Meeting with Gitanyow Chief, Gitanyow Consultant, Skeena VP Sustainability, Skeena Community Relations Manager and Skeena Engagement Coordinator	Meeting updating GHC on the Project, outlining potential impacts on Gitanyow Traditional Territory and Skeena participating in Gitanyow Wilp Sustainability Assessment Process (WSAP).	Skeena and GHC will work together to develop Early Engagement Agreement and continue to work together on applying the WSAP to the Project.
April 6, 2022	E-mail from Skeena Community Relations Manager to GHC Sustainability Advisor	Skeena Community Relations Manager provided Skeena's draft DPD.	Skeena will continue to work with GHC on their WSAP.
May 4, 2022	Community Newsletter sent to GHC and community members in the Gitanyow communities of Gitanmax, Gitwangak, Gitanyow, Cedervale and Gitsegukla via mail	Newsletter updating community members and governments on the Project and Skeena's community initiatives.	Skeena will publish community newsletter quarterly to keep community members and governments updated on the project.
June 13, 2022	Virtual Meeting with GHC representatives	Meeting regarding the development of the Engagement Agreement between GHC and Skeena.	Skeena and GHC will work together to develop Early Engagement Agreement and continue to work together on applying the WSAP to the Project.

6.1.4.2 Planned Future Engagement

Skeena will continue to engage with the Gitanyow Nation regarding their interests related to the Project. Skeena will work with GHC on the development of an Early Engagement Agreement and work together on applying the Gitanyow Wilp Sustainability Assessment Process to the Project.

6.1.5 Engagement with Métis Nation British Columbia

6.1.5.1 Summary of Engagement Activities

Skeena sent an introductory letter to MNBC in June 2021, but has not received a response. MNBC did not submit any comments during the EAO and IAAC public comment period. Table 6.1-5 provides a summary of engagement activities with MNBC along with specific outcomes relating to those activities.

6.1.5.2 Future Planned Engagement

Skeena will continue to reach out to MNBC and invite them to meet regarding their interest related to the Project.

Table 6.1-5 Summary of Engagement with Métis Nation British Columbia from June 2021 to June 2022

Date	Activity	Description	Outcomes
June 1, 2021	Letter sent to President of Tris-River Métis Association, the MNBC head office and the MNBC Northwest Office	Introduction to the Eskay Creek Revitalization Project and invitation to meet with the Skeena Sustainability Team. No response received.	N/A
April 4, 2022	Letter from Skeena Community Relations Manager to MNBC CEO, MNBC Senior Director, President of Norwest BC Metis Association, President Tris-River Metis Association	Introduction to Skeena Resources and the Eskay Creek Revitalization Project, providing the draft DPD and requesting a meeting.	Skeena will continue to reach out to MNBC requesting meetings to discuss MNBC interests and concerns.

6.2 Summary of Engagement with Tahltan Central Government, Local Government, the Public, and Federal and Provincial Agencies

6.2.1 Engagement with Tahltan Central Government Leadership and Technical Team

6.2.1.1 Summary of Engagement Activities

Skeena Resources initiated engagement with TCG on the Project's exploration program in January 2015 and has frequently engaged with TCG ever since. Since July 2021, Skeena Resources has had over 99 scheduled virtual meetings with TCG representatives, including 21 workshops and one site tour. Details on these key meetings and engagement are provided in Table 6.2-1, and key highlights are described in the following section. In addition to the engagement activities captured in this table, Skeena Resources and TCG have had other interactions in the process of collaboration on Project planning and process deliverables.

In December 2020, Skeena partnered with Newcrest and TCG to initiate a Social Baseline Oversight Committee, with key Tahltan community members joining in April 2021. An online Tahltan community social survey was created and distributed to Tahltan Membership with 315 surveys completed over the survey period. The results from this survey were used to inform the Project's Social Baseline Report and will also be provided to the TCG for future use.

Since May 2021, Skeena Resources has hosted 15 half-day technical and social workshops with the THREAT team to discuss Project engineering plans and provide regulatory updates. At these sessions, THREAT has presented on topics such as its newly developed Tahltan Environmental Assessment Strategy Framework and Tahltan Sustainability and Risk Criteria. Other discussions have included the need to shift from a conventional "valued component" approach to a more holistic Tahltan grouped values approach to assessment, and consideration of the Tahltan requirement for avoidance of long-term water treatment in Project development.

Table 6.2-1 Summary of Key Engagement with Tahltan Central Government from July 2021 to June 2022

Date	Activity	Description	Outcomes
July 2021 – January 2022	Virtual Biweekly THREAT/Skeena technical workshop	Half-day workshops that provided updates from the Skeena Engineering Team on various topics (e.g., general arrangement, waste storage facility embankment design, waste deposition plan, updates regarding the Tahltan social baseline survey, operational permitting plan, regulatory scheduling).	• Skeena will continue to host biweekly technical workshops to ensure the THREAT team is updated on the development of the project and to ensure that Tahltan interests and concerns are considered in project design and assessment. • THREAT provided additional feedback on presented mine designs. • With the assistance of TCG's Language Department, and dependent on the information available, Skeena Resources can incorporate Tahltan place names and Tahltan language into regulatory documents. • Skeena changed approach to Tahltan Values to follow Tahltan guidance for a more holistic approach. • Skeena will continue to collaborate with THREAT, EAO and IAAC on the development of the hybrid AIR and will utilize presented hybrid AIR structure. • Skeena plans to collaborate with THREAT on planning engagement with the Tahltan community to gain feedback on proposed Closure and Reclamation Land Use Objectives in 2022. • Skeena will incorporate THREAT guidance and Tahltan Sustainability and Risk Criteria into the development of the land use objective success criteria for reclamation and closure planning.
	Calls with Newcrest, Advisor Indigenous & External Affairs Skeena, TCG Lands Director, TCG Communications Director, TCG Membership & Genealogy Director and Tahltan Band Economic Development Manager and Tahltan Band Economic Development Manager	Discussion with key informants in Tahltan communities to inform information collected/studies in Social Baseline Project. Focus on the creation of the content of the social baseline community survey based on concerns/interest raised during key Tahltan informant interviews and community interests.	• Skeena will continue to develop a social baseline study that will identify Tahltan community concerns and interests and mitigate impacts to communities. • Draft survey completed and sent to Tahltan community leadership for feedback. • Feedback from Tahltan Key Informants dictated topics and wording of questions in survey. • Skeena and Newcrest representatives planned in collaboration with community leadership in-person drop ins to assist community members in filling out online survey.

Date	Activity	Description	Outcomes
July 2021 – January 2022 *(cont'd)*	Virtual Biweekly THREAT/Skeena Closure and Reclamation Planning Oversite Team Workshops		• Skeena will continue to collaborate with THREAT on the development of the Closure and Reclamation Plan. Skeena plans to collaborate with THREAT on engaging with the Tahltan community to gain feedback on proposed Closure and Reclamation Land Use Objectives. • Skeena will also incorporate Tahltan land use objectives into the plan which will be provided by THREAT. • Skeena will not use term "end land use objective" but will use "land use objective" in plan at THREAT's request.
	Biweekly Tahltan EMC/industry calls with Tahltan EMC leads, VP Sustainability and Skeena Resources Community Relations Manager	Continued discussions on management of COVID-19 and keeping people at site and Tahltan communities safe.	• Skeena will continue to adhere to provincial and Tahltan COVID-19 guidance and participate in the Tahltan Emergency Management Committee calls to ensure safety of communities and workforce.
	Weekly virtual meetings with THREAT, EAO and IAAC representatives	Meetings regarding the development of the Project and updates on the federal and provincial regulatory process.	• Two virtual public information sessions planned and one Tahltan community information session planned. • Skeena will incorporate THREAT EA strategy and Sustainability and Risk Criteria presented into development of the Project.
	Biweekly meeting with Community Relations Manager, Sustainability Project Manager, VP Sustainability and TCG Employment and Contract Director	Weekly calls to update TCG Employment and Contracts Director on upcoming opportunities.	• Skeena will continue to share economic development opportunities with the Tahltan Nation and meet on a weekly basis to address Tahltan interests and concerns.
	Weekly calls with Skeena Permitting and Compliance Advisor THREAT Advisor and Land Technician	Weekly calls regarding operational permitting plans.	• Skeena will continue to meet with THREAT team regarding permitting plans to provide opportunity for Tahltan review of all permit applications.
August 11, 2021	Meeting with IAAC, EAO and THREAT	Meeting regarding federal tailored impact statement guidelines.	• Skeena gained insight into the initial approach for developing the Hybrid AIR and VC scoping and was told to prepare a preliminary draft of the VC scoping document and present to THREAT.

Date	Activity	Description	Outcomes
August 13, 2021	Meeting with TCG Communications Director, IAAC, EAO and Skeena Engagement Coordinator, Skeena Community Relations Managers and Skeena EA Manager	Call regarding planning for Tahltan specific virtual information session.	• Skeena, TCG, EAO and IAAC will collaborate in hosting a Tahltan specific virtual information session.
September 30, 2021	TCG Lands Director invited to participate in site tour with EAO representatives	Site tour of the Eskay Creek site including existing infrastructure and the proposed locations of Project infrastructure.	• TCG Lands Director unable to attend due to scheduling conflict – Skeena anticipates a similar visit will be coordinated in 2022.
October 7, 2021	Email from THREAT advisor to Skeena Engagement Coordinator	THREAT provided Tahltan Application Information Requirements guideline.	• Skeena to prepare Tahltan AIR report following guidance. Skeena reviewed Tahltan AIR documents and met with THREAT to review initial questions on document.
	Draft VC Scoping Document sent to THREAT, EAO, and IAAC	Skeena Sustainability Project Manager.	• Skeena planned to review document with THREAT during workshop.
	Presentation from THREAT Lands Director to Skeena Sustainability Team regarding Tahltan AIR	Presentation lead by THREAT team to Skeena Sustainability team and representatives from EAO, IAAC and EMLI regarding THREAT Application Information Requirements.	• Skeena will incorporate the Tahltan AIR report and Tahltan AIR guidance document into the Hybrid AIR.
October 27, 2021	Workshop with THREAT, EAO, IAAC, EMLI and ENV representatives, and Skeena Sustainability Team	Workshop with small group in-person in Smithers, BC and the rest of participants joining virtually. Discussed approach for Project meeting Tahltan, provincial and federal requirements for regulatory process. Concept of the Hybrid AIR, incorporates provincial, federal, and Tahltan requirements first presented. Skeena presented baseline and overview of model considerations for agencies.	• Skeena will adjust regulatory workplan to account for the development of a Tahltan Application Information Request document. • Additional workshops planned to address specific areas of the Hybrid AIR to ensure Skeena will meet Tahltan, provincial, and federal requirements.

Date	Activity	Description	Outcomes
November 8, 2021	Virtual meeting with TCG Lands Director, THREAT Advisor, Skeena EA Manager, Skeena Engagement Coordinator, Skeena consultants	Virtual meeting regarding updating Skeena's Tahltan Knowledge Agreement to ensure it is adequate to support Tahltan Knowledge use for hybrid AIR.	• Skeena and TCG will collaborate on updating the Tahltan Knowledge Agreement to ensure it is adequate for the application of TK in the hybrid AIR.
November 12, 2021	Virtual meeting with TCG Lands Director, THREAT Advisor, Skeena EA Manager, Skeena consultants, Skeena Engagement Coordinator	Call to discuss Skeena's questions on Tahltan dAIR guidance document.	• Skeena will continue to collaborate with TCG, EAO and IAAC to develop a hybrid AIR.
November 25, 2021	Virtual meeting with TCG Lands Director, THREAT Advisor, Skeena EA Manager, EAO and IAAC representatives	Call to discuss Tahltan hybrid AIR structure.	• Skeena will continue to collaborate with TCG, EAO and IAAC to develop a hybrid AIR.
November 29, 2021	Virtual meeting with TCG Lands Director, THREAT Advisors and subject matter experts, Skeena EA Manager, Skeena Regulatory Specialist and Skeena Community Relations Manager	Meeting to introduce the Skeena team and the Eskay Creek Revitalization Project to new THREAT team members.	• List of Skeena technical meetings and oversite committees sent to the THREAT team to review and assign team members to
December 2, 2021	Virtual meeting with TCG Lands Director, Skeena EA Manager, Skeena consultants, EAO representatives and IAAC representatives	Meeting to discuss spatial boundaries of Tahltan Values.	• Skeena will continue to work with THREAT, EAO and IAAC on integrating Tahltan requirements into the EA process
February 18, 2022	E-mail from Skeena EA Manager to TCG Lands Director	Skeena EA Manager provided draft sections of DPD related to TCG's role in the assessment of the Project and engagement with Tahltan Nation.	• Skeena received feedback from TCG and incorporated into the DPD.
March 8, 2022	E-mail from Skeena Regulatory Specialist to TCG Technical Advisor	Skeena Regulatory Specialist reached out to TCG to offer to meet in person in Dease Lake to discuss draft Tahltan Sections in draft DPD.	• Did not proceed due to schedule conflicts Skeena will continue to collaborate with TCG on the development of EA documents.
March 9, 2022	E-mail from TCG Lands Director to Skeena EA Manager	TCG Lands Director provided wording regarding Tahltan assessment of cumulative effects to be included in DPD.	• Wording was incorporated into Project's DPD.

Date	Activity	Description	Outcomes
March 14, 2022	E-mail form Skeena Regulatory Specialist to TCG Technical Advisor	Skeena provided draft EA schedule to TCG team.	• Skeena will continue to work with TCG, Provincial and Federal Regulators on the development of the project's schedule.
March 18, 2022	E-mail from Skeena EA Manager	Skeena EA Manager provided first draft of DPD to TCG Lands Director.	• Skeena will continue to work with TCG to ensure Tahltan requirements are met.
March 30, 2022	Virtual workshop with Skeena Senior Regulatory Affairs Manager, Skeena Community Relations Manager, TCG Lands Director, TCG Technical Advisor, TCG Engagement Coordinator	Virtual workshops to update TCG on permitting plans to support the ongoing work at the Eskay Creek site and the Eskay Creek Revitalization Project.	• Skeena will continue to work with TCG on meeting requirements for permit applications.
April 6, 2022	E-mail from TCG Technical Advisor to Skeena EA Manager	TCG Advisor provided updated draft hybrid AIR to Skeena EA Manager.	• Skeena will continue to collaborate with TCG, provincial and federal representatives on the development of the hybrid AIR.
April 19, 2022	E-mail from TCG Technical Advisor to Skeena EA Manager	TCG Advisor provided TCG comments on Skeena's draft DPD.	• Skeena will work with TCG on addressing all TCG comments.
April 28, 2022	In person workshop with TCG Lands Director, TCG Technical Advisor, BCEAO representatives, IAAC representatives, EMLI representatives, MOE representatives, Skeena VP Sustainability, Skeena EA Manager, Skeena Regulatory Affairs Manager in Smithers, BC	Workshop to discuss the Eskay Creek Revitalization Environmental Assessment Schedule to ensure TCG, provincial and federal requirements will be met.	• Skeena will continue to collaborate with TCG, provincial and federal government to ensure all requirements will be met.
April 29, 2022	In person workshop with TCG Lands Director, TCG Technical Advisor, Skeena EA Manager, Skeena consultant team, Skeena Community Relations Manager in Smithers, BC	Workshop to develop the Hybrid AIR that will integrate TCG requirements.	• Skeena will continue to collaborate with TCG and is committed to developing the first ever hybrid AIR to meet TCG requirements.
May 18, 2022	E-mail from EA Coordinator to TCG Lands Director and TCG Technical Advisor	E-mail providing 2021 baseline reports to TCG	• Skeena will continue to share baseline reports with TCG
May 30, 2022	E-mail from TCG Technical Advisor to Skeena EA Manager	TCG provided Tahltan sections of the hybrid AIR	• Skeena incorporated Tahltan section into Hybrid AIR and will continue to work with TCG on the development of the hybrid AIR

Date	Activity	Description	Outcomes
June 6, 2022	E-mail from EA Coordinator to TCG Lands Director	E-mail offering to plan a separate tour of Eskay Creek Mine Site to accommodate TCG's availability	• TCG representatives were unavailable for site tour. Skeena will continue to work with TCG to plan a site tour that accommodates TCG's schedule
June 13, 2022	Virtual Meeting with Skeena EA Manager, TCG Lands Director, TCG Technical Advisor, EAO representatives and IAAC representatives	Meeting to plan workshop on hybrid AIR for technical advisors	• THREAT presented on the Tahltan Environmental Assessment Strategy during workshop and lead discussion around Tahltan section in hybrid AIR
June 15, 2022	Virtual workshop with technical advisors including representatives from: EAO, IAAC, ECCC, DFO, EMLI, MOF, ENV, Transport Canada, EMLI, Indigenous Services Canada, EMPR, ENV, MIRR, WAGE, Northern Health, NOAA Fisheries	Workshop introducing the hybrid AIR and the Tahltan Environmental Assessment Strategy to technical advisors	• Skeena will continue to collaborate with TCG, EAO and IAAC on the development of the hybrid AIR

In September 2021, Skeena Resources initiated a Closure and Reclamation Planning Oversight Team with THREAT participation and has hosted five workshops to initiate the development of the Closure and Reclamation Plan. Examples of some of the key outcomes of these workshops include:

- changing approach/language in the plan from “end land use objectives” to “returning land use objectives”;
- incorporating the reconnection of Tahltans to the land as a key vision; and
- planning Tahltan engagement sessions to receive community input on the draft vision statement later in 2022.

The THREAT team presented Skeena Resources, EAO and IAAC with the draft Tahltan Application Information Requirements document on October 7, 2021. Since that time, Skeena Resources has participated in eight meetings and seven workshops related to the development of the Hybrid AIR, which will meet provincial, federal, and Tahltan requirements. More workshops will be planned for 2022, as needed, to support the regulatory process. Topics considered for these workshops include:

- Application development roles and responsibilities, requirements for Tahltan Knowledge usage;
- Tahltan Knowledge / Tahltan Values: information availability;
- Selection of spatial boundaries for Tahltan Nation Values Assessment (planned);
- Backcasting and forecasting approaches and the role of modelling (planned);
- Selection of temporal boundaries for Tahltan Nation Values Assessment (planned);
- Methods for Tahltan Nation Values Assessment: holistic approach, mitigation evaluation, effects characterization, and scales of significance (planned);
- Approach to preparing Valued Component effects assessments as appropriate inputs to Tahltan Nation Values Assessment (planned);
- Approach to Cumulative Effects Assessment: provincial/federal effects assessment and Tahltan Nation Values Assessment (planned); and
- Discussion on incorporation of Free, Prior, and Informed Consent (FPIC) and role of engagement (planned).

Table 6.2-1 summarizes Skeena’s engagement with TCG from February 2021 to April 2022. Appendix C includes a record of Skeena’s engagement broadly with the Tahltan Nation (leadership, technical team, and membership) from December 2020 to April 2022.

6.2.1.2 Planned Future Engagement

Planned engagement with TCG specific to the regulatory process includes:

- continuing the list of planned workshops (provided in Section 6.2.1.1) with THREAT, EAO, and IAAC develop an approach that will address Tahltan, provincial, and federal requirements and support the development of the hybrid AIR;
- continuing technical workshops with THREAT to provide updates on project engineering, regulatory process, baseline studies, operational permitting and to discuss any questions or concerns, as needed;
- continuing regular meetings with THREAT, EAO and IAAC on process planning;
- increasing opportunities for THREAT to participate in additional technical sessions with Skeena Resources (e.g., November 27 Project Overview for THREAT subject matter expert, Water Oversight Team, Geochemistry Oversight Committee, Closure and Reclamation Team, Alternatives Assessments, Knowledge Sharing Agreement meetings);
- continuing weekly meetings with the TCG Employment and Contracts Director to ensure TCG is aware of any upcoming opportunities;
- continuing Closure and Reclamation Planning Oversight Team workshops to ensure Tahltan Knowledge and Tahltan Sustainability and Risk Criteria are being incorporated into reclamation planning; and
- establishing in an engagement working group in Q3 2022 with representatives from TCG, EAO and IAAC to develop a community engagement schedule that minimizes community engagement fatigue, aligns with TCG availability and meets TCG, EAO and IAAC engagement requirements.

6.2.2 Engagement with Local Government, the Public, Provincial, and Federal Agencies

6.2.2.1 Summary of Engagement Activities

Skeena Resources started engagement on the Project with government agencies in 2020. Meetings were held with EMPR (now EMLI), ENV and FLNRORD to provide a Project overview and permitting timelines. Skeena Resources met with the EAO and IAAC in March and September 2020 to provide an overview of the Project and proposed timing for entering the provincial and federal assessment processes. Discussions with both agencies were held in December 2020 regarding Indigenous involvement. In early January 2021, biweekly meetings were initiated between Skeena Resources, EAO, and IAAC. On February 24, 2021, Skeena Resources and THREAT participated in a meeting with EAO and IAAC where they outlined how the two agencies work collaboratively. Skeena Resources currently meets with THREAT, EAO and IAAC on a regular basis regarding the regulatory process. Skeena Resources also has a weekly meeting with THREAT and FLNRORD regarding the operational permitting plan for the Project.

Skeena has presented to community leadership of the City of Terrace, Regional District of Kitimat and Stikine, District of Stewart, and Town of Smithers. All these presentations are available to the

public online on the respective government websites. No municipal plans relevant to the Project assessment were noted, with the exception of the Bob Quinn Rural Land Use Bylaw 314 Area which includes the Bob Quinn electrical substation. Skeena Resources will continue to engage with local governments, including Regional District of Kitimat-Stikine, Dease Lake Community Advisory Commission, District of Stewart, Town of Smithers, and City of Terrace throughout the regulatory process.

In September 2021, Skeena Resources, in partnership with EAO, IAAC, and TCG, hosted two public virtual information sessions. The feedback from these sessions and engagement with the public has been considered in the development of the DPD.

In July 2021, Skeena published an engagement website for the Project (skeenaeskaycreek.com) as a resource for the public to view up to date information on the Project, learn about upcoming engagement opportunities, FAQs, and contact information for the Skeena Resources team. In May 2022 Skeena published its first quarterly community newsletter updating communities and governments on the Project and Skeena's community initiatives.

Table 6.2-2 identifies the government agencies and public groups that Skeena has engaged with to date. Table 6.2-3 summarizes Skeena's engagement with government agencies, local governments, and the public regarding the Project from February 2021 to May 2022.

Table 6.2-2 Government Agencies, Local Governments and Public Groups Skeena Has Engaged with to Date

Federal Agency	Provincial Agency	Local Governments/ Public Groups	US Agencies*
• Impact Assessment Agency of Canada (IAAC) • Fisheries and Oceans Canada (DFO) • Transport Canada (TC) • Environment and Climate Change Canada (ECCC) • Natural Resources Canada (NRCAN) • Health Canada • Crown Indigenous Relations and Northern Affairs Canada • Indigenous Services Canada • Employment and Social Development Canada • Innovation, Science and Economic Development Canada	• BC Environmental Assessment Office (EAO) • Ministry of Energy, Mines and Low Carbon Innovation (EMLI – formerly Energy, Mines and Petroleum Resources (EMPR) • Ministry of Transportation and Infrastructure (MOTI) • Ministry of Environment and Climate Change Strategy (ENV) • Ministry of Forests Ministry of Land, Water and Resource Stewardship • Northern Health	• City of Terrace • Town of Smithers • Regional District of Kitimat and Stikine • District of Stewart • Tenure Holders • Trapline Holders • Public	• US EPA • Alaska Department Natural Resources • Alaska Department of Fish and Game • Alaska Department Environment Conservation • Alaska Department Environment Conservation • Alaska Department Mining and Natural Resources • Alaska Department of Environmental Conservation • US Department of Interior • US Department of Fish and Wildlife Service

*Engagement occurred indirectly through the regulatory process organized by EAO (i.e., via technical reviews of various documents in the EA process).

Table 6.2-3 Skeena Resources Engagement with Government Agencies, Local Governments, Community Groups and Public from February 2021 to June 2022

Date	Activity	Description	Outcomes
February 2, 2021	Letter to Mayor of District of Stewart from Skeena VP Sustainability	Introduction to Skeena Resources and the Project and an invitation to meet with the Skeena Sustainability Team. No response received.	Skeena sent another letter and invitation to meet on June 7, 2021.
February 17, 2021	Letter to Mayor of Town of Smithers from Skeena VP Sustainability	Introduction to Skeena Resources and the Project and an invitation to meet with the Skeena Sustainability Team.	Meeting scheduled.
	Letter to Mayor of City of Terrace from Skeena VP Sustainability	Introduction to Skeena Resources and the Project and an invitation to meet with the Skeena Sustainability Team.	Meeting scheduled.
	Letter to Mayor District of Kitimat-Stikine from Skeena VP Sustainability	Introduction to Skeena Resources and the Project and an invitation to meet with the Skeena Sustainability Team.	Meeting scheduled.
March 25, 2021	Presentation for Terrace City Council from Skeena VP Sustainability	Presentation introducing the Project during a regular city council meeting which is streamed to the City of Terrace website available to the public. Interests/Concerns raised: Terrace interested in economic development opportunities, interested in Skeena continuing to use Terrace airport for transportation of staff.	Skeena acknowledges the comments raised and will continue to engage with the City of Terrace regarding their interests and concerns related to the Project.
June 7, 2021	Letter to Mayor of District of Stewart from Skeena VP Sustainability	Second introductory letter sent to Mayor of District of Stewart introducing the Project and an invitation to meeting with Skeena Sustainability Team. No response received.	Another letter and request to meet in November 2021.
June 8, 2021	Letter sent to tenure and trapline holders in proximity to project	Letter introducing Skeena Resources and the Project.	Meetings with tenure holders scheduled on June 20/27, 2021.
June 14, 2021	Email from tenure holder to Skeena engagement email	Email from tenure holder regarding potential contracting opportunities.	Skeena responded with prequalification forms and Skeena Communications Relations Manager called to follow up.
June 25, 2021	Presentation for Regional District of Kitimat and Stikine board meeting from Skeena VP Sustainability	Presentation introducing Skeena Resources and the Project. Board meeting was streamed live online to the RDKS website for public viewing. Concerns regarding impact to traffic on Highway 37 and Highway 37A road conditions.	Skeena Resources will continue to engage with the City of Terrace regarding their interests and concerns related to the Project.

Date	Activity	Description	Outcomes
June 20, 2021	Presentation for tenure and trapline holders in proximity to project from Skeena VP Sustainability	Presentation introducing the Project including figures showing the location of the participant's tenure in relation to the project. Interest in accessing Eskay Creek Mine Access Road for recreational/commercial uses.	Skeena Resources will continue to engage with land tenure holders regarding their interests and concerns related to the Project.
June 27, 2021	Presentation for tenure and trapline holders in proximity to project from Skeena VP Sustainability	Presentation introducing the Project including figures showing the location of the participant's tenure in relation to the project. Concerns regarding potential impact to Mountain Goats due to increased helicopter traffic. Interest in using Eskay Creek Mine Access Road for commercial/ recreational purposes.	Skeena Resources will continue to engage with land tenure holders regarding their interests and concerns related to the Project.
June 28, 2021	Meeting with City of Terrace with Economic Development Manager and Skeena Community Relations Manager and Engagement Coordinator	Met regarding getting insights into how Skeena can best engage with the community of Terrace and strategies to advertise for the Public Comment Period and Virtual Information Session.	Skeena Resources to use local radio as an advertising platform.
July 29, 2021	Project website published	Skeenaeskaycreek.com public engagement website published.	Public has access to updated project information, engagement opportunities and contact information.
August 4, 2021	Virtual meeting with Technical Advisors with representatives from: EAO, IAAC, MIRR, FLNRO, Fisheries and Oceans Canada, ENV, EMLI, Transport Canada, Health Canada, THREAT, CIRNACS. US EPA, Natural Resources Canada, Alaska Department Natural Resources, Alaska Department of Fish and Game, Alaska Department Environment Conservation, Alaska Department Environment Conservation, Alaska Department Mining and Natural Resources, Employment and Social Development Canada	Initial meeting with technical advisors to introduce the Project. Interest in consideration of water treatment.	Skeena will continue to engage with the technical advisors regarding their interests and concerns related to the Project.

Date	Activity	Description	Outcomes
August 10, 2021	Virtual meeting with technical advisors including representatives from: EAO, IAAC, ECCC, DFO, EMLI, Transport Canada, Innovation Science Canada, EMLI, Indigenous Services Canada, EMPR, ENV, MIRR, RDKS, Northern Health, Alaska Department of Environmental Conservation, US Department of Interior, US Department of Fish and Wildlife Service, NOAA Fisheries	Initial meeting with technical advisors to introduce the Project. Topics raised: • Interest in new jobs created by project • Interest in Closure and Reclamation Plans • Interest in Alternatives Analysis for waste storage facility • Interest in water quality model development	Skeena acknowledges the comments received and will continue to engage with the technical advisors regarding their interests and concerns related to the Project.
September 15, 2021	Engagement Postcard sent to: Town of Smithers Mayor, Mayor of the City of Terrace, Mayor of the District of Stewart, Mayor of the Regional District of Kitimat-Stikine, and Members of the BC Parliament	Postcard inviting local government to engage with the Eskay Creek Revitalization Project, providing introduction to Project and links to Project website.	N/A
September 16, 2021	Public Virtual Information Session hosted in partnership with THREAT, EAO and IAAC representatives	Virtual Information Session including presentations on the regulatory process from THREAT, EAO, and IAAC representatives and an introduction to the Project. Concerns and interests raised: engagement with transboundary communities and Indigenous groups, cumulative effects, economic/employment opportunities, education/training opportunities.	Skeena acknowledges the comments raised and will continue to engage with the Public regarding interests and concerns related to the Project.
September 17, 2021	Invitation email sent to the mayor and board of the Regional District of Kitimat-Stikine from Skeena Community Relations Manager	Email inviting the mayor and board of the Regional District of Kitimat-Stikine to participate in the virtual information session (VIS) and comment on the Project's IPD.	N/A
	Invitation email sent to the Mayor and City Council of the City of Terrace from Skeena Community Relations Manager	Email inviting the mayor and city council of the City of Terrace to participate in the VIS and comment on the Project's IPD.	N/A
	Invitation email sent to the mayor and city council of the Town of Smithers from Skeena Community Relations Manager	Email inviting the Mayor and City Council of the Town of Smithers to participate in the VIS and comment on the Project's IPD.	N/A
	Invitation email sent to the mayor and city councils of the District of Stewart	Email inviting the mayor and board of the District of Stewart to participate in the VIS and comment on the Project's IPD.	N/A

Date	Activity	Description	Outcomes
September 21, 2021	Public Virtual Information Session hosted in partnership with THREAT, EAO and IAAC representatives	Virtual Information Session including presentations on the regulatory process from THREAT, EAO, and IAAC representatives and an introduction to the Project. Concerns and interests raised: engagement with Transboundary communities/Indigenous groups, increase in traffic on Highway 37.	Skeena Resources will continue to engage with the Public regarding interests related to the Project.
September 28, 2021	Presentation to the Smithers Town Council by Skeena Community Relations Manager	Presentation introducing Skeena Resources and the Project. Town Council meeting was streamed live online for public viewing. Concerns raised: Risk of ARD, impact to Highway 37 traffic. Interest in Project being low GHG emission due to connection to Hydroelectric facility.	Skeena Resources will continue to engage with the Town of Smithers regarding their interests and concerns related to the Project.
September 30, 2021	Site tour with TCG Lands Director, EAO representatives and Skeena VP Sustainability and EA Manager	Tour of the Eskay Creek site including existing infrastructure and proposed location of Project components.	No concerns raised.
November 25, 2021	Letter sent to Mayor of District of Stewart from Skeena Community Relations Manager	Letter introducing the Eskay Creek Revitalization Project and inviting to meet with the Skeena team.	Skeena Resources waiting for response.
January 13, 2022	Email sent from Skeena Community Relations Manager to Mayor and Council of Town of Smithers, Mayor and Council of City of Terrace, Mayor and Council of District of Stewart and Chair and Board of RDKS	Invitation to attend Skeena's Virtual Information Sessions.	Skeena Resources offered option of attending one of three information sessions on January 18, January 19, or January 20.
January 18, 2022	Skeena Community Relations Manager hosted Virtual Information Session on Eskay Creek Revitalization Project with Mayor and Council of City of Terrace	Skeena Community Relations Manager presented an update on the Project. Interests/Concerns raised: Economic development opportunities.	Skeena Resources to continue consistent communication with City of Terrace on any economic opportunities.
January 19, 2022	Skeena Community Relations Manager hosted Virtual Information Session on Project with Board members of RDKS	Skeena Community Relations Manager presented an update on the Project. Interests/Concerns raised: No questions or concerns.	Skeena Resources will continue consistent communication with RDKS on updates for the Project.
April 11, 2022	Skeena Community Relations Manager in person presentation to Town of Stewart Mayor and Council Members	Skeena Community Relations Manager led presentation introducing Skeena Resources and the Eskay Creek Revitalization Project focusing on potential impacts to Town of Stewart.	Skeena will continue to regularly engage with the Town of Stewart on their concerns and interests regarding the Project.

Date	Activity	Description	Outcomes
April 12, 2022	Virtual Presentation from EAO, IAAC, TCG and Skeena representatives to Project Technical Advisors including representatives from: EMLI, MOE, DFO, RDKS, FLNRO, Environment Canada, Indigenous Services Canada, ECCC, Health Canada, Transport Canada, Northern Health, US EPA, Alaska Department of Fish and Game, Alaska Department of Environmental Conservation, Alaska Department of Natural Resources, and US EPA	EAO, IAAC and TCG presented an update on the assessment process including TCG introducing the Tahltan Environmental Assessment Strategy. Skeena EA Manager presented an update on the DPD including major updates from IPD.	Skeena will continue to work with Technical Advisor to ensure all their comments are addressed on the draft DPD.
April 20, 2022	Letter from SEITC to BCEAO	SEITC submitted feedback on Skeena's first draft DPD.	Skeena worked with BCEAO and provided responses to BCEAO on June 8, 2022.
May 4, 2022	Community Newsletter sent to tenure holders, local governments of Smithers, Terrace, RDKS and Stewart, and mail dropped to communities of Dease Lake, Iskut, Telegraph Creek, Gitanmax, Gitwangak, Gitanyow, Cedervale and Gitsegukla	Community newsletter updating community members and governments on the Project and Skeena community initiatives.	Skeena will publish community newsletters quarterly to keep community members and governments updated on the Project.
May 13, 2022	Update letter sent to Guide Outfitters	Letter sent from Skeena Community Relations Manager to Guide Outfitters Skeena has previously reached out to.	Skeena will continue to keep Guide Outfitters updated on the project and provide opportunities to meet to discuss Guide Outfitter interests and concerns.
May 18, 2022	Update letter sent to Trapline holders TR0621T005, TR0621T004, TR021T001 and TR0621T003	Letter sent from Skeena Community Relations Manager to Trapline holders Skeena has previously reached out to.	Skeena will continue to keep Trapline Holders updated on the Project and provide opportunities to meet to discuss Trapline Holder interests and concerns.
May 20, 2022	Introduction letter sent to Trapline Holders TR0616T011 and TR0617T015	Letter sent from Skeena Community Relations Manager introducing Skeena Resources and the proposed Project to Trapline holders not adjacent to the Project that Skeena has not previously reached out to.	Skeena will continue to keep Trapline Holders updated on the Project and provide opportunities to meet to discuss Trapline Holder interests and concerns.
May 25, 2022	Skeena Tahltan Mentees presented at iCOUNT school in Witset BC	Skeena Tahltan mentees on their roles at Skeena and the Project	N/A

Date	Activity	Description	Outcomes
June 15, 2022	Virtual workshop with technical advisors including representatives from: EAO, IAAC, ECCC, DFO, EMLI, MOF, ENV, Transport Canada, EMLI, Indigenous Services Canada, EMPR, ENV, MIRR, WAGE, Northern Health, NOAA Fisheries	Workshop introducing the hybrid AIR and the Tahltan Environmental Assessment Strategy to technical advisors.	Skeena will continue to collaborate with TCG, EAO and IAAC on the development of the hybrid AIR.
June 20, 2022	Skeena EA Manager presented at Hwy 37 Working Group with representatives from local governments. MOTI, BCEAO, industry and community organizations	Skeena EA Manager presented an introduction to the Project at the Hwy 37 Working Group focusing on projects predicated effects on Hwy 37/37a traffic.	Skeena will continue to participate in the Hwy 37 working group.
June 21, 2022	Site tour of Eskay Creek Mine site with representatives from MOF, ENV and RDKS	Skeena hosted a tour of the Eskay Creek Mine site for technical advisors including a helicopter, driving and walking tour.	Skeena will continue to engage with technical advisors and will work with TCG to plan a tour that aligns with their schedule.
June 23, 2022	Site tour of Eskay Creek Mine site with representatives from EMLI, MOF and Northern Health	Skeena hosted a tour of the Eskay Creek Mine site for technical advisors including a helicopter, driving and walking tour.	Skeena will continue to engage with technical advisors and will work with TCG to plan a tour that aligns with their schedule.
June 29, 2022	Site tour of Eskay Creek Mine site for representatives from EMLI, IAAC, BCEAO, MOF and ECCC	Skeena hosted a tour of the Eskay Creek Mine site for technical advisors including a helicopter, driving and walking tour.	Skeena will continue to engage with technical advisors and will work with TCG to plan a tour that aligns with their schedule.
June 30, 2022	Letter from SEITC to BCEAO and Skeena	SEITC provided feedback on Skeena draft two DPD and responses to SEITC's previous comments.	Skeena worked with BCEAO on addressing SEITC's comments and provided responses to BCEAO.

6.2.2.2 Planned Future Engagement

Skeena Resources planned future engagement includes:

- continuing to engage with local governments;
- ongoing initiatives reflecting progress from the Engagement Plan submitted in July 2021 (Skeena 2021b);
- continuing to engage with tenure and trapline holders regarding their interests related to the Project; and
- continuing to update the skeenaeskaycreek.com engagement website and publish quarterly community newsletters as a resource for the public to stay updated on the Project.

Table 6.2-4 presents a list of communities of interest and entities that Skeena plans on engaging with in the future via a range of approaches, including mailouts, invitations to open houses, newsletter updates/emails, virtual and face-to-face meetings, calls, and other approaches.

Table 6.2-4 Communities of Interest and Groups Skeena Resources Plans to Engage

Type	Groups
Community-based Organizations	• Bob Quinn Airport Society • Stikine Airport Society • Dease Lake Volunteer Fire Department • Dease Lake RCMP Detachment • Dease Lake Ambulance • Dease Lake Recreation Society • Terrace RCMP Detachment
Businesses and Business Groups	• Stewart World Port • Stewart Bulk Terminals • Bell II Lodge • Smithers Chamber of Commerce • Terrace Chamber of Commerce
Academic Institutions	• Northern Lights College • Coast Mountain College • University of Northern British Columbia • Wilp Wilxo'oskwhl Nisga'a Institute • Contact North BC
Environmental Non-Governmental Organizations	• Northern Confluence Initiative • Southeast Alaska Conservation Council • Rivers Without Borders

7.0 INDIGENOUS INTERESTS

Key updates to this section:

This section presents an update to Skeena Resources' understanding of Indigenous Interests relating to the Project; it reports on the issues raised during the Early Engagement activities described in Section 6.0, together with a description of how Skeena Resources has addressed or plans to address those issues.

Each of the Indigenous Peoples identified in Section 6.0—Tahltan Nation, TSKLH, Nisga'a Nation, Gitanyow Nation, and MNBC—has interests that may have the potential to be impacted by the Project relating to their rights recognized and affirmed by section 35 of the *Constitution Act, 1982*, including Treaty rights and Aboriginal rights and title (EAO 2020). Skeena Resources' current understanding of Indigenous interests in the Project area is summarized in the following sections. Skeena Resources will continue to engage with Indigenous Peoples during subsequent phases of the environmental assessment process to further identify and better understand the interests of each group.

7.1 Tahltan Nation

7.1.1 Overview

The Project is located within Tahltan territory. The closest communities to the Project are the Tahltan communities of Iskut (135 km to the north or 170 km via road) and Dease Lake (190 km to the northeast or 253 km via road). The Tahltan community of Telegraph Creek is 142 km to the north or 362 km via road. The Tahltan territory encompasses about 93,500 km^2. The Project location in relation to Tahltan territory, Tahltan communities and Tahltan reserves is shown on Figure 7.1-1. Proximity of the Project to Indigenous reserves is illustrated on Figure 7.1-2.

As part of the collaborative effort to develop the description of the Project and Tahltan interests, the Tahltan Nation's representatives contributed the following text.

> *The Tahltan are an Athabaskan-speaking people who inhabit the Stikine Country of the northern interior of BC. The Tahltan Nation is comprised of two Nations – the Tahltan Nation and the Iskut Nation – and is governed by a combined tribal council-type organization: the Tahltan Central Government. Tahltan territory encompasses about 93,500 km^2. In the west, the boundary runs parallel to the Alaskan border. In the northeast, it reaches into the Yukon, just west of Watson Lake. The eastern boundary is situated at the height of land between the Stikine and Kechika watersheds, and the southern boundary extends to the mouth of the Iskut River. The south/eastern border includes Unuk River, and upper Nass tributaries and western half of the Stikine plateau, including the sacred headwaters of the Stikine, Nass and Skeena rivers.*

The Tahltan Nation's identity and the essence of who we are as a distinct society is integrally tied to Tahltan lands and the wealth of the resources therein. The Tahltan people rely on the same territory and resources that sustained our ancestors for Tahltan society to continue in the future. Tahltan people continue to practice their traditional economy which includes fishing, hunting, and gathering as well as participating in the modern economy located within and outside of our traditional territory.

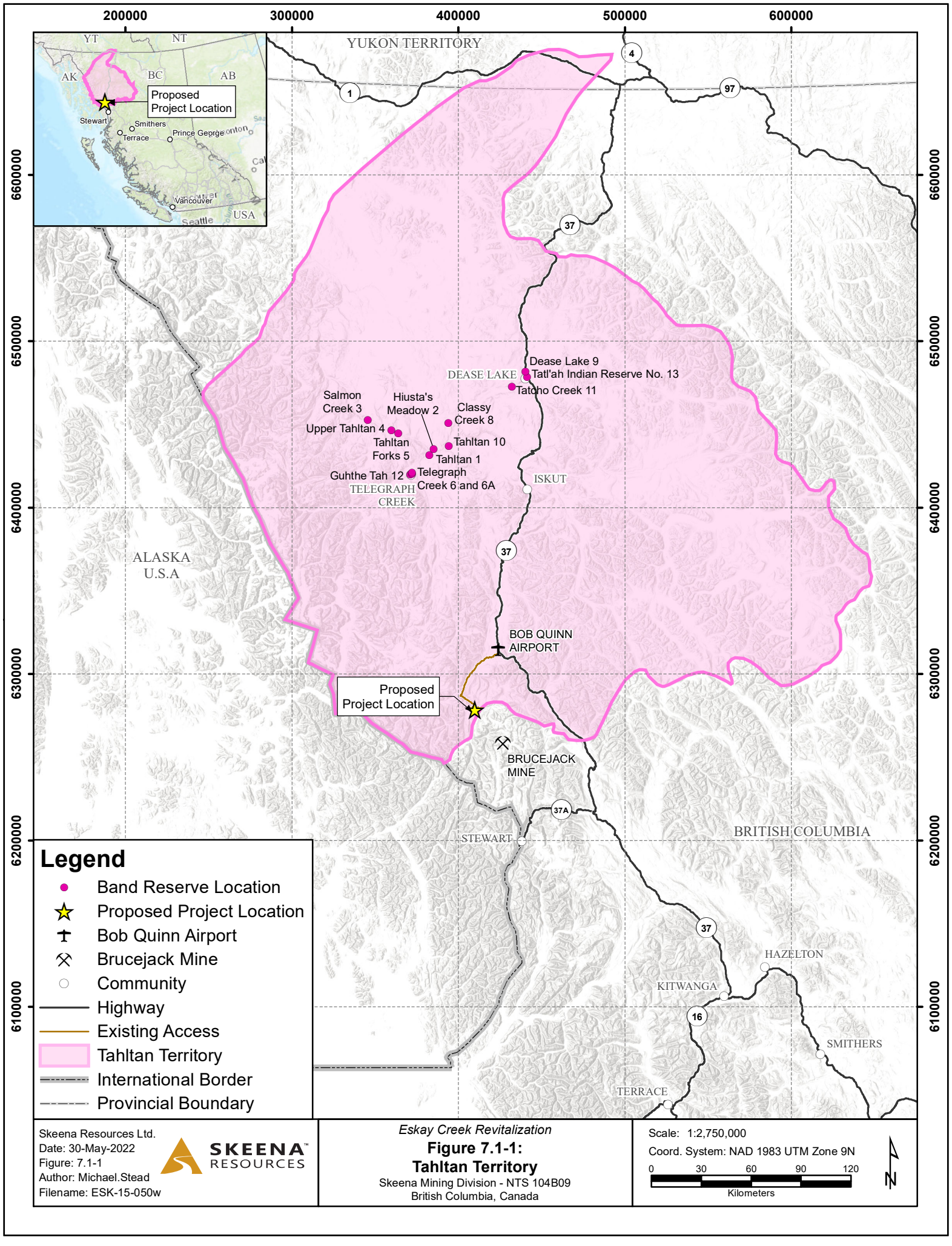
The Tahltan Nation has three principal communities: Telegraph Creek, Iskut, and Dease Lake. There are also culturally important villages and assembly sites throughout the Nation, such as, the Tahltan Village, a historic site located at the junction of the Tahltan and Stikine Rivers that was also the traditional summer dwelling place for the Tahltan people. The Tahltan Nation has 16 reserves as part of the Tahltan Band Council and Iskut First Nation.

The Tahltan Central Government (TCG) is the administrative governing body of the Tahltan Nation. The Iskut Band and the Tahltan Band continue to govern Tahltan interest in respect of the Indian Act but have endorsed the TCG as the representative government of the Tahltan Nation in respect of inherent Aboriginal title and rights. The board of the TCG is comprised of one representative from each of the ten Tahltan families; the executive consists of a President, Vice-President, and Secretary-Treasurer. The executive is elected, for three year terms, at the annual general assembly (AGA) held each summer; the family representatives are elected by the families each year and elected/ratified at the AGM [Annual General Meeting].

The TCG is responsible to define and protect Tahltan inherent aboriginal rights and title, to protect the eco-systems and natural resources of Tahltan traditional territory through pursuing sustainable economic development, and to strengthen the cultural wellness of the Tahltan Community by promoting traditional values based on the concepts of caring, sharing, cooperation, truth, honour, fairness and above all, respect.

The guiding principle of the Tahltan Central Government remains the Declaration of the Tahltan Tribe. In 1910, as part of a growing movement to assert First Nations rights on the coast and the southern interior of BC, the chief of the Tahltan Nation, Chief Nanok along with 80 other members of the tribe signed the declaration. The document claims sovereignty over Tahltan land and declares any land interests concerning the traditional territory of the Tahltan Nation to be settled directly with the Tahltan people. It represents a legal declaration of rights of Tahltan individuals to the Canadian government and British monarch. Tahltans have yet to extinguish their Aboriginal title by any other legal process.

Across Canada, the TCG represents approximately 6,000 Tahltan Nation members living on- and off-reserve. About one-third (2,000 Tahltan Nation members) live in Tahltan territory, though not all are living on reserve lands, while the remaining 4,000 people live across Canada (Tahltan Nation Development Corporation 2020).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Proposed Project Location
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Smithers
Terrace
Prince George
Vancouver
Seattle
USA
YUKON TERRITORY
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4
97
37
Dease Lake 9
DEASE LAKE
Tatl'ah Indian Reserve No. 13
Tatogho Creek 11
Salmon Creek 3
Hiusta's Meadow 2
Classy Creek 8
Upper Tahltan 4
Tahltan Forks 5
Tahltan 10
Tahltan 1
Guhthe Tah 12
Telegraph Creek 6 and 6A
TELEGRAPH CREEK
ISKUT
ALASKA U.S.A
BOB QUINN AIRPORT
Proposed Project Location
BRUCEJACK MINE
37A
STEWART
BRITISH COLUMBIA
HAZELTON
KITWANGA
16
SMITHERS
TERRACE
Legend
Band Reserve Location
Proposed Project Location
Bob Quinn Airport
Brucejack Mine
Community
Highway
Existing Access
Tahltan Territory
International Border
Provincial Boundary
Skeena Resources Ltd.
Date: 30-May-2022
Figure: 7.1-1
Author: Michael.Stead
Filename: ESK-15-050w
SKEENA RESOURCES
Eskay Creek Revitalization
Figure 7.1-1:
Tahltan Territory
Skeena Mining Division - NTS 104B09
British Columbia, Canada
Scale: 1:2,750,000
Coord. System: NAD 1983 UTM Zone 9N
0 30 60 90 120
Kilometers
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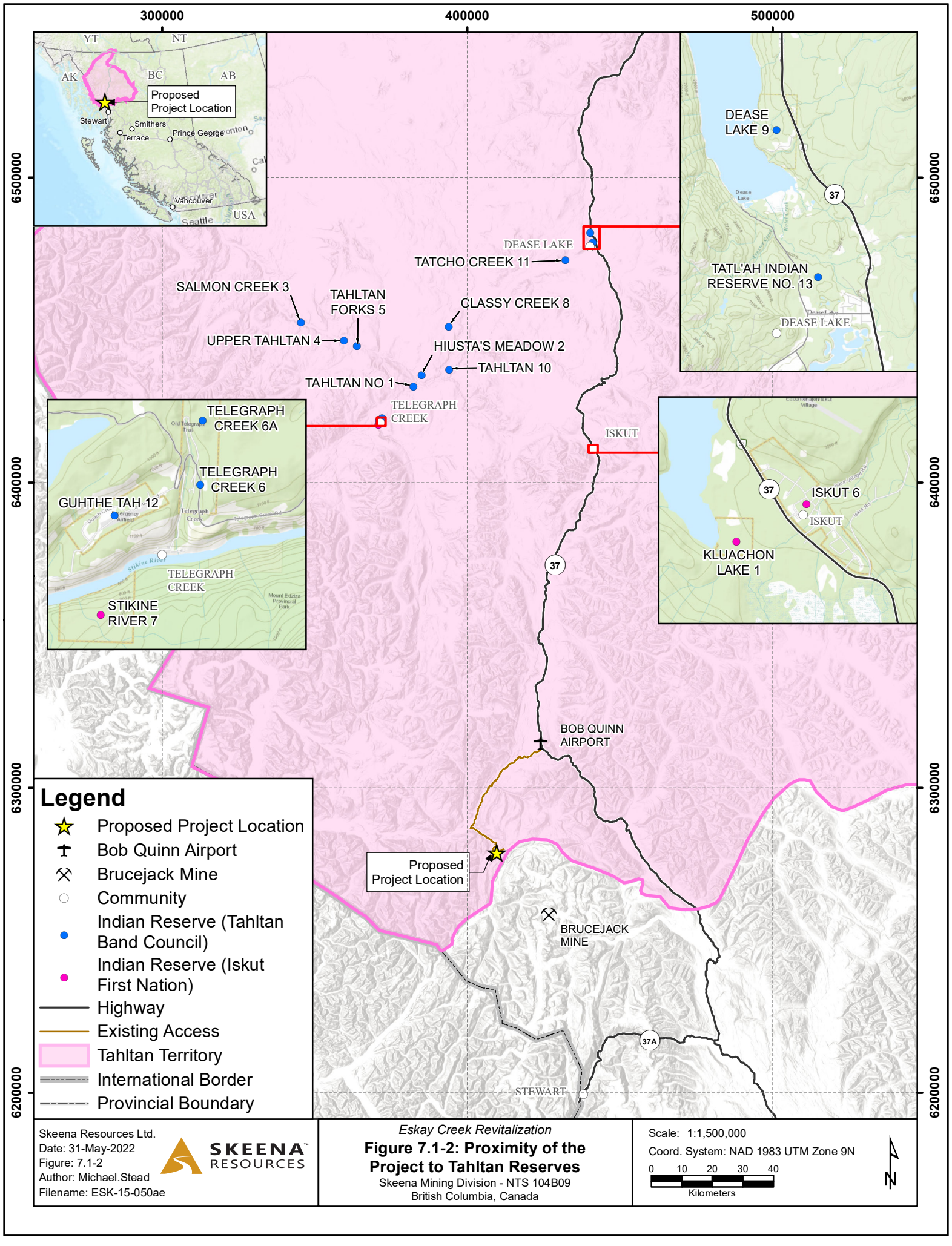

Skeena Resources Ltd.
Date: 31-May-2022
Figure: 7.1-2
Author: Michael.Stead
Filename: ESK-15-050ae

SKEENA RESOURCES

Eskay Creek Revitalization

Figure 7.1-2: Proximity of the Project to Tahltan Reserves

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:1,500,000
Coord. System: NAD 1983 UTM Zone 9N
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Kilometers
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Tahltan land use in the Project proximity is documented in a *Tahltan Knowledge/Traditional Land Use Study* (Jones, Gray, and McLaren 2020) commissioned by Skeena Resources and completed by the Tahltan in November 2020. The following summary of the land use perspective is provided by THREAT:

> *The study area is in southwestern Tahltan traditional territory and is dominated by high mountain ranges and extensive glaciers. "Forests of spruce, fir, cedar and hemlock cover the mountain slopes to the limit of tree growth, while in the river valleys cottonwoods grow to considerable size, and groves of alder and willow, with the devil's club and berry bushes, form an almost impenetrable barrier" (Emmons 1911: 9). Annual precipitation equals if not exceeds that of the coast. The summers are wet and cool. In the winter, the heavy snow is deep, with frequent snowslides at higher elevations. Because of the excessive snowfall, the lower river flats remain covered in snow and ice long after spring has arrived in the colder interior. Despite the harshness of the terrain and climate, all the ethnographic and historical sources agree with the Tahltan assertion that their territory extended to the confluence of the Iskut and Stikine rivers (see, e.g., MacLachlan 1981; Albright 1984). One of the earliest recorded accounts of Tahltan territory comes from the geographer George Dawson, who travelled up the Stikine in the 1880s: "The Tahltan claim the hunting-grounds as far down the Stikine, coastward, as the mouth of the Iskoot River, together with all the tributaries of the Iskoot and some of the northern sources of the Nass, which interlock with these" (1888: 192b). G. T. Emmons, who did field work in the area in the first decade of the twentieth century, confirms this picture: "… their hunting grounds, however, cover an extended area including the drainage basin of the Stikine and its tributaries as far down as the mouth of the Iskoot..." (1911: 6).*
>
> *The importance of this region had, in part, to do with the resources provided by the rivers and forests: martin, beaver, mink, wolverine, bear, goats, wolves, fishers, trout and salmon. Another more significant reason was the trade that travelled up the rivers and trails. Until the discovery of gold in the Cassiar region in the 1860s radically altered the conditions and patterns of life for everyone in the northwest, the Tahltan jealously guarded their position as middlemen in a coast-interior trade network which stretched from the Pacific coast to the boreal forests east of the Rocky Mountains, and extended back in time over centuries. With the coming of the European fur trade, there was a dramatic increase in the wealth and status that could be acquired through controlling the coast-interior trade networks. This development escalated and sharpened rivalries between interior groups. As will be discussed in the next part of this report, the Tahltan extended their territory to the west and the south early in the nineteenth century, attacking the Tsetsaut on the Unuk River and driving them down to the coast. On the upper Nass, they established themselves as far south as Meziadin Lake. It appears that they also attempted to gain access to the trade on Portland Canal.*
>
> *While the Iskut River was also used for trade, it was perhaps more important for the Tahltan as a travel corridor, as it provided relatively easy access via the Ningunsaw River to the country draining into the west branch of the upper Nass River. The Tahltan maintained control over the country around Meziadin Lake until roughly the 1860s, and Oweegee, just north of Bowser Lake, remained a principal village and fishing site until the*

turn of the century. They frequently travelled back and forth between their villages on the Iskut and upper Nass and the tribal headquarters at the confluence of the Stikine and Tahltan rivers, using ancient trails that followed the course of rivers, including Treaty Creek, Ningunsaw River, Unuk River and the Iskut.

The seasonal rounds of Tahltan subsistence activities involved frequent moves between fall, winter and spring camps, a pattern of life that was well adapted to exploiting the various resources the country provided (Albright 1984: 89). Summer village sites were located on the Stikine or at major creek crossings and lake outlets with favourable fishing conditions. By late summer, extended families of 15-25 people dispersed to the tributary creek valleys located between the alpine meadows and subalpine forest. Here they lived in lean-to shelters and hunted marmot, gopher, sheep, goat, bear, caribou and ptarmigan, and collected a variety of berries. During the winter, clan families gathered at large hunting camps in the forested valleys to hunt woodland caribou and other ungulates. In early spring, small groups gathered at smaller lakes and streams to fish, trap small game, and gather edible plants. The terrain and climate of the Coast Mountains, on the other hand, with winters that lasted much longer than in the interior, did not lend themselves to this kind of flexibility. On the contrary, Tahltan who chose to overwinter there found that they were to a large extent dependent on the vagaries of chance for their livelihood. As a Tahltan elder comments: "They mostly lived on goats … because they came down with the snowslides" (Tahltan elder 2005).

The information in this section is based on material from the TAS database, supplemented with material from the ethnographic literature. The earliest ethnographers (G. T. Emmons, James Teit and the Rev. T. P. W. Thorman) spent long periods in Tahltan village in the first two decades of the twentieth century. They gathered their information from Tahltan elders whose memories stretched back to a time when Tahltan patterns of life had not yet been disrupted by Europeans.

A Tahltan elder (1984) describes the life of her grandparents at Oweegee on the Nass. "This is our country, my grandmother and her people work on salmon, dry their salmon. The name of this place is Oweegee, near the mouth of Nass and there's a fall there. And from there, when they come this way [the interview is at Telegraph Creek], they travel along the lakes – this is in the spring – where they catch some small salmon or trout. This is after they use up, use up what they put up in the fall for the winter, and in the spring, they travel along these lakes [e.g., Kinaskan, Mowdade, Mowchilla, Kakiddi and Nuttlude Lakes]. They set up these fish traps at night and they had two women sitting on the bank watching their traps and watching their fish going up into the traps. Whenever they set these traps they have, they peel a tree, and put the tree in the water and set the traps near this tree. They cover these traps up so it will be dark, so that the salmon won't see the traps. And they could see the salmon jumping into the traps. … They make sure it's very quiet around, because if the fish hears any noise, they'll go back down the river." One of the elder's comments appears to address the impact of the fur trade on the beaver population in the region: "There wasn't very many beaver at that time because the people were killing them off." The elder describes other aspects of the seasonal round: "Also bear and grizzly bear, they have hunt dogs to hunt these animals with. And they put up the

meat and the grease for their winter use." Treaty Creek was called Kas Xoo, which means "grizzly bear creek," suggesting that this was a popular area to hunt grizzly bears. Ningunsaw River valley is also described as a good place for hunting grizzly bear. "In the fall, they go up the mountain and snare the groundhogs. They make snares out of sinew and babiche, twist it together, and they had the men to help them set the snares. … To keep the meat, they make bags out of salmon, dry salmon skin, after they take the meat off the salmon, what they eat, they keep the skin and they sew bags out of the dry salmon skin and then they put the meat inside of it and keep it for the winter." With the coming of the first snow, they would fish for coho in the rivers using gaffs. "And when the coho is dry, they store them in a cool place, they dig holes in the ground where they store the coho." Thorman (n.d.) describes in great detail the system of cold storage developed by the Tahltan. According to Thorman, it was the storage pit or duwe'ged (meaning "a safe place dug") that gave the Tahltan a measure of security in their winter food supplies not enjoyed by other Athapaskan groups, and provided the material basis for their strength as a people.

According to a Tahltan elder (1984), the only time her grandparents and their people (the "Nathcotena," as she says, or the Naskoten) would go to Tahltan village was when they were having a potlatch. Then they would send the young men out to gather supplies for the feast. "And when that's all over they all go back to their own country [meaning the upper Nass]." The principal river for fishing was Oweegee tua or Oweegee Creek, which empties into the Bell-Irving above Bowser Lake. Two Tahltan elders (1983 and 1984) both describe hunting and trapping trails that run from Oweegee up the Bell-Irving River to its headwaters, and then over a number of passes into the Klappan watershed, or down Konigus Creek (konigus tua, meaning "all broken up creek," which refers to the trees and bushes damaged by the flooding waters) to the east branch of the upper Nass. In the fall, the Naskoten hunted "groundhog" or ground squirrel in this high country. Other trails connected to the Iskut valley by way of the Ningunsaw River (Tahltan elder 1983; Tahltan elder 2009) or Treaty Creek and the Unuk River (Tahltan elder 1984). A Tahltan elder describes the entire region around Bowser Lake as "Nathcotena country." Figure 12 (note – not included in this DPD document) shows the boundaries of Tahltan clan territories. It is based on a map produced by Teit, generally regarded as accurate. As can be seen, the Eskay Creek mine site falls within Naskoten territory.

7.1.2 Tahltan Nation Interests and Skeena Resources Response

Table 7.1-1 is a summary of interests and concerns that were raised by the Tahltan Nation during the Early Engagement phase of the Project's assessment. Skeena Resources' approach to understanding Tahltan Nation's interests and concerns involves collaboration with THREAT, engagement events with Tahltan mentorships, and innovative initiatives with Tahltan communities.

Table 7.1-1 Interests, Concerns, and Topics Raised by the Tahltan Nation

Category	Summary of Issues, Concerns, and Topics	Skeena Resources Response
Economic Development and Employment Opportunities	• Interested in education, training, and employment benefits. • Interested in opportunities to develop Tahltan businesses and business skills. • Interest in Project providing heavy equipment operator training for community members. • Interested in contracting opportunities for Tahltan businesses.	• Education and Training: ▪ Skeena Resources will continue to develop its Tahltan Mentorship Program. The goal of the program is to prepare the mentees for management roles and provide opportunities for the mentees to connect with Tahltan territory and culture. ▪ Skeena Resources is developing an Indigenous Entrepreneurship Program which will include establishing and supporting skills development and education programs to prepare community members for job opportunities at the Project. ▪ Skeena Resources will plan presentations to high schools in Dease Lake, Iskut and Telegraph Creek to promote the mentorship program and have current Tahltan Mentees discuss their careers and education. • Economic Development and Employment Opportunities: ▪ Weekly meetings with TCG's Employment and Contracts Director will continue. This will ensure TCG is aware of upcoming employment opportunities. ▪ Skeena Resources will continue to post job opportunities and recruit Tahltan employees through Tahltan On-track job ad system. ▪ To initiate businesses being added to the pre-approved vendor list, Skeena Resources will provide prequalification forms to interested Tahltan businesses. ▪ Skeena Resources will start an Entrepreneurship Program in 2022 with the objective to empower the local Indigenous entrepreneurs to continue to participate in a self-sustaining economic ecosystem.
Indigenous Peoples' Rights	• Requested the incorporation of Tahltan place names and the use of Tahltan language in regulatory documents. • Interest was expressed in Skeena's approach to engagement with other Indigenous groups and Transboundary communities.	• With the assistance of TCG's Language Department, and dependent on the information available, Skeena Resources will incorporate Tahltan place names and Tahltan language into future regulatory documents. • Skeena has engaged with other BC Indigenous nations and been following guidance from EAO regarding other Indigenous Peoples and transboundary communities.

Category	Summary of Issues, Concerns, and Topics	Skeena Resources Response
Accidents, Malfunctions and Public Safety	• Expressed concerns about the conditions and maintenance of Highway 37. • Expressed concerns about an increase traffic along Highway 37 attributed to the Project. • Expressed concerns regarding potential failure of tailings waste storage facility.	• Skeena Resources has added the specific risk of vehicle accident on highways 37 and 37A to the list of potential effects from accidents and malfunctions. The potential effects of accidents and malfunctions, including impacts to human health will be included in the Hybrid AIR and assessed in the EAC Application. • A traffic study reflecting average concentrate hauling of 200,000 tonnes per year is summarized in Section 4.1.1.2. • Skeena Resources acknowledges the concerns related to tailings embankment failure and geotechnical integrity of constructed infrastructure and is undertaking geotechnical design and investigative programs to support robust tailings embankment design, including consideration of classification criteria and site-specific features. Skeena Resources has added the potential for impacts due to accidents and malfunctions at the tailings embankment to the list in the DPD. The potential effects of accidents and malfunctions will be included in the draft Hybrid AIR and assessed in the EAC Application. The Hybrid AIR will be finalized during the process planning phase. In addition, Skeena is developing methods to better communicate Project design and risk mitigation to communities. This will potentially include 3D models and videos which will be shared in future community information sessions.
Climate Change and Greenhouse Gas Emissions	• Requested that climate change be considered in Project design. • Question regarding how project design has taken potential effects of climate change into consideration.	• Skeena Resources is considering the potential impacts of climate change in the design of the mine. Greenhouse gas emission estimates were also provided as part of this DPD (Section 4.5.1.2). • Skeena Resources will consider the use of new technology in vehicles (e.g., electrification, hybrid vehicles, alternate energy) to decrease emissions during operations. • Skeena Resources will include requirements to assess impacts to the environment, including climate change and the risk of accidents and malfunctions, in the Hybrid AIR, as well as in the design of the project.
Infrastructure and Services	• Expressed interest in maximizing energy efficiency. • Expressed concerns about pit wall stability. • Expressed concerns about the waste storage facility and design.	• Skeena Resources will continue to host technical workshops with THREAT. During these Workshops, Skeena Resources will provide updates from the engineering team to ensure that TahItan Sustainability and Risk criteria are being incorporated into Project design.
Geology, Geochemistry and Geological Hazards	• Expressed concerns about the potential for ARD and metal leaching. • Expressed concerns about the use of deleterious chemicals in the process plan.	• Skeena Resources will continue to host technical workshops with THREAT. At present, THREAT is invited to collaborate in Skeena's working groups related to Project design (waster rock/tailing), environmental management (water and wildlife), social and economics. Additional technical working sub-groups will be setup as part of the TAC in 2022 to support sharing of project information. THREAT is currently participating in a closure and reclamation working group.

Category	Summary of Issues, Concerns, and Topics	Skeena Resources Response
Social and Cultural	• Expressed concerns about the potential impacts to communities and families attributed to another mining project in the territory. • Expressed interest in Project expanding mentorship program to include program for high school student to learn about opportunities to work in Tahltan territory.	• Skeena Resources undertook a social baseline survey and study in conjunction with TCG and Newcrest representatives. The purpose of the study was to characterize current social and economic conditions and concerns within the territory. The study will provide data and inputs to the EA and help inform Skeena Resources' approach to future community interests. Skeena is committed to continuing engagement with the Tahltan Nation throughout the Project. • Skeena has presented to high schools in Dease Lake, Iskut and Telegraph Creek in May 2022 to promote the mentorship program and have current Tahltan Mentees discuss their careers and education.
Species at Risk, Wildlife, and their habitat	• Expressed concerns about the potential impact to wildlife.	• Skeena Resources will engage with Tahltan on the design and development of the environmental management system and management plans. • Skeena Resources will continue to engage with Tahltan on the development and review of environmental baseline studies and Hybrid AIR and Tahltan information requirements for the effects assessment.
Fish and Fish Habitat	• Expressed concerns about downstream salmon and hooligan (eulachon) fish populations.	• Specific references to these species have been added to the DPD and will be included in the Hybrid AIR. Collaboration with Tahltan Fisheries will be sought to understand the interest and concern.
Closure and Reclamation	• Expressed interest in ensuring Tahltan values and community review of the proposed returning land uses is part of the reclamation and closure process. • Expressed interest in the Closure and Reclamation Plan to consider short term scale (1-3 generations) and long-term temporal scale (7-12 generations). • Expressed interest in the reconnection of Tahltans with the land being a key vision for the Closure and Reclamation Plan. • To help inform the Closure and Reclamation Plan for the Project, expressed interest in revisiting the closure plan developed for the previous Eskay Creek Mine. • Question regarding how Skeena will be mitigating the potential impacts of the Project on future generations on Tahltan members.	• Skeena Resources will continue to collaborate with THREAT on the development of the Closure and Reclamation Plan in technical workshops. • Skeena Resources will continue to work with TCG to ensure the Project meets Tahltan requirements for closure and reclamation, including related to post-closure water management. • Skeena Resources commits to incorporating Tahltan land use objectives into the Closure and Reclamation Plan. • Skeena Resources is collaborating with THREAT to provide a list of community members to participate in closure and reclamation planning. • Skeena Resources will continue to work with TCG to ensure the Project meets and Tahltan requirements including requirements for closure and reclamation.

7.2 Tsetsaut Skii km Lax Ha

The Project is within asserted TSKLH traditional territory, as shown in Figure 7.2-1. The majority of the TSKLH members reside in Hazelton, approximately 235 km southeast of the Project. The asserted TSKLH traditional territory encompasses 19,800 km^2, which extends from the north side of the Cranberry River in the south to Beaver Pond in Ningunsaw Pass in the north (Pretivm 2014). The TSKLH do not have any reserves.

Table 7.2-1 summarizes the interests and concerns of the TSKLH, as understood by Skeena Resources, together with the company's approach to addressing those concerns. Skeena Resources acknowledges this is not a complete list of TSKLH interests and concerns and will continue to engage with TSKLH regarding the Project.

Table 7.2-1 Interests, Concerns, and Topics Raised by Tsetsaut Skii km Lax Ha

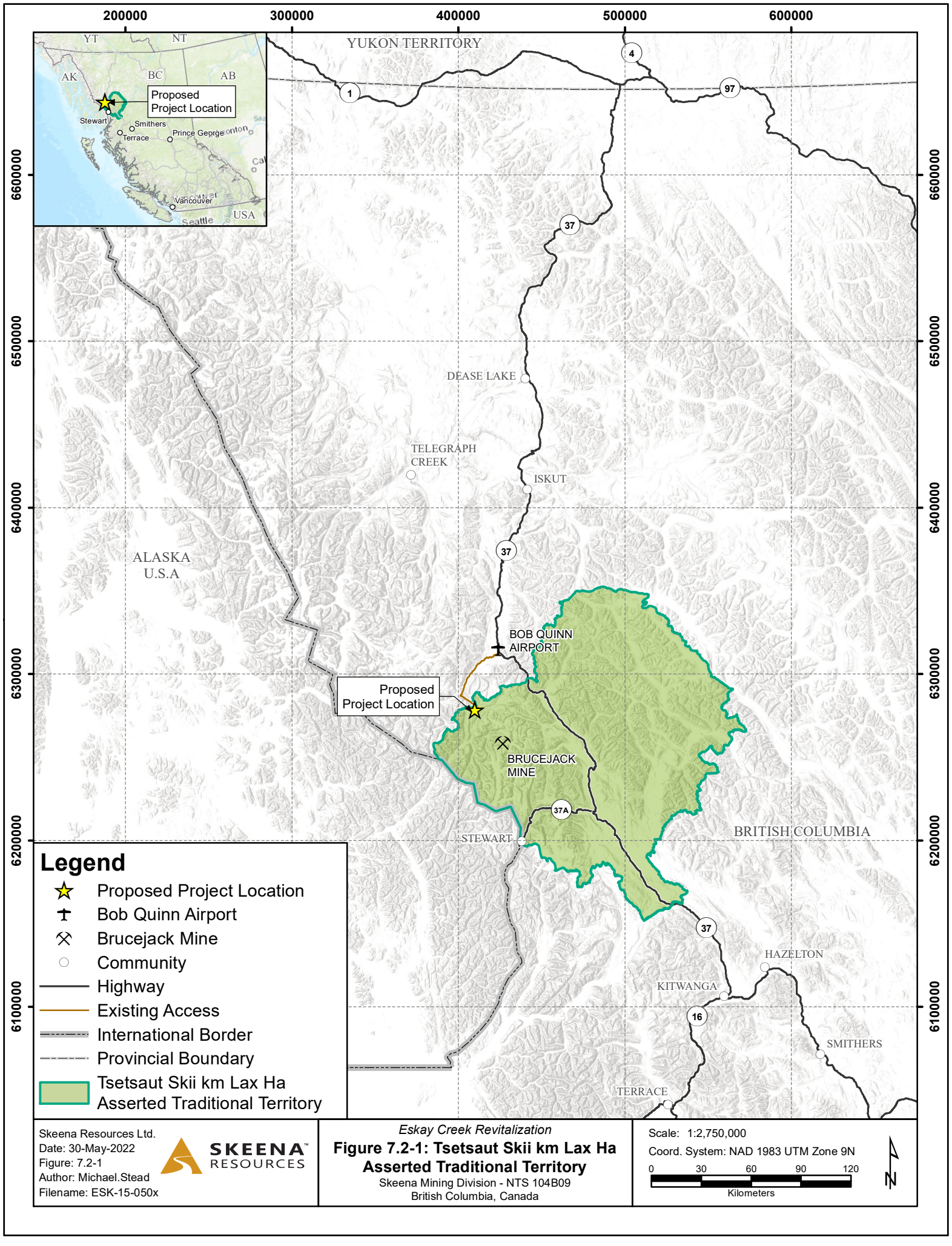
Category	Summary of Interests, Concerns, and Topics	Skeena Resources Response
Economic Development and Employment Opportunities	• Interested in employment and contracting opportunities.	• Skeena Resources will engage with TSKLH business entity regarding upcoming contract opportunities. • To initiate businesses being added to the pre-approved vendor list, Skeena Resources will provide prequalification forms to interested TSKLH businesses. Skeena Resources will assist TSKLH in developing business capacity through Entrepreneurship Program.
Social and Cultural	• Possible concerns about impacts on TSKLH use of TSKLH trails and spiritual sites and cultural areas.	• Skeena Resources will engage with TSKLH to gather available information.
Species at Risk, Wildlife, and Their Habitat	• Possible concerns about impacts on water, wildlife and fisheries.	• Skeena Resources will engage with TSKLH to gather available information.

7.3 Nisg̲a'a Nation

Highways 37 and 37A will be used by Project traffic and pass through the Nass Area and Nass Wildlife Area (as defined in the Nisg̲a'a Final Agreement). Figure 7.3-1 identifies the Project location in relation to Nisg̲a'a Lands, Nass Wildlife Area and Nass Area. The Eskay Creek Mine Project area is 16.8 km from the Nass Area.

Table 7.3-1 summarizes interests and concerns raised by Nisg̲a'a Nation during the Early Engagement phase of the assessment. Skeena Resources is committed to continuing to work with the Nisg̲a'a Nation on addressing the interest and concerns related to the Project.

Skeena Resources acknowledges this is not a complete list of Nisg̲a'a interests and concerns and will continue to engage with the Nisg̲a'a Nation on these requirements, potential effects and mitigations and related supporting information.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Proposed Project Location
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Smithers
Terrace
Prince George
Vancouver
Seattle
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YUKON TERRITORY
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DEASE LAKE
TELEGRAPH CREEK
ISKUT
ALASKA U.S.A
BOB QUINN AIRPORT
Proposed Project Location
BRUCEJACK MINE
37A
STEWART
BRITISH COLUMBIA
HAZELTON
KITWANGA
16
SMITHERS
TERRACE
Legend
Proposed Project Location
Bob Quinn Airport
Brucejack Mine
Community
Highway
Existing Access
International Border
Provincial Boundary
Tsetsaut Skii km Lax Ha Asserted Traditional Territory
Skeena Resources Ltd.
Date: 30-May-2022
Figure: 7.2-1
Author: Michael.Stead
Filename: ESK-15-050x
SKEENA RESOURCES
Eskay Creek Revitalization
Figure 7.2-1: Tsetsaut Skii km Lax Ha Asserted Traditional Territory
Skeena Mining Division - NTS 104B09
British Columbia, Canada
Scale: 1:2,750,000
Coord. System: NAD 1983 UTM Zone 9N
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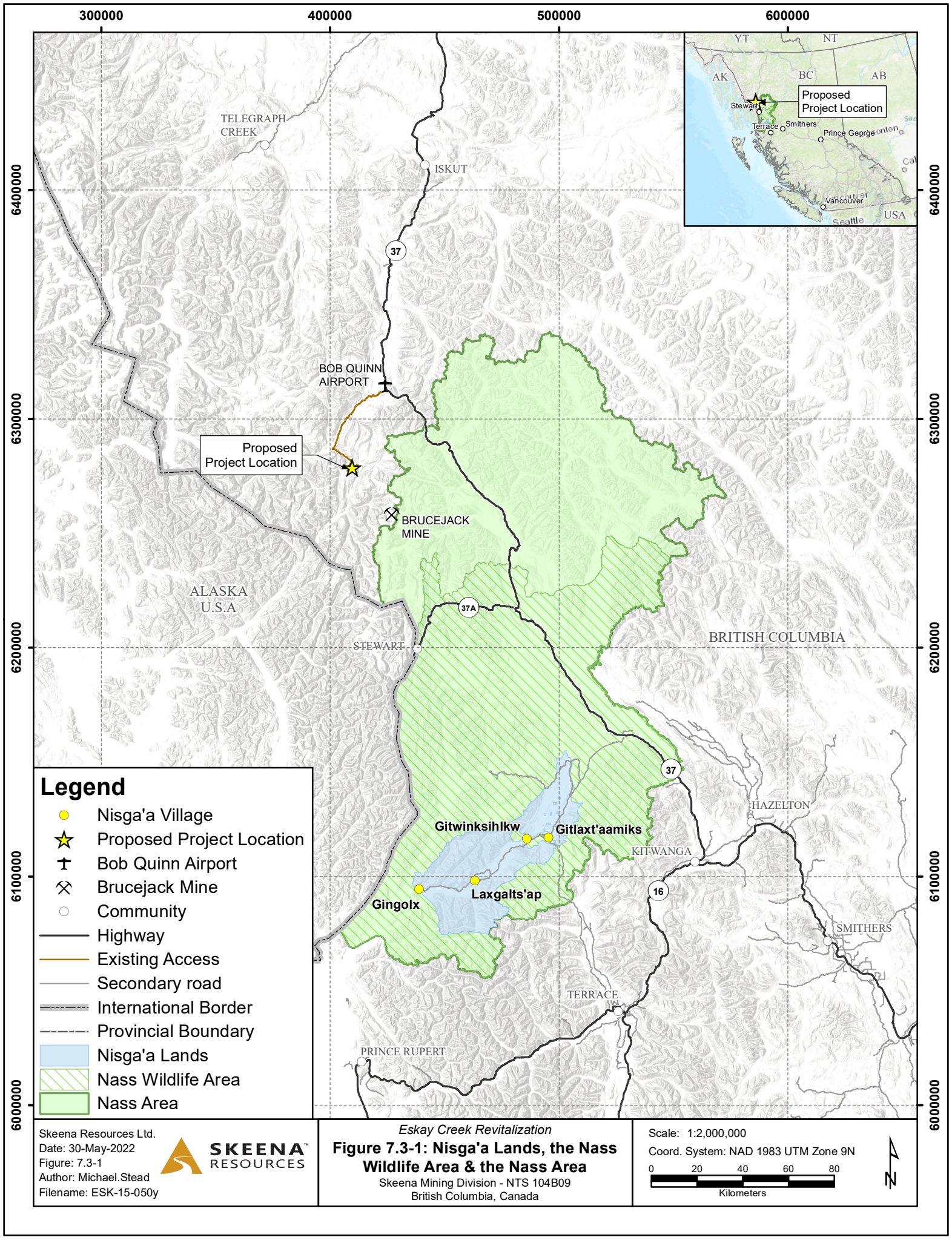
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BOB QUINN AIRPORT
Proposed Project Location
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ALASKA U.S.A
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Gingolx
Laxgalts'ap
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SMITHERS
TERRACE
PRINCE RUPERT
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AK
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Proposed Project Location
Stewart
Terrace
Smithers
Prince George
Vancouver
Seattle
USA
Legend
Nisga'a Village
Proposed Project Location
Bob Quinn Airport
Brucejack Mine
Community
Highway
Existing Access
Secondary road
International Border
Provincial Boundary
Nisga'a Lands
Nass Wildlife Area
Nass Area
Skeena Resources Ltd.
Date: 30-May-2022
Figure: 7.3-1
Author: Michael.Stead
Filename: ESK-15-050y
SKEENA RESOURCES
Eskay Creek Revitalization
Figure 7.3-1: Nisga'a Lands, the Nass Wildlife Area & the Nass Area
Skeena Mining Division - NTS 104B09
British Columbia, Canada
Scale: 1:2,000,000
Coord. System: NAD 1983 UTM Zone 9N
0 20 40 60 80
Kilometers
N

Table 7.3-1 Interests, Concerns, and Topics Raised by Nisga'a Nation

Category	Summary of Interests, Concerns, and Topics	Skeena Resources Response
Economic Development and Employment Opportunities	• Expressed interest in employment and economic opportunities.	• Skeena Resources will continue to engage with the Nisga'a Nation regarding their interests related to the Project. • To initiate businesses being added to the pre-approved vendor list, Skeena Resources will provide prequalification forms to interested Nisga'a businesses Skeena Resources will assist Nisga'a Nation in developing business capacity through the Entrepreneurship Program.
Indigenous Peoples' Rights	• Expressed concerns about Nisga'a interests in the Nass Area and NWA. • Expressed concerns regarding impacts of the proposed Eskay Creek Project on the Nisga'a Nation's treaty interests not being adequately characterized or detailed. • The Project is required to undergo assessments in accordance with paragraphs 8(e) and 8(f) of Chapter 10 Environmental Protection and Assessment of Nisga'a Final Agreement.	• Skeena Resources will engage with Nisga'a Nation on these requirements, potential effects and mitigations and related supporting information. • Skeena Resources will engage with Nisga'a Nation, the EAO and IAAC to support assessment under Chapter 10; this will be incorporated into the Hybrid AIR and reflected in the EAC Application.
Accidents, Malfunctions and Public Safety	• Expressed concerns about Project traffic on highways 37 and 37A and impacts on Nisga'a interests. • Discussed potential effects to wildlife mortality from project-related traffic through the Nass Area or Nass Wildlife Area. • Discussed effects of accidents and malfunctions in the Nass River watershed or marine aquatic values. • Expressed view that MOTI capacity of Highway 37 included in DPD does not consider safety on potential impacts to wildlife.	• Skeena Resources has identified that these concerns have been identified as potential effects, primarily via the biophysical interactions (Section 10.0). Specifically, interactions involving Project traffic and shipping has been added to Table 10-1 and the potential effect on Nisga'a Nation treaty's rights has been added to Table 10-2 as a potential Project effect. • Skeena Resources will continue to work with NLG on addressing their interests and concerns. Skeena Resources has added information about a study undertaken to help characterize traffic use of highways 37 and 37A over the past 20 years, including estimates of incident frequency and predicted traffic increase due to the Project, in Section 4.1.1.2. This study will be considered in the AIR and effects assessment.

Category	Summary of Interests, Concerns, and Topics	Skeena Resources Response
Marine Shipping	• Concerns about shipping-related effects in Portland Canal and Portland Inlet including potential spill response delays, compromised ship tracking, and communication limitations within Portland Canal. • Expressed view that capacity of Stewart Port and Portland Canal included in DPD does not consider safety on potential impacts to wildlife.	• Skeena Resources has identified these interests have been identified in Table 10-2. • Skeena Resources will continue to engage with NLG regarding Nisg̲a'a Nation interests. • Skeena Resources acknowledges NLG views and will continue to work with NLG on addressing their interests and concerns.
Social and Cultural	• Effects on the current and future social, cultural, and economic well-being of Nisg̲a'a Citizens.	• Skeena Resources has identified these interests in Table 10-2.

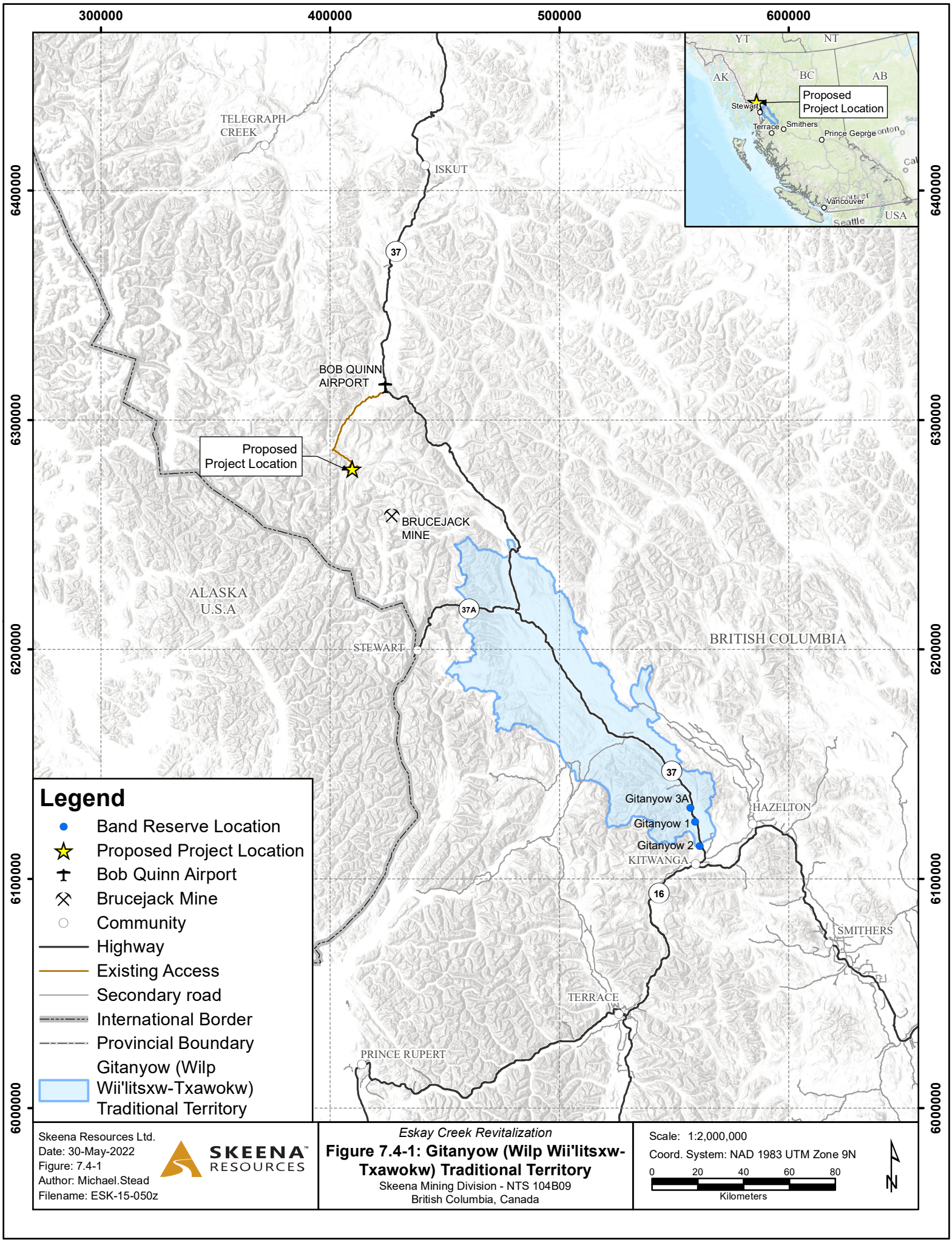
7.4 Gitanyow Nation

Highways 37 and 37A will be used by Project traffic and pass through the traditional territory of the Gitanyow Nation, between Kitwanga and the area around Meziadin Junction of both highways. The Eskay Creek Mine site is about 80 km northwest of Meziadin Junction. Figure 7.4-1 identifies the Project location in relation to the Gitanyow traditional territory and Gitanyow reserves.

Table 7.4-1 summarizes Skeena's understanding the interests and concerns of the Gitanyow Nation, together with the approach to addressing those concerns. Skeena Resources acknowledges this is not a complete list of Gitanyow interests and concerns will continue to engage with the Gitanyow regarding the Project.

Table 7.4-1 Interests, Concerns, and Topics Raised by Gitanyow Nation

Category	Summary of Interests, Concerns, and Topics	Skeena Resources Response
Indigenous Peoples' Rights	• Expressed interest in the application of the Gitanyow Wilp Sustainability Assessment Process to the Project assessment process.	• Skeena Resources will engage with Gitanyow to review the applicability of their process to the Project. • Skeena Resources will work with Gitanyow Hereditary Chiefs on developing an Early Engagement Agreement.
Accidents, Malfunctions and Public Safety	• Expressed concerns about Project traffic on highways 37 and 37A. Concerns include moose mortality, potential spills into watercourses due to accidents and effects on Gitanyow harvesters accessing areas from the highways.	• Skeena Resources will undertake a traffic study to determine the Project's potential impacts on Gitanyow interests. • Skeena Resources will engage with Gitanyow to review proposed mitigation strategies and management plans related to any identified impacts.
Economic Development and Employment Opportunities	• Expressed interest in employment and economic opportunities.	• To initiate businesses being added to the pre-approved vendor list, Skeena Resources will provide prequalification forms to interested Gitanyow businesses Skeena Resources will assist Gitanyow in developing business capacity through the Entrepreneurship Program.
Fish and Fish Habitat	• Expressed concerns about downstream salmon populations in the Nass and Skeena Rivers.	• Skeena Resources communicated that the Project footprint is located entirely in the Unuk watershed and will have no impacts on the Skeena or Nass rivers.
Climate Change and Greenhouse Gas Emissions	• Requested that climate change be considered in Project design. • Concerns about GHG emissions.	• Skeena Resources is incorporating potential impacts of climate change in the design of the mine. • Greenhouse gas emission estimates are provided in this DPD. • Skeena Resources is planning on using hydroelectricity to power the Project to minimize emissions.


300000
400000
500000
600000
6400000
6300000
6200000
6100000
6000000
YT
NT
AK
BC
AB
Proposed Project Location
Stewart
Terrace
Smithers
Prince George
Vancouver
Seattle
USA
TELEGRAPH CREEK
ISKUT
37
BOB QUINN AIRPORT
Proposed Project Location
BRUCEJACK MINE
ALASKA U.S.A
37A
STEWART
BRITISH COLUMBIA
37
Gitanyow 3A
Gitanyow 1
Gitanyow 2
HAZELTON
KITWANGA
16
SMITHERS
TERRACE
PRINCE RUPERT
Legend
Band Reserve Location
Proposed Project Location
Bob Quinn Airport
Brucejack Mine
Community
Highway
Existing Access
Secondary road
International Border
Provincial Boundary
Gitanyow (Wilp Wii'litsxw-Txawokw) Traditional Territory
Skeena Resources Ltd.
Date: 30-May-2022
Figure: 7.4-1
Author: Michael.Stead
Filename: ESK-15-050z
SKEENA RESOURCES
Eskay Creek Revitalization
Figure 7.4-1: Gitanyow (Wilp Wii'litsxw-Txawokw) Traditional Territory
Skeena Mining Division - NTS 104B09
British Columbia, Canada
Scale: 1:2,000,000
Coord. System: NAD 1983 UTM Zone 9N
0 20 40 60 80
Kilometers
N

7.5 Métis Nation British Columbia

A summary of potential interests and concerns of MNBC is presented in Table 7.5-1, including Skeena Resources' approach to addressing. Skeena Resources acknowledges this is not a complete list of MNBC's interests and concerns and will continue to engage with MNBC regarding the Project. Potential MNBC interests have been compiled from the following documents:

- Brucejack Gold Mine Project: Socio-economic Baseline Report, Appendix 19-A. Pretium Resources Inc. 2014. Brucejack Gold Mine Project, Application for an EAC.
- Application for an EAC / Environmental Impact Statement for the KSM Project. Prepared by Rescan Environmental Services Ltd. for Seabridge Gold Inc., May 2013.

Table 7.5-1 Interests, Concerns, and Topics Raised by Métis Nation British Columbia

Category	Summary of Interests, Concerns, and Topics	Skeena Resources Response
Social and Cultural	• Potential for concern about impacts on harvesting activities based upon nearby Projects (not confirmed by MNBC)	• Skeena Resources will continue to seek a meeting with MNBC. • Skeena Resources will review MNBC database.

8.0 EXISTING PHYSICAL, BIOLOGICAL, AND HUMAN ENVIRONMENT

Key updates to this section:

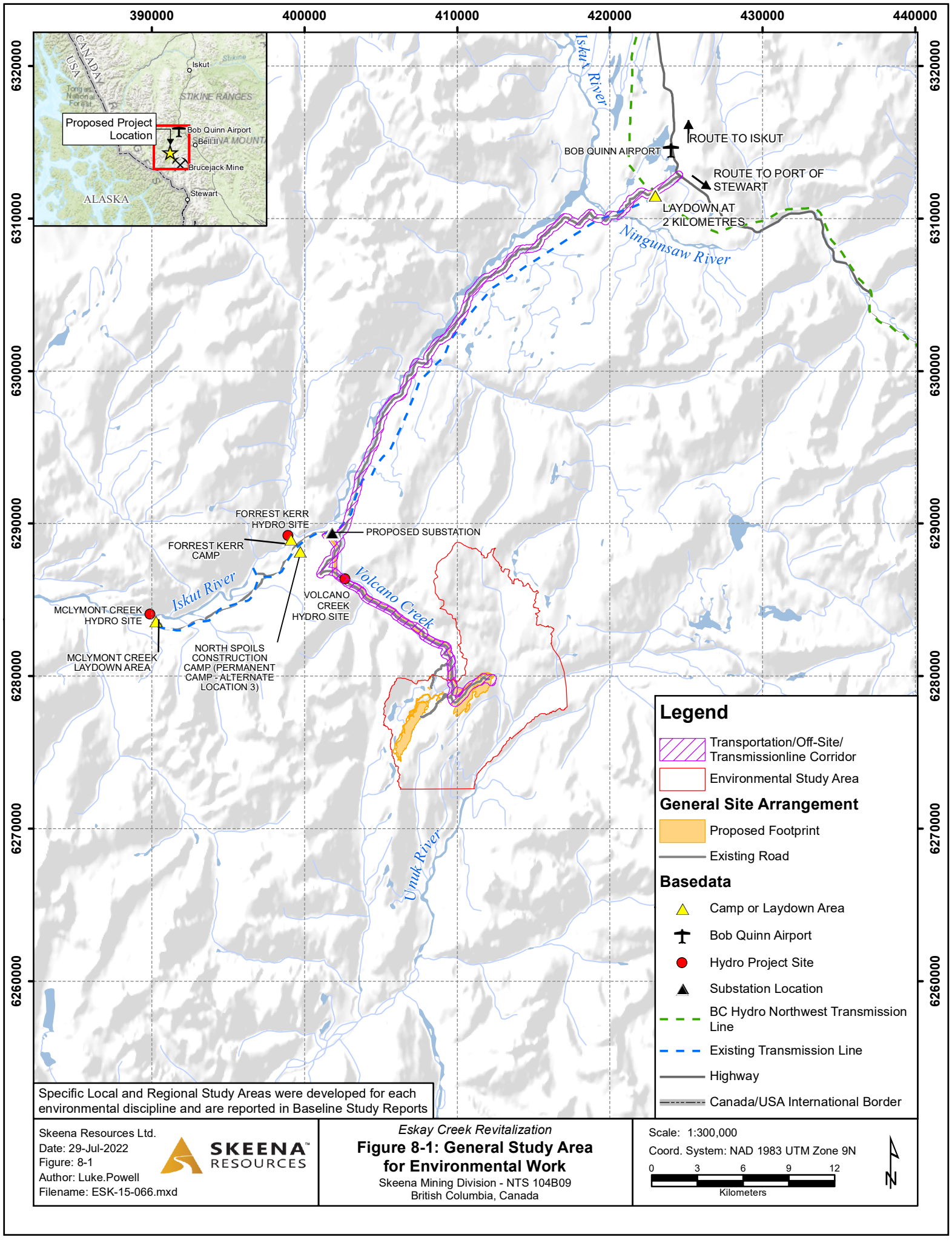
This section includes updates to the description of Surface Water Quality and Aquatic Environment reflecting the results of the 2020 Aquatic Effects Monitoring Program (Section 8.1.1). There are significant additions to the description of Social and Economic Conditions (Section 8.3.5), including profiles of local communities based on two social and economic baselines studies produced for the Tahltan territory communities and the service centres of Smithers, Terrace, and Stewart. The Public and Environmental Safety section (Section 8.3.7) has a preliminary identification of risk ratings for potential Project accidents and malfunctions that will be developed further in the EAC Application.

This section provides an overview of existing physical, biological, and human environment conditions in the Project area based upon a suite of historic and recent information. Biophysical studies were completed to support the 1993 application for a Mine Development Certificate (as described in Section 5.2.1) for the Eskay Creek Mine and later permit amendments. Skeena Resources completed a gap assessment of these early 1990s studies and monitoring data over the past two decades and undertook additional environmental, social, economic, heritage, and health studies in 2020 and 2021 to address refinement of the Project design and reflect current regulatory requirements in support of provincial and federal environmental assessment submissions. Environmental studies for other projects also exist and provide regional information and context to inform the regulatory applications. Tahltan information and knowledge for the territory will be incorporated into the process and applications as Skeena Resources and THREAT develop information sharing agreements.

Figure 8-1 depicts the environmental study area. Table 8-1 lists historical baseline and permit monitoring studies, organized by environmental discipline and operating period, including studies initiated in 2020/21 (Appendix B provides more details).

8.1 Physical Environment

The Project is located on the Prout Plateau, a rolling subalpine upland with an average elevation of 1,100 masl as shown on the report cover photo, on the eastern flank of the Boundary Ranges of the Coast Mountains between the Unuk River (just south) and Iskut River (north of mine site). The Iskut River and upper Unuk River watersheds in the area near the mine site is characterized by steep mountains with isolated plateaus, high precipitation, shallow soils, many steep small tributaries, and the large river corridors draining westward to the ocean. Relief (or variation in elevation) over the Prout Plateau ranges from 500 m in the TMSF area to over 1,000 m between the Unuk River and Ketchum Creek valleys and highest points. The mine is at approximately 800 m elevation in the Tom MacKay Creek watershed. Mountain slopes are heavily forested while the subalpine terrain around the mine reflects sparser forest cover and parkland forest type.


390000
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6320000
6310000
6300000
6290000
6280000
6270000
6260000
Proposed Project Location
CANADA
USA
ALASKA
Iskut
Stewart
Bob Quinn Airport
Bell II
Brucejack Mine
STIKINE RANGES
Iskut River
BOB QUINN AIRPORT
ROUTE TO ISKUT
ROUTE TO PORT OF STEWART
LAYDOWN AT 2 KILOMETRES
Ningunsaw River
FORREST KERR HYDRO SITE
FORREST KERR CAMP
PROPOSED SUBSTATION
Volcano Creek
VOLCANO CREEK HYDRO SITE
MCLYMONT CREEK HYDRO SITE
MCLYMONT CREEK LAYDOWN AREA
NORTH SPOILS CONSTRUCTION CAMP (PERMANENT CAMP - ALTERNATE LOCATION 3)
Unuk River
Legend
Transportation/Off-Site/ Transmissionline Corridor
Environmental Study Area
General Site Arrangement
Proposed Footprint
Existing Road
Basedata
Camp or Laydown Area
Bob Quinn Airport
Hydro Project Site
Substation Location
BC Hydro Northwest Transmission Line
Existing Transmission Line
Highway
Canada/USA International Border
Specific Local and Regional Study Areas were developed for each environmental discipline and are reported in Baseline Study Reports
Skeena Resources Ltd.
Date: 29-Jul-2022
Figure: 8-1
Author: Luke.Powell
Filename: ESK-15-066.mxd
SKEENA RESOURCES
Eskay Creek Revitalization
Figure 8-1: General Study Area for Environmental Work
Skeena Mining Division - NTS 104B09
British Columbia, Canada
Scale: 1:300,000
Coord. System: NAD 1983 UTM Zone 9N
0 3 6 9 12
Kilometers
N

Table 8-1 Summary of Environmental, Social, and Human Baseline Studies

Discipline	Pre-Mine Studies	Mining (1994-2008) and Post-mining Monitoring (2009-2019)	Characterization Studies of Current Conditions	Study Activities in 2020/21
Climate	1990-1993,	1995-2008, 1997, 2000, 2009-2020 former meteorology station	2020 onwards (new meteorology station)	• Installation of new on-site weather/met station 2020 • Installation of wind station (2009-2020) • Snow course surveys (2021)
Air Quality	1990-1993, 1997, 2000	-	2020	• Desktop review and model of regional air quality • Dust canister on-site sampling
Noise	-	-	2020	• Noise measurements
Hydrology	1990-1993, 1997, 2000	Operations: 1995-2008 Closure: 2009 onwards monitoring	2020-2022	• Data collection at historical and new hydrology sites, including installation of dataloggers for continuous water level (see Figure 8.1-3) • Monthly water flow measurements of hydrology sites and three permitted discharge locations (sites TM1, W20, and D7)
Hydrogeology	1990-1991	1995-2008, 2017	2020-2022	• Installation of groundwater wells • Quarterly groundwater quality sampling
Fish and Fish Habitat	1989-1993	Periodically 1997-2011	2020-2021	• Fish surveys to confirm no fish-bearing waters and fish barrier locations and fish tissue sampling (see Figure 8.1-3)
Aquatic Resources	1989-1993	Periodically 1997-2020	2020-2022	• Summer benthic and sediment sampling (see Figure 8.1-3) • 17th sampling of Aquatic Effects Monitoring Program WQ/ aquatic inverts/sediment quality done in 2020
Water Quality	1990-1993, 1997, 2000	Operations: 1995-2008 Closure: 2009-present	2020-2021	• Monthly surface water quality sampling at historical locations (see Figure 8.1-3) • Low-flow water quality sampling (5 in 30)
Wildlife	1990-1993	-	2020-2021	• Winter ungulate (moose, mountain goat) survey (2020) • Bird and bat surveys (2020 and 2021) • Fur-bearer survey (2020) • Western toad survey (2020/21)

Discipline	Pre-Mine Studies	Mining (1994-2008) and Post-mining Monitoring (2009-2019)	Characterization Studies of Current Conditions	Study Activities in 2020/21
Ecosystems/Wetlands	1990-1993, 2000	-	2020-2021	• Field surveys of soil, plants (rare and invasive), ecosystems, wetlands • Development of terrestrial ecosystem map, terrain stability map and predictive ecosystem map to current standards
Mine Waste Geochemical Characterization	1990-1993, 1997, 2000	2006, 2008	2020-2022	• Static testing of lithologies and new tailings • Humidity Cell Testing of lithologies for waste rock and new tailings and overburden • Barrel leach testing of lithologies for waste rock
Social and economic	-	No longer applicable	2020-2021	• Project social and economic desktop study in Tahltan territory and regional area • Tahltan territory social and economic survey information collected in collaboration with Tahltan and Newcrest as input to desktop report • Input-output model
Tahltan Knowledge/ Traditional Land Use and Occupancy (TK-TLUO)	-	-	2020-2022	• Review of Tahltan Knowledge and a traditional land use study completed by THREAT in 2020 and shared with Skeena Resources • Additional work to incorporate Tahltan Knowledge in studies and EA process documents underway subject to information sensitivity
Archaeology/ Cultural Heritage	1990-1993	2018-2020 (exploration)	2020-2022	• *Heritage Conservation Act* permit amendment • Archaeological Impact Assessment (2018) • 2021: initiated post-disturbance surveys around ground activities at mine site at request of THREAT
Human Health	-	-	2020-2021	• Baseline study to characterize country foods to support Human Health Risk Assessment

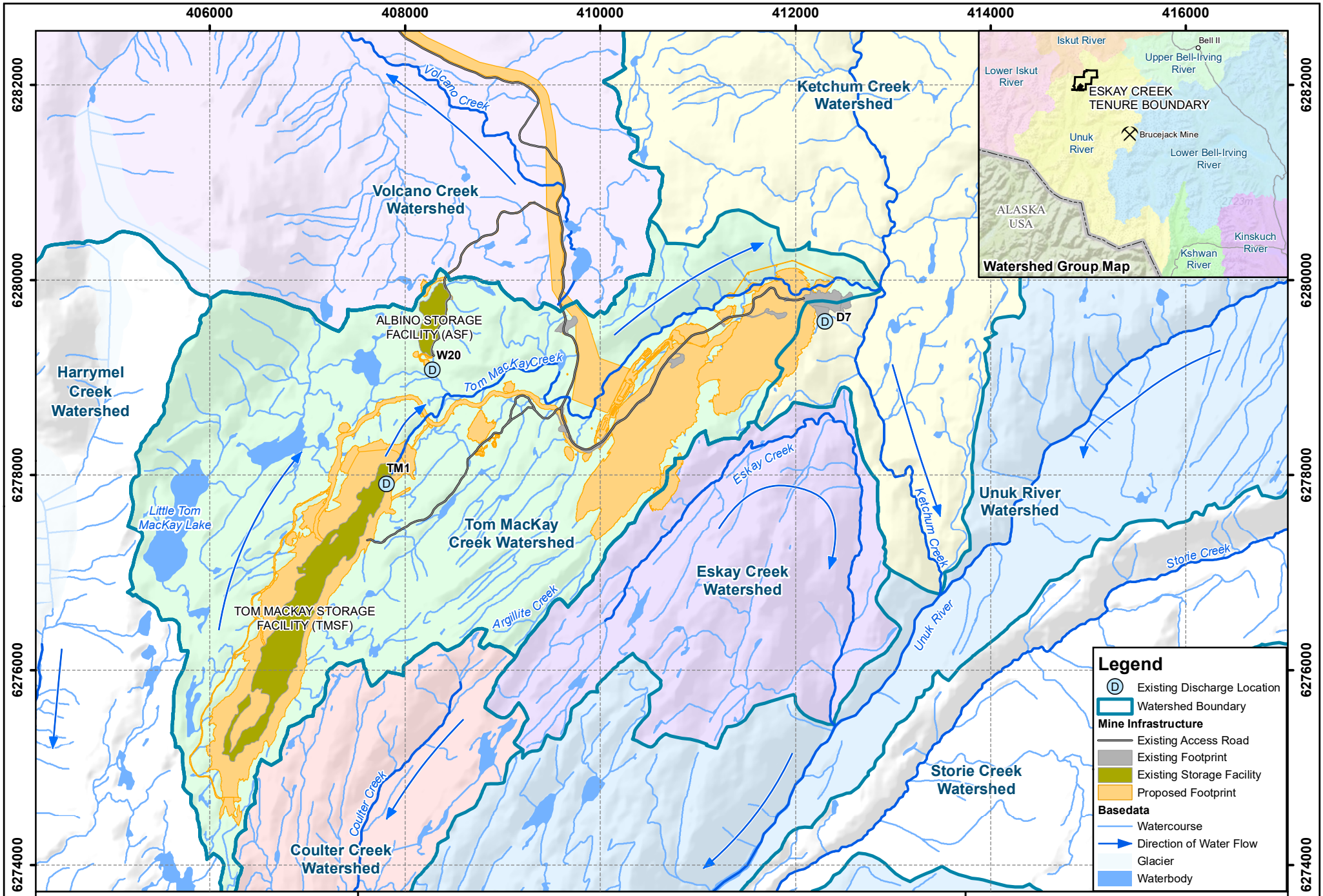
The mean annual total precipitation at the Eskay Creek Mine site is estimated to be 2,500 millimetres (mm; TEEM 2021). The majority (55 to 71%) of annual precipitation falls as snow between September and May. The average temperature ranges from -10.4 degrees Celsius (°C) in January to +15 °C in July (EC 2013). Expected extreme temperatures range from -40 °C to +30 °C (SRK 2019). Exploration and mine site activities are sometimes constrained by winter conditions (e.g., extreme cold or heavy snowfall).

Regional snowpack data is available, but the data is highly variable and location dependent. Snowpack data collected at the Project site between 1990 and 1993 found peak average snowpack (April) of 1,425 ± 567 mm (at elevation 930 m), and measurements of 2020-2021 snowpack were ~1,800 mm (at elevation 1,000 m). Although annual snowfall is high, the snow avalanche hazard is generally low across the rolling plateau at the mine site, except for steeper terrain sections in the Volcano Creek area along the Eskay Creek Mine Road, and along short steep cuts and slopes along the former TMSF access road and in creek gully features (SRK 2019).

The surficial geology in the area is varied and includes till, colluvium at the base of bedrock outcrops and on steep slopes, organics in poorly drained depressions, and alluvium along streams and lake shorelines (SRK 2019). The moderate elevation (800 to 900 m) around the mine site, cool climate, lengthy snow cover, mineralized parent materials, mass wasting, and vegetation processes affects overall mineral weathering and organic composition such that soil development can be weak. Soils vary in thickness over the plateau and include Humic Gleysols (poorly drained, often associated with wetlands/seepages), Cryosols (periodically frozen soils), and Regosols (weakly developed, well drained mineral soils in unconsolidated materials). These soils overlie deposits of glacial till over fragmented bedrock. The main erosional processes in the area include nivation (i.e., snow patch freeze/thaw), cryoturbation (frost churning) and solifluction/freeze-thaw cycles related to steep terrain, high moisture content and cold climate. Soil chemistry exhibits high levels of minerals in parent material with generally acidic soils (pH 4.3 to 6.0; HKP 1993).

The Prout Plateau is drained by tributaries of the Iskut and Unuk rivers. Volcano Creek is adjacent to the Eskay Creek Mine Access Road to the north of the mine site and proposed transmission line and drains north into the Iskut River, a major tributary to the Stikine River (Figure 8.1-1). The remainder of the plateau near the mine site is drained to the south by tributaries to the Unuk River (Figure 8.1-1) including Tom MacKay, Argillite, Ketchum, Eskay, Harrymel and Coulter creeks. The gradient of these drainages increases as the creeks descend from the moderate relief of the Prout Plateau into the deeply incised Unuk River valley. The plateau contains small lakes (Tom MacKay, Little Tom MacKay, and several smaller lakes) as well as Argillite Creek, which collectively form the headwaters of the Tom MacKay Creek drainage system immediately adjacent to the mine site. Hydrological monitoring started in the early 1990s on these watersheds with intermittent or continuous data collection, depending on proximity to the mine site, presence of mine site discharges and permit requirements.

The streamflow regime of the area is driven by snowmelt with the majority of runoff occurring in the spring and early summer due to the melting winter snowpack. Typically, a period of lower flow occurs throughout the late summer and early fall, when inputs from snow have diminished. Throughout the fall period, short-duration, high-intensity rain events may produce substantial peak flow events, leading to a bimodal distribution of spring and fall peaks.



Skeena Resources Ltd.
Date: 29-Jul-2022
Figure: 8.1-1
Author: kimberly.broadbelt
Filename: ESK-15-067.mxd

SKEENA RESOURCES

Eskay Creek Revitalization

Figure 8.1-1:
Local Drainage

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:50,000
Coord. System: NAD83 - UTM Zone 9N
0 0.5 1 1.5 2
Kilometers

N

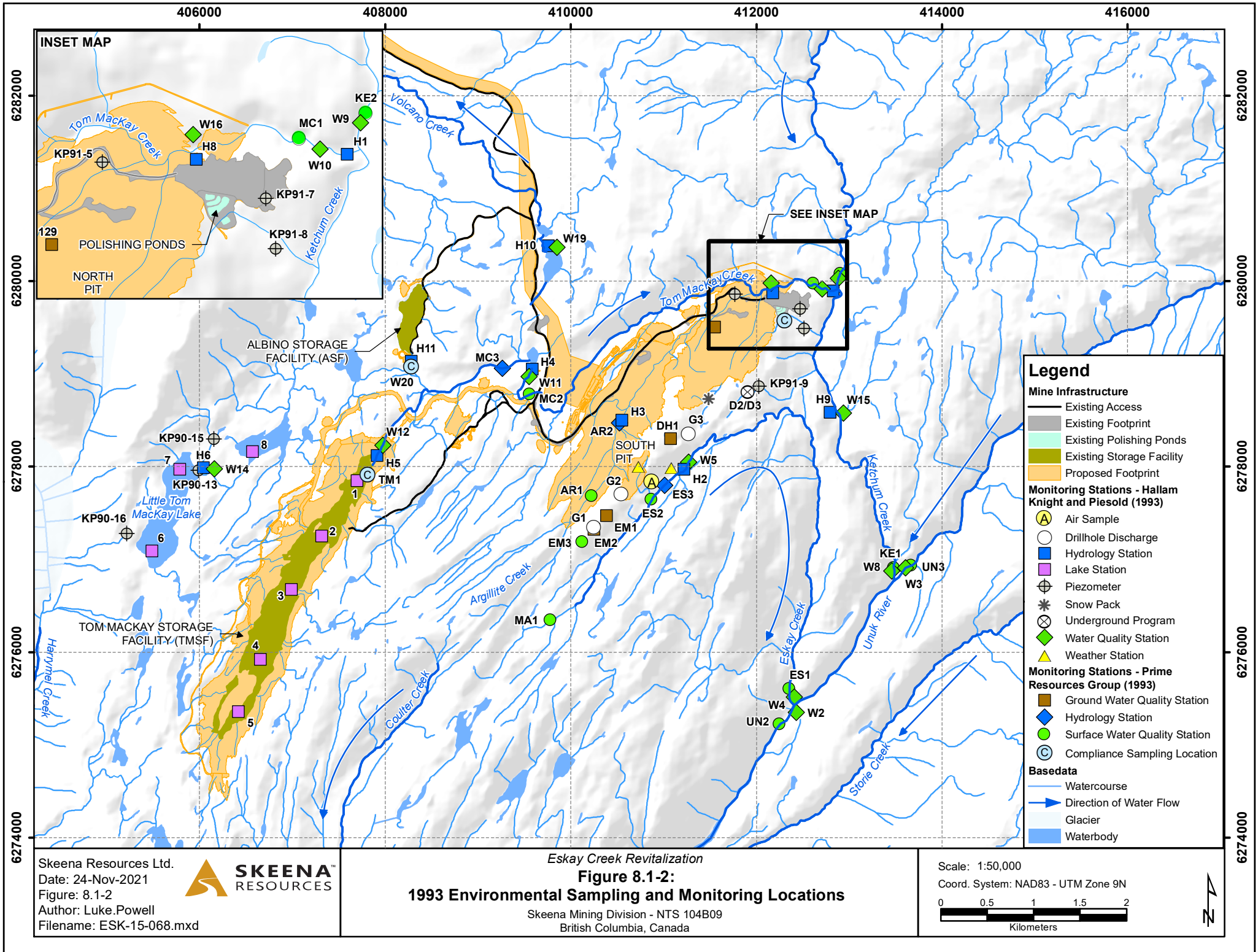
Annual low flows occur during the winter, when air temperatures remain below freezing and precipitation is stored as snowpack until spring. During the winter low-flow period, most stream flow is dominated by base flows from groundwater discharge. Some streams in the Iskut and Unuk watersheds have glacial inputs (i.e., Ketchum Creek, Harrymel Creek). Streams at lower elevations like the lower Iskut River do not typically completely freeze over. Many of the streams are characterized by fast, turbulent flows and cascades, which helps to prevent ice build-up, and thick snow cover in winter across the Prout Plateau.

8.1.1 Surface Water Quality and Aquatic Environment

Monitoring programs for water quality and aquatic productivity (primary and secondary producers [invertebrates], sediment quality) has occurred extensively throughout the past 35 years, but synthesis of this lengthy period of data is underway to inform modelling, water management, and mitigation planning, and as input to the Hybrid AIR and EAC Application. Extensive data exist for characterization and monitoring of surface water quality from historical pre-mining baseline studies (1991-1993; Figure 8.1-2), operational mining (1995-2008) and post-mining periods since 2009. Over the course of the 30-year water quality time series from 1990 to 2020, monitoring occurred at 37 stations, including 25 receiving environment stations, although sampling in the receiving environment was generally limited until an intensive program began in early 2020.

Surface water quality data is available at multiple locations upstream and downstream of the Eskay Creek Mine site for the Unuk River, Eskay Creek, Ketchum Creek, Harrymel Creek, Coulter Creek, Argillite Creek, ASF outlet, and TMSF outlet. Most of the water quality sampling stations represent comparative locations (e.g., upstream vs downstream, reference or exposure) and many represent water quality modelling nodes (Figures 8.1-2 and 8.1-3). Water quality sampling locations were commonly co-located data collection sites for multiple parameters (Figure 8.1-3; i.e., water quality, hydrology, sediment quality, aquatic biota, aquatic organism tissue metals, fish presence sampling). Water quality data, both historic and recent intensive sampling, will be used as key inputs to water quality modelling, source term development, baseline characterization, and environmental assessment and permitting applications.

Between 2009 and 2019, the permit-required sampling locations and frequency was generally quarterly (low intensity sampling at a few required locations for permit compliance) and reported to government. Since early 2020, Skeena Resources has executed a broad suite of intensive sampling to update the characterization of ‘current conditions’ across the mine site and upstream/downstream waterbodies, including resampling many of the historically sampled sites (Figure 8.1-3). Water quality sampling to characterize current conditions continued in 2021 to gather two years of monthly, and—at most sites—5-in-30 days weekly sampling to increase the breadth of site-specific reference, discharge, and exposure site sampling in the receiving environment as well as near and far-field. Water quality variables were compared to their respective Canadian Council of Ministers of the Environment (CCME) and BC ENV water quality guidelines for the protection of freshwater aquatic life (guidelines; BC ENV 2019a; CCME 2020; BC ENV 2021).


406000
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INSET MAP
Tom MacKay Creek
KE2
W16
MC1
W9
H8
H1
KP91-5
W10
KP91-7
Ketchum Creek
129
POLISHING PONDS
KP91-8
NORTH PIT
Volcano Creek
SEE INSET MAP
H10
W19
Tom MacKay Creek
ALBINO STORAGE FACILITY (ASF)
H11
MC3
H4
W20
W11
MC2
KP91-9
D2/D3
H3
H9
W15
AR2
DH1
G3
SOUTH PIT
KP90-15
8
W12
7
H6
W14
H5
W5
TM1
H2
KP90-13
1
G2
ES3
AR1
Little Tom MacKay Lake
ES2
KP90-16
G1
EM1
2
EM3
EM2
6
Ketchum Creek
KE1
W8
UN3
W3
3
Argillite Creek
MA1
TOM MACKAY STORAGE FACILITY (TMSF)
Eskay Creek
Unuk River
Harrymel Creek
4
ES1
W4
W2
Coulter Creek
5
UN2
Storie Creek
Legend
Mine Infrastructure
Existing Access
Existing Footprint
Existing Polishing Ponds
Existing Storage Facility
Proposed Footprint
Monitoring Stations - Hallam Knight and Piesold (1993)
Air Sample
Drillhole Discharge
Hydrology Station
Lake Station
Piezometer
Snow Pack
Underground Program
Water Quality Station
Weather Station
Monitoring Stations - Prime Resources Group (1993)
Ground Water Quality Station
Hydrology Station
Surface Water Quality Station
Compliance Sampling Location
Basedata
Watercourse
Direction of Water Flow
Glacier
Waterbody
Skeena Resources Ltd.
Date: 24-Nov-2021
Figure: 8.1-2
Author: Luke.Powell
Filename: ESK-15-068.mxd
SKEENA RESOURCES
Eskay Creek Revitalization
Figure 8.1-2:
1993 Environmental Sampling and Monitoring Locations
Skeena Mining Division - NTS 104B09
British Columbia, Canada
Scale: 1:50,000
Coord. System: NAD83 - UTM Zone 9N
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Kilometers
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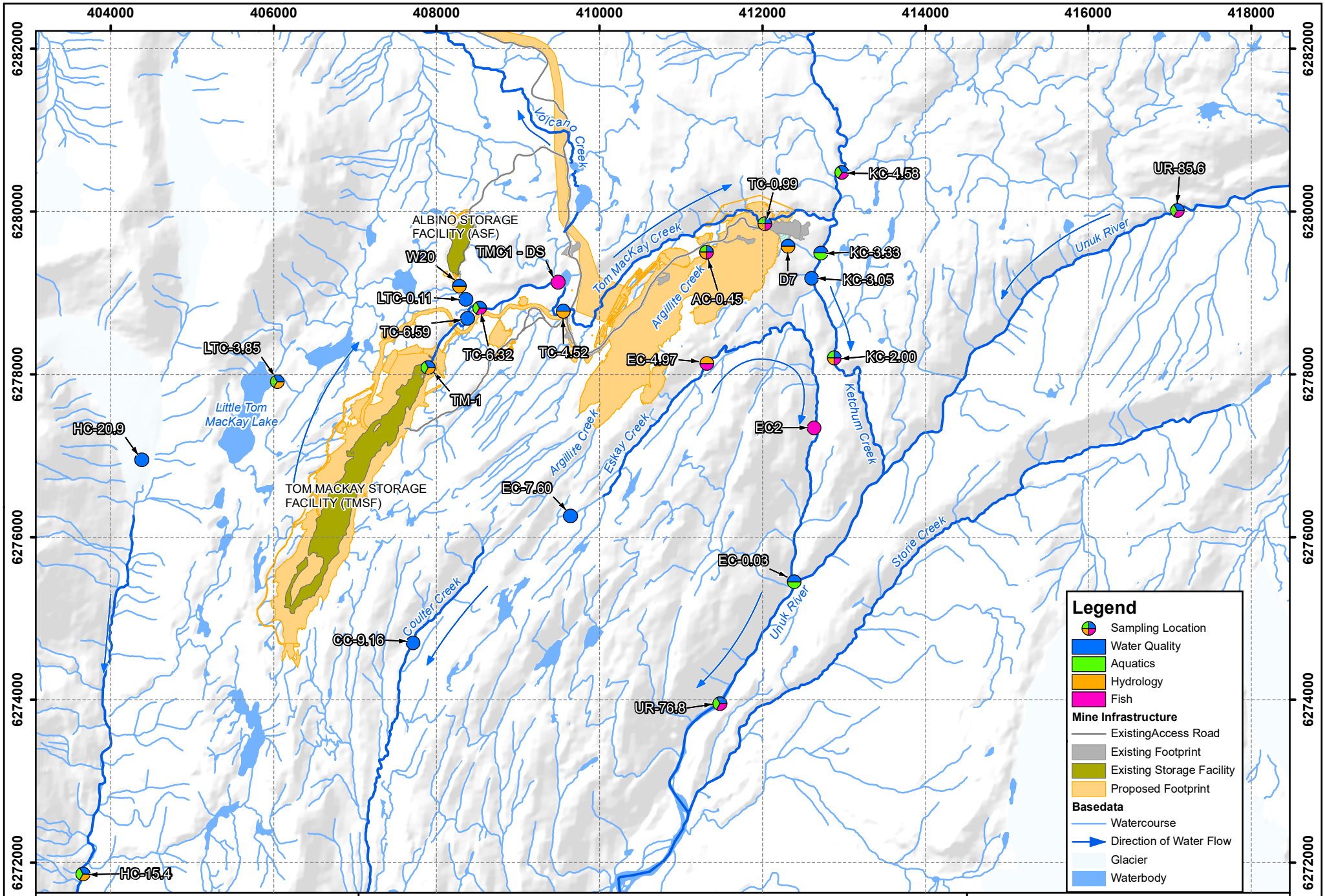


Skeena Resources Ltd.
Date: 29-Jul-2022
Figure: 8.1-3
Author: kimberly.broadbelt
Filename: ESK-15-069.mxd

SKEENA RESOURCES

Eskay Creek Revitalization

Figure 8.1-3:
2020-2021 Sampling Locations for Water Quality, Hydrology, Aquatic Resources, Fish and Fish Habitat

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:60,000
Coord. System: NAD83 - UTM Zone 9N
0 0.5 1 1.5 2
Kilometers

N

Baseline water quality data from pre-1993 found the Project area had two types of water quality: glacial fed streams and mountain runoff streams (no glacial inputs). Eskay and Tom MacKay creeks drain the plateau area immediately around the historical mine site and were characterized as neutral to slightly acidic pH, moderately conductive, clear with low turbidity and low TSS, moderately low in dissolved solids with low hardness and alkalinity. The baseline conditions for the glacial influenced streams of Ketchum Creek and Unuk River were circumneutral pH, high conductivity, moderately to high turbidity with moderate to high TSS, high dissolved solids and moderately high hardness and moderate alkalinity (HKP 1993). The water quality of both stream types reflects the highly mineralized bedrock geology through which fast streams have eroded significant, steep, canyon-like features. These streams carry erosion products downstream as suspended particulates, bedload, and dissolved constituents of the water, and deposit fine sediments and gravels in the fish-bearing and turbid Unuk River.

A compilation of historic and 2020 water quality data into a baseline report (in preparation at the time of writing) showed spatial differences in water quality observed throughout the Project area, which can be attributed to contrasting source waters (as was noted in the early 1990s) and the influence of the former mine operation. The water quality in Eskay and Tom MacKay creeks was typical of unglaciated systems, with greater groundwater, rainwater, and snowmelt influence, resulting in extremely low to (at times) no concentrations of suspended solids and low concentrations of dissolved solids. In contrast, the elevated glacial erosion in the headwaters of Ketchum Creek and the Unuk River resulted in higher sediment inputs and suspended solids and greater metal concentrations. In general, the non-glacial streams were circumneutral with soft water, while the glacial-fed streams were slightly basic with soft to moderately hard water. Non-glacial streams also had low to moderate total alkalinity, conductivity, and total dissolved solids (TDS). Ketchum Creek, although glacial-fed, tended to show characteristics that were intermediate between non-glacial Tom MacKay Creek and the glacially turbid Unuk River. Total alkalinity, conductivity, hardness, and TDS were highest in the winter low flow period and in the glacial-fed streams.

Between 1990 and 2012, the long-term temporal trends in water quality in Tom MacKay and Ketchum creeks were influenced by operation of the historical Eskay Creek underground mine. Waste rock, tailings, and sludge were deposited into Albino Storage Facility from 1995 to 2001 and were diverted to the TMSF from 2001 until mine closure in spring 2008. Both of these facilities drain into Tom MacKay Creek, which empties into Ketchum Creek. Mine water, mill effluent, and sewage effluent were treated at the mine site and discharged at site D7 beside the mine site into Ketchum Creek.

Streams in the Project area were also strongly governed by the hydrological regime. The open water, high-flow period extends from early May until late October, with low-flow periods the rest of the year. Annual peak flows occur as a result of snowmelt during the spring freshet between late May and mid-July, glacial melt in the summer (Ketchum Creek and Unuk River only), and autumn rain events in mid-September and October. The hydrological regime affects water quality by diluting concentrations of dissolved solids during the open water period, while increasing sediment load and transport, causing high concentrations of suspending sediments and particulate-associated metals. Concentrations of water quality parameters generally followed one of two distinct patterns

depending on whether they were present primarily in the particulate or dissolved fraction. Parameters that had a large proportion of particulates, including most metals, were greatest during periods of high flow, while parameters with high dissolved fractions were diluted during periods of high flow and peaked with dissolved solids concentrations in the low flow winter months.

Although some parameters were naturally elevated during the baseline data collection, especially in the glacial-fed watersheds, trends in certain water quality parameters increased and occasionally exceeded guidelines during mining operations or the post-mining period, although exceedances of discharge permit limits were not common, with reduced potential for effects tied to higher stream flows. Trends in metal concentrations, including occasional exceedances related to discharge from the mine in recent years, are being investigated to inform both mitigation and water modelling approaches for FS design, permitting, and the EAC Application. The minor exceedances of water quality guidelines in the receiving environment (e.g., occasional dissolved zinc in Ketchum Creek) are linked to both natural elevated levels due to erosion and background conditions in this creek, as well as occasional mine water discharge levels.

The only fish-bearing waters are the Unuk River (RTEC 2021b and 2021j), and there were no apparent guideline exceedances in the Unuk River related to the mine discharge, despite frequent natural exceedances of total metals in both upstream reference and sites downstream of the Unuk/Ketchum Creek confluence, and mainly attributed to natural sediment loading and highly mineralized geology of the watershed (Golder 2021).

The 2020 aquatic biology monitoring results do not indicate that adverse environmental effects were occurring seasonally related to slightly elevated concentrations (Golder 2021). The aquatic invertebrate community at and downstream of the mine site indicated suitable water quality in streams (Golder 2021).

8.2 Biological Environment

Key updates to this section:

Early engagement on the Project included feedback requesting more information related to baseline data collection for ecosystems, species at risk, wildlife and fish. Skeena Resources has updated the description of Surface Water Quality and Aquatic Environment reflecting the results of the 2020 Aquatic Effects Monitoring Program (Section 8.1.1).

8.2.1 Ecosystems and Vegetation

There are three biogeoclimatic ecosystem classification (BEC) zones in the Project area around Prout Plateau: Mountain Hemlock (MH) and Engelmann Spruce-Subalpine Fir (ESSF) zones around the mine site and Volcano Creek, and transitional Interior Cedar Hemlock (ICH) zone at lower elevation along the Eskay Creek Mine Access Road (BC FLNRORD 2021b; Government

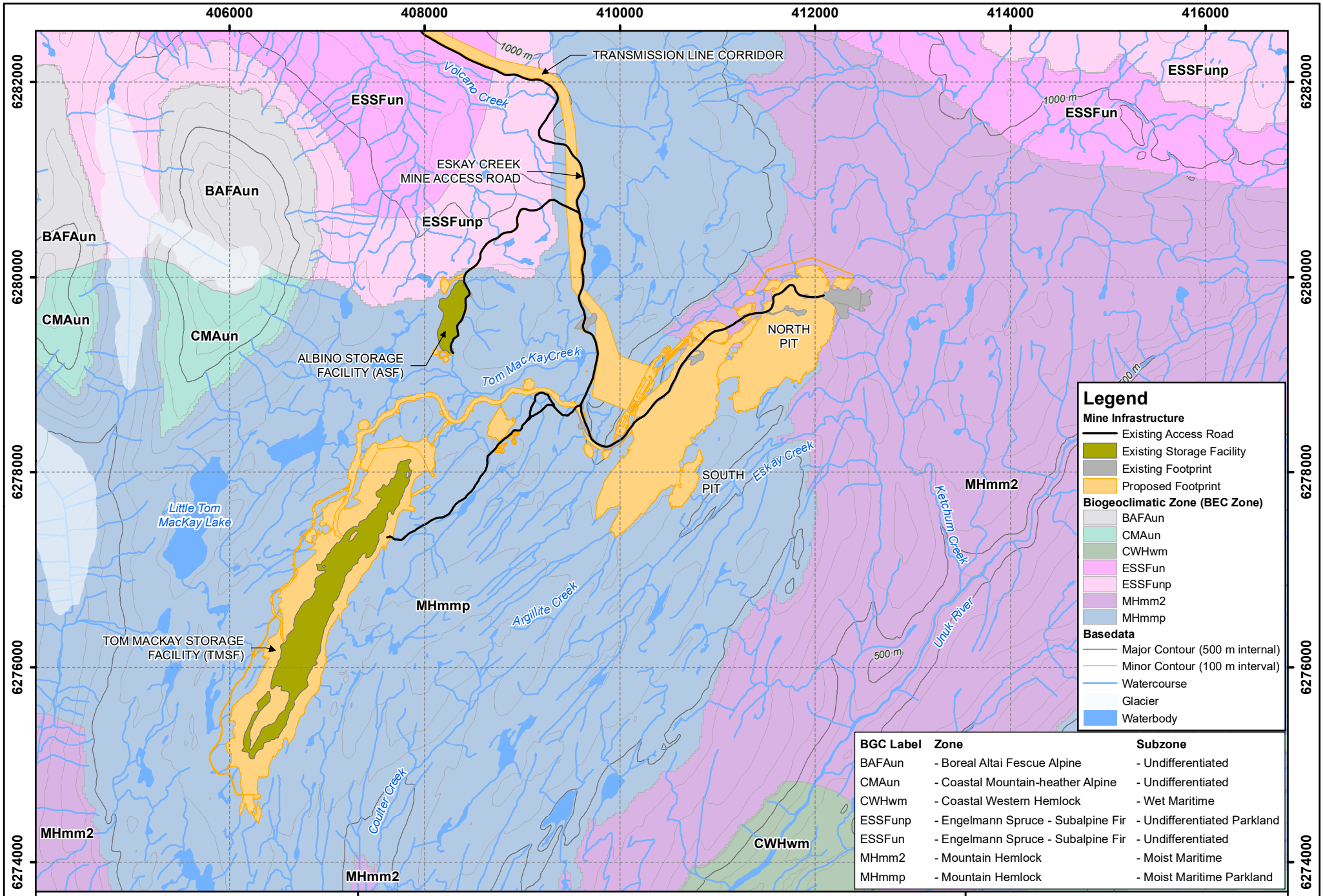
of BC 1988; Figures 8.2-1 and 8.2-2). The Eskay Creek Mine is situated near the transition from the wetter coastal Mountain Hemlock and Coastal Western Hemlock zones to the relatively drier interior zones (ESSF and ICH) which still have significant precipitation.

- The Mountain Hemlock (MH) zone is coloured blue in the two figures, is shown on the report cover photo, and occurs in subalpine and rolling parkland areas of the Prout Plateau, including the mine site area and Tom MacKay Creek, tailings storage facilities, Argillite Creek, and Eskay Creek watersheds. The MH zone is at lower elevation than the relatively treeless alpine tundra zone found on adjacent mountain peaks. The major tree species include mountain hemlock, subalpine fir with two species, Sitka spruce and western hemlock, occurring at lower elevations towards the Unuk River (HKP 1993).
- The ESSF included two pink coloured zones in the figures and occurs along the Eskay Creek Mine Access Road in the Volcano Creek and Iskut River watersheds and mountain slopes northwest/northeast of the mine site. It includes continuous forest cover at its lower and middle elevations and subalpine parkland near its upper limits. Engelmann spruce dominates the canopy of mature stands, while subalpine fir is most abundant in the understorey (Meidinger and Pojar 1991).
- The ICH (yellow zone in figures) occurs in the valley bottoms and low-elevation uplands along Iskut River and Forrest Kerr Creek. Vegetation is dominated by black cottonwood with Sitka spruce and birch present in lesser numbers (HKP 1993). BC Ministry of Forests (1993) states that the area around Bob Quinn Lake is dominated by seral stands, and the understory of mature forests contains species such as roses, snowberries, and meadowrue, which are normally associated with boreal or sub-boreal climates.

Wetlands include a range of ecosystems from forested sites with wet soils to areas with shallow open water. They include open water, bogs, fens, marshes, and swamps. Wetlands occur on a variety of topography but generally occur in depressions or on slightly sloping areas of the landscape that are saturated with water for a significant period of time during the growing season. The effect of this saturation is reflected in the soil development and vegetation community composition found within wetlands. In BC, wetlands only comprise about 5% of the provincial land base (BC MOE 2018); despite the limited extent of wetlands, they support important, habitat for wildlife and plants, and provide hydrological, biochemical, and habitat functions (Milko 1998; Mitsch and Gosselink 2000; Hanson et al. 2008).

During the 2020/2021 field programs, there were 11 wetland types mapped in the Local Study Area (LSA) and 13 types mapped in the Regional Study Area (RSA). The majority of the wetlands were forested swamp wetlands located in the RSA, but fens were also very common in both the RSA and LSA.

Wetlands provide a range of hydrological, biochemical, and habitat functions and are valued by society for the services they provide (Milko 1998; Mitsch and Gosselink 2000; Hanson et al. 2008). They maintain water quality, regulate water flow, and provide erosion control and provide habitat for a wide variety of wildlife, including red- and blue-listed wetland dependant species and communities (Cox and Cullington 2009).



Skeena Resources Ltd.
Date: 24-Nov-2021
Figure: 8.2-1
Author: kimberly.broadbelt
Filename: ESK-15-070.mxd

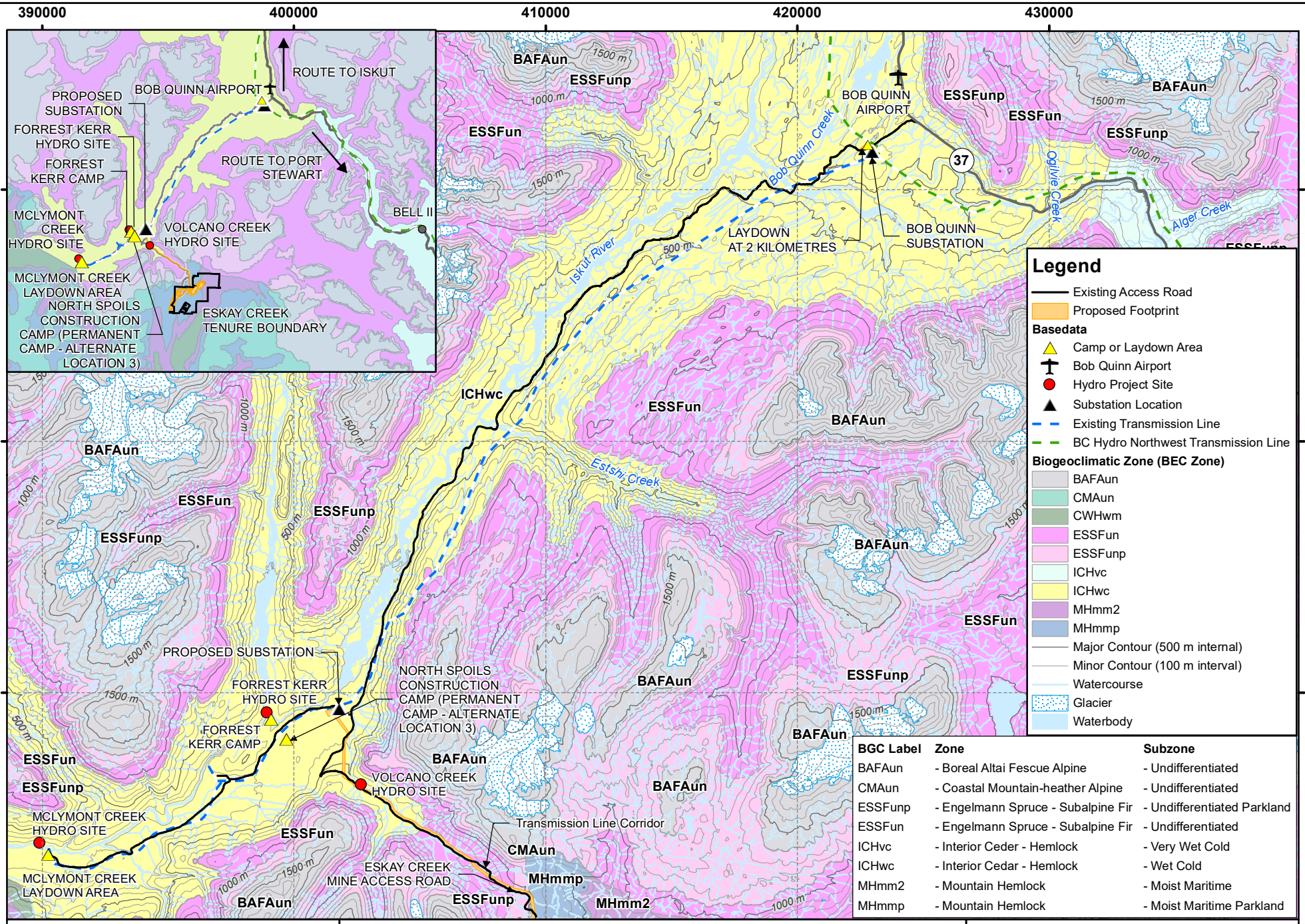
SKEENA RESOURCES

Eskay Creek Revitalization

Figure 8.2-1:
Biogeoclimatic Zones

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:50,000
Coord. System: NAD83 - UTM Zone 9N
0 0.5 1 1.5 2
Kilometers
N



Skeena Resources Ltd.
Date: 04-Aug-2022
Figure: 8.2-2
Author: Luke.Powell
Filename: ESK-15-071.mxd

SKEENA RESOURCES

Eskay Creek Revitalization

Figure 8.2-2:
Off-site Biogeoclimatic Zones

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:200,000
Coord. System: NAD83 - UTM Zone 9N
0 1.5 3 4.5 6
Kilometers
N

Several kilometres northwest of the Eskay Creek Mine infrastructure, the terrain on Prout Plateau transitions from rolling parkland with scattered lakes to subalpine and alpine tundra zones on the steep slopes of mountains rising above the plateau (Figures 8.2-1 and 8.2-2).

The mine site and adjacent drainages are located in gently rolling terrain within the MH Zone shown on the cover of this report, which includes two BEC subzones: moist maritime and moist maritime parkland. The moist maritime zone is characterized as a subalpine forest with major tree species including mountain hemlock (*Tsuga mertensiana*), subalpine fir with two species, Sitka spruce (*Picea sitchensis*), and western hemlock (*Tsuga heterophylla*), occurring at lower elevations (HKP 1993). As elevation increases, the subzone transitions to a rolling parkland subzone, which is characterized by discontinuous forest cover with reduced tree size, interspersed with subalpine heath, lush herb meadows and subalpine bogs and fens (BC MOF 1998).

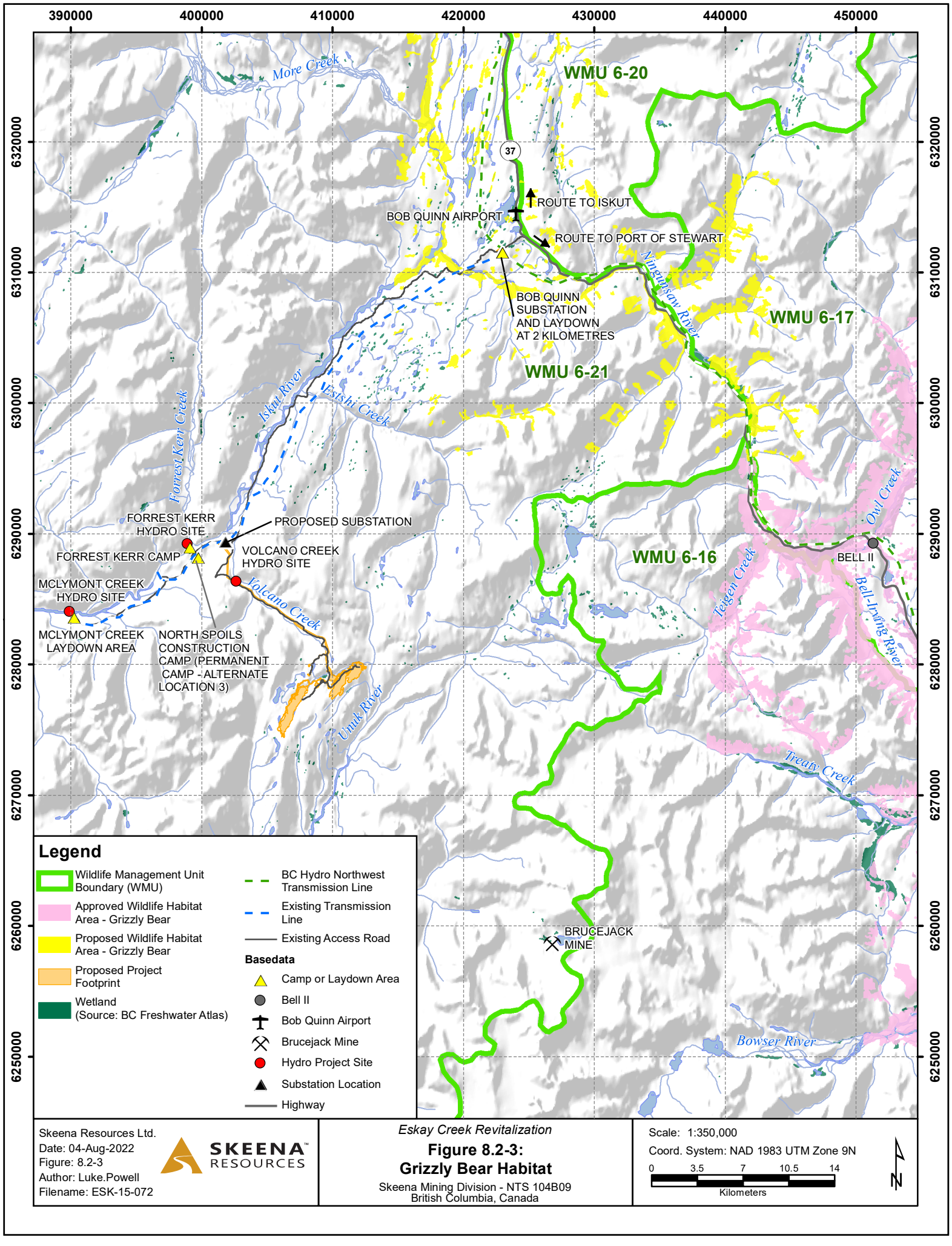
The majority of the mine site infrastructure and a portion of the Eskay Creek Mine Road are located within the parkland subzone and transitions to the forested subzone as elevation decreases. This is typical of the photo on the cover of this report showing the TMSF waterbody in the background with the MH rolling parkland with subalpine bogs, meadows and heath interspersed in the foreground and steeper mountain slopes of the other BEC zones in the background of the cover photo. Waterbodies in this zone include the TMSF, ASF, Tom MacKay Creek, Argillite Creek, Ketchum Creek, and Eskay Creek.

8.2.2 Wildlife and Wildlife Habitat

The Project provides habitat for a variety of wildlife species. Large wildlife species recorded within the Project area of the Iskut and Unuk rivers include black bear (*Ursus americanus*), moose (*Alces alces*) and mountain goat (*Oreamnos americanus*). Small mammals recorded in the Project area include American marten (*Martes americana*), wolverine (*Gulo gulo*), voles, and hoary marmot (*Marmota caligata*). Furbearing mammals with suitable habitat in the Project area include grizzly bear (*Ursus arctos*), wolf (*Canis lupus*), lynx (*Lynx canadensis*), ermine (*Mustela erminea*), mink (*Mustela vison*), fisher (*Pekania pennanti*), least weasel (*Mustela nivalis*), and snowshoe hare (*Lepus americanus*) (HKP 1993). Known wildlife ranges for grizzly bears are shown on Figure 8.2-3.

Biophysical inventory mapping identified the Project area is potentially suitable for woodland caribou (*Rangifer tarandus*) and moose (MOE 1982). While there have been incidental observations of caribou in the regional area, there are no known herds in the region, as caribou do not use ICH and ESSF BEC zones for habitat. The mine site is not overlapped by any caribou herd ranges shown on provincial range mapping as shown on Figure 8.2-4 (Government of BC 2019).

Mid and lower elevation areas provide habitat for porcupine (*Erethizon dorsatum*), northern flying squirrel (*Glaucomys sabrinus*), and red squirrel (*Sciurus vulgaris*). Plovers, Canada goose (*Branta canadensis*), harlequin duck (*Histrionicus histrionicus*), and numerous passerine species have been recorded in the area. Raptors recorded in the area include bald eagle (*Haliaeetus leucocephalus)*, sharp-shinned hawk (*Accipiter striatus*), and owls. Upland breeding birds (migratory birds) include varied thrush (*Ixoreus naevius*), pine siskin (*Carduelis pinus*), fox sparrow (*Passerella iliaca*), hermit thrush (*Catharus guttatus*), Wilson's warbler (*Cardellina pusilla*), dark-eyed junco (*Junco hyemalis*), Townsend's warbler (*Dendroica townsendi*), yellow-rumped warbler (*Setophaga coronate*), ruby-crowned kinglet (*Regulus calendula*), sooty grouse (*Dendragapus fuliginosus*), golden-crowned sparrow (*Zonotrichia atricapilla*), and Pacific wren (*Troglodytes pacificus*).



Skeena Resources Ltd.
Date: 04-Aug-2022
Figure: 8.2-3
Author: Luke.Powell
Filename: ESK-15-072

SKEENA RESOURCES

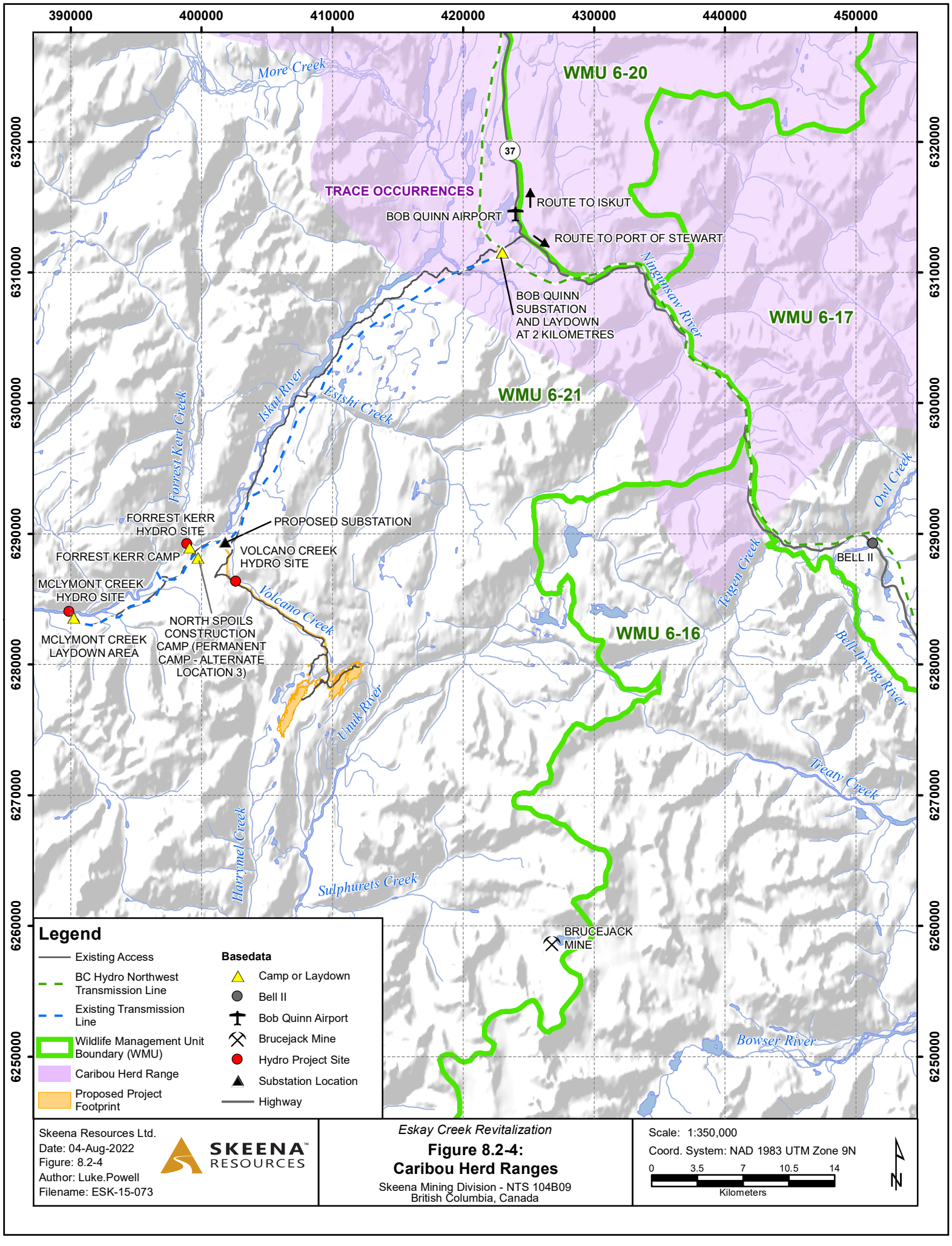
Eskay Creek Revitalization

Figure 8.2-3:
Grizzly Bear Habitat

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:350,000
Coord. System: NAD 1983 UTM Zone 9N
0 3.5 7 10.5 14
Kilometers

N


390000
400000
410000
420000
430000
440000
450000
6320000
6310000
6300000
6290000
6280000
6270000
6260000
6250000
More Creek
WMU 6-20
37
TRACE OCCURRENCES
ROUTE TO ISKUT
BOB QUINN AIRPORT
ROUTE TO PORT OF STEWART
Ningunsaw River
BOB QUINN SUBSTATION AND LAYDOWN AT 2 KILOMETRES
WMU 6-17
WMU 6-21
Iskut River
Estsihi Creek
Forrest Kerr Creek
FORREST KERR HYDRO SITE
PROPOSED SUBSTATION
FORREST KERR CAMP
VOLCANO CREEK HYDRO SITE
MCLYMONT CREEK HYDRO SITE
Volcano Creek
NORTH SPOILS CONSTRUCTION CAMP (PERMANENT CAMP - ALTERNATE LOCATION 3)
MCLYMONT CREEK LAYDOWN AREA
Owl Creek
BELL II
Tsigen Creek
WMU 6-16
Bell-Irving River
Unuk River
Treaty Creek
Harrymel Creek
Sulphurets Creek
BRUCEJACK MINE
Bowser River
Legend
Existing Access
BC Hydro Northwest Transmission Line
Existing Transmission Line
Wildlife Management Unit Boundary (WMU)
Caribou Herd Range
Proposed Project Footprint
Basedata
Camp or Laydown
Bell II
Bob Quinn Airport
Brucejack Mine
Hydro Project Site
Substation Location
Highway
Skeena Resources Ltd.
Date: 04-Aug-2022
Figure: 8.2-4
Author: Luke.Powell
Filename: ESK-15-073
SKEENA RESOURCES
Eskay Creek Revitalization
Figure 8.2-4:
Caribou Herd Ranges
Skeena Mining Division - NTS 104B09
British Columbia, Canada
Scale: 1:350,000
Coord. System: NAD 1983 UTM Zone 9N
0 3.5 7 10.5 14
Kilometers
N

The Project overlaps with two Wildlife Management Units (WMU) within Skeena Region 6: WMU 6-21 and a small portion of WMU 6-16. A provincially designated mountain goat winter range order (#U-6-002) contains habitat polygons that overlap many areas in the Project region (BC MOE 2008). Additionally, polygons for a provincially designated Wildlife Habitat Area (WHA) order for grizzly bear (Ursus arctos; #6-288) are within the area (BC MFLNRORD 2019a).

Four species of amphibian and one reptile species are known to inhabit the Project area watersheds. They include common garter snake (*Thamnophis sirtalis*), long-toed salamander (*Amystoma macrodactylum*), Western toad (*Anaxyrus boreas*), wood frog (*Rana sylvatica*), and rough-skinned newt (*Taricha granulosa*). Snow cover duration and elevation are key factors affecting the occurrence of these species near the mine site.

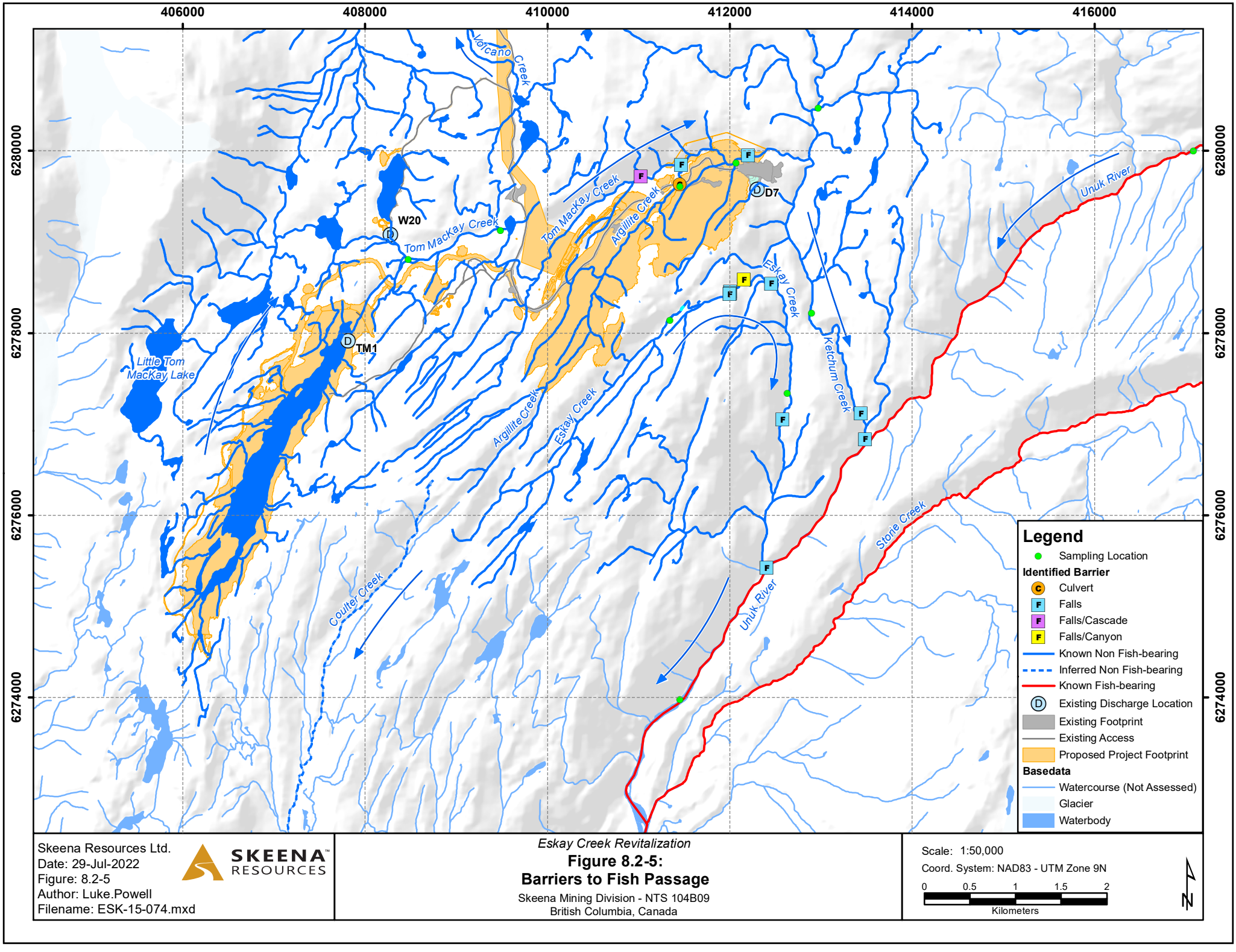
8.2.3 Fish and Fish Habitat

Since the 1990s, no fish have been observed or captured in the upper tributaries of the Unuk River in the immediate vicinity of the Eskay Creek Mine site during multiple sampling events, typically due to the lack of fish access from low elevation fish bearing stream reaches, which contain extensive barriers and cascades. Sampling over the past three decades occurred in headwater lakes (Albino Lake, Little Tom MacKay Lake, and the TMSF), Eskay Creek, Ketchum Creek, and Tom MacKay Creek and other small streams immediately adjacent to the mine and downstream.

The Eskay Creek Mine site is situated in the Tom MacKay Creek watershed, a tributary to the Ketchum Creek, and is approximately 4 km upstream of the fish-bearing section of the Unuk River (Figure 8.2-5). The high-alpine natural lakes and streams in the Tom MacKay Creek watershed, including the ASF and TMSF, are naturally low in plant nutrients. These watercourses in the reaches between the ASF/TMSF and the Unuk River were confirmed as not fish-bearing due to impassible waterfalls and gradient/velocity barriers (McGurk et al. 2006; KP 1993, RTEC 2021j). No fish were captured at sampling locations in Ketchum or Tom MacKay creeks in 2020 (RTEC 2021), consistent with historic fish survey outcomes. Negative results for the presence of eDNA indicate that fish are absent from Tom MacKay Creek watershed (RTEC 2021).

Pink salmon (*Onchorynchus gorbuscha*), chum salmon (*Onchorynchus keta*), chinook salmon (*O. tshawytscha*), and sockeye salmon *(O. nerka*), as well as Dolly Varden (*Salvelinus malma*), and cutthroat trout (*O. clarkii clarkii*) are present in the Unuk River and were found in past baseline studies, but no closer than 7 to 8 km downstream of the mine site (Hemmera 1997). The locations of fish barriers and fish-bearing reaches are shown on Figure 8.2-5 (RTEC 2021b, 2021j).

Dolly Varden were found in the upper reaches of the Unuk River in poor to fair quality habitat in September 2020. Figure 8.1-3 shows locations where fish sampling to collect tissue metals samples occurred in the Unuk River, about 6 km upstream from the confluence of Ketchum Creek/Unuk River (upstream reference site UR-85.6), as well as several kilometres downstream of the same confluence (downstream site UR-76.8; RTEC 2021). Skeena Resources assumes that Dolly Varden are also present between those sampling sites on the Unuk River.


406000
408000
410000
412000
414000
416000
6280000
6278000
6276000
6274000
Volcano Creek
Tom MacKay Creek
Argillite Creek
Eskay Creek
Ketchum Creek
Unuk River
Storie Creek
Coulter Creek
Little Tom MacKay Lake
W20
TM1
D7
Legend
Sampling Location
Identified Barrier
Culvert
Falls
Falls/Cascade
Falls/Canyon
Known Non Fish-bearing
Inferred Non Fish-bearing
Known Fish-bearing
Existing Discharge Location
Existing Footprint
Existing Access
Proposed Project Footprint
Basedata
Watercourse (Not Assessed)
Glacier
Waterbody
Skeena Resources Ltd.
Date: 29-Jul-2022
Figure: 8.2-5
Author: Luke.Powell
Filename: ESK-15-074.mxd
SKEENA RESOURCES
Eskay Creek Revitalization
Figure 8.2-5:
Barriers to Fish Passage
Skeena Mining Division - NTS 104B09
British Columbia, Canada
Scale: 1:50,000
Coord. System: NAD83 - UTM Zone 9N
0 0.5 1 1.5 2
Kilometers
N

8.2.4 Species of Conservation Concern

Information about species of conservation concern in BC is available from both provincial and federal sources. The Ministry of Environment and Climate Change Strategy (ENV) maintains conservation information on the BC Species and Ecosystems Explorer for several thousand species in the province (BC ENV 2019). Data on known occurrences (referred to as element occurrences) are available through the BC Conservation Data Centre (BC CDC 2019). The BC CDC assigns a provincial rank or listing of red, blue, or yellow to a species or ecosystem based on its conservation status within BC. Red-listed species or ecosystems are considered to be at risk of being lost (i.e., Extirpated, Endangered or Threatened) in BC. Blue-listed species or ecosystems are considered to be of Special Concern (formally listed as Vulnerable) in BC. Yellow-listed species or ecosystems includes any species or ecosystems that are at the least risk of being lost.

Species ranking by the federal government is conducted by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), established under Section 14 of the *Species at Risk Act* (SARA). Under the COSEWIC system, species are ranked as Extinct, Extirpated, Endangered, Threatened, Special Concern, Data Deficient, or Not at Risk. Schedule 1 of SARA provides the official list of species at risk. The prohibitions of the Act apply only to those species ranked as Endangered, Threatened or Extirpated (critical habitat for a species is defined in the relevant published recovery strategy for that species).

The provincial, federal, and international conservation status was determined in early 2021 for those species that potentially occur in the Project area. For the purposes of this report, species of conservation concern include:

- Species or populations on the provincial Red and Blue lists and/or provincially ranked as critically imperiled, imperiled, and vulnerable (BC CDC 2021);
- Species classified by COSEWIC as endangered, threatened, or special concern (Government of Canada 2021b);
- Species listed on Schedule 1 of SARA (Government of Canada 2021a); and
- Species globally ranked as imperiled or vulnerable by IUCN (2020).

Table 8.2-1 identifies species of conservation concern in the Project area as of July 2021. There are no SARA-listed aquatic species in the vicinity of the Project. Species and ecological communities of conservation concern were identified through baseline field studies, as well as through engagement with Indigenous groups and regulators, in 2021.

Table 8.2-1 Species of Conservation Concern in the Project Area

Common Name	Scientific Name	BC Rank[1]	BC List[1]	COSEWIC[1]	SARA[1]	Eskay RSA[2]
Amphibians						
Western Toad	*Anaxyrus boreas*	Apparently Secure	Not At Risk	Special Concern	Special Concern	Yes
Birds						
American Bittern	*Botaurus lentiginosus*	Vulnerable (Breeding), Unranked	Special Concern	-	-	No
American Golden-plover	*Pluvialis dominica*	Vulnerable/Apparently Secure (Breeding)	Special Concern	-	-	No
Band-tailed pigeon	*Patagioenas fasciata*	Vulnerable/Apparently Secure	Special Concern	Special Concern	Federal Schedule 1 Rank: Special Concern	No
Bank Swallow	*Riparia riparia*	Apparently Secure (Breeding)	Not At Risk	Threatened	Threatened	No
Barn Swallow	*Hirundo rustica*	Vulnerable/Apparently Secure (Breeding)	Special Concern	Special Concern	Threatened	Yes
Black Swift	*Cypseloides niger*	Vulnerable/Apparently Secure (Breeding)	Special Concern	Endangered	Endangered	No
Brant	*Branta bernicla*	Vulnerable (Migrant)	Special Concern	-	-	No
Caspian Tern	*Sterna caspia*	Vulnerable (Breeding)	Special Concern	Not At Risk	-	No
Common Nighthawk	*Chordeiles minor*	Vulnerable (Breeding)	Not At Risk	Special Concern	Threatened	Yes
Double-crested Cormorant	*Nannopterum auritum*	Vulnerable/Apparently Secure	Special Concern	Not At Risk	-	No
Evening grosbeak	*Coccothraustes vespertinus*	Secure	Not At Risk	Special Concern	Federal Schedule 1 Rank: Special Concern	No
Great Blue Heron, fannini ssp.	*Ardea herodias fannini*	Imperiled/Vulnerable (Breeding), Apparently Secure(Non-Breeding)	Special Concern	Special Concern	Special Concern	No
Gyrfalcon	*Falco rusticolus*	Vulnerable/Apparently Secure (Breeding), Unranked	Special Concern	Not At Risk	-	No

Common Name	Scientific Name	BC Rank[1]	BC List[1]	COSEWIC[1]	SARA[1]	Eskay RSA[2]
Birds *(cont'd)*						
Harlequin Duck	*Histrionicus histrionicus*	Vulnerable (Breeding), Vulnerable (Non-Breeding)	Not At Risk	-	-	Yes
Horned Grebe	*Podiceps auritus*	Vulnerable (Breeding), Unranked	Not At Risk	Special Concern	Special Concern	No
Lesser Yellowlegs	*Tringa flavipes*	Vulnerable/Secure (Breeding)	Not At Risk	Threatened	-	No
Long-tailed Duck	*Clangula hyemalis*	Imperiled/Vulnerable (Breeding), Apparently Secure (Non-Breeding)	Special Concern	-	-	Yes
Marbled murrelet	*Brachyramphus marmoratus*	Vulnerable (Breeding), Vulnerable (Non-Breeding)	Special Concern	Threatened	Federal Schedule 1 Rank: Threatened	No
Northern Goshawk, laingi ssp.	*Accipiter gentilis laingi*	Imperiled	Extirpated, Endangered, or Threatened	Threatened	Threatened	No
Olive-sided Flycatcher	*Contopus cooperi*	Vulnerable/Apparently Secure (Breeding)	Special Concern	Special Concern	Threatened	Yes
Peregrine Falcon, anatum ssp.	*Falco peregrinus anatum*	Imperiled (Inexact Numeric Rank)	Extirpated, Endangered, or Threatened	Not At Risk	Special Concern	No
Peregrine Falcon, *pealei* ssp.	*Falco peregrinus pealei*	Vulnerable/Apparently Secure	Special Concern	Special Concern	Special Concern	No
Red-necked Phalarope	*Phalaropus lobatus*	Vulnerable/Apparently Secure (Breeding)	Special Concern	Special Concern	Special Concern	Yes
Rough-legged Hawk	*Buteo lagopus*	Vulnerable (Non-Breeding)	Special Concern	Not At Risk	-	Yes
Rusty Blackbird	*Euphagus carolinus*	Vulnerable/Apparently Secure (Breeding)	Special Concern	Special Concern	Special Concern	No
Short-billed Dowitcher	*Limnodromus griseus*	Imperiled/Vulnerable (Breeding)	Special Concern	-	-	No
Short-eared Owl	*Asio flammeus*	Vulnerable (Breeding), Imperiled (Non-Breeding)	Special Concern	Threatened	Special Concern	No
Surf Scoter	*Melanitta perspicillata*	Vulnerable (Breeding), Apparently Secure (Non-Breeding)	Special Concern	-	-	Yes

Common Name	Scientific Name	BC Rank[1]	BC List[1]	COSEWIC[1]	SARA[1]	Eskay RSA[2]
Birds *(cont'd)*						
Swainson's Hawk	*Buteo swainsoni*	Imperiled (Breeding)	Extirpated, Endangered, or Threatened	-	-	Yes
Tundra Swan	*Cygnus columbianus*	Vulnerable (Non-Breeding)	Special Concern	-	-	No
Upland Sandpiper	*Bartramia longicauda*	Imperiled (Breeding)	Extirpated, Endangered, or Threatened	-	-	No
Wandering Tattler	*Tringa incana*	Vulnerable (Breeding)	Special Concern	-	-	No
Western Grebe	*Aechmophorus occidentalis*	Critically Imperiled (Breeding), Imperiled (Non-Breeding)	Extirpated, Endangered, or Threatened	Special Concern	Special Concern	No
Western Screech-owl, *kennicottii* ssp.	*Megascops kennicottii kennicottii*	Imperiled/Vulnerable	Special Concern	Threatened	Threatened	No
Yellow-billed Loon	*Gavia adamsii*	Imperiled/Vulnerable (Non-Breeding)	Special Concern	Not At Risk	-	No
Mammals						
American Water Shrew	*Sorex palustris*	Imperiled/Apparently Secure	Special Concern	-	-	No
Collared pika	*Ochotona collaris*	Vulnerable/Apparently Secure	Special Concern	Special Concern	Federal Schedule 1 Rank: Special Concern	No
Grizzly Bear	*Ursus arctos*	Vulnerable (Inexact Numeric Rank)	Special Concern	Special Concern	Special Concern	Yes
Little Brown Myotis	*Myotis lucifugus*	Apparently Secure	Not At Risk	Endangered	Endangered	Yes
Mountain Goat	*Oreamnos americanus*	Apparently Secure	Special Concern	-	-	Yes
Northern Myotis	*Myotis septentrionalis*	Vulnerable/Apparently Secure	Special Concern	Endangered	Endangered	Likely[2]
Wolverine, *luscus* spp.	*Gulo gulo luscus*	Vulnerable	Special Concern	Special Concern	Special Concern	Yes

Common Name	Scientific Name	BC Rank[1]	BC List[1]	COSEWIC[1]	SARA[1]	Eskay RSA[2]
Vegetation						
Cryptic paw	*Nephroma occultum*	Vulnerable	Special Concern	Threatened	Federal Schedule 1 Rank: Special Concern	No
Northwest waterfan	*Peltigera gowardii*	Imperiled	Extirpated, Endangered, or Threatened	Special Concern	Federal Schedule 1 Rank: Special Concern	No
Smoker's lung	*Lobaria retigera*	Vulnerable	Special Concern	Threatened	-	No

[1] BC Species and Ecosystems Explorer: For more information about a specific value: https://a100.gov.bc.ca/pub/eswp/search.do;jsessionid=054D0892E221B6E4C623DE7AB374EC55

[2] Species detected in the Eskay Creek Wildlife Regional Study Area (RSA) during baseline studies 2020-2021

[3] Identification of Northern Myotis via recorded calls is uncertain due to similarity with other species

8.3 Human Environment

Key updates to this section:

Early engagement on the Project included feedback requesting more information related to the baseline data for human health and well-being, land and resource use, and social conditions. In response to the feedback, significant additions to the description of Social and Economic Conditions (Section 8.3.5), including profiles of local communities based on two social and economic baselines studies produced for the Tahltan territory communities and the service centres of Smithers, Terrace, and Stewart are included.

The Public and Environmental Safety section (Section 8.3.7) has a preliminary identification of risk ratings for potential Project accidents and malfunctions, including those suggested through the Early Engagement feedback.

This section discusses the parks and protected areas, commercial and public use, archaeology resources and the updated social and economic and health conditions in the Project region.

8.3.1 Relevant Plans, Studies, and/or Regional Assessment

The Project is located within the provincial *Cassiar Iskut-Stikine Land and Resource Management Plan* (CIS LRMP; ILMB 2000), which encompasses approximately 5.2 million ha. The CIS LRMP is a sub-regional integrated plan that establishes a framework for land use and management objectives. The LRMP aims to satisfy the wide range of overlapping demands on natural resources

and cultural heritage within the defined plan area. It provides policy direction on the management of land and resources in the LRMP area. The Project site is located within the General Management Zone and a portion of the Eskay Creek Mine Road is within the Middle Iskut Management Zone. No changes in land designations or rezoning will be required as a result of the Project.

Skeena Resources is not aware of any Indigenous land use plans overlapping the Project area. Skeena Resources has been informed about the Tahltan Stewardship Initiative (TSI) and Lands Governance Framework that is being advanced by the Tahltan Nation and looks forward to further updates and understanding of that important work. The company will continue to engage with TCG representatives to understand the Tahltan journey through the TSI. A land use plan for the Tahltan territory is being developed by the TCG Lands Department.

A Northwest Wildlife and Environmental Management Advisory Group has been established in the region in part to consider cumulative effects from new incremental industrial traffic along the Highway 37 and Highway 37A corridors. The advisory group is co-chaired by the EAO and the FLNRORD with representatives from several municipal, regional, provincial, federal, and Nisga'a Lisims government agencies, regional Indigenous Groups, and industry.

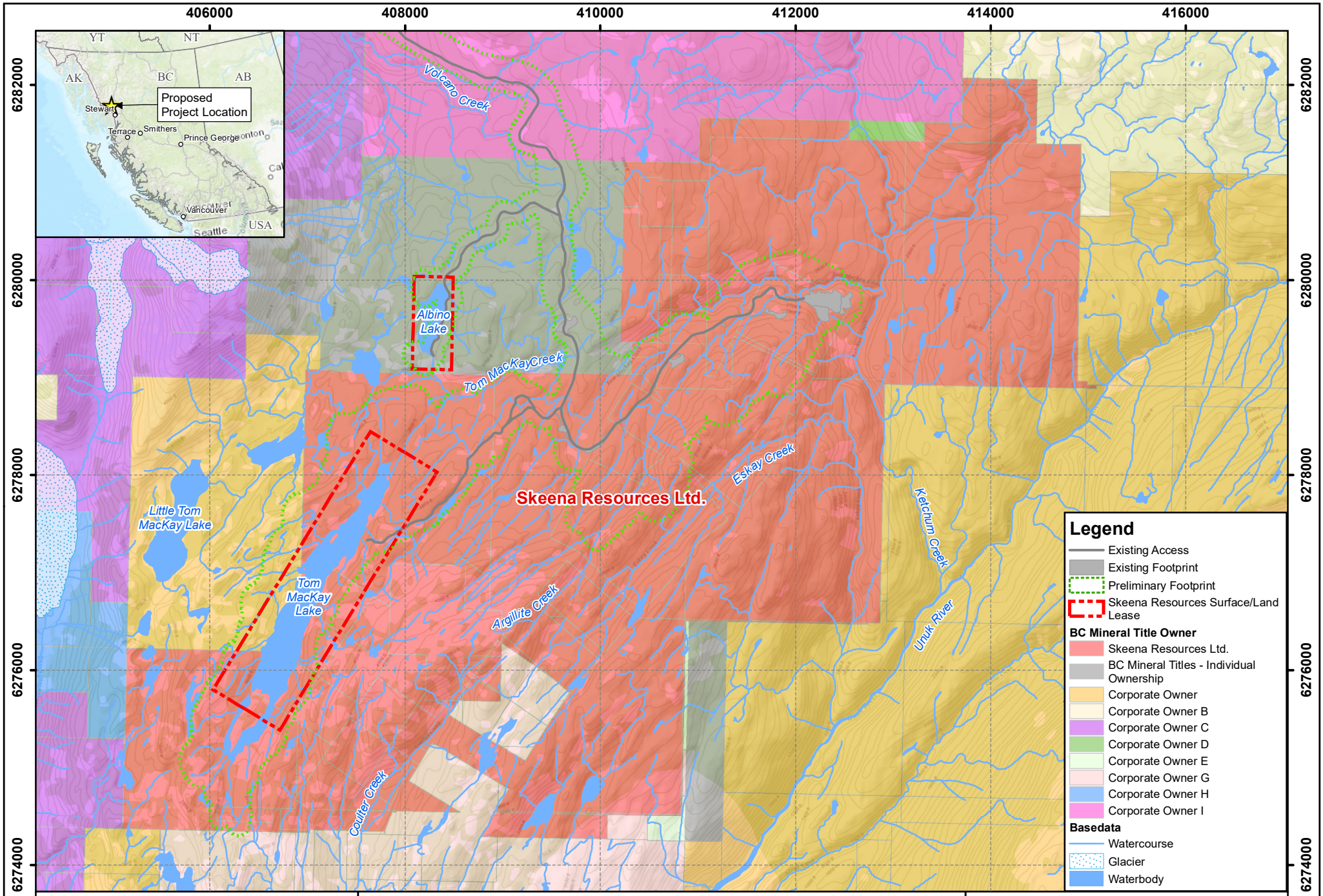
No federal regional assessments, studies or plans have been undertaken in the Project area under Section 92 or 93 of the IAA.

8.3.2 Non-Traditional Land Use and Tenure

Land and resource uses within the area surrounding the Project include trapping, guided hunting, commercial recreation and outdoor recreation including fishing, hunting, camping, hiking, snowmobiling, all-terrain vehicle (ATV) riding, and skiing. Tenures in the vicinity of the Project include: multiple mineral tenures held by various parties (Figure 8.3-1); three range tenures (Figure 8.3-2); four guide outfitter licences (Figure 8.3-3); and nine traplines (Table 8.3-1; Figure 8.3-4). Initial engagements between Skeena Resources and tenure holders occurred and are referenced in Section 6.2.2 and Table 10-2.

Table 8.3-1 Trapline Tenure Holders in the Project Vicinity

Trapline Tenure No.
TR0620T001
TR0621T004
TR0621T005
TR0617T015
TR0621T002
TR0621T001
TR0621T003
TR0616T011
TR0616T012



Skeena Resources Ltd.
Date: 24-Nov-2021
Figure: 8.3-1
Author: kimberly.broadbelt
Filename: ESK-15-050l.mxd

SKEENA RESOURCES

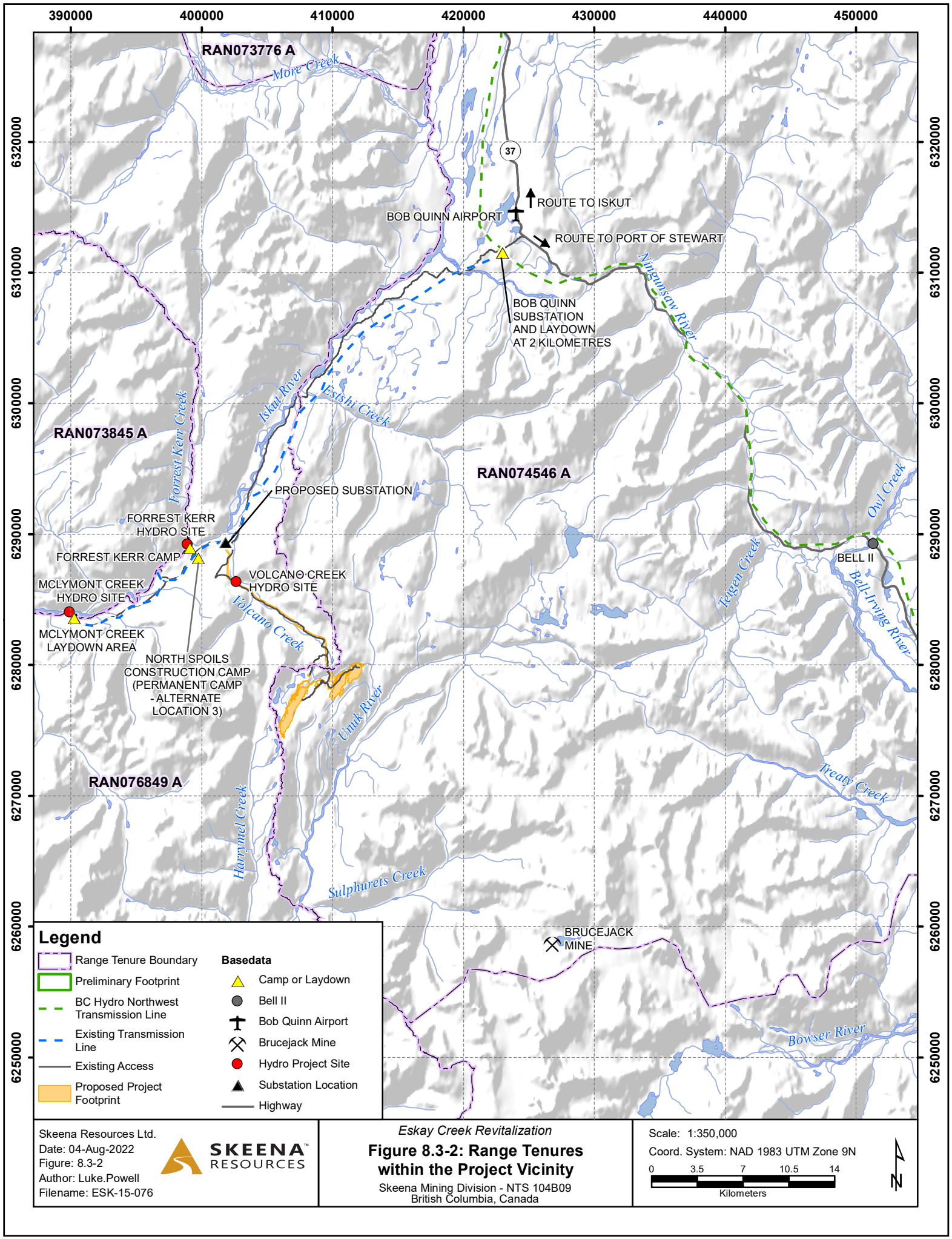
Eskay Creek Revitalization

Figure 8.3-1:
Adjacent Mineral Tenures

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:50,000
Coord. System: NAD83 - UTM Zone 9N
0 0.5 1 1.5 2
Kilometers

N


390000
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440000
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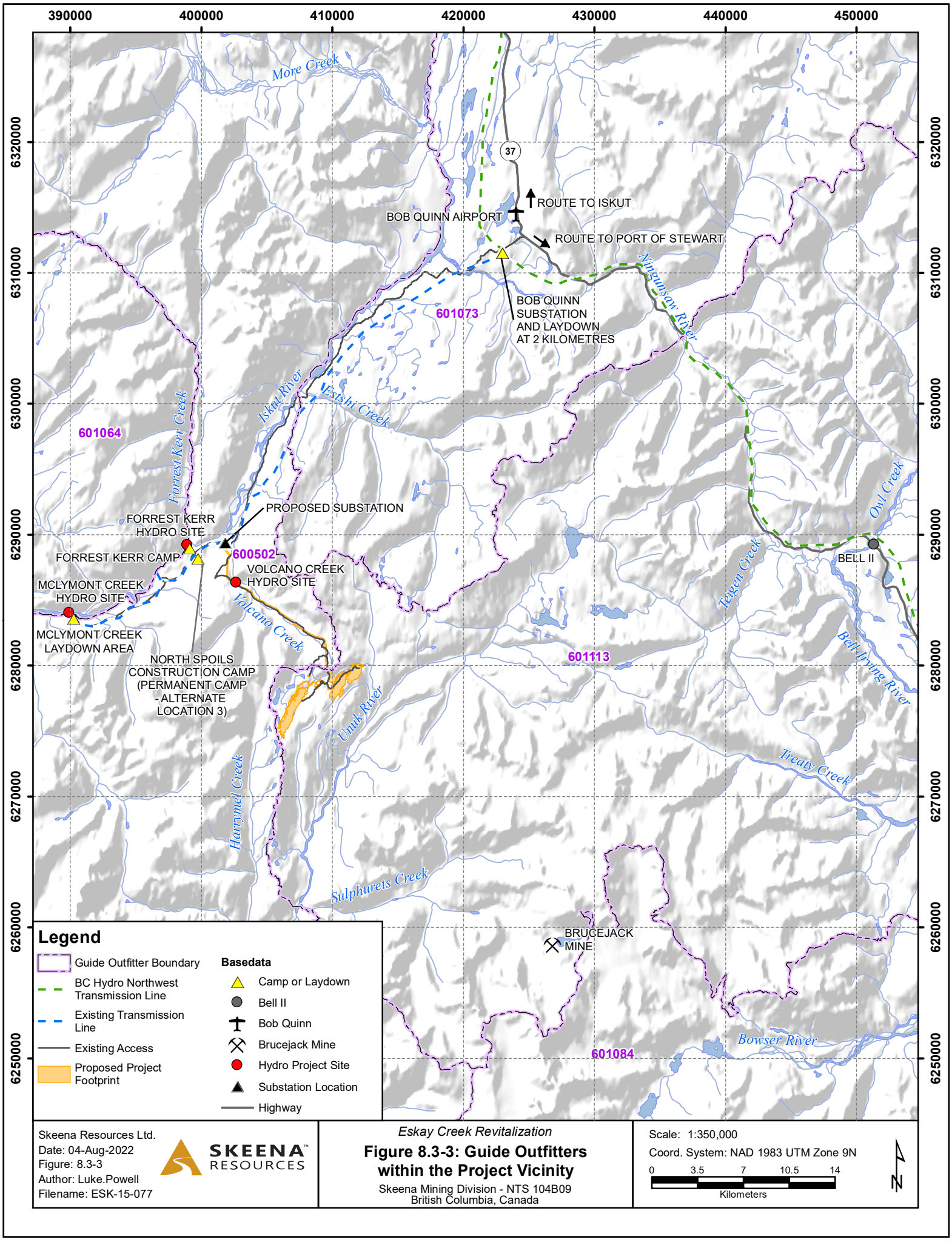
6320000
6310000
6300000
6290000
6280000
6270000
6260000
6250000
RAN073776 A
More Creek
37
ROUTE TO ISKUT
BOB QUINN AIRPORT
ROUTE TO PORT OF STEWART
Ningunsaw River
BOB QUINN SUBSTATION AND LAYDOWN AT 2 KILOMETRES
Iskut River
Eeyahshi Creek
Forrest Kerr Creek
RAN073845 A
RAN074546 A
PROPOSED SUBSTATION
FORREST KERR HYDRO SITE
FORREST KERR CAMP
MCLYMONT CREEK HYDRO SITE
MCLYMONT CREEK LAYDOWN AREA
VOLCANO CREEK HYDRO SITE
Volcano Creek
NORTH SPOILS CONSTRUCTION CAMP (PERMANENT CAMP - ALTERNATE LOCATION 3)
Unuk River
Owl Creek
Tejgen Creek
BELL II
Bell-Irving River
Treaty Creek
RAN076849 A
Harrymel Creek
Sulphurets Creek
BRUCEJACK MINE
Bowser River
Legend
Range Tenure Boundary
Preliminary Footprint
BC Hydro Northwest Transmission Line
Existing Transmission Line
Existing Access
Proposed Project Footprint
Basedata
Camp or Laydown
Bell II
Bob Quinn Airport
Brucejack Mine
Hydro Project Site
Substation Location
Highway
Skeena Resources Ltd.
Date: 04-Aug-2022
Figure: 8.3-2
Author: Luke.Powell
Filename: ESK-15-076
SKEENA RESOURCES
Eskay Creek Revitalization
Figure 8.3-2: Range Tenures within the Project Vicinity
Skeena Mining Division - NTS 104B09
British Columbia, Canada
Scale: 1:350,000
Coord. System: NAD 1983 UTM Zone 9N
0 3.5 7 10.5 14
Kilometers
N



Skeena Resources Ltd.
Date: 04-Aug-2022
Figure: 8.3-3
Author: Luke.Powell
Filename: ESK-15-077

SKEENA RESOURCES

Eskay Creek Revitalization

Figure 8.3-3: Guide Outfitters within the Project Vicinity

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:350,000
Coord. System: NAD 1983 UTM Zone 9N
0 3.5 7 10.5 14
Kilometers
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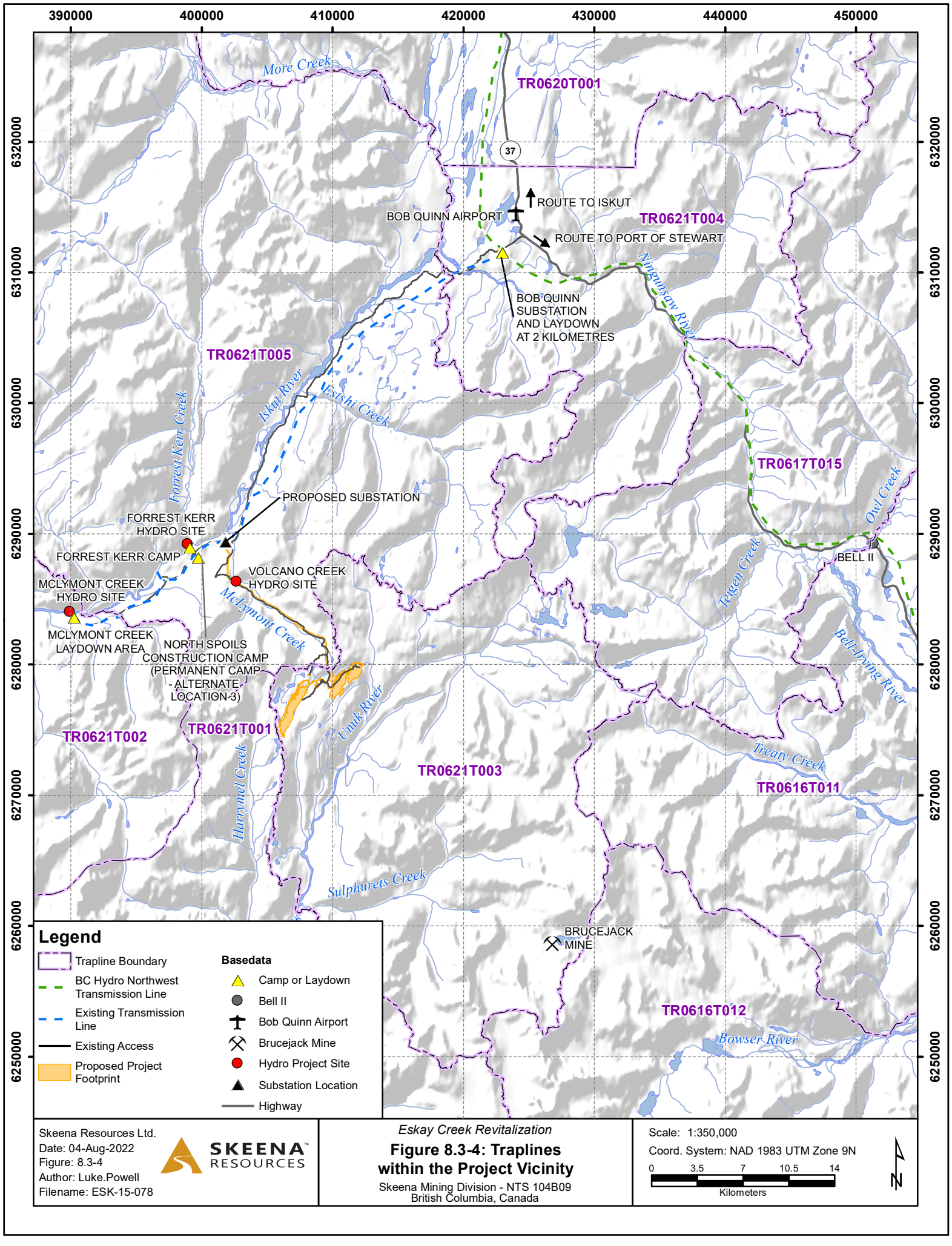
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6280000
6270000
6260000
6250000
More Creek
TR0620T001
37
ROUTE TO ISKUT
BOB QUINN AIRPORT
TR0621T004
ROUTE TO PORT OF STEWART
Ningunsaw River
BOB QUINN SUBSTATION AND LAYDOWN AT 2 KILOMETRES
TR0621T005
Iskut River
Eeyahi Creek
Forrest Kerr Creek
TR0617T015
PROPOSED SUBSTATION
FORREST KERR HYDRO SITE
FORREST KERR CAMP
Owl Creek
BELL II
VOLCANO CREEK HYDRO SITE
MCLYMONT CREEK HYDRO SITE
Teigen Creek
Bell-Irving River
MCLYMONT CREEK LAYDOWN AREA
NORTH SPOILS CONSTRUCTION CAMP (PERMANENT CAMP - ALTERNATE LOCATION 3)
McLymont Creek
Unuk River
TR0621T002
TR0621T001
TR0621T003
Treaty Creek
TR0616T011
Harrymel Creek
Sulphurets Creek
BRUCEJACK MINE
TR0616T012
Bowser River
Legend
Trapline Boundary
BC Hydro Northwest Transmission Line
Existing Transmission Line
Existing Access
Proposed Project Footprint
Basedata
Camp or Laydown
Bell II
Bob Quinn Airport
Brucejack Mine
Hydro Project Site
Substation Location
Highway
Skeena Resources Ltd.
Date: 04-Aug-2022
Figure: 8.3-4
Author: Luke.Powell
Filename: ESK-15-078
SKEENA RESOURCES
Eskay Creek Revitalization
Figure 8.3-4: Traplines within the Project Vicinity
Skeena Mining Division - NTS 104B09
British Columbia, Canada
Scale: 1:350,000
Coord. System: NAD 1983 UTM Zone 9N
0 3.5 7 10.5 14
Kilometers
N

Tenures exist in the vicinity of the Project but not directly over the mineral tenures held by Skeena Resources (Figure 8.3-5). The Bell 2 Lodge, a year-round resort which supports a destination heli-skiing operation with a large commercial recreation tenure, is approximately 42 km northeast of the Project on Highway 37 (Figure 8.3-5). There are three hydroelectric facilities near the Project: Volcano Creek, Forrest Kerr and McLymont Creek. Located approximately 40 m from the Eskay Creek Mine Road near Volcano Creek bridge 1, are remnants of structures (Photo 8.3-1) which were once used to support mushroom picking. Due to the condition, it is not likely that these structures are in use today. In addition, there is a second structure (Photo 8.3-2), also located near Volcano Creek bridge 1. The owner and use of this structure are unknown. The locations of these structures were confirmed during a visit by Skeena Resources in April 2022.

8.3.3 Parks and Protected Areas

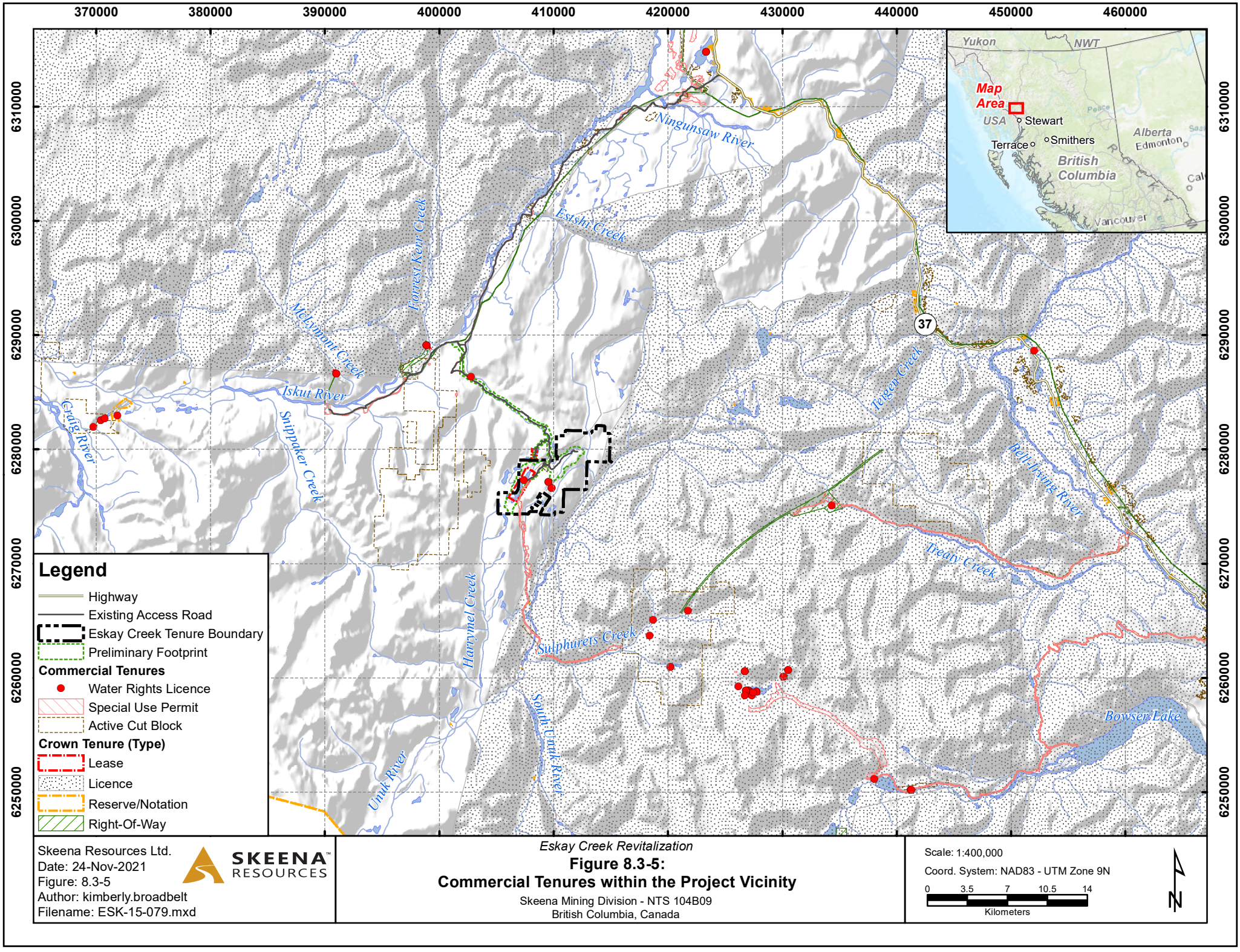
There are no federal, provincial or regional parks, wilderness or conservancy areas, ecological reserves, protected or recreational areas immediately adjacent to the mine site in the Project area. There are five protected areas in the region as follows (Figure 8.3-6):

- Ningunsaw Park, located approximately 20 km northeast of the Project;
- Lava Forks Park, located approximately 28 km southwest of the Project;
- Ningunsaw River Ecological Reserve, located approximately 34 km northeast of the Project;
- Border Lake Park, located approximately 33 km southwest of the Project; and
- Craig Headwaters Protected Area; located approximately 39 km west.

8.3.4 Archaeology

An Archaeological Overview Assessment (AOA) of the Project area was completed in May 2018, which included a review of existing archaeological data and identification of areas where future interactions with Exploration or site development may occur (RTEC 2018). Assessments were completed for the Eskay Creek Project from 2018 to 2019 under *Heritage Conservation Act* Heritage Inspection Permit 2018-0208. The AIA focused on the assessment of proposed drill pads in support of Skeena Resources exploration programs. A total of 124 subsurface tests were conducted at 26 locations. No archaeological sites were recorded (Le Beau and Burdeyney 2020).

In 2020 and 2021, an AIA was conducted under HCA Permit 2021-0195, focussing on proposed Project infrastructure and in support of ongoing exploration activities. In total 1,464 subsurface tests were conducted at 139 locations with no archaeological sites identified. Archaeological site HdTo-6 was revisited with no changes noted. In 2020, a possible traditional use trail was identified by the Tahltan based on the Traditional Use Study connecting the Iskut and Unuk rivers via Volcano Creek and Ketchum Creek. During the AIA, a trail was noted along Volcano Creek below the confluence with tributary with a creek flowing from the Melville Glacier, as well as a traditional used bark-stripped culturally modified tree (dated to about 50 years old). Despite extensive testing, no archaeological material or features were identified along the trail. No archaeological concerns were identified during the assessments under HCA Permits 2018-0208 and 2020-0195. AIAs will be completed in areas of planned ground disturbance, if not previously assessed (e.g., laydown area). An Archaeological Chance Find Procedure that complies with Tahltan requirements will be developed.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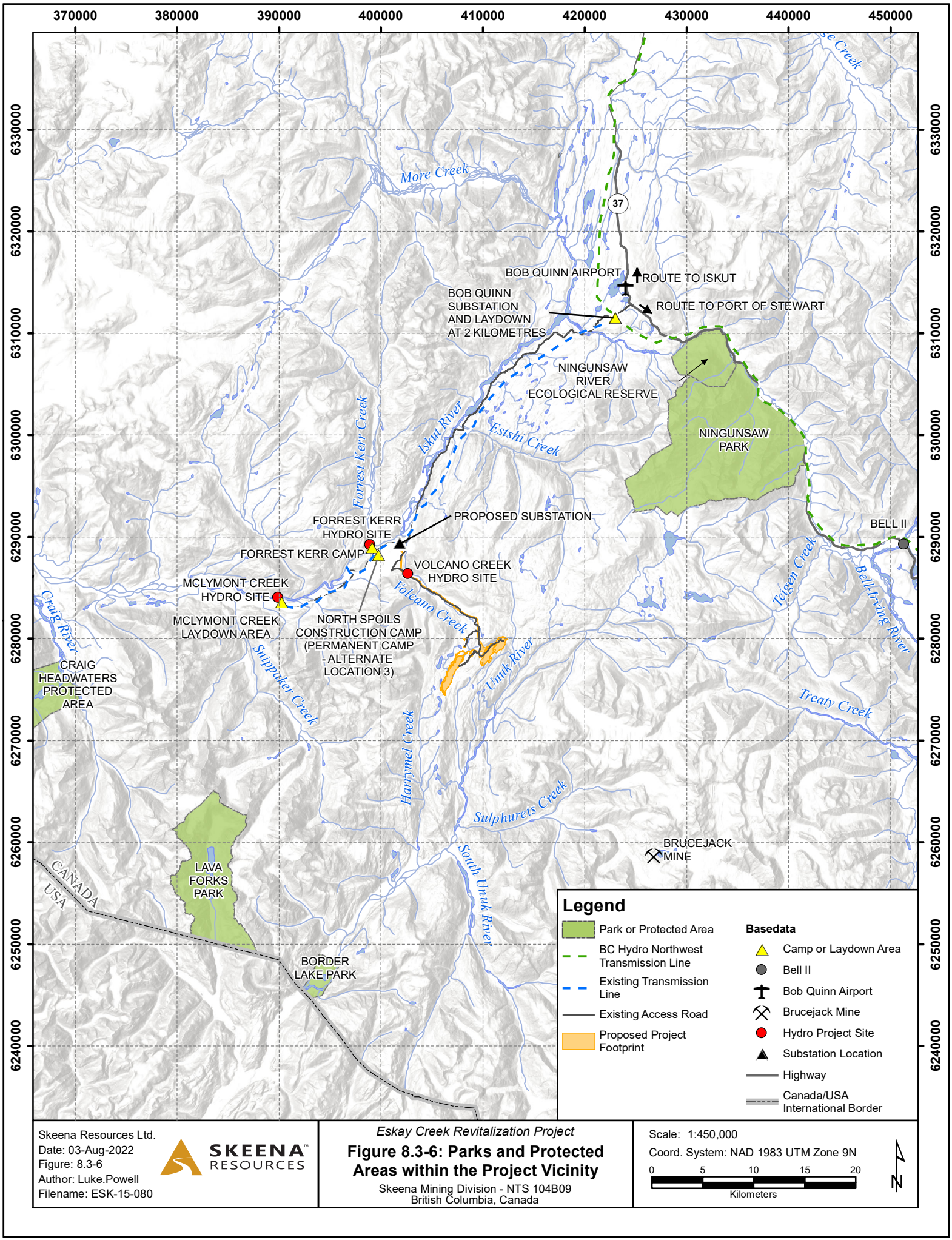
6260000
6250000
Yukon
NWT
Map Area
USA
Stewart
Terrace
Smithers
Alberta
Edmonton
British Columbia
Vancouver
Ningunsaw River
Eastsh Creek
Forrest Kerr Creek
McClymont Creek
Iskut River
Craig River
Snippaker Creek
Harrymel Creek
Sulphurets Creek
Unuk River
South Unuk River
Teigen Creek
Bell-Irving River
Treaty Creek
Bowser Lake
37
Legend
Highway
Existing Access Road
Eskay Creek Tenure Boundary
Preliminary Footprint
Commercial Tenures
Water Rights Licence
Special Use Permit
Active Cut Block
Crown Tenure (Type)
Lease
Licence
Reserve/Notation
Right-Of-Way
Skeena Resources Ltd.
Date: 24-Nov-2021
Figure: 8.3-5
Author: kimberly.broadbelt
Filename: ESK-15-079.mxd
SKEENA RESOURCES
Eskay Creek Revitalization
Figure 8.3-5:
Commercial Tenures within the Project Vicinity
Skeena Mining Division - NTS 104B09
British Columbia, Canada
Scale: 1:400,000
Coord. System: NAD83 - UTM Zone 9N
0 3.5 7 10.5 14
Kilometers
N

Photo 8.3-1 Temporary plywood structures previously used to support mushroom picking.

Photo 8.3-2 Plywood structure located near Volcano Bridge 1. Current owner and use are unknown.



Skeena Resources Ltd.
Date: 03-Aug-2022
Figure: 8.3-6
Author: Luke.Powell
Filename: ESK-15-080

SKEENA RESOURCES

Eskay Creek Revitalization Project

Figure 8.3-6: Parks and Protected Areas within the Project Vicinity

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:450,000
Coord. System: NAD 1983 UTM Zone 9N

0 5 10 15 20
Kilometers

N

8.3.5 Social and Economic Conditions Overview

Tahltan community surveys, interviews and review of government data was undertaken in 2021 (after the IPD was submitted) to gather baseline social and economic, land use and cultural information for Tahltan territory into baseline reports. These included both online and in-person surveys of Tahltan communities and members by surveyors with sensitivity training and experience. The 2021 survey was a joint undertaking by Skeena Resources, TCG representatives, and Newcrest to document social and economic conditions, opinions, and concerns around mining projects, and identify issues or barriers which can be influenced by mining projects.

Facilitators were members of the Tahltan communities whose role was to support those who required assistance with the digital survey, providing oral questions and helping to document answers, creating an environment of cultural familiarity. These facilitators had support from community leaders to undertake the social and economic baseline survey and engaged a variety of respondents (e.g., Indigenous elders, youth, those lacking technology skills, women, and other people who may consider themselves diverse). The approach respected both cultural and public safety considerations in Tahltan territory, including COVID-19 safety protocols.

The Project is located at the southern boundary of Electoral Area D of the RDKS and the northern edge of Electoral Area A. Electoral Area D includes the Eskay Creek Mine Access Road and transmission line in the Iskut River watershed, Bob Quinn Lake Aerodrome, Iskut, Telegraph Creek, Tatogga, as well as several Tahltan reserve communities (Iskut 6, Telegraph Creek 6/6A and Guhte Tah 12), covering an area of 28,137 km^2 (Statistics Canada 2017d). Electoral Area A includes the mine site within Unuk River watershed. Electoral Area F includes the northern section of Tahltan territory and Tahltan communities but not the mine site. While not an exhaustive summary of all communities in the northwest area which may interact with the Project's workforce or supply chain, an overview of key communities is provided and additional communities will be included in the EAC Application.

Many of the smaller communities in Electoral Areas A and D have predominantly Indigenous populations that are spread across the large territory as well as situated in the main regional centres of Smithers and Terrace. Approximately one-third of the 40,000 to 45,000 people in the region are Indigenous, which is higher than the provincial average (MSBEC 2005).

Economic activity in the Project area is strongly tied to the mineral exploration and mining sectors. Exploration activity and interest in mineral resources in Northwest BC dates back to the mid-1800s (Visual Capitalist 2016) and much earlier for the Tahltan Nation. The first major discovery was the Premier Gold Mine in 1918, the Snip Gold Mine in 1964 and the Eskay Creek Underground Mine in 1988. Presently, primary resource industries, principally mining and forestry, comprise a key proportion of the larger regional (northwest and west central BC) employment market at 4.6% and 2.6% respectively and are important to Tahltan communities and members working in regional communities (WorkBC, Regional Labour Market Information 2020; Pretium 2014). Public sector services (Band administration, health, and social services) provided a high proportion of employment in Tahltan territory prior to 2013, followed by mining and exploration, and support services (SNDS 2007, *in* Pretium 2014).

While employment had declined in the mining/exploration sector in the past few decades due to mine closures (e.g., Huckleberry and Kemess South mines), the start-up of the Red Chris Mine, Silvertip Mine and Brucejack Mine in the past 10 years have increased employment opportunities for Indigenous and non-indigenous workers from northwest BC and Tahltan territory. Advanced exploration projects (Shaft Creek, Kutcho Creek, Eskay Creek Revitalization) and permitted projects (Galore Creek, KSM Project) will provide ongoing employment in the Project area.

The forest industry has been in decline in recent decades, which has significantly weakened the economy and led to a steady decline in the regional population. Since the mid-1990s, the regional population has dropped by almost 15%, although in the 2000s, the rate of decline has begun to slow (MSBED 2005). Recent major infrastructure projects in Kitimat for Rio Tinto Alcan and LNG Canada are resulting in a positive economic contribution to the region.

Employment in Indigenous communities within the Project area (Tahltan Nation, Nisga'a Nation, Gitxsan Nation, Gitanyow Nation) is not on par with data for the region as a whole. The Indigenous workforce participation rate is approximately 16% lower for the region than the province at 49.3%. Employment rates for Indigenous individuals in the region are 28% below the provincial level, with unemployment more than five times the provincial level (36.4%; Statistics Canada 2017c). Despite gains in educational attainment, Indigenous people continue to be underrepresented in Canada's labour market (Moyer 2017) and the employment rate for Indigenous men declined between 2006-2016.

There is well-developed infrastructure in the region, including a paved road that intersects with Highway 16 near Kitwanga and extends to the Yukon border (Highway 37) and to port facilities in Stewart (Highway 37A). The 335 km Northwest Transmission Line, built in 2012, runs from Terrace to Bob Quinn Lake and north to the Red Chris Mine. There are three hydroelectric facilities (Forrest Kerr [about 16 km northwest of the Project], Volcano Creek [about 12 km northwest], and McLymont Creek [about 42 km north]) owned by Axium Infrastructure Inc., in which Tahltan Nation has an equity position.

8.3.5.1 Regional District of Kitimat-Stikine – Electoral Area D

Electoral Area D of the RDKS includes the more populated communities of Telegraph Creek and Iskut, and the smaller areas of Glenora past Telegraph Creek, and Bob Quinn and Tatogga along Highway 37. Tahltan reserve communities include Iskut 6, Telegraph Creek 6/6A and Guhte Tah 12.

Primary access to this area is via Highway 37, the Stewart-Cassiar Highway running north-south from its junction with Highway 16 to its terminus at the Yukon border. Telegraph Creek and Glenora are accessed via Highway 51/Telegraph Creek Road.

Infrastructure and services in this electoral area are scarcer than in larger centres, with the Tahltan Band providing many services for their members, and amenities for the greater populace of the area. Telegraph Creek has a limited number of accommodation options, a café, waste transfer station, outdoor rink, school, and a small RCMP detachment. Iskut offers post office and gas services, as well as a grocery store, indoor arena/ice rink, and the band-run Klappan Independent School, but has been petitioning for an RCMP detachment for many years.

The population of this area, including reserve communities declined by just over 12% between 2006 and 2016, and according to the 2016 census of Canada, was 595 people. As the population of this area is quite small, census data is masked at times to ensure privacy of individuals reporting data, and at times is rounded to zero. The labour force of this area is 560 people according to the 2016 census, with a participation rate just over 68%. The unemployment rate, like much of the region, is much higher than the province's rate, and is just over 34%. Average income for the area was masked, but the median income was $37,430, with most residents of the area employed in public administration, transportation, and warehousing. Mining employs approximately 16% of the employed population of this area, including the reserve populations (Statistics Canada 2007, 2007a, 2007b, 2007c, 2007d, 2017d, 2017e, 2017f, 2017g).

Educational attainment in this area, like much of the region falls below provincial levels, and is generally lower for Indigenous individuals. School District 87 completion rates for grade 12 remained between 44% and 66% between 2015 and 2020 (Ministry of Education 2021). Generally, about half of the population aged 25-64 of Electoral Area D, including the reserve communities has no certificate, degree, or diploma. Of those that do have post-secondary accreditation, roughly 50% have certification of apprenticeship or qualification in the trades, with the remainder having college or university-level degrees (Statistics Canada 2007, 2007a, 2007b, 2007c, 2007d, 2017d, 2017e, 2017f, 2017g).

8.3.5.2 Regional District of Kitimat-Stikine – Electoral Area F

The community of Dease Lake, and Tahltan reserve Dease Lake 9 are the main populated areas of Electoral Area F of the Regional District of Kitimat-Stikine. The area joined the regional district in 2007 for the provision of fire services. Dease Lake is nearly 200 km from the Eskay Creek Mine and is located on the Stewart-Cassiar Highway (Highway 37).

Dease Lake is home to a health centre, volunteer fire department, RCMP detachment, the Ministry of Children and Family Development offices, an arena, K-12 school, a grocery store, a Service BC location, gas and post office, and community hall.

This sparsely populated area, including the Tahltan Band reserve, Dease Lake 9, is home to 389 people according to the 2016 census, an increase of 7% from 2011. The total labour force of this area is 300, with a participation rate of 71.5%. Dease Lake 9 reserve had a 2016 unemployment rate of 80%, whereas the community of Dease Lake's unemployment rate for the same time was just 7.9%, about 1.2% above the provincial rate. Primary employment in this area is in administration, education and health care and social services. Roughly 4.5% of the labour force were employed in the mining, quarrying and oil and gas extraction industries in 2016.

High school educational attainment in this area, like much of the region falls below provincial levels, and is generally lower for Indigenous individuals. School District 87 completion rates for grade 12 remained between 44% and 66% between 2015 and 2020 (BC Ministry of Education 2020). Just over 20% of the population aged 25-64 have no post-secondary certificate, diploma, or degree, and of those that do have some post-secondary certification, the majority have university or college-level accreditation, versus certificates or qualifications in trades and apprenticeship. Median and average income were masked for the Tahltan reserve, Dease Lake 9, however for the community of Dease Lake, median income in 2016 was $40,960, and total average income was

$53,619; Both median and average incomes were above those of provincial levels (Statistics Canada 2017i, 2017j).

8.3.5.3 Nisga'a Villages

The Nisga'a villages of Gitlaxt'aamiks (New Aiyansh), Gingolx (Kincolth), Gitwinksihlkw (Canyon City), and Laxgalts'ap (Greenville) are located in the Nass Valley, approximately 250 km by road from the Eskay Creek Mine. Gitlaxt'aamiks, approximately 97 km northwest of Terrace, BC is the capital of the Nisga'a Nation, and the location of their government, the Nisga'a Lisims Government (NLG; NLG n.d.).

There are a number of basic amenities in Gitlaxt'aamiks, including a grocery store, accommodations including bed and breakfasts, a museum, gas station and post office, and the hub of health services, Nisga'a Valley Health. The Nass Valley/LISIMS RCMP detachment is located here as well. The Village of Gitwinksihlkw is home to the Wilp Wilxo'oskwhl Nisga'a Institute, a community-driven post-secondary institute, right in the Nass Valley (WWNI n.d.).

According to the 2016 Census of Canada, the population of the Nisga'a Nation on Nisga'a lands has only decreased by 1.5% between the 2011 and 2016 censuses, to 1,880 individuals on Nisga'a lands. The four villages have a labour force of approximately 1,300 people, with a participation rate slightly lower than the Province as a whole at 61.5%. The unemployment rate is substantially higher than the Province's at 29.8%, and the employment rate of the villages is 43.6%. Primary employers in the Nisga'a villages are the NLG and School District 92, however fishing, forestry and healthcare are also employment industries.

Only 1.3% of Nisga'a work in the mining, quarrying and oil and gas extraction industries (NAICS 2012 classification 21; Statistics Canada 2017a).

Post-secondary educational attainment in the Nisga'a Villages is similar to Indigenous populations in the remainder of the province. In general, there are more Nisga'a with no degree, certificate, or diploma than those with those qualifications, and of those Nisga'a that do have post-secondary certification of some kind, the majority have a Trades/Apprenticeship certificate or similar qualification.

8.3.5.4 Terrace

The City of Terrace (Terrace) is the most populated centre in the Project area, with a 2016 census population of 11,643, a 1.3% increase from 2011. It is in the traditional territory of the Tsimshian nations, and in proximity to communities of the Kitselas and Kitsumkalum First Nations. Terrace is the primary goods and services supplier to the northwest of BC, with amenities and infrastructure including a regional hospital (being upgraded in 2022), RCMP detachment, various retail outlets, a regional airport, 10 schools with various grade levels, a landfill, art gallery, public bus service, and a sportsplex and aquatics centre, and the offices of the Regional District of Kitimat-Stikine (City of Terrace n.d.). Terrace is at the crossroads of Highways 16, 37 and Nisga'a Highway 113, in close proximity to three deep-water ports, and is accessible by rail service, and is roughly 260 km overland from the Project.

Terrace has a labour force of approximately 6,200 individuals, and a participation rate of nearly 70%. Unemployment in Terrace is slightly higher than the provincial rate, but lower than the northwest region, at 8.8%. Leading employers in the town are School District 82, and the Northern Health Authority, with only 40 individuals reporting employment in the mining, quarrying and oil and gas extraction industries. Average total income for the City of Terrace in 2016 was $47,143, which is slightly higher than the average income for BC.

Just 13% of the population of Terrace aged 25 to 64 have no certificate, diploma, or degree, whereas over 60% have some kind of post-secondary certification, with a majority of those having college or university accreditation (Statistics Canada 2017h).

8.3.5.5 Smithers

Located on Highway 16, about 295 km southeast of the Project, Smithers is in the traditional Witsuwit'en Territory, specifically on clan Gidimt'en lands (SBC 2016). It has a diversity of services, goods, infrastructure, and amenities to contribute to the northwest of the province. Smithers is the region's governmental and administrative hub, including regional offices for the Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD), Ministry of Environment and Climate Change Strategy (ENV), Ministry of Transportation (MOTI), and the Ministry of Energy, Mines and Low Carbon Innovation (EMLI). It is located in Electoral Area A of the Regional District of Bulkley Nechako (RDBN), with a population of 5,664 individuals (BC Stats 2021).

Leading employers in the town include Bandstra Transportation, Hy-Tech Drilling, Central Mountain Air, and Pacific Inland Resources (Trade and Invest BC 2021) with primary industries for the town being retail trade, accommodation and food services, and health care and social assistance. A majority of those employed work in the sales and service occupations and trades, transport, and equipment operators and related occupations (Statistics Canada 2017a). Aside from these primary employers, Smithers is home to a range of businesses, including retail stores, restaurants and pubs, health services, gas stations, and wholesale trade.

The Smithers Chamber of Commerce markets and advocates for business interests in the community and provides various services to local businesses and the public such as public access internet and a Visitors Centre (Smithers Chamber of Commerce n.d.).

8.3.6 Health Conditions

The Project is located within the North West Regional Hospital District (NWRHD), the largest of 23 Regional Hospital Districts in the Province. The Hospital District has the same boundaries as the entire RDKS, North Coast Regional District (formerly Skeena-Queen Charlotte Regional District) and the western portion of the Regional District of Bulkley-Nechako, serving approximately 80,000 residents in three regional districts. Collectively there are 26 municipalities and electoral areas plus the Nisga'a Nation. The NWRHD supports two health authorities (Northern Health and Nisga'a Valley Health) and 16 community facilities. The Project is within the Northwest Health Service Delivery Area and the Snow Country Local Health Area.

Northern Health facilities provide medical and health services at regional hospitals in Smithers and Terrace, supplemented by a range of services at community health centres in smaller

municipalities and villages that include digital health, Mental Health and Substance Use, Indigenous Health, Environmental Health, End of Life Care/Palliative Care, Home and Community Care, Community care licensing and Healthy Living support. Northern Health coordinates an assessment network, a regional chronic diseases program, speech and language programs, hearing programs and dental services. A Northern Health bus service is also available for clients needing transportation assistance linking smaller and larger centres. Northern Health also works with the Northern Region of the First Nations Health Authority (FNHA) to support primary care, mental wellness, and substance abuse programming. FNHA also provides traditional wellness, maternal child health and public health programs in rural and remote Indigenous communities.

The RDKS contains urban, rural, and remote communities of varying sizes and differing demographic, cultural and health profiles. Factors that affect health include income, education, employment, physical environments, health services, social supports, early childhood development and personal health practices. In the main regional centre of Terrace, the incident rate for all cancers is slightly below the provincial average (453.3 vs 487/100,000), yet life expectancy in Terrace is below the average in BC (78 years vs. 82.6). In Smithers, cancer rates are considerably lower (383.5/100,000) and life expectancy is 80.8. In the Upper Skeena Local Health Area, including Hazelton, life expectancy (78.9) was also lower than the provincial average. Within the large Northwest Health Service Delivery Area, 58.0% of adults reported very good to excellent mental health (according to data collected in 2019/2020 by Statistics Canada [2020]). Available data suggests that Indigenous peoples and communities in BC have similar rates of cancer to other residents. However, Indigenous people were three times more likely than other residents to suffer from rheumatoid arthritis and twice as likely to have had a stroke (BC Community Health Data 2020).

According to the Northern Development Initiative Trust (NDIT), the impact of COVID-19 has been more moderate in northern BC than in other areas of the province, as the area's economy is less dependent on tourism, restaurant, hotel, and recreation sectors (NDIT 2021). A lack of sufficient health infrastructure in northern BC during most of the pandemic was not problematic due to the sparse population, and geographic isolation. Some mining, oil and gas, and energy work camps were affected by COVID-19 outbreaks whereby workers had to isolate, and work stoppages occurred. Vaccine uptake in the northern region is lower than the remainder of the province (BC CDC 2021a).

8.3.6.1 Country Foods

Surveys, key informant interviews, and a desktop review were carried out in 2020 and 2021 to characterize country foods in support of the Human Health Risk Assessment that will be undertaken as part of the EAC Application (Falkirk n.d.). People, both Indigenous and non-Indigenous, harvest country foods in the region as part of their diets, and as medicine. The Tahltan value many of the country foods for food, social and ceremonial purposes, as well as for medicine. The quality and availability of country foods is directly connected to the quality and condition of the environment and habitat in which they are living and growing. Historically and presently, country foods harvesters have had to travel to different parts of Tahltan territory to access habitat-specific flora and fauna, some of which occur in large swaths of the Territory and some which are more localized.

Salmon and moose occupy central places in the diets of those in the Territory, while also occupying social and cultural positions. Other fauna include caribou, bear, trout and other fish, goose, ducks, grouse, and ptarmigan. Harvested flora include berries (such as soapberries,

raspberries, and blueberries), fungi (such as black tree lichen and honey mushroom), tree parts used primarily as medicine (such as pine and spruce trees), and other plants (such as wild rhubarb, nettles, and mountain sorrel).

8.3.7 Public and Environmental Safety

Section 25(2)(c) of EAA and section 22(1)(a)(i) of IAA require that the risk of malfunctions or accidents be considered in every assessment. Unplanned events that could arise from malfunctions or accidents associated with project activities may result in effects to environmental, economic, social, cultural or health values and/or effects to Indigenous interests. An analysis of the risk of malfunctions and accidents deemed important will be part of the EAC Application, along with potential effects and mitigation measures to reduce the potential.

Table 8.3-2 presents a list of potential accidents and malfunctions to be considered in the EAC Application, along with associated and/or potential concerns arising from engagement with Indigenous Peoples and preliminary ratings of potential risks (based on an initial consideration of consequence and likelihood).

Table 8.3-2 List of Potential Accidents and Malfunctions

Accident or Malfunction	Associated Indigenous Interests	Preliminary Risk Rating[1]
Spill incidents to land or water or air, including release of hazardous materials stored on site (reagents, fuel, or oils) and potential impacts to the environment (e.g., air quality, water quality, aquatic freshwater/marine environments, fish, and wildlife or their habitats) and to public/human health via traditional foods connected with any accidental release	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values). Specific interests include: • Concerns about spills to watercourses (Gitanyow Nation)	Low to Moderate
Release of contaminants/products to waterbodies via accidents or malfunctions during storage, transport, or shipping	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values). Specific interests include: • Concerns about effects on Nass River Watershed and marine aquatic values (Nisga'a Nation) • Concerns about shipping-related effects in Portland Canal and Portland Inlet (Nisga'a Nation)	Low
Slope failures in open pits or WRSFs	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values). Specific interests include: • Concerns about pit wall stability (Tahltan Nation)	Moderate
Failure of tailings storage facility or embankments and resulting impacts downstream	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values). Specific interests include: • Concerns about downstream risks, environmental impacts, and disturbance to Indigenous values, including archaeological or cultural sites	Low

Accident or Malfunction	Associated Indigenous Interests	Preliminary Risk Rating[1]
Failure of material storage piles	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values)	Low
Failure or breach of water containment or conveyance structures due to inadequate design, construction flaws or accidents (e.g., pit flooding)	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values)	Low
Failure of water treatment system	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values)	Low
Failure or leaking of tailings pipeline system	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values)	Low
Motor vehicle accidents, including accidents on Highway 37/37A	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values). Specific interests include: • Concerns about conditions and maintenance of Highway 37 and the increase of traffic along Highway 37 attributed to the Project and related effects to wildlife mortality (e.g., moose) and effects to harvesters (Tahltan Nation, Nisga'a Nation, Gitanyow Nation)	Moderate
Accidents resulting from explosive malfunctions such as fly rock or excessive noise	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values)	Low
Fire or fire-related explosions	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values)	Moderate
Prolonged power failure	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values)	Low
Flood events, including impacts on infrastructure (e.g., access road bridges, highway bridges, open pits)	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values)	Low to Moderate
Landslides	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values)	Moderate
Wildfires	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values)	Low
Steep crack hazards	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values)	Low

Accident or Malfunction	Associated Indigenous Interests	Preliminary Risk Rating[1]
Hydrotechnical hazards	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values)	Low
Slope instability	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values)	Moderate
Natural and induced seismicity	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values)	Moderate
Extreme weather events, such as excessive snowfall or rainfall	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values)	Moderate
Avalanche along the Eskay Creek Mine Access Road	Potential impacts to lands resulting in impacts to Indigenous values (e.g., access to values, quantity and quality of values, experience of values)	Moderate

[1] A full risk assessment will be conducted in accordance with Risk Management Guideline (Province of BC 2019) for the EAC Application.

Mitigation of the risks for accidents and active management/planning will reduce the risks of these events occurring, and approaches to mitigation and management will be considered in the EAC Application, particularly in management plans. Accidents and malfunctions and associated risks will be more thoroughly assessed in the EAC Application after scoping in the Process Planning phase.

Prior to construction, emergency response, emergency preparedness and community response plans will be developed with input from Indigenous Peoples, communities, and regulators. These management plans will include contact information for Indigenous Peoples, provincial government agencies, and potentially affected communities to be notified in the event of an emergency that may affect them and engaged on larger responses, as needed.

9.0 EFFECTS OF THE ENVIRONMENT ON THE PROJECT

Key updates to this section:

Early engagement on the Project included feedback requesting more information related to the effects of the environment on the Project linked to climate change trends. This section is updated to include a preliminary list of potential effects and an overview of historical climate trends and climate change projections for the Project region.

Natural hazards and the effects of climate change have the potential to directly interact with Project components and activities, affecting infrastructure, work flow, material movement, and safety. The most likely and important factors which may affect the Project (and may be amplified by climate change) include precipitation, air temperature, stream flow, solar radiation, evaporation, snow cover, wind, frequency of extreme events and terrain/geohazards. The Project is located in an area that experiences significant snowfall and water runoff during spring freshet. It will be important to manage the water levels that will be experienced at the Project site through the different Project phases.

Table 9-1 presents a list of potential effects of the environment on the Project to be considered in the EAC Application, along with preliminary ratings of potential risks (based on a preliminary consideration of consequence and likelihood). Detailed scoping of the effects of the environment on the Project will be considered during the Hybrid AIR development and Process Planning phases.

Table 9-1 List of Potential Effects of the Environment on the Project

Effect of the Environment on the Project	Preliminary Risk Rating[1]
Flood events, including impacts on infrastructure (e.g., access road bridges, highway bridges, open pits)	Low to Moderate
Landslides	Moderate
Wildfires	Low
Steep crack hazards	Low
Hydrotechnical hazards	Low
Slope instability	Moderate
Natural and induced seismicity	Moderate
Extreme weather events, such as excessive snowfall or rainfall	Moderate
Avalanche along the Eskay Creek Mine Access Road	Moderate

[1] A full risk assessment will be conducted in accordance with the Risk Management Guideline (Province of BC. 2019) for the EAC Application.

Potential influences of climate factors, and resulting climate change influences, may include:

- warmer climate in summer could lead to more frequent wildfires;
- earlier peak in spring floods/runoff and related hydrological changes (e.g., erosion, flood timing and intensity) which need to be considered for Project water management facilities and roads/infrastructure/impoundments;
- higher precipitation could lead to more frequent runoff or flooding, avalanche cycles, extreme snowfall and interruptions, or increased precipitation intensity and frequency, more rain on snow events or altered freeze-thaw cycles (to consider in infrastructure foundations and design); and
- increased natural hazards, including avalanches, natural seismic events, terrain geohazards/mass wasting, erosion, extreme weather events, and fire.

An overview of climate change predictions for the Project region is provided in the following sections. Risks associated with climate change and natural hazards will be identified in the Hybrid AIR and EAC Application and their potential effects assessed, with appropriate mitigations incorporated into the Project designs and plans. For example, water balance predictions and water management design will take into consideration climate change scenarios. Engineering design criteria will consider a range of climate change scenarios.

9.1 Historical Climate Trends

The climate of the Skeena region is dominated by the influence of Pacific Ocean to the west, particularly its effect on moderating temperatures and as a source for precipitation (Foord 2016). For the 1951-1980 period, the annual average temperature for the Eskay Creek area was 0.9 ºC; for 1981-2010, it was 1.6 ºC (Climate Data Canada n.d.), indicating a warming trend over time. The median annual precipitation in Kitimat-Stikine for the 1951-1980 period was 1,195 mm and 1,220 mm for the period of 1981-2010, illustrating an increase in precipitation over the two periods.

9.2 Climate Change Predictions

Projections have been completed for other nearby projects and provide a context to consider. The Red Mountain Project, located in Stewart about 80 km from Eskay Creek Mine site, undertook consideration of climate change in its EAC Application (IDM Mining Ltd. 2017). Climate change modelling results showed that the climate in Stewart was expected to warm and experience more precipitation overall. In addition, it was noted that it was possible that high precipitation events would increase in frequency and magnitude. The consideration of extremes in temperature, precipitation, and stream flow in light of engineering design, was one factor implicitly considered in the project design related to climate change risks. A sensitivity analysis of individual infrastructure components to these factors was a way to encompass climate change risks into the project. A similar approach could be undertaken for the Project and will be discussing during scoping of Hybrid AIR components, Process Planning and modelling.

Initial climate change projections have been undertaken for the Project area and are presented below. More precise projections will be included as part of the EAC Application.

9.2.1 Data Sources

The two data sources used for the initial climate change predictions in this DPD are Climate Data Canada (n.d.) and the Pacific Climate Impacts Consortium's Plan2Adapt tool (PCIC n.d.). The location used as a surrogate for the Project site in the Climate Data Canada projection is Eskay Creek. Climate Data Canada has a baseline period of 1951-1980, and projection years are 2021-2050. Projection data follows a high emissions scenario broadly, which assumes greenhouse gas concentrations will continue to increase at the same rate as they are increasing today. This scenario is chosen to reflect a conservative approach for emission trends over time. In the Plan2Adapt prediction, the region used as a surrogate for the Project site is Kitimat-Stikine. The baseline years for Plan2Adapt are 1961-1990, with projection years being 2010-2039. Plan2Adapt uses an ensemble median as its mid-point value. This value is chosen from a PCIC standard set of Global Climate Model (GCM) projections. The median data is drawn from 12 GCMs, each of which uses one high emissions scenario run.

9.2.2 Precipitation

Plan2Adapt climate projections predict a precipitation increase of 9.4% for the Kitimat-Stikine region (PCIC n.d.). On average over the projection period of 2010-2039, annual precipitation as snow is predicted to decrease by 16% from the baseline of 1961-1990 (PCIC n.d.). Climate Data Canada projections predict an increase of precipitation of 8% in the 2021-2050 period in the Project region relative to the 1951-1980 baseline (Climate Data Canada n.d.).

9.2.3 Air Temperature

Plan2Adapt projects an increase in air temperature of 1.7°C in 2010-2039 from the baseline period of 1961-1990 (PCIC n.d.). Climate projections for the Eskay Creek region indicate a predicted increase in mean air temperature of 3.3°C in the 2021-2050 period relative to the 1951-1980 baseline (Climate Data Canada n.d.).

9.2.4 Snow Cover

Plan2Adapt projections indicate that winter snowfall will decrease by 16% and spring snowfall will decrease by 22% (compared to 1961-1990 baseline) in the 2010-2039 period (PCIC n.d.).

9.2.5 Other Climate Change Effects

Climate Data Canada and PCIC data projections for the Project region were not available for stream flow, flooding, evaporation, and extreme weather events. With predicted increases in temperature and rain precipitation, there is potential for stream flows to increase and the associated risk of flooding. Similarly, with projected increases in temperature and precipitation, it is likely that evaporation rates will also increase. The Hybrid AIR and EAC Application will consider how these factors as well as wind and extreme weather events (including extreme temperatures, wildfire drought, flooding, wind, and high precipitation) will affect the Project.

10.0 POTENTIAL EFFECTS OF THE PROJECT

Key updates to this section:

Early engagement on the Project included feedback on the potential effects of the Project on the identified components and the process for assessing the effects. Skeena Resources has considered the feedback and expanded the list of potential Project effects listed in Table 10-2 to reflect additional concerns and issues raised in the JSOIE and heard during Skeena Resources engagement activities (as described in Sections 6.0 and 7.0). The discussion of potential transboundary air quality effects provided in Section 10.1.1 is revised to be more concise and specific to the Project.

This section discusses potential Project interactions with the physical, biological, and human environments and possible Project-related effects and mitigations.

The potential effects of the Project on environmental, economic, social, heritage and human health will be assessed within the EAC Application and will reflect the issues and concerns raised during engagement, as captured in the finalized Hybrid AIR. The effects assessment in the EAC Application will focus on specific valued components (VC) identified in collaboration with Indigenous Peoples, government agencies and the public. Tahltan values will be identified and incorporated into the assessment through collaboration with THREAT. The assessment of potential effects to VCs, Indigenous Peoples, or Tahltan values will include consideration of mitigation measures and plans to avoid, minimize, rehabilitate, or offset potential impacts.

Table 10-1 identifies an initial list of potential interactions between VCs and Project components and Project activities that may occur during the construction, operations, closure, and post-closure phases. The preliminary list of potential interactions will be refined by specific phase and activity and/or component, as well as the feedback from reviewers, into detailed interaction matrices to support the effects assessment and discussed during Project Planning, then presented in the EAC Application. Table 10-2 presents a list of potential effects and mitigation measures and was updated based upon the feedback in JSOIE and IPD comments. This analysis will be developed further in the EAC Application based upon the refinement of the Hybrid AIR and issues scoping such that work during the Process Planning phase will ensure the appropriate issues are considered in the EAC Application, and will continue to be a topic of discussion in Skeena Resources' engagement with Indigenous Peoples, public, and regulators.

Fundamental to the EAC Application is Skeena Resources approach to mitigation and management of potential for effects on VCs and Indigenous interests. One key management tool and approach will be updating the Environmental Management System (EMS) for the mine site. The EMS will be updated and augmented to include a suite of management and monitoring plans designed to address issues that may emerge during each phase of the Project (Section 4.6). These management plans will be presented in the EAC Application, along with proposed monitoring. Monitoring will include measures to evaluate the effects assessment predictions contained in the EAC Application against the effectiveness of Skeena Resources' mitigation measures, and protocols to follow (including additional mitigation measures) in case predictions prove inaccurate or proposed mitigation measures are not as effective as anticipated.

Table 10-1 Preliminary Identification of Potential Project Interactions

Project Phases / Project Components	Air Quality	Climate Change	Noise and Vibration	Groundwater	Surface Water and Hydrology	Surface Water Quality	Fish and Fish Habitat/ Aquatic Resources	Terrain and Soil	Vegetation and Ecosystems	Wildlife and Wildlife Habitat	Community Health and Well-being[1]	Human Health[1]	Economic[1]	Non-Traditional Land Use	Heritage Resources	Indigenous Rights and Title	Current Use of Lands and Resources for Traditional Purposes
Project Construction and Operation (including general earthworks, site clearing/grubbing, etc.)	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**
Pre-stripping and development of open pit mine	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X
Construction and operation of processing area	X	X	X		X	X		X	X	X				X	X	X	X
TMSF embankment construction, raises, and use of TMSF		X		X	X	X		X	X	X					X	X	
Construction and use of road infrastructure (new mine roads and existing access)	X	X	X		X	X	X	X	X	X				X	X	X	X
Construction and operation of WRSF	X	X	X	X	X	X		X	X	X					X	X	
Development of overburden and topsoil stockpiles	X	X	X	X	X	X		X	X	X					X	X	
Construction and operation of water treatment facilities (if required) including: new water treatment plant and use of existing mine water settling ponds and discharge location for initial years				X	X	X	X	X	X	X		X			X	X	
Construction and use of conveyors and crushing facility	X		X					X	X	X					X	X	
Construction and use of modular worker accommodation (camp)		X			X			X	X	X	X	X			X	X	
Charter flights from Bob Quinn Lake Aerodrome to transport workers in and out of the site and for emergencies	X	X	X						X	X		X		X			X
Construction and use of detonator magazine and explosives storage	X	X	X		X	X		X	X	X	X	X			X	X	
Construction and operation of tailings and reclaim pipelines from Processing Area to TMSF following haul road					X	X		X	X	X					X	X	
Construction and operation of surface water management structures		X		X	X	X	X	X	X	X					X	X	
Construction and operation of Tom MacKay Creek diversion around the North pit		X		X	X	X	X	X	X	X					X	X	
Construction and operation of transmission line to Mine site and substation	X	X	X		X	X	X	X	X	X		X			X	X	
Construction and use of infrastructure (operations, security, etc.)		X			X			X	X	X	X	X			X	X	

Project Phases / Project Components	Air Quality	Climate Change	Noise and Vibration	Groundwater	Surface Water and Hydrology	Surface Water Quality	Fish and Fish Habitat/ Aquatic Resources	Terrain and Soil	Vegetation and Ecosystems	Wildlife and Wildlife Habitat	Community Health and Well-being[1]	Human Health[1]	Economic[1]	Non-Traditional Land Use	Heritage Resources	Indigenous Rights and Title	Current Use of Lands and Resources for Traditional Purposes
Procurement of labour, goods, and services											X	X	X	X		X	X
Project-related traffic			X		X	X	X			X	X	X	X	X		X	X
Project-related shipping (i.e., concentrate movement from mine site to Port of Stewart)		X	X				X			X	X	X	X	X		X	X
Reclamation and Closure / Post-Closure	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**
Demolition and removal of processing and mine support facilities	X	X	X		X	X		X	X	X				X	X	X	X
Removal and disposal of hazardous wastes/materials							X	X	X								
Recontouring landforms for stability and alignment with adjacent undisturbed areas, to the extent possible	X	X	X	X	X	X	X	X	X								
Sampling and remediating any contaminated soils				X	X	X	X	X	X	X	X	X					
Seeding and planting native species								X	X								
Deactivation of mine site roads, pipelines, and transmission line	X	X	X		X	X	X	X	X	X				X	X	X	X
Utilization of topsoil and overburden piles to recontour and scarify disturbed areas, as appropriate	X	X	X	X	X	X		X	X	X					X	X	
Placement of cover over the WRSFs	X	X	X	X	X	X		X	X	X					X	X	
Ramp-down of procurement of labour, goods, and services											X	X	X	X		X	X
Project-related traffic		X	X				X			X	X	X	X	X		X	X

[1] Including changes that are experienced differently by gender or diverse populations (GBA Plus consideration).

Table 10-2 Preliminary List of Potential Project Effects and Mitigations

Bolded text has been added or revised since submission of the IPD.

Component	Potential Effect	Example of Potential Mitigation
Indigenous Interests		
Physical and Cultural Heritage, Current Use of Lands and Resources for Traditional Purposes, Sites of Historical, Archaeological or Cultural Importance, Indigenous Rights and Title	• Generally, these potential effects are related to the Project's potential impacts to the biophysical environment, the Project's footprint, **ancillary activities, and resulting use or value by Indigenous Peoples of those resources as part of social, cultural, and related interests.** These could, in combination, potentially affect exercising of **Indigenous Rights, impact Indigenous Title,** and influence land uses in and around the Project. • **Examples of these effects could include (note some of which overlap or are a consequence of the biophysical effects listed later in this table):** ▪ **loss of food security (traditional foods);** ▪ **loss of lands with native habitats and associated wildlife;** ▪ **impacts to soils, waters and fish habitat;** ▪ **loss of habitat for migratory birds;** ▪ **localized climatic changes due to potential emissions during construction, operation and decommissioning;** ▪ **loss of access and consequential inability to conduct activities in the Project area;** ▪ **impacts to sacred sites and other cultural and heritage-sensitive areas; and** ▪ **cumulative effects.**	• Avoid or minimize Project interaction with identified sites (reduce the size and timing of impacts) **for footprint type interactions.** • **Engage and meet to incorporate Indigenous Knowledge into assessment baseline studies and subsequent operational guidelines, through inclusive inventory of features to protect and areas of interest or land uses/access (e.g., Tahltan values and TAS locations); to understand potential interactions; and to develop Nation-specific mitigations related to seasonal timing or sensitivity.** • **Respect information confidentiality through data sharing agreements, privacy considerations, and rights to access land and resources.** • **Engagements to support Free, Prior and Informed Consent of the Project.**
Indigenous Peoples' **Environmental, Cultural,** Health, Social or Economic Conditions	• Generally, these potential effects are related to the Project's potential impacts to the biophysical environment and to social and economic factors (e.g., related to food security, transmission of knowledge, employment). These could, in combination, potentially affect legal, spiritual and cultural practices; transmission of traditional culture**,** knowledge and law; **relationship of the land to Tahltan way of life and future generations**; and improve employment and economic opportunities. • **Examples of these effects on Indigenous interests or communities could include (note some of which overlap or are a consequence of the biophysical effects listed later in this table):** ▪ **loss of food security (traditional foods);** ▪ **loss of lands with native habitats and associated wildlife;** ▪ **impacts to soils, waters and fish habitat;** ▪ **loss of habitat for migratory birds;** ▪ **localized climatic changes due to potential emissions during construction, operation and decommissioning;** ▪ **social well-being and economic prosperity; and** ▪ **cumulative effects.**	• Health: Monitor workers' exposure to air quality and dust factors and utilize enhanced dust controls to minimize health effects from dust exposure. • Social: **Monitor social and economic changes in the communities through** a social-economic baseline survey update every 5 to 10 years to characterize changes. • Continue engagement to **understand how each Nation approaches Indigenous Knowledge** characterization and cataloging for long-term preservation. • Economic: Support Indigenous community agencies with skills inventory, training, and skills development. **Specific steps would be worked out during engagement discussions as committed to by Skeena Resources (Section 6) during the EA process.** • **A Human Health Risk Assessment will be completed as part of the EA process, and may identify mitigations to consider to address health, social or economic conditions.** • **Engagements to support Free, Prior and Informed Consent of the Project.**
Nisg<u>a</u>'a Nations Treaty Rights and Obligations Under *Nisg<u>a</u>'a Final Agreement*	• **Potential effects on treaty protected rights from Project traffic and shipping in the Nass Area, Portland Canal or NWA which may be related to biophysical, wildlife or accidents and malfunctions pathways and may be addressed via those assessments.**	• **Mitigations related to traffic, trucking, and shipping potential effects may be developed through engagement with the NLG and assessments under NFA Chapter 10.**

Bolded text has been added or revised since submission of the IPD.

Component	Potential Effect	Example of Potential Mitigation
Physical Environment		
Air Quality and GHG Emissions	• **Metal and** fugitive dust emissions from material handling, ventilation of buildings/crushers, blasting, vehicle travel, shipping and processing can increase ambient particulate matter concentrations that can negatively affect human and wildlife health, and increases in dust fall deposition can affect vegetation, **wildlife, migratory birds, aquatic life**, and waterbodies. • **Emissions from the incinerator and combustion emissions** from vehicles and equipment can result in increases in ambient concentrations of nitrogen dioxide (NO_2), sulphur dioxide (SO_2) and other contaminants that can negatively affect human health and vegetation. • **Removal of vegetation can result in impacts on carbon sinks (to be specified by area in next iteration of DPD with FS engineering data).** • **Potential impacts on the Province being able to meet its targets under the *Greenhouse Gas Reduction Targets Act*.**	• **Investigate best available technologies, best environmental practices, and mitigation.** • Minimize removal of vegetative cover through design stage by stacking, reuse of previously disturbed areas/linear corridors, and re-vegetate as soon as practical. • Selection and maintenance of fossil fuel burning equipment to achieve best/cleanest possible emissions, lowest fuel consumption, and most efficient operations. • Use cyclones and air scrubbers for particulate collection. • Efficient operation of Project vehicle fleet and equipment to minimize GHG emissions. • Stabilize and re-vegetate soil stockpiles. • Water haul roads when required. • Covering concentrate haul trucks while in transit. • Utilize electrified equipment and building heating designs where possible, instead of fossil fuels; implement energy conservation programs. • Provide electrical power from Volcano Creek, McLymont Creek, and Forrest Kerr hydroelectric facilities to the mine site so on-site generation is either not required or is minimized. • **Consider converting hydrocarbon vehicles to electricity or purchasing electric vehicles.** • Subaqueous storage of tailings and waste rock to reduce the land clearing footprint. • Target lower GHG intensity, higher efficiency transportation methods for people, supplies, and products. • Implement an air quality and dust control management plan. • **Implement Project-specific surface water quality management plan.** • **A Human Health Risk Assessment will be completed as part of the EA process, and may identify mitigations to consider to address health, social or economic conditions.**
Noise and Vibration	• Noise from mining can result in increases in noise levels for human and wildlife receptors**, including migratory birds.** • Vibrations from blasting and equipment may affect human and wildlife receptors, **including migratory birds.** • Specific impacts of noise on human health will be identified as part of the Human Health Risk Assessment. • Vibration can impact geotechnical stability near mine site infrastructure.	• Use noise minimization equipment where appropriate. • Install engineering controls on equipment (e.g., mufflers, buildings or enclosures, air intake treatments). • Maintain equipment on a regular basis (e.g., replace worn parts, lubricate as required). • Use material to create berms and barriers. • Implement a noise management plan, including scheduling blasting events during daytime hours or other times to accommodate identified receptors. • Include potential vibration impacts in reviews of geotechnical stability.
Geology, Soils and Terrain	• Loss of soil profile and changes to terrain from vegetation removal, overburden removal, waste storage rock, and development of open pit mine. • Changes to soil quality due to changes in soil chemical and physical characteristics during mining and reclamation activities. • Long-term storage of soils leading to loss of soil productivity. • **Natural and mining induced earthquakes.** • **Changes to the stability of natural slopes and landslide run out paths from construction and operations.**	• Soil salvage, soil stockpile, and soil placement management. • Implement an erosion and sediment control plan. • Implement a reclamation and closure plan incorporating soil salvage plans and targeted returning land use objectives. • **Manage terrain, mass wasting, and avalanche risks for temporary or permanent slopes or stockpiles, or infrastructure introduced into gullies or avalanche risk areas.**

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Component	Potential Effect	Example of Potential Mitigation
Physical Environment (*cont'd*)		
Groundwater	• **Changes to groundwater quality and quantity from ML/ARD (e.g., waste piles, pits, underground mine), seepage and downstream effects, chemical contamination (e.g., fuel spills), or over-extraction.** • **Changes to potable water source.** • Changes to groundwater quality and quantity from mining interaction with groundwater table resulting from changes to topography, including disturbance to bedrock and surficial materials. • Changes to groundwater quality interactions between groundwater and mine-influenced surface water. • Changes to groundwater quality from water infiltration (e.g., through waste rock, pit walls, mine pits).	• **Implement groundwater management and monitoring plans, including wells, during construction, operation, and closure to confirm resource status and update water quality models and predictions.** • **Maximize water reuse between mill and tailings storage facility to reduce groundwater supplementation and reuse of treated effluent where possible.** • Utilize best management practices (BMPs), engineered controls and monitoring of chemical and fuel storage to prevent accidental spills and releases. • **Implement a reclamation and closure plan, including a drainage closure plan and closure-phase water management plan.** • **Treatment of potable water.** • **Implementation of trigger-response plans.** • Implement an erosion and sediment control plan. • Implement groundwater monitoring plans during construction and operation and adapt to findings. • Implement Project-specific surface water quality management plan as part of the Project-wide Water Management Plan.
Hydrology and Surface Water Quality	• Changes in water quality downstream of the mine site within the Unuk River or Volcano Creek watersheds from discharge of treated mine contact water **(e.g., from re-opening or dewatering of underground workings),** site runoff erosion and sedimentation, blasting residue leaching, interactions with groundwater, accidents and malfunctions, or ML/ARD risks. • Potential effects could change concentrations of key parameters including metals, physical parameters (e.g., pH, temperature, turbidity, TSS), which affect suitability to downstream uses, toxicity to aquatic life, and nutrient levels. • Changes in flow regime, **hydrograph timing and magnitude, impoundment storage,** and sediment loading in watercourses which may influence erosion and deposition. • Changes in groundwater-surface water interactions. • **Potential changes in surface water quality related to malfunctions or accidental release of products or chemicals during hauling, trucking or shipping.**	• Implement surface water management plan during construction and operation**, including hydrology monitoring.** • Design for closure to minimize potential for mine contact water, re-establish the natural drainage, **and mimic natural hydrograph** at the end of the mine life. • Integrate water management into reclamation and closure planning. • **Utilize subaqueous management of PAG materials to minimize ML/ARD and establish surface and groundwater monitoring programs into post-closure to validate predictions and have adaptive management approach.** • **Create Project-wide Water Management Plan linking mitigations, modelling, management actions, and water treatment (if required for construction and operation phases) for full mine life to achieve future water quality conditions at closure that are deemed acceptable to regulators and Tahltan Nation.** • **Implementation of trigger-response plans.** • **Implement a storm water runoff control plan, as needed.**

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Component	Potential Effect	Example of Potential Mitigation
Biological Environment		
Fish and Fish Habitat/Aquatic Resources	• Direct loss or change in quantity of aquatic habitat due to mine infrastructure (including the TMSF) **or accidental releases.** • Change in quantity and quality of aquatic habitat resulting from alteration of stream flows. • **Change in fish mortality or productivity due to changes in fish habitat.** • Change in water quality **downstream of mine site** resulting in potential health effects to aquatic resources and aquatic species (e.g., fish **[including salmon and hooligan/eulachon]**, benthic invertebrates, amphibians, and birds). • Change in amount, suitability, migration, and distribution of habitats (including sediment quality) for fish or aquatic organisms from road upgrades, sediment/erosion inputs at stream crossings, or along the transmission line right-of-way. • **Potential changes to marine aquatic resources from marine shipping incidents.** • **Potential changes to freshwater aquatic resources from mine site or transportation accidents and malfunctions.** • **Potential changes to rare, sensitive, or culturally important species and ecosystems.**	• **Continue existing Aquatic/Environmental Effects Monitoring Program, which has been in effect since 1997, to compare with the findings to date of no ongoing mining-related impacts in streams at the mine site and Unuk River.** • Avoid or minimize direct loss of aquatic habitat through selection of mine pit and waste rock storage locations that do not directly interact with fish-bearing waterbodies. • Implement appropriate management practices, **including monitoring plans and spill response plans associated with transportation of products (concentrate) supplies and hazardous goods, and upgrade** environmental management plans **to consider traffic and highway related accidents and malfunctions.** • Minimize mine footprint through phased operation and maximize backfill of NPAG waste into mined-out areas of open pits. • Implement BMP (e.g., Standards and Practices for Instream Works) and environmental management plans (e.g., erosion and sediment control plan). • **A habitat offset plan is not applicable at the mine site due to non-fish-bearing status; however, if fish habitat outside the vicinity of the mine site could potentially be affected due to physical developments, then implement** a habitat offset plan to compensate for unavoidable harmful alteration, disruption, or destruction of fish habitat. • Implement surface water quality monitoring and management t**o ensure water quality downstream is not affected by mine development and discharge permit limits achieved.** • **Implement a storm water runoff control plan.**
Vegetation and Ecosystems	• Loss or alteration of ecosystems, vegetation, and wetlands **(including rare, sensitive, or culturally important vegetation, species, and ecosystems)** from land clearing and mine construction, **which can result in impacts to carbon sinks.** • Health effects on vegetation due to changes in air, water, soil quality, and dust deposition. • Deposition of dust on plants and soil, which can result in uptake of metals to plants, which are then consumed by wildlife.	• Implement appropriate management practices and ecosystem/species management and **monitoring** plans. • Avoid or minimize Project interaction with sensitive and at risk ecosystem and biodiversity elements (i.e., reduce the size and timing of impacts). • Design for closure approach to allow for re-establishment of natural ecosystems at the end of the mine life, prevent invasive plant establishment and minimize vegetation losses through reuse of existing disturbed areas. • Minimize mine footprint through progressive and interim reclamation. • Implement appropriate management practices and plans to minimize loss of sensitive vegetation and ecosystems through design, preserve land capacity for reclamation (soil quality) to endemic ecosystems, and minimize potential for health effects (e.g., metal uptake). • Implement a reclamation and closure plan incorporating specific returning land use objectives. • Implement an air quality and dust control plan. • Implement a storm water runoff control plan.

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Component	Potential Effect	Example of Potential Mitigation
Biological Environment (*cont'd*)		
Wildlife and Wildlife Habitat (including Species of Conservation Concern)	• Loss or alteration of wildlife habitats, **including rare, sensitive, or culturally important ecosystems and** migratory bird habitat, from land clearing and mine construction. • Sensory disturbance to wildlife (light, helicopters, and noise). • Disruption of wildlife (e.g., bears, small furbearers) seasonal movement patterns in regional and local landscapes. • Direct mortality of wildlife due to vehicle-wildlife collisions **from Project-related traffic.** • **Direct mortality due to greater human access to seasonally important habitat areas.** • Indirect mortality from mine operations. • Changes to population dynamics, potentially including moose, bears, and small furbearers due to changes to predator-prey dynamics. • Health effects on wildlife due to changes in air, water, vegetation, and soil quality. • **Other changes to rare, sensitive, or culturally important species, including Species at Risk.** • Loss of riparian habitats affecting water birds and amphibians that use lentic and lotic environments. • **Loss or alteration of ecosystems, vegetation, and wetlands, including wetland function and extent.** • **Potential changes to wildlife or wildlife habitat from accidents and malfunctions at the mine site.**	• Design for closure approach to allow for re-establishment of wildlife supporting ecosystems at the end of the mine life. • During design and operation, develop collaborative approaches to **monitoring/**management plans/practices which influence biophysical factors that will maintain or enhance wildlife supporting ecosystems. • **Minimize Project interaction with wildlife via policies, SOPs, waste containment, and wildlife attractant management.** • Implement a reclamation and closure plan incorporating targeted end use objectives (e.g., wildlife habitat). • Mitigate habitat loss to migratory birds by reusing existing disturbances, where possible, and timely reclamation. • Implement erosion control and sediment management plan (e.g., sedimentation ponds). • Conduct habitat clearing outside of the migratory bird nesting period wherever possible to avoid effects on nesting birds and comply with Avoidance Guidelines and other provisions of the *Migratory Birds Convention Act*. • **Develop, apply, and monitor utilization of BMPs for wildlife and wildlife habitat for project assessment, construction, operational and closure phases.** • **If required, implement habitat offsetting.**
Social		
Community Health and Well-being	• Changes to and/or maintenance of community and individual health and well-being (e.g., COVID-19). • Provincial and local economic stimulus. • Employment, income, local government revenue generation and gross domestic product benefits. • Health and safety of workers and public. • Changes to wage and non-wage economy, and traditional practices, due to Project-driven changes in hunting, trapping, and gathering. • Changes to local population and demographics due to Project-driven labour market changes. • Changes to local community services and infrastructure due to either Project demand or Project-driven population change**, including effects of additional traffic on local roads and highways**. • Potential effects to families from rotational work schedules and travel distance from home. • **Changes that are experienced differently by gender or diverse populations, and subgroups within those populations (GBA Plus consideration).**	• Community management planning with Indigenous groups and stakeholders to address provision of services and minimize potential effects to community health and well-being. • Seek input on returning land use objectives **from local communities.** • Implement reclamation and closure plans consistent with returning land use objectives **endorsed by communities.** • Skills inventory, training and skills development with Indigenous and local communities, including end of mine life transition planning. • Employee occupational health and safety plans, **including additional mental health and wellness services.** • Plan for local procurement of goods and services. • Work with local government authorities and health, protective, and emergency service organizations to plan for and adjust to anticipated changes in population and associated changes in service demand. • Implement a traffic management plan. • **Use of GBA Plus to evaluate outcomes of social and economic programs.**
Health		
Human Health	• Change to particulate matter concentrations (e.g., $PM_{2.5}$ and PM_{10}) which may cause health risk to workforce. • Deposition of dust to plants and soil, which can result in uptake of metals to plants and animals, which are then consumed by people. • **Potential impacts to access, availability and quality of foods harvested from the landscape (e.g., plants, animals).** • Health effects due to changes in water quality. • Increased levels of noise and traffic causing stress or harm, such as sleep disturbance. • Changes to and/or maintenance of individual health (e.g., COVID-19). • **Changes that are experienced differently by gender or diverse populations, and subgroups within those populations (GBA Plus consideration).**	• Implementing an air quality and dust control plan, as needed. • Implementing a storm water runoff control plan, as needed. • Noise mitigations. • **A Human Health Risk Assessment will be completed as part of the EA process and may identify mitigations and monitoring to address health, social or economic conditions.**

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Component	Potential Effect	Example of Potential Mitigation
Health *(cont'd)*		
Human and Terrestrial Wildlife Health	• **Deposition of dust to water, plants and soil, which can result in uptake of metals and chemicals (e.g., polycyclic aromatic hydrocarbons) from mining to plants, wildlife and fish which are then consumed by people and wildlife (e.g., amphibians, terrestrial and aquatic birds, mammals) and may impact their health.** • Water runoff may contribute to changes in water quality to downstream waterbodies which may impact health of humans, fish, and wildlife. • **Changes that are experienced differently by gender or diverse populations, and subgroups within those populations (GBA Plus consideration).**	• Implement an air quality and dust control plan, as needed • Implement a site water management plan, as needed. • **A Human Health Risk Assessment will be completed as part of the EA process and may identify mitigations and monitoring to address health, social or economic conditions.**
Economic		
Economic	• Provincial and local economic stimulus via Project procurement and contracting for goods and services, and via personal services and consumer spending of employees. • Changes to employment, employment income, and training. • Changes to gross domestic product (GDP). • Changes to local government revenues and expenditures. • **Changes that are experienced differently by gender or diverse populations, and subgroups within those populations (GBA Plus consideration).**	• Transition planning for mine workers at end of mine life.
Commercial and Public Land Use	• Changes to opportunities associated with public and tenured land and resources, including changes to use of, or access to, certain public lands and waters, and availability of certain species. • **Changes that are experienced differently by gender or diverse populations, and subgroups within those populations (GBA Plus consideration).**	• Seek input on recreational **and commercial tenure holder** access and returning land use objectives. • Implement reclamation and closure plans consistent with returning land use objectives.
Heritage		
Heritage Resources	• Effects to heritage resources during **construction, operation, or decommissioning,** including land clearing, mining, and associated infrastructure**.** • **Potential impacts to culture from loss or degradation of heritage resources and culturally sensitive sites.**	• Conduct archaeological impact assessment to discover previously undocumented archaeological **or paleontological** sites within the Project area. • Develop an archaeology chance find procedure **and implement the Tahltan standard for 'post-disturbance site assessments (PDSA)' to verify that disturbance has not inadvertently uncovered archaeological features (PDSA underway by Skeena Resources since 2021).** • Where possible, avoid ground disturbance activity within archaeological sites. If disturbance to archaeological sites is anticipated to occur, implement mitigation strategies to salvage pre-contact cultural heritage information **or provide compensation for effects to culturally sensitive sites**.
Components of the Environment that Are within the Legislative Authority of the Federal Government		
Fish and Fish Habitat	• Direct loss or change in quantity of aquatic habitat due to mine infrastructure. • Change in quantity and quality of aquatic habitat resulting from alteration of stream flows. • **Change in fish mortality or productivity due to changes in fish habitat.** • Change in water quality resulting in potential health effects to aquatic resources and aquatic species (e.g., fish ***[including salmon and hooligan/eulachon]*****,** benthic invertebrates, amphibians, and birds). • Change in amount, suitability, migration, and distribution of habitats (including sediment quality) for fish or aquatic organisms from road upgrades, sediment/erosion inputs at stream crossings, or along the transmission line right-of-way.	• Avoid or minimize Project direct loss of aquatic habitat through selection of mine pit and waste rock storage locations that do not directly interact with fish-bearing waterbodies. • Implement appropriate management practices (e.g., Standards and Practices for Instream Works) and environmental management plans (e.g., erosion and sediment control plan). • Implement a habitat offset plan to compensate for unavoidable harmful alteration, disruption, or destruction of fish habitat. **A habitat offset plan is not applicable at the mine site due to non-fish-bearing status; however, if fish habitat outside the vicinity of the mine site could potentially be affected due to physical developments, then implement** a habitat offset plan to compensate for unavoidable harmful alteration, disruption, or destruction of fish habitat.
Aquatic Species as defined by SARA	• There are no SARA-listed species in the vicinity of the Project.	• Minimize mine footprint through phased operation and maximize backfill waste deposition.

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Component	Potential Effect	Example of Potential Mitigation
Components of the Environment that Are within the Legislative Authority of the Federal Government *(cont'd)*		
Migratory Birds	• Loss or alteration of migratory bird habitat, from land clearing and mine construction **and operation**.	• Mitigate habitat loss to migratory birds by reusing existing disturbances, where possible, and timely reclamation. • Conduct habitat clearing outside of the migratory bird nesting period wherever possible to avoid effects on nesting birds and comply with Avoidance Guidelines and other provisions of the *Migratory Birds Convention Act.*
Potential Effects Outside of BC and Canada		
Potential Effects outside of BC within Canada	• No potential effects are anticipated outside of BC within Canada **and evaluation of potential effects will be scoped for assessment in the Hybrid AIR, during Process Planning, and presented in the EAC Application**.	• No mitigation measures are proposed.
Potential Effects on Federal Lands	• No potential effects are anticipated on Federal lands.	• No mitigation measures are proposed.
Potential Effects Outside of Canada	• No potential effects to air, water, other VCs, or wildlife extending outside of BC.	• Mitigation measures will be put in place **within the scope of the Project site and location** to manage potential impacts and to limit the geographic extent of potential effects **such that there are no expectations of effects experienced outside of BC.** • Continue environmental monitoring and mitigation works to minimize potential risks to adjacent watersheds and comply with existing permits and regulations.

10.1 Potential Changes to the Environment Outside of BC and Canada

The Project's assessment will include a robust analysis of potential effects within both a regional study area that will include portions of the Unuk River and Iskut River watersheds, and a local study area that encompasses the mine site watersheds and airsheds. The assessment will consider potential effects potential on water quality, fisheries, and aquatic resources, and other VCs. Appropriate mitigation measures will be identified to manage impacts and to limit the geographic extent of potential effects. The evaluation of possible effects and mitigation within the local study area will be the strongest indication and consideration of broader biophysical or aquatic effects, i.e., potentially extending into or beyond the regional study area, and potential linkages to human, social or Indigenous interests.

Environmental management and monitoring to comply with regulatory permits and conditions at the former underground mine site has been underway since the mid-1990s. Mitigation and Environmental Management Systems exist to monitor the existing closed mine site and will be enhanced for the future Project operations and to maintain compliance with current and future provincial and federal requirements. This will continue to build on the track record of avoiding long-term impacts from the site.

Past assessments and reviews have approved the use of subaqueous storage of PAG tails and waste rock in non-fish-bearing lakes as the most suitable long-term waste management and ML/ARD mitigation strategy. The 2000 regulatory process for the underground Eskay Creek Mine approving the use of Tom MacKay Lake as a waste storage facility considered the concerns of First Nations, non-Canadian regulators and other parties and the potential for effects on fisheries resources and water quality of the Unuk River. The Project Committee Report concluded that, with the implementation of mitigation and compliance with regulatory authorizations, development of subaqueous storage of tailings in Tom MacKay Lake was not expected to cause significant adverse environmental, economic, social, cultural, heritage and health effects. Potential changes to the environment as a result of carrying out the Project are not anticipated on federal lands in BC, or outside of Canada. No potential changes are anticipated outside of BC within Canada.

10.1.1 Consideration of Transboundary Issues

The Project is located within the headwaters of the Unuk River watershed, approximately 40 km northeast of the BC – Alaska border (Figure 1-1). Potential for transboundary effects or issues will be part of the assessment process.

Recent monitoring programs (listed in Appendix B) show no enduring negative effects to water quality or aquatic resources from the existing Eskay Creek Mine. Skeena Resources anticipates that through rigorous review, design, and planning, along with effective mitigation and management, no transboundary effects will occur due to the Project. Skeena Resources will utilize historic and current information and a robust assessment of potential effects to develop effective mitigations and management measures. At the same time, Skeena Resources will work to address Tahltan Nation concerns around potential for long-term risks to valued components and Tahltan values, both within and downstream of the Project site.

10.1.1.1 Air Quality Considerations

Based on experience from other projects and scaling to the Project size, Skeena Resources estimates that it is highly likely that ambient criteria air contaminants (CACs) concentrations due to the Project will remain below background levels in the USA and that no transboundary effects are likely.

The two main sources of air emissions anticipated from the Project are from the development of the open pit and the operation of the mill. To consider potential Project emissions of CACs at an early stage, Skeena Resources scaled the results of air quality modelling conducted for the nearby KSM project as part of its environmental assessment process. By way of comparison,[1] the total material moved for the Project would be one-eighth the material moved at KSM, and the mill throughput would be one-eighteenth of KSM's throughput. Given the KSM model results and the EAO and IAAC (formerly the Canadian Environmental Assessment Agency) conclusions, as well as the relative sizes of the two projects, the Project is not expected to result in transboundary air quality effects.

10.1.1.2 Water Quality and Aquatic Considerations

The Project is located in a highly mineralized area, where concentrations of several metals (e.g., cadmium, chromium, copper, iron, mercury, nickel, and silver) are naturally elevated in nearby streams and rivers (McGurk et al. 2006; Golder 2018). The Eskay Creek Mine discharges to Ketchum Creek. The distance from the mine footprint to the Unuk River along the flow path of Ketchum Creek is approximately 3.8 km, and from the Unuk River (at the confluence of Ketchum Creek) to the border with Alaska is approximately 44 km along the flow path.

Discharges from the Eskay Creek Mine, and anticipated for the Revitalization Project, will be a small component of the much larger flows that occur in the Unuk River. The Eskay Creek Mine is in the Tom MacKay Creek watershed (24 km^2), a sub-catchment in the lower Ketchum Creek watershed. Ketchum Creek is a tributary to the upper Unuk River with a watershed size of 69 km^2 (including the Tom MacKay Creek watershed) and has an estimated mean annual discharge of 2.8 m^3/s (FLNRORD 2021a). The Unuk River watershed is 1,560 km^2 at the BC/Alaska border, with an estimated mean annual discharge of 111 m^3/s (FLNRORD 2021b).

The results of the 2020 water and sediment quality, and benthic invertebrate community studies (17th round of monitoring) did not indicate that adverse environmental effects were occurring in Ketchum Creek as a result of mine discharge at D7 (Golder 2021). The benthic invertebrate community at the 2020 sampled stations contained numbers and proportion of EPT taxa (i.e., Ephemeroptera, Plecoptera, Trichoptera species groupings), which are intolerant to pollution and water quality changes (i.e., sensitive to changes, particularly degradation of water quality).

[1] Air quality dispersion modelling results for the KSM project (a 100,000+ tpd open pit operation across multiple large open pits) found that there may be cases where emissions of CACs from the project result in ambient concentrations that remain greater than background values for locations in the USA. The maximum modelled ambient concentrations for those constituents of the KSM project that were above background values in the USA included: TSP, PM_{10}, NO_2, and SO_2. It is important to note that the modelled concentrations in the USA were slightly above background values for these contaminants. The modelling followed the BC Ministry of Environment guidelines, which are designed to produce conservative results.

The KSM project was modelled based on an average of 180,000 tpd of ore processed plus 316,000 tpd of waste rock. By contrast, the Project is estimated to average approximately 9,000 tpd of ore processed and 64,000 tpd of waste rock. Based on the total material moved per day (ore plus waste rock) the Project is approximately one-eighth the size of KSM, and therefore is expected to have CAC emissions no more than roughly one-eighth of KSM's. In addition, it is likely that the spatial extent where CAC concentrations remain above background concentrations will be much smaller for the Revitalization Project.

The 2020 sampling of aquatic organisms results indicated suitable (i.e., non-polluted) water quality for supporting that invertebrate community (Golder 2021).

Given that long-term water quality effects in the Unuk River have not been detectable over an 18-year monitoring period (encompassing mine operations and post-operations) and the relatively small contribution of the Tom MacKay Creek watershed to the Unuk River watershed, the potential for transboundary impacts into Alaska are considered to be very low. This is consistent with the conclusion of previous analyses. The 2000 PAC assessment for the original TMSF found that adverse effects to the aquatic environment in the Unuk River were not likely (HCI 2000), and the 2000 PAC assessment report concurred that the water quality impacts of the Eskay Creek mine on receiving waterbodies (including the Unuk River) had been properly addressed, and that the Project would not have residual and significant impacts on downstream fish habitats and fishery resources (Tom Mackay Lake Waste Rock and Tailings Project Committee 2000).

Skeena Resources will undertake an assessment of potential impacts to water quality as part of the EAC Application, as per the Hybrid AIR. This assessment will include a robust analysis of potential effects to water quality in the Unuk River watershed. Appropriate mitigation will be proposed to manage impacts and to limit the geographic extent of potential impacts. The geographic extent of potential effects to water quality are not expected to extend up to and beyond the BC border. Water, sediment, and benthic invertebrate community monitoring will continue and evolve through the environmental assessment and permitting processes.

10.1.1.3 Wildlife Considerations

Several species of large mammals, such as moose and grizzly bear, occur in the Unuk River and Iskut River watersheds. The sedge and willow wetlands that are used by moose as forage typically flow downslope into the Unuk River, so that there is no pathway for changes in water quality in the Unuk River to affect moose habitat in those upslope wetlands. Grizzly bear forage on salmon stocks in the Unuk River during the fall.

As noted in Section 10.1.1.2, Skeena Resources anticipates that the Project will have negligible effects on water quality in the Unuk River, and thus related linkage to fish and fish habitat, and pathway to grizzly bear, the potential effects are also anticipated to be negligible. Skeena Resources will undertake an assessment of potential impacts to water quality as part of the EAC Application, as per the Hybrid AIR, which will include analysis of potential effects to water quality in the Unuk River watershed; potential pathways to grizzly bear will be evaluated depending on the results of this analysis. Mitigation of potential for the operation to affect wildlife populations will be mitigated through a robust EMS and Wildlife Management approach during construction, operations, and closure.

10.2 Potential Project Cumulative Effects

The EAC Application will consider the Project's potential cumulative effects as a result of changes to environmental, economic, social, cultural and health values caused by the combined effect of past, present, and potential future human activities. Table 10.2-1 provides a preliminary list of historical, active, and reasonably foreseeable projects in the vicinity of the Project in northwest BC that may produce cumulative effects in an area broader than the mine site or Tahltan territory.

Other activities that might interact cumulatively with the residual effects of the Project include recreational usage, guide outfitting, hunting, trapping, commercial recreation, Indigenous harvesting and traditional foods, forestry, mineral exploration, and transportation. The Project's use of highways for transportation may interact with current traffic impacts on public safety and on wildlife health, as reported by BC's Wildlife Accident Reporting System (WARS; BC Ministry of Transportation and Infrastructure 2022).

Table 10.2-1 Past, Present, and Reasonably Foreseeable Future Projects

Historical Projects	Active Projects	Reasonably Foreseeable Projects
• Cassiar Mine • Golden Bear Mine • Granduc Mine • Johnny Mountain Mine • Kitsault Mine • Snip Mine • Sulphurets Mine • Tulsequah Chief Mine • Eskay Creek Mine (historical)	• Brucejack Mine • Forrest Kerr Hydroelectric • Pacific Trails Pipeline • McLymont Creek Hydroelectric • Red Chris Mine • Red Mountain Mine • Silvertip Mine • Volcano Creek Hydroelectric • Rio Tinto BC Works • LNG Canada • Coastal Gaslink	• Galore Creek Mine • Red Chris Underground Project • Kitsault Mine • KSM Mine • Kutcho Mine • Premier Gold Mine • Schaft Creek Mine • Storie Moly Mine • Red Mountain Project • Cedar LNG • Vopak Canada Project • Snip Mine • Ksi Lisims LNG • Ridley Island Export Logistics Platform

Cumulative effects assessments have been carried out as part of the environmental assessment processes required for six of the nearest projects listed below. A summary of the conclusions of these analyses conducted under previous legislation is presented in Table 10.2-2:

- Forrest Kerr Hydroelectric (Coast Mountain 2002);
- Red Chris Mine (Red Chris 2004);
- Galore Creek Mine (Galore Creek Mining Corporation 2006);
- McLymont Creek Hydroelectric (AltaGas 2011);
- KSM Mine (Seabridge 2013); and
- Brucejack Mine (Pretium 2014).

Each of these assessments concluded that the cumulative effects of the developments in combination with the other activities in the region would not be significant, and the conclusions of the provincial and (in some cases) federal assessment reports aligned with these conclusions. A complete cumulative effects assessment will be undertaken through the EAC Application.

Table 10.2-2 Summary of Residual Cumulative Effects Conclusions from Other Projects in the Region

Valued Component[1]	Residual Cumulative Effects (from other project assessments)
Air Quality	• Increased concentrations of criteria air contaminants and dust deposition (Brucejack Mine, KSM Mine) • Increased atmospheric GHG levels (KSM Mine)
Noise	• Loss of wildlife habitat and wildlife disturbance due to increased noise levels (McLymont Creek, KSM Mine) • Sleep disturbance (KSM Mine)
Hydrology	• Change in flow and hydraulics (McLymont Creek) • Decreased flows in lower Iskut Canyon (Forrest Kerr Hydroelectric) • Effects of culverts and bridges on channel morphology (Brucejack Mine)
Groundwater	• Changes to groundwater levels, flow rates, and directions (KSM Mine) • Changes to groundwater quality (KSM Mine, Red Chris Mine)
Fisheries and Aquatic Habitat	• Fish stranding and/or dewatering of fish eggs (McLymont Creek) • Direct fish mortality (Brucejack Mine, KSM Mine) • Erosion and sedimentation (Brucejack Mine, KSM Mine, Galore Creek Mine)
Land and Resource Use	• Change in recreational experience (McLymont Creek) • Increases in access use restrictions, sensory disturbance, and resource harvesting, and in wildlife mortality and habitat losses (KSM Mine) • Decreases in the amount of resources available to land and resource users (KSM Mine)
Soil, Terrain, and Surficial Geology	• Changes in ecological suitability (Red Chris Mine) • Loss of soil quantity (Brucejack Mine, KSM Mine) • Alteration and loss of soil quality (Brucejack Mine, Red Chris Mine, KSM Mine)
Terrestrial Ecology	• Loss / alteration of ecosystem function and extent on alpine, forested, riparian and floodplain ecosystems, wetlands, and rare plant and lichen habitat (Brucejack Mine, KSM Mine, Galore Creek Mine) • Land clearance (Forrest Kerr Hydroelectric)
Wildlife	• Effects on wildlife, including Western toad, moose, mountain goats, grizzly bears, and American marten (Brucejack Mine, Forrest Kerr Hydroelectric, Galore Creek Mine) • Increased moose mortality from traffic along Highway 37 and 37A (KSM Mine)
Economy	• Increased competition for labour and wage inflation (Brucejack Mine)
Social	• Impacts to education, skills development, and training; community infrastructure, services, and housing; and worker and family well-being (Brucejack Mine) • Changes in employment, income and value-added, population, demand, tax base, noise, air quality and transportation patterns (KSM Mine)
Health	• Decreased air quality (Brucejack Mine, KSM Mine)

Note: The language used in this table has been standardized for brevity, as the Valued Components and descriptions of cumulative effects varied considerably between the five assessments reviewed.

10.3 Tahltan Nation Perspective of Cumulative Effects

The Tahltan Nation provided the following text for the IPD, discussing cumulative effects in connection with Tahltan Rights and Title. It is reproduced here because of its continuing relevance to the Project in understanding issues to address through the environmental assessment process.

> *The northwestern interior of BC is subject to increasing industrial pressures, especially from the mining and oil and gas sectors. Many of these projects are still in the planning phase, and many likely will not see the light of day. Existing projects have already had significant impacts on wildlife and the land, and these changes have altered the way in which Tahltan live on their land. Having the right relationship to the land and maintaining its integrity is at the core of Tahltan cultural and spiritual identity. Disruptive changes to wildlife habitat and ungulate migration patterns, noise pollution resulting from increased traffic flows and mine activity, the degradation of water and soil quality, increases in non-resident recreational (and usually motorized) use of the land due to easier access – all these changes cumulatively will continue to alter in fundamental ways this relationship to the land, with adverse if incalculable impacts on the health and well-being of Tahltan communities.*
>
> *First Nations people in the North were categorized, classified and reduced to 'bands' and placed on limited, delineated reserves where their title to land became dependent on federal legislation (Knafla and Westra 2010: 6). As the Fur Trade gave way to an industrial economy focusing on concepts of land that supported mining, forestry and hydro-development, a restless formation and reformation of the geographical landscape into a capitalistic spatial framework was occurring that enforced new relationships between the Europeans and First Nations people and further detached First Nations people from their former lands (Harris 2004: 172). There are multiple and often competing land and resource interests in the Tahltan Nation and all parties must commit to supporting mechanisms for comprehensive land and resource planning that includes full participation of the Industries and Governments involved.*
>
> *To support this meaningful participation, a commitment can be made to initiatives focused on identifying protected areas due to their cultural and ecological importance or sensitivity, as well as protecting values that contribute to the cultural integrity, environmental health, biological diversity, and ecological processes. Recognizing the cumulative effects to the land, water, wildlife, plants and medicine species which included reassessing the cumulative effects as new mines are developed in the traditional territory over the complete life cycle of the project.*
>
> *It is the view of the Tahltan Nation that the unregulated access development, incremental resource development primarily through mineral development, incremental pace of development, incremental use of the road area for consumptive purposes, and cumulative effects from all these factors have been and are currently significantly impacting Tahltan Rights and Title in our traditional territory in British Columbia.*

11.0 CLOSING

Key updates to this section:

This closing statement is revised to reflect the Project's progress through the regulatory environmental assessment process and the changed purpose of the Detailed Project Description.

The Revitalization Project will restart mining at the past producing Eskay Creek Mine, making use of facilities and infrastructure of the former mine and existing areas of disturbance, and include expansion in size to support construction of new infrastructure. The Project will provide employment, contracting and other economic benefits to Indigenous Groups and communities in northwest BC, as well as other the parts of the province and Canada, for 13 to 15 years, while mitigating potential impacts to the human, physical and biological environments.

Skeena Resources appreciates the feedback and ongoing engagement with Indigenous Peoples and Nations, regulators, the public, and interested parties through the Early Engagement period so that issues, regulatory process, and interests can be understood, and analysis can be appropriately scoped for the next phases of the Project. Collaboration with the Tahltan Nation to address their requirements and engagement with the potentially affected Nations and Peoples to understand interests and issues will help Skeena Resources to advance the Project.

The July 2021 IPD provided an early design of the Project as a basis for engagement with regulators, agencies, Indigenous Peoples, and the public. This DPD updates the IPD using recent engineering studies, feedback from engagement with a range of parties on interests and concerns, and better definition of information requirements to incorporate Tahltan values and assessment steps. Adjustments in scale and size of components to accommodate waste quantities using updated geochemical understanding, mine life, higher throughput and an updated mine plan have helped to better define the Project, its potential interactions, and effects, and resulting mitigation approaches. The DPD addresses the requirements of the provincial and federal environmental assessment processes under EAA and IAA. Skeena Resources continues to work with the Indigenous Peoples and Nations to understand their concerns and potential impacts, as well as ways to mitigate and manage outcomes. Skeena Resources will continue to engage to further evaluate and shape the Project design and the development of the EAC Application.

12.0 REFERENCES

Key updates to this section:

This list is re-organized to separate legislation and regulations from other sources of information and updated to provide additional sources for revised text.

Legislation and Regulations

Canadian Environmental Protection Act, 1999, SC 1999, c. 33.

Climate Change Accountability Act, SBC 2007, c.42.

Constitution Act, 1982.

Dam Safety Regulation, BC Reg. 40/2016.

Declaration on the Rights of Indigenous Peoples Act, SBC 2019, c 44.

Environmental Assessment Act, SBC 2018, c 51.

Environmental Management Act, SBC 2003, c. 53.

First Nations Land Management Act, SC 1999, c 24.

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International Boundary Waters Treaty Act, RSC 1985, C.I-17.

Metal and Diamond Mining Effluent Regulations, SOR/2002-222.

Mine Development Assessment Act, SBC 1990, c 55.

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Appendices

Appendix A-1: Concordance Table with Provincial *Environmental Assessment Act* Guidelines

The following concordance table contains items from the EAO's *Early Engagement Policy* guidelines for an Initial Project Description (IPD) updated with the relevant additional information required in the guidelines for a Detailed Project Description (DPD), which appear in shaded rows. The requirement to include updates to information found in the IPD, together with information on how engagement was considered (if applicable) applies to every item in this table.

Detailed Project Description Guidelines*	Section
Executive Summary	
A plain language summary of the DPD that is clear and concise.	Executive Summary
General Information and Contacts	
• Project name;	1.0
• Project location;	1.0, 3.2
• Project industrial sector and type (e.g., open pit metal mine);	1.0
• Proponent name, mailing address, phone numbers, email address and website URL; and	2.0
• Include the name and contact information of the primary representative for the EA.	2.0, 11
• Anticipated cost for construction and decommissioning as well as projected annual operating costs.	3.1
Purpose and Rationale	
• A general rationale for why the project has been proposed; and	3.1
• Potential project benefits.	3.1
Legislative and Regulatory Context	
• The type and size of the project, with specific reference to EA Regulatory Triggers [e.g., the EAO Reviewable Project Regulations and *Impact Assessment Act* (Canada) thresholds];	Table 4.1-2, 5.2
• A list of anticipated authorizations and permits;	5.3
• Consider the requirements of any applicable agreements between the Province and Indigenous nations, including treaties;	5.4, 5.5
• Consider the requirements of any applicable international agreements between the Province and state or federal governments;	5.5
• A description of relevant government policies that the project may not be compatible with; and	5.3
• Proposed timing for conducting the provincial EA and federal EA, if applicable.	5.2

Detailed Project Description Guidelines*	Section
Project Status and History	
• Project history, including past ownership;	3.3
• State if it is a new project or a modification to an existing project;	1.0
• A list of any existing permits or tenure in place;	3.2, 3.4
• Include any previous changes in ownership, if applicable;	3.3, 5.2.1
• A description of any previous proposal(s) for the project or a similar proposal and the outcomes and history of the proposal(s), if applicable; and	3.3
• If the project was previously declined or terminated, a description of how this proposal differs and how the issues for which the previous proposal was declined or terminated have been addressed.	n/a
Project Timing	
• A list of proposed project phases (e.g., construction, operation, decommissioning, and reclamation) and the anticipated timing and duration of each phase, including a justification for any updates/changes to project timing and a description of how engagement was considered.	4.2, 4.3
• Include any known seasonal timing constraints.	5.2.2
• Any updates to information in the IPD, including a justification for any updates/changes to project timing and a description of how engagement was considered.	Key Updates are presented at the start of each section
• A list of timelines for the proposed Project's EA and permitting processes and expected timing to submit key permit applications.	5.2
Project Location, Activities and Components	
• A description of the proposed project's location in a local and regional context, including proximity to communities or locations of interest to the public, government, or Indigenous nations, and key designated or protected areas such as parks or Wildlife Habitat Areas, and including a justification for any updates/changes to the project location, activities and/or components, and a description of how engagement was considered;	3.2, 6.0, 7.0
• Proposed project activities and components;	4.1, 4.2
• Proposed on and off-site facilities and equipment;	4.2
• A brief description of proposed activities related to processing, transportation and/or shipping of materials to/from the site;	4.2.1
• A description of any other project(s) that are needed for the proposed project to proceed and be feasible (e.g., a pipeline would be needed for an oil and gas facility to proceed);	4.2
• A description of the work that has been conducted to arrive at the proposed project as described in the DPD;	4.2
• A list of design or siting constraints that are flexible and those that are not flexible;	4.4
• A list of other design or siting options that may be considered;	4.4

Detailed Project Description Guidelines*	Section
Project Location, Activities and Components (*cont'd*)	
• Anticipated daily and annual maximum production or operational capacity of the project (if applicable);	4.2
• Include what further information, if any, is needed to confirm design and siting options, and approximate timelines; and	4.7, 4.8
• A description of the work that has been conducted to arrive at the proposal, including what other options were considered and how engagement was considered.	4.1, 4.7, 4.8
Indigenous Nation Interests	
• A description of the proximity of the proposed project to Indigenous nations' territory, communities, locations of interest, *Indian Act* reserve lands, lands subject to a Treaty, or other relevant agreements, including a justification for updates/changes and a description of how engagement was considered;	3.2, 7.0, Table 3.2-1
• A description of potential project interactions with any identified Indigenous interests;	10.0
• A description of alignment of the DPD with Indigenous nation laws, customs and policies; and	1.2, 5.1, 5.4, 6.1.4, 7.0
• A list of any issues, concerns, or questions raised by Indigenous nations during engagement on the draft DPD or other information shared in relation to the proposed project.	6.0, 7.0
• Any updates to information in the IPD, including a justification for updates/changes and a description of how engagement was considered;	6.0, 7.0
• For each Indigenous Nation identified, an overview of engagement activities that have been carried out, a description of issues that have been raised with respect to the proposed project, and an explanation of how those issues have been or will be addressed by the proponent;	6.0, 7.0 Appendices C to F
• A description of how Indigenous Nations plan to work with the proponent moving forward;	6.0
• A list of agreements the proponent has entered into with Indigenous Nations during Early Engagement;	6.0
• A description of opportunities for the proponent to work with the EAO and Indigenous Nations;	6.0
• Additional information provided by participating Indigenous Nations;	6.0, 7.0, 10.2.1
• An identification of potential effects on Indigenous interests;	7.0, 10.0
• A description of how this engagement and information was considered in the DPD, and corresponding changes that were made with justification for these changes; and	1.2, 4.1, 6.0, 7.0, Table 10-2, Appendix I
• A description of how information contained in the EAO's Summary of Engagement provided by the EAO was addressed in the DPD.	1.2 Appendix I

Detailed Project Description Guidelines*	Section
Biophysical Environment	
• A description of the natural setting characteristics, including coastal, foreshore, riparian, mountainous, watersheds, and agricultural land;	8.1, 8.2
• A description of disturbed area characteristics, including: brownfield, contaminated site(s), and any history of development;	Table 4.1-2, Table 5.1-2
• Identification of sensitive or vulnerable species, ecosystems, and/or habitats in the Project area;	8.2
• A list of existing data, including monitoring reports, previous EAs, regional studies, and/or other sources of information that support the understanding of the existing biophysical conditions;	3.3 Appendix B
• Any updates to information in the IPD, including a justification for updates/changes and a description of how engagement was considered;	Key Updates are presented at the start of each section
• Include a table listing any studies that are underway and those that are anticipated, including known guidance and standards to be used in these studies;	Table 8-1
• A description of engagement that occurred following acceptance of the IPD and Engagement Plan, including any additional information collected during this period on sensitive or vulnerable environmental values that may be affected by the proposed project and any further understanding of the potential effects of the project, including cumulative effects;	6.0, Table 10-2, 10.2.1 Appendices C to H
• A description of future methods of information collection that will occur through continuing engagement;	6.0
• A description of Indigenous Knowledge that may have been incorporated into the description of existing biophysical environment, with permission of the Indigenous Nation; and	6.1, 10.2.1
• A description of how this engagement and information was considered, and corresponding changes that were made with justification for these changes.	1.2, 6.0, 7.0, Table 10-2, Appendix I
Human and Community Well-being	
• Any updates to information in the IPD, including a justification for updates/changes and a description of how engagement was considered;	Key Updates are presented at the start of each section
• A description of the proposed project's proximity to local communities, including seasonal or temporary residences;	8.3
• Identification of the municipalities within which the proposed project is located or where effects may occur;	8.3
• A description of the proposed project's proximity to important or sensitive community and natural places such as: municipal boundaries, parks, schools, hospitals, housing, water supplies, roads, railways, and protected and recreational areas;	8.3

Detailed Project Description Guidelines*	Section
Human and Community Well-being (*cont'd*)	
• A list of existing data, including monitoring reports, previous EAs, regional studies, and/or other sources of information that support the understanding of the existing human environment conditions;	8.3.1
• Identification of any sensitive or vulnerable economic, social, heritage, or health values that may be affected by the project;	8.3
• An outline of the anticipated number of construction and operating jobs and anticipated percent of workforce from local community;	4.3, Table 4.3-1
• A description of how the proposed project may affect the local and regional economy;	8.3.5, Table 10-2
• A description of the engagement that occurred following acceptance of the IPD and Engagement Plan and any additional information collected during this period regarding sensitive or vulnerable economic, social, heritage, or health values that may be affected by the proposed project; and	6.0, Table 10-2, Appendices C to H
• A description of how this engagement and information was considered, and corresponding changes that were made with justification for these changes.	1.3, 6.0, 7.0, Table 10-2
Emissions, Discharges, and Waste	
• A high-level outline of anticipated direct project waste and emissions to land, air, and water, including estimated greenhouse gas (GHG) emissions;	4.5
• This information would include direct emissions that are expected to be above provincial or national standards and emissions that have the potential to interact with Indigenous interests, the biophysical environment, and/or the human environment;	4.5
• Any updates to information in the IPD, including a justification for updates or changes and a description of how engagement was considered;	Key Updates are presented at the start of each section
• An estimate of direct and indirect project GHG emissions by phase;	4.5.1
• A description of proposed mitigation measures and/or project design changes to address emissions, including GHGs;	4.6, 10
• A description of the potential effects on the province being able to meet its targets under the *Greenhouse Gas Reduction Targets Act*; and	4.5.1
• A justification for updates or changes to expected emissions, effluents, discharges and/or wastes and a description of how engagement was considered.	4.5
Public and Environmental Safety	
• Any updates to information in the IPD, including a justification for updates/changes and a description of how engagement was considered;	Section 8.0 and Key Updates are presented at the start of each section
• A description of potential malfunctions or accidents associated with the industry or specific to the proposed project and how they will be managed;	8.3.7

Detailed Project Description Guidelines*	Section
Public and Environmental Safety (*cont'd*)	
• Include any proposed outreach to help Indigenous nations, governments and the public better understand the risks and mitigations;	8.3.7
• Include any issues raised about public and environmental safety during engagement with Indigenous nations, the public, provincial and federal government agencies, and stakeholders and how issues were considered in developing any mitigation measures or design changes;	6.0, 7.0
• Include a description of potential project-related scenarios when there is a real or perceived risk of a malfunction or accident; and	8.3.7
• Identification of moderate- to high-risk potential malfunctions or accidents associated with the proposed project and how they will be managed. Refer to risk disclosure standards and provincial risk management policy, including the Risk Management Guideline for the BC Public Sector (Province of British Columbia Risk Management Branch and Government Security Office, April 2019).	8.3.7
Alternative Means of Carrying out the Project	
• A high-level description of the alternative options for the proposed project, including a rationale for the preferred option that demonstrates how positive and negative effects and/or issues raised during engagement have been considered;	4.8
• Any updates to information in the IPD, including a justification for updates/changes and a description of how engagement was considered.	Key Updates are presented at the start of each section
• The alternative means of undertaking the proposed project may include information related to: ▪ the use of best available technologies; ▪ the technical and economic feasibility; ▪ the potential effects, risks and uncertainties of those alternatives; ▪ the preferred option and a rationale for this preference; and ▪ the different options for the project location, project routing, technologies, mitigation, or design; and	4.8
• Provide clear definitions with transparent weighting and criteria for assessing alternative means.	4.8
Effects of the Environment on the Project	
• An overview of potential effects of natural hazards or processes and climate change on the proposed project.	9.0
• Any updates to information in the IPD, including a justification for updates/changes and a description of how engagement was considered.	Section 9 and Key Updates are presented at the start of each section
• A justification for updates/changes to potential effects and a description of how engagement was considered, especially Indigenous knowledge and local knowledge gathered during Early Engagement.	

Detailed Project Description Guidelines*	Section
Land and Water Use	
• Any updates to information in the IPD, including a justification for updates/changes and a description of how engagement was considered;	Key Updates are presented at the start of each section
• An outline of the anticipated project footprint and proposed area of disturbance;	4.2
• A description of the land required for the proposed project, including whether the project is located on private lands, provincial or federal Crown lands, or Indian Reserve lands;	3.2
• Include the applicable zoning, Agriculture Land Reserve designation, land and resource management plans, and other land use designations (e.g., parks and protected areas) and the legal land descriptions and/or tenure numbers of those lands, if known;	3.2, 8.3
• A description of past uses of the land required for the proposed project, including whether the site has been previously developed;	3.3
• A description of water requirements for the proposed project, if applicable, and the proposed source of water;	4.1.6
• Identification of the location of previously disturbed site or green field site, agricultural land, foreshore;	3.2
• Legal information regarding land title, authorization, permits;	3.3, 3.4
• Identification of the proximity to seasonal or temporary residences;	8.3.2
• Description of the relationship to known regional initiatives (e.g., Elk Valley Water Quality Plan or Indigenous land use plans); and	8.3.1
• A description of project land and water use following engagement clearly noting any changes and a justification for why changes were made and how engagement was considered.	1.3, 4.1, 4.2.7
Land Use Plans	
• A list of all relevant land use plans, including provincial land use plans, Indigenous land use plans, and relevant municipal plans;	8.3.1
• An identification of any rezoning or changes in land designations that would be required for the proposed project;	8.3.1
• Any updates to information in the IPD, including a justification for updates/changes and a description of how engagement was considered; and	N/A
• A justification for updates/changes to relevant provincial land use plans and a description of how engagement was considered.	N/A

Detailed Project Description Guidelines*	Section
Potential Project Effects	
• Any updates to information in the IPD, including a justification for updates/changes and a description of how engagement was considered;	Table 10-2, Section 10.1.1 and Key Updates are presented at the start of each section
• A description of potential interactions between the proposed project and the biophysical and human environments, including Indigenous interests. It may be helpful to present this information in a table format, refer to the Effects Assessment Policy for examples of interaction tables;	Table 10-1
• A summary of any biophysical feasibility studies undertaken that may be pertinent to understanding potential interactions, if applicable;	8.0 Table 8-1
• A list of any activities proposed to be undertaken during the Early Engagement period to inform the development of the DPD or the Application, should the project proceed to an EA;	6.0, 7.0
• A description of potential positive and negative effects of the project and on the biophysical and human environments, including any potential cumulative effects;	8.0, 9.0 Table 10-1 Table 10-2
• An identification of existing cumulative effects in the region that the project may interact with;	10.2
• A summary of key conclusions from any biophysical feasibility study undertaken that may be understanding potential interactions, if applicable;	8.2
• An initial description of measures to prevent or reduce the potential negative effects to an acceptable level. Include measures that could be integrated into project design, compliance with applicable regulations, standards, codes of practice, or Best Management Practices, corporate management systems, and/or project-specific measures that will be implemented; and	10.0
• A brief description of proposed monitoring programs, if known, that will be implemented to measure the effectiveness of mitigations to prevent or reduce the potential negative project effects.	Table 10-2
Maps and Shapefiles	
• Local and regional scale maps of the project showing its location and known off-site components;	Figures 1, 3.3-1, 4.2-1
• Shapefiles of the proposed project footprint and the footprint of known offsite components:	Separate File
▪ Shapefiles must be in ESRI format and include four file types:.shp,.shx,.dbf, and.prj;	
▪ Please also provide KMZ files;	
▪ Shapefiles must be in BC Albers (NAD83) projection;	
▪ Shapefile polygons and their corresponding polygons on all maps must be identical in shape, size, and location;	
▪ Spatial features (.shp and.shx) must be represented as polygons, not as points or line features;	
▪ Shapefiles must be named in a way that clearly describes the contents;	

Detailed Project Description Guidelines*	Section
Maps and Shapefiles (*cont'd*)	
▪ To avoid having ArcGIS generate random errors, follow these best practices: avoid starting names by number, add an underscore instead of a space or dash, and do not include a symbol outside of the underscore; and	
▪ Provide shapefiles demonstrating the overlap of known project components with any identified communities or locations of interest to the public. This may include information regarding specific sites of importance to an Indigenous nation or their territory, if this information is not confidential in nature and an Indigenous nation has agreed to allow the information to be shared;	
• Maps must be presented in the required standard format with legible grids and suitable scaling (typically 1:100,000 to 1:150,000 for centralized projects such as a mine, and up to 1:1,500,000 or 1:1,250,000 scale for linear projects such as a pipeline or transmission line);	All maps
• Maps must also include a national Topographic System (NTS) Map number, latitude and longitude references, titles, a north arrow, and relevant legends; and	All maps
• When known, include landscape features of importance to Indigenous Nations and local communities in maps.	7.0

* Shaded rows indicate new or expanded requirements specific to the DPD per EAO guidance (EAO 2020).

Appendix A-2: Concordance Table with Federal *Impact Assessment Act* Guidelines

The following concordance table contains items from the IAAC's *Guide to Preparing an Initial Project Description and a Detailed Project Description*, with requirements for the Initial Project Description (IPD) updated with the relevant additional information required in the guidelines for a Detailed Project Description (DPD), which appear in shaded rows. For the most part, the requirements for the IPD and DPD are identical; the major additional requirement—to update the information given in the IPD relating to any aspects of the Project design that Skeena Resources is now considering, and to incorporate Skeena Resources' responses to issues raised during engagement activities, where relevant—is considered to apply to every item in this table.

Impact Assessment Agency*	Section
General Information	
• The project's name, type or sector and proposed location.	1.0
• The proponent's name and contact information and the name and contact information of their primary representative for the purpose of the description of the project.	2.0
• A summary of and the results of any engagement undertaken with any jurisdictions or other party, including a description of how the proponent intends to address the issues raised in the JSOIE.	1.2, 6.0, 7.0, Appendices C to I
• A summary of and the results of any engagement undertaken with Indigenous peoples of Canada, including: a list of the Indigenous groups that may be affected by the project, including those groups that identified themselves during the planning phase as being potentially affected; and a description of how the proponent intends to address the issues raised, including the perspective of Indigenous groups regarding any potential adverse impact that the project may have on the rights of the Indigenous peoples of Canada recognized and affirmed by section 35 of the *Constitution Act,1982*.	1.2, 5.1, 6.0, 7.0, Appendices C to I
• Any study or plan, relevant to the project, that is being or has been conducted in respect of the region where the project is to be carried out, including a regional assessment that is being or has been carried out under section 92 or 93 of the Act or by any jurisdiction, including by or on behalf of an Indigenous governing body, if the study or plan is available to the public.	8.3.1, Table 8-1
• Any strategic assessment, relevant to the project, that is being or has been carried out under section 95 of the Act.	Table 5.3-2
Project Information	
• An updated statement of the purpose of and need for the project, including any potential benefits.	3.1
• The provisions in the schedule to the Physical Activities Regulations describing the project, in whole or in part.	5.2, Table 5.2-1
• A description of all activities, infrastructure, permanent or temporary structures and physical works to be included in and associated with the construction, operation, decommissioning of the project, including their purpose, size and capacity.	4.1, 4.2, 4.3
• An estimate of the maximum production capacity of the project and a description of the production processes to be used.	1.0, 4.1, 4.2

Impact Assessment Agency*	Section
Project Information (*cont'd*)	
• The anticipated schedule for the project's construction, operation, decommissioning and abandonment, including any expansions of the project.	4.2, 4.3, Table 5.2-2
• A description of: ▪ alternative means of carrying out the project that the proponent is considering and that are technically and economically feasible, including through the use of best available technologies; and ▪ alternatives to the project that the proponent is considering and that are technically and economically feasible and directly related to the project.	4.7, 4.8
Location Information	
Description of the project's proposed location, including:	
• its proposed geographic coordinates, including, for linear development projects, the proposed locations of major ancillary facilities that are integral to the project and a description of the spatial boundaries of the proposed study corridor;	3.2
• site maps produced at an appropriate scale in order to determine the project's proposed general location and the spatial relationship of the project components;	Figures 1-1, 3.3-1, 4.1-1, 4.1-2, and 4.1-6
• the legal description of land to be used for the project, including, if the land has already been acquired, the title, deed or document and any authorization relating to a water lot;	3.2, Figure 3.2-1
• the project's proximity to any permanent, seasonal, or temporary residences and to the nearest affected communities;	3.2, 8.3
• the project's proximity to land used for traditional purposes by Indigenous peoples of Canada, land in a *reserve* as defined in subsection 2(1) of the *Indian Act*, *First Nation land* as defined in subsection 2(1) of the *First Nations Land Management Act*, land that is subject to a comprehensive land claim agreement or a self-government agreement and any other land set aside for the use and benefit of Indigenous peoples of Canada;	3.2, 6.0, 7.0, 8.3.1, 8.3.5,
• the project's proximity to any federal lands;	3.2, Table 3.2-1
• a description of the physical and biological environment of the project's location, based on information that is available to the public; and	8.1, 8.2
• a description of the health, social and economic context in the region where the project is located, based on information that is available to the public or derived from any engagement undertaken.	8.3
Federal, Provincial, Territorial, Indigenous and Municipal Involvement	
• A description of any financial support that federal authorities are, or may be, providing to the project.	3.0
• A list of any federal lands that may be used for the purpose of carrying out the project.	3.2
• A list of the permits, licenses, or other authorizations that may be required by jurisdictions that have powers, duties, or functions in relation to an assessment of the project's environmental effects.	5.0

Impact Assessment Agency*	Section
Potential Effects of the Project	
• A description of any changes that, as a result of the carrying out of the project, may be caused to the following components of the environment that are within the legislative authority of Parliament:	Table 10-1, Table 10-2
▪ fish and fish habitat, as defined in subsection 2(1) of the *Fisheries Act*;	Table 10-1, Table 10-2
▪ aquatic species, as defined in subsection 2(1) of the *Species at Risk Act*; and	Table 10-1, Table 10-2
▪ migratory birds, as defined in subsection 2(1) of the *Migratory Birds Convention Act, 1994*.	Table 10-2
• A description of any changes to the environment that, as a result of the carrying out of the project, may occur on federal lands, in a province other than the province in which the project is proposed to be carried out or outside Canada.	Section 10, Table 10-2
• With respect to the Indigenous peoples of Canada, a description of the impact — that, as a result of the carrying out of the project, may occur in Canada and result from any change to the environment — on physical and cultural heritage, the current use of lands and resources for traditional purposes and any structure, site or thing that is of historical, archaeological, paleontological or architectural significance, based on information that is available to the public or derived from any engagement undertaken with Indigenous peoples of Canada.	6.0, 7.0, Table 10-1, Table 10-2, 10.2
• A description of any change that, as a result of the carrying out of the project, may occur in Canada to the health, social or economic conditions of Indigenous peoples of Canada, based on information that is available to the public or derived from any engagement undertaken with Indigenous peoples of Canada.	6.0, 7.0, Table 10-1, Table 10-2, 10.2
• An estimate of any greenhouse gas emissions associated with the project.	4.5.1
• A description of the types of waste and emissions that are likely to be generated — in the air, in or on water and in or on land — during any phase of the project and a description of the plan to manage them.	4.5
Summary	
• A plain language summary of the information that is required in English and in French (to be included with final DPD submission).	Executive Summary

* Shaded rows indicate new or expanded requirements specific to the DPD, per IAAC guidance (IAAC 2020).

Appendix B: List of Environmental and Human Environment Data Sources

Data sources for the Eskay Creek Project are provided below. The preliminary lists will be added to as additional information is provided and will be updated as further baseline data is collected in the field and though engagement with Indigenous Peoples, stakeholders, and regulators.

Environment

AMEC Foster Wheeler (AMEC). 2017. *Eskay Creek Mine: Laboratory Kinetic Testing Update 2017*: report prepared by AMEC Foster Wheeler Environment and Infrastructure.

Ausenco Engineering Canada Inc. (Ausenco). 2019. Skeena Resources Limited. Eskay Creek Project, BC, Canada. *NI 43-101 Technical Report on Preliminary Economic Assessment.*

Barrick Gold Corporation (Barrick). 2014a. *Eskay Creek Gold Mine Site (closed) Tom MacKay Lake Tailings Storage Facility Dam Safety Inspection Report.* Barrick Gold Corporation.

Barrick. 2014b. *Eskay Creek Gold Mine Site (closed) Albino Lake Waste Rock Storage Facility Dam Safety Inspection Report.* Barrick Gold Corporation.

Barrick. 2017. *2016 Annual Reclamation Report Eskay Creek Mine Permit M-197*. Barrick Gold Inc. Eskay Creek.

Barrick. 2019. *2018 Annual Reclamation Report Eskay Creek Mine Permit M-197.* Barrick Gold Inc. Eskay Creek.

Environment Canada. *2013. Climate Data Online. Canada's National Climate Archive.* http://www.climate.weatheroffice.gc.ca/climateData/canada_e.html (accessed November 2019).

Golder Associates Ltd. 1998. *Hydrogeological Characterisation and Mine Water Inflow and Control.* Eskay Creek Mine. Dated September 1998.

Government of BC. 1988. *Biogeoclimatic zones of British Columbia, 1988. Map, 1:2,000,000.*

Government of BC. 2019. *Caribou in British Columbia.* https://governmentofbc.maps.arcgis.com/apps/MapSeries/index.html?appid=60eef687ed3a44a1881b1b79e47c7f41 (accessed November 2019).

Hallam Knight Piésold Ltd. (HKP). *1993. Application for a Mine Development Certificate, Eskay Creek Project.*

Hemmera Envirochem Inc. (Hemmera). 1997. Eskay Creek Mine Mill Expansion an Application for the Approval of a Material Alteration to Eskay Creek Mine: Mine Development Certificate 94-01 and Amendments to Existing Permits.

Hemmera. 2000. Tom MacKay Lake Waste Rock and Tailings Project (Environmental Assessment) Eskay Creek Mine.

Lifeways of Canada Limited. 2021. *Fossil Impact Assessment Preliminary Study (DRAFT)*. Eskay Creek Project. Prepared for Skeena Resources Ltd.

McGurk, M., F. Landry, and R. MacGillivray. 2006. *Eskay Creek Mine environmental effects monitoring program and its implications for closure planning.* British Columbia Technical and Research Committee on Reclamation, Proceedings of the Thirtieth Annual British Columbia Mine Reclamation Symposium, Smithers, BC, 19-22 June 2006. Bitech Publishers Ltd.

Meidinger, D. and J. Pojar. 1991: *Ecosystems of British Columbia, BC Ministry of Forests Research Branch, Special Report Series; no. 6.* Victoria, B.C. 330 pp.

RTEC. 2020a. *Eskay Creek Project Air Quality Baseline Report (DRAFT)*. Eskay Creek Project. Prepared for Skeena Resources Ltd.

RTEC. 2020b. *Eskay Creek Project 2020 Baseline Report Interim Report for Skeena Resources' HCA Permit 2020-0195.* Eskay Creek Project. Prepared for Skeena Resources Ltd.

RTEC. 2020c. *Eskay Creek Project 2020 Soil Classification Report (DRAFT).* Eskay Creek Project. Prepared for Skeena Resources Ltd.

RTEC. 2021a. *Eskay Creek Project Cumulative Aquatic Resources Baseline, 1991 to 2020 (DRAFT).* Eskay Creek Project. Prepared for Skeena Resources Ltd.

RTEC. 2021b. *Eskay Creek Project 2020 Fish and Fish Habitat Baseline Study (DRAFT)*. Eskay Creek Project. Prepared for Skeena Resources Ltd.

RTEC. 2021c. *Eskay Creek Project 2020 Groundwater Monitoring Network Installation (DRAFT).* Eskay Creek Project. Prepared for Skeena Resources Ltd.

RTEC. 2021d. *Eskay Creek Project 2020 Hydrology Baseline Report (DRAFT)*. Eskay Creek Project. Prepared for Skeena Resources Ltd.

RTEC. 2021e. *Eskay Creek Project 2020 Noise Baseline Report (DRAFT).* Eskay Creek Project. Prepared for Skeena Resources Ltd.

RTEC. 2021f. *Eskay Creek Project 2020 Terrain Stability and Geohazards Mapping (DRAFT)*. Eskay Creek Project. Prepared for Skeena Resources Ltd.

RTEC. 2021g. *Eskay Creek Project 2020 Vegetation and Ecosystems Mapping Baseline Report (DRAFT).* Eskay Creek Project. Prepared for Skeena Resources Ltd.

RTEC. 2021h. *Eskay Creek Project 2020 Surface Water Quality Cumulative Baseline, 1990 to 2020 (DRAFT).* Eskay Creek Project. Prepared for Skeena Resources Ltd.

RTEC. 2021i. *Eskay Creek Project 2020 Wildlife Baseline Report (DRAFT).* Eskay Creek Project. Prepared for Skeena Resources Ltd.

RTEC. 2021j. *Eskay Creek Revitalization Project: Evidence of Fish Absence* (Memo). Prepared for Skeena Resources Ltd. June 14, 2021.

SRK Consulting (SRK). 2019. *Independent Technical Report for Eskay Creek Au-Ag Project, Canada. 01 November 2018*. Final Report. https://www.skeenaresources.com/assets/docs/maps/Eskay%20Creek_NI43-101%20Report_2CS042.001_20181101.pdf (accessed August 2019).

Human Environment

Ausenco Engineering Canada Inc. (Ausenco). 2019. Skeena Resources Limited. Eskay Creek Project, BC, Canada. *NI 43-101 Technical Report on Preliminary Economic Assessment.*

Falkirk. n.d. *Tahltan Country Foods Baseline Report* (draft). Prepared by Falkirk Environmental Consultants Ltd. For Skeena Resources.

Hallam Knight Piésold Ltd (HKP). 1993: *Application for a Mine Development Certificate, Eskay Creek Project.*

Hemmera Envirochem Inc. (Hemmera). 1997. Eskay Creek Mine Mill Expansion an Application for the Approval of a Material Alteration to Eskay Creek Mine: Mine Development Certificate 94-01 and Amendments to Existing Permits.

Hemmera. 2000. *Tom MacKay Lake Waste Rock and Tailings Project* (Environmental Assessment) Eskay Creek Mine.

Ministry of Small Business and Economic Development (MSBEC). 2005. Northwest BC Mining Projects. Socio Economic Impact Assessment. http://www.llbc.leg.bc.ca/public/PubDocs/bcdocs/379509/socio_econ_impact_asses.pdf (accessed August 2019).

Pretium Resources Inc. 2014a. *Brucejack Gold Mine Project, Application for an Environmental Assessment Certificate.* Appendix 19-A: Brucejack Gold Mine Project: Socio-economic Baseline Report. https://projects.eao.gov.bc.ca/api/public/document/5886900fe036fb01057688f2/download/Appendix%2019-A.%20Socio-Economic%20Baseline.pdf (accessed February 2021).

Pretium Resources Inc. 2014b. *Brucejack Gold Mine Project, Application for an Environmental Assessment Certificate, Tsetsaut / Skii km Lax Ha Traditional Knowledge and Traditional Use Report.* https://projects.eao.gov.bc.ca/api/public/document/5886900de036fb01057688de/download/Appendix%2025-B.%20Tsetsaut%20Skii%20km%20Lax%20Ha%20TK-TU%20Report.pdf (accessed February 2021).

Rescan Tahltan Environmental Consultants. 2018. *Eskay Creek Project Archaeological Overview Assessment.*

Seabridge. 2013. *Application for an Environmental Assessment Certificate/ Environmental Impact Statement for the KSM Project.* Prepared by Rescan Environmental Services Ltd. for Seabridge Gold Inc., May 2013.

Tahltan Nation. 1910. *Tahltan Tribe Indigenous Title and Rights Declaration.* https://tahltan.org/central-government/ (accessed February 2020).

Appendix C: Summary of Skeena Resources Engagement with Tahltan Central Government Representatives and Membership

Date	Activity	Description
January 2018	In person meeting with TCG President and Chiefs of the Tahltan Band and Iskut First Nation and Skeena management in Vancouver	Signing of Skeena – Tahltan Communication Agreement (scope includes Eskay Creek).
February to June 2018	Presentation (March 9, 2018), emails, letters, phone calls with TCG President, Tahltan Band and Iskut First Nation Chiefs and Council, THREAT Project Manager and TCG Lands Director and Skeena	Engagement on Eskay Creek Multi-Year Area Based Exploration Permit.
May 2018	Email to THREAT Project Manager	Engagement on proposed Road Use Agreement for all road users using the Eskay Creek Mine Road from km 43.5 to km 54 (Area covered by Skeena Resources Special Use Permit).
June 2018	Email to THREAT Archaeological Representative	Invitation to comment on proposed Archaeological Field Assessments.
August 2018	Emails to TCG Lands Director	Notification of reportable spill (dry cement) and follow-up on questions on spill.
November 2018	Email to THREAT Project Manager	Transmittal of proposed 2019 capacity budgets for Tahltan involvement in the Eskay Creek Project.
January 2019	In person presentation by Skeena management to TCG President and Chiefs of the Tahltan Band and Iskut First Nation and Skeena management in Vancouver	Engagement on results of Skeena's 2018 exploration program, proposed 2019 program and results of social performance tracking of Tahltan participation in Skeena's projects.
February 2019	In person presentation by Skeena management to Tahltan leadership in Dease Lake	Engagement on results of 2018 exploration program, proposed 2019 exploration program, and activities at Eskay Creek.
February to April 2019	Email, in person meetings with THREAT Project Manager	Update on Eskay Creek PEA and metallurgy program.
June 2019	Emails, in person meeting with TCG Lands Director in Dease Lake	Engagement on proposed 2019 exploration program and *Mines Act* Notice of Work (NoW) amendment application.
July 2019	Email to THREAT Project Manager	Transmittal of PEA table of contents, including communication related to sections for THREAT review.
December 2019	Phone call with THREAT Project Manager	PEA, NoW, proposed baseline studies, and IPD discussed.

Date	Activity	Description
December 2019	Email to THREAT Project Manager	Transmittal of proposed 2020 capacity budgets for Tahltan involvement in the Eskay Creek Project.
December 2019	Email to THREAT Project Manager	Transmittal of Metallurgical section of PEA, followed by draft PEA later in month for review.
January 2020	In person presentation by Skeena management to TCG President and Chiefs of the Tahltan Band and Iskut First Nation in Vancouver	Presented PEA, 2019 exploration results and work from 2019, 2020 exploration program, social performance metrics relating to Tahltan participation in Skeena projects.
January 2020	In person meeting with Tahltan Nation Development Corporation Special Projects Manager Lead Mining Exploration and Skeena management and in Vancouver	Reviewed 2020 exploration program and discussed contract and employment opportunities.
February 2020	In person meeting with TCG THREAT Project Manager and Skeena VP Sustainability, Advisor Permitting, EA and Sustainability Coordinator	Discussed vision and objectives for EA review, reviewed current project layout and discussed project design principles, permitting strategy, and process for seeking Tahltan input on draft IPD.
February 2020	Email to TCG THREAT Project Manager	Project Description Overview of Eskay Creek to inform TK/TLU study to be undertaken by Tahltan.
March 2020	In person meeting with Skeena VP Sustainability, Advisor Permitting, Advisor EA and Sustainability Coordinator and TCG THREAT Project Manager in Vancouver	Continued discussion on collaborative approach for EA review including vision and objectives for future EA workshop where gaps in data and knowledge would be discussed, as well as how TK will be incorporated differently than it has in historical EAs; discussion of potential consultants for Social and economic study for EA and mentorship program for Tahltan students. Provided update on timeline of IPD.
March 2020	Phone meeting with Skeena VP Sustainability and Advisor Indigenous & External Affairs and TCG THREAT Project Manager	Reviewed proposed timelines for IPD and discussed draft EA Agreement, Tahltan TK/TLU study timing. Updates on EA workshop and Tahltan Mentorship Program provided.
March 2020	Video conference with Skeena Sustainability Team* and TCG THREAT Project Manager	Introductory meeting with EAO and Agency on the Eskay Creek Project.
April 2020	Video conference with THREAT team and Skeena Sustainability Team* Skeena Chief Operating Officer	Introductory meeting with THREAT team on Eskay Creek Project and discussion on EA process.
April 2020	Emails between TCG Tahltan Project Manager and Skeena Resources Advisor Indigenous & External Affairs	Transmittal of social and economic baseline proposal for Tahltan review and comment.
April to November 2020	Emails between TCG Lands Director, TCG Negotiator and TCG Communications Director and Skeena Advisor Indigenous & External Affairs	Regular updates to provide a summary of the numbers of non-Tahltan working the Territory and how Skeena is managing these personnel to prevent any transmission of COVID-19 to the Tahltan communities.

Date	Activity	Description
April to June 2020	Emails & calls with TNDC Lead Mining Exploration Services and Skeena Resources Exploration Manager	Provided updates on contracting opportunities at Eskay Creek.
May to June 2020	Emails & calls between TCG Employment Director and TCG Training Director and Skeena Advisor Indigenous & External Affairs and Tahltan Skeena Resources Engineering Intern	Discussed using Tahltan OnTrack Database to post Project employment opportunities.
May 6, 2020	Email to TCG THREAT Project Manager from Skeena Advisor Indigenous & External Affairs	Sent memo re potential options for approach to EA review.
May 26, 2020	Call with TCG Lands Department and Skeena Sustainability Team*	Discussed Eskay Notice of Work (NoW) exploration permit amendments.
June 8, 2020	Call with TCG Lands Department and Skeena VP Sustainability and Skeena Advisor Indigenous & External Affairs	Discussed additional amendments to Eskay Creek NoW.
June 24, 2020	Email to TCG THREAT Project Manager from Skeena Advisor Indigenous & External Affairs	Provided Tahltan/Skeena TK Protocol for signature.
July 3, 2020	Email to TCG THREAT Project Manager from Skeena Advisor Indigenous & External Affairs	Provided updated EA review memo and Eskay Permit Matrix for review and comment.
July 6, 2020	Email to TCG THREAT Project Manager from Skeena Advisor Indigenous & External Affairs	Provided draft IPD and draft EP for review and comment.
July 9, 2020	Email to TCG THREAT Project Manager from Skeena Archaeological Consultant	Provided Invitation to comment on updated AIA for Eskay Creek.
July 21, 2020	Call with TCG THREAT Project Manager and Skeena VP Sustainability and Skeena Advisor Indigenous & External Affairs	Discussed updated EA review memo and Eskay permit matrix. Reviewed updated Tahltan ESD Principles, request for proposal for social and economic work, and gap analysis on baseline work.
July 24,26 2020	Email to TCG THREAT Project Manager from Skeena Advisor Indigenous & External Affairs	Provided matrix for upcoming Alternatives Assessment for review and comment.
July 28, 2020	Call with TCG Lands Department and Skeena VP Sustainability and Skeena Advisor Indigenous & External Affairs	Confirmed meeting August 6 to discuss EA review memo and permit matrix. Several THREAT team members in field so unavailable to review IPD; would get comments to Skeena by mid-September.

Date	Activity	Description
July 30, 2020	Call with THREAT, Skeena Sustainability Team* and Skeena consultants	Alternative Assessment Matrix Review
August 6, 2020	Call with THREAT, Skeena Sustainability Team*	Discussed EA review memo and Skeena rankings and ranking system. Additional option proposed for memo.
August 11, 2020	Call with THREAT Project Manager and VP Sustainability and Skeena Advisor Indigenous & External Affairs	Discussed upcoming calls on Alternative Assessment and Gap Analysis. Update on Tahltan Mentorship Program.
August 25, 2020	Call with THREAT and Skeena Sustainability Team*	Review of Alternatives Assessment Matrix during which THREAT provide input as to specific areas of interest including: Water Management, Waste Rock & Tailings.
August 26, 2020	Call with THREAT and Skeena Sustainability Team*	Baseline gap review and discussion of specific areas of interest to Tahltan including: Wildlife/ Fish/Aquatics, social, economic, and socio-cultural.
September 8, 2020	Email to TCG THREAT Project Manager from Skeena Advisor Indigenous & External Affairs	Provided draft workplan for EA process for review and comment.
September 16, 2020	Call with THREAT Project Manager and VP Sustainability and Skeena Advisor Indigenous & External Affairs	Discussed EA review options; Skeena/Tahltan working groups to ensure Tahltan input through mine design; environmental technician roles at site and status of TLUS report.
September 17, 2020	Call with THREAT Project Manager and VP Sustainability and Skeena Advisor Indigenous & External Affairs, EAO and IAAC	Initiated discussions on whether existing MDC certificates were valid which led to discussion on amendment vs new EA. Skeena shared that they had been discussing with Tahltan the different potential approaches in the revised EA process.
September 22, 2020	Call with THREAT Project Manager and VP Sustainability and Skeena Advisor Indigenous & External Affairs	Confirmed working groups and THREAT members. Discussed EA review approach and when comments on IPD and EP may be received.
September 28, 2020	Email to TCG THREAT Project Manager from Skeena Advisor Indigenous & External Affairs	Provided more detailed EA workplan as well as updated RFP for Social and economic baseline work for comment and review.
September 29, 2020	Call with THREAT Project Manager and VP Sustainability and Skeena Advisor Indigenous & External Affairs	Detailed workplan review led to discussions re development of EA agreement for Eskay Project. Further discussion on EA review approach (amendment vs EA). Confirmation that latest version of Tahltan Environmental, Social Design Principles are adequate for now.
October 7, 2020	Email to TCG THREAT Project Manager from Skeena Advisor Indigenous & External Affairs	Copied on final version of RFP for Social and economic baseline work that went out to list agreed upon between THREAT and Skeena.

Date	Activity	Description
October 13, 2020	Call with THREAT Advisor and VP Sustainability and Skeena Advisor Indigenous & External Affairs	Discussion of agreements and associated workplans and EA review approach; as well as status of comments on IPD/EP, TLUS report and the Social and economic RFP.
October 20, 2020	Call with THREAT Advisor and VP Sustainability and Skeena Advisor Indigenous & External Affairs	Discussions continued on EA review approach, workplan and technical reports available for review relating to proposed power interconnections and early layout optimization. Noted EA manager role has been posted on Tahltan OnTrack system.
October 22, 2020	Email from TCG THREAT Project Manager from Skeena Advisor Indigenous & External Affairs	Transmittal of Tahltan TLUS report on Eskay Creek.
October 27, 2020	Call with THREAT Project Manager, THREAT Advisor and VP Sustainability and Skeena Advisor Indigenous & External Affairs	Discussion continued on EA review and also on discussion re proposals received for Social and economic baseline.
October 29, 2020	Email to TCG THREAT Project Manager from Skeena Advisor Indigenous & External Affairs	Details on Waste Rock and Tailings Working Group beginning next week and having Tahltan participation in the group.
November 3, 2020	Call with THREAT Project Manager and VP Sustainability and Skeena Advisor Indigenous & External Affairs	Discussion continued on EA review, Waste Rock and Tailings Working Group, agreement on award of contract for Social and economic baseline studies, and sharing of documents of interest related to Project Design.
November 3, 2020	Email from THREAT Project Manager to VP Sustainability and Skeena Advisor Indigenous & External Affairs	Outlining questions on draft IPD related to water management, including water quality.
November 17, 2020	Email from THREAT Project Manager to VP Sustainability and Skeena Advisor Indigenous & External Affairs	July 2020 draft IPD with tracked comments from THREAT.
November 17, 2020	Call with THREAT Project Manager and VP Sustainability and Skeena Advisor Indigenous & External Affairs	Discussion continued on EA review, THREAT comments on draft IPD, Waste Rock and Tailings Working Group and Water Working Group.
November 27, 2020	Email to TCG THREAT Project Manager from Skeena Advisor Indigenous & External Affairs	Provided updated draft of IPD and draft EP for review and comment.
December 2020	Multiple emails between VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs with THREAT Project Manager and Newcrest	Discussion re working on collection of Tahltan social baseline information together.
December 2020	Multiple emails between VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs with TCG Employment & Contracting Director	Discussions focused on contracts and employment at site in 2020 and 2021 work.

Date	Activity	Description
December 16, 2020	Call with 3 Nations COVID-19 EMC lead and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	Discussion re activities at Eskay Creek camps and how COVID-19 is being managed; active COVID-19 conversations/emails between Skeena and Tahltan EMCs for rest of December.
December 16, 2020	Call with THREAT Project Manager and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	Discussion continued on EA review, THREAT comments on draft IPD, Waste Rock and Tailings Working Group and Water Working Group.
January 2021	Multiple emails and participation on weekly Tahltan EMC/industry calls (started Jan 12, 2020) with Tahltan EMC leads and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	Continued discussions on management of COVID-19 and keeping people at site and Tahltan communities safe.
January 12, 2021	Call between VP Sustainability, Eskay Creek Mine Manager and Skeena Resources Advisor Indigenous & External Affairs with TCG Employment & Contracting Director	Discussions focused on contracts and employment at site in 2021.
January 12, 2021	Call with THREAT team members and Skeena to discuss baseline work, waste and water management	Discussion re baseline work planned for 2021, options reviewed for waste management and narrowing of options, overview of water oversight team and approach; scheduling of meeting to factor Tahltan design criteria into the options being reviewed.
January 14, 2021	Presentation to TCG executive, directors and family representatives	Update on Skeena Resources, 2020 work at site, Tahltan involvement at site and plans going forward.
January 19, 2021	Biweekly calls started between Advisor indigenous & External Affairs, THREAT Project Lead, TCG Communications Director and Newcrest	Discussion re collecting Tahltan social baseline info from the perspective of what metrics Tahltan would like to monitor and collaboration of what data required for Newcrest and Skeena as projects go forward.
January 19, 2021	Email from THREAT Project Manager to Skeena Advisor Indigenous & External Affairs	Included initial comments on IPD from THREAT member.
January 20, 2021	Call with THREAT Advisor and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	Discussion continued on EA review, THREAT comments on draft IPD, Waste Rock and Tailings Working Group and Water Working Group.
January 26, 2021	Call with THREAT and Skeena technical team	Walk through of Waste Management Options looked at; discussion re ML/ARD, location of facilities

Date	Activity	Description
February 2021	Multiple emails and participation on weekly Tahltan EMC/industry calls Tahltan EMC leads and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	Continued discussions on management of COVID-19 plans for rapid testing at site.
February 5, 2021	Call with THREAT Project Manager and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	Discussion focused on looking at how best to interact/engage/share information as the Project advances.
February 16, 2021	Call with THREAT Advisor and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	Tahltan shared working on Tahltan design criteria, including how Tahltan Knowledge would be applied to EAs.
February 24, 2021	Call with EAO/IAAC and THREAT advisor, Skeena Resources Advisor Indigenous & External Affairs & Sustainability Coordinator	Review of coordinated first 100 days of process once IPD submitted between IAAC and EAO.
March 2021	Biweekly calls started between Advisor indigenous & External Affairs, THREAT Project Lead, TCG Communications Director, TCG Membership & Genealogy Director and Newcrest Senior and Superintendent Community Relations	Discussion on collecting Tahltan social baseline info from the perspective of what metrics Tahltan would like to monitor and collaboration of what data required for Newcrest and Skeena as projects go forward.
	Calls with Newcrest, Advisor Indigenous & External Affairs, Skeena and Tahltan Key Informants	Discussion with key informants in Tahltan communities to inform information collected/studies in Social Baseline Project.
	Weekly Tahltan EMC/industry calls Tahltan EMC leads and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	Continued discussions on management of COVID-19 and keeping people at site and Tahltan communities safe.
March 2, 2021	Call with THREAT Advisor and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	Discussion re status of IPD/EP, meeting on February 24, 2021 re: first 100 days and baseline reports for review.
March 3, 2021	Email from Skeena Resources Advisor Indigenous & External Affairs to THREAT	Provided notification of new documents (mainly 2020 draft baseline reports) posted to SharePoint site for Tahltan review.
March 12, 2021	Call with TCG Lands Manager and TCG advisor, Coast Mountain Hydro and Advisor Indigenous & External Affairs and Skeena Permit & Compliance Manager	Review of renewal of km 32 quarry permit.
March 21, 2021	Email from Skeena Resources Advisor Indigenous and External Relations to THREAT Project Leader	Cultural Heritage Report sent to THREAT for review.

Date	Activity	Description
March 30, 2021	Emails from Skeena Resources Advisor Indigenous and External Relations to Tahltan Community Members	Interview requests sent to Tahltan Community members to contribute to Social Baseline Study.
April 2021	Weekly Tahltan EMC/industry calls Tahltan EMC leads and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	Continued discussions on management of COVID-19 and keeping people at site and Tahltan communities safe.
	Calls with Newcrest, Advisor Indigenous & External Affairs, Skeena and Tahltan Key Informants	Discussion with key informants in Tahltan communities to inform information collected/studies in Social Baseline Project.
	Biweekly calls started between Advisor indigenous & External Affairs, THREAT Project Lead, TCG Communications Director, TCG Membership & Genealogy Director, TCG Lead Socio-Cultural Working Group and Newcrest Senior and Superintendent Community Relations	Discussion on collecting Tahltan social baseline info from the perspective of what metrics Tahltan would like to monitor and collaboration of what data required for Newcrest and Skeena as projects go forward.
April 5, 2021	Email from Skeena Resources Advisor Indigenous & External Affairs to THREAT Project Lead	2020 Reclamation Reports for Eskay provided to THREAT advisors.
April 7, 2021	Email from Skeena Resources EA Manager to THREAT Project LEAD, EAO/IAAC representatives	Providing Traffic Memo for the Eskay Creek Revitalization to THREAT for review.
April 19, 2021	Virtual Meeting with Skeena Resources Sustainability Team and THREAT Representatives	Meeting discussing Complex Amendment and federal IA stage.
April 29, 2021	Virtual Meeting with Skeena Resources Advisor Permitting and Compliance and TCG Advisors	Provided update on Eskay Creek Mine Lease Renewals.
April 30, 2021	Email from Skeena Resources EA Manager to THREAT Project Lead	Regarding the development of Biweekly THREAT and Skeena Technical workshops to increase meeting efficiency and communication.
May 2021	Virtual Biweekly THREAT/Skeena technical workshop (May 6th & May 20th)	Two half-day workshops held in May with presentations from Skeena Resources PFS team regarding project design, presentation from consultants regarding waste rock, tailings and water management, updates on 2021 workplans and various open discussions addressing THREAT questions and concerns.
	Calls with Newcrest, Advisor Indigenous & External Affairs, Skeena and Tahltan Key Informants	Discussion with key informants in Tahltan communities to inform information collected/studies in Social Baseline Project.

Date	Activity	Description
May 2021	Biweekly calls started between Advisor indigenous & External Affairs, THREAT Project Lead, TCG Communications Director, TCG Membership & Genealogy Director, TCG Lead Socio-Cultural Working Group and Newcrest Senior and Superintendent Community Relations	Discussion on collecting Tahltan social baseline info from the perspective of what metrics Tahltan would like to monitor and collaboration of what data required for Newcrest and Skeena as projects go forward.
	Biweekly call with THREAT Project Lead and advisor, Skeena Resources Advisor Indigenous & External Affairs & EA Manager & Sustainability Manager & Engagement Coordinator	Two biweekly update meetings hosted in May focused on providing THREAT schedules and documents, and requesting THREAT review and feedback.
	Biweekly Tahltan EMC/industry calls Tahltan EMC leads and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	EMC calls adjusted to biweekly frequency Continued discussions on management of COVID-19 and keeping people at site and Tahltan communities safe.
	Biweekly call with EAO/IAAC and THREAT advisor, Skeena Resources Advisor Indigenous & External Affairs & Sustainability Coordinator & Engagement Coordinator	Discussion regarding progress in complex amendment application and coordinating communication between Skeena, THREAT, and regulators.
May 14, 2021	Email from Skeena Resources Advisor to THREAT Project Lead	Providing THREAT Updated Mining Lease Application for feedback.
May 19, 2021	Posting to SharePoint from Skeena EA Manager to THREAT Lead and advisor	Multiple draft baseline reports for Tahltan review including: Air Quality, Noise, Fish & Fish Habitat, Hydrogeology Network, Terrain Stability.
May 26, 2021	Email from Skeena Resources Advisor and THREAT Project Lead	Email providing Draft of Skeena Resources 2021-2023 Annual Works Program.
May 27, 2021	Email from Skeena Resources Advisor Indigenous & External Affairs and THREAT Project Lead	Email regarding the development of a Secondment Agreement to allow a Skeena Resources Tahltan Mentee to also contribute work to Tahltan Stewardship Initiative.
June 2021	Virtual Biweekly THREAT/Skeena technical workshop	Two half-day workshops held in June with presentations from Skeena Resources PFS team presenting updates on project design, presentation from consultants regarding 2021 baseline studies and various open discussions addressing THREAT questions and concerns.
	Calls with Newcrest, Advisor Indigenous & External Affairs Skeena and Tahltan Key Informants	Discussion with key informants in Tahltan communities to inform information collected/studies in Social Baseline Project.

Date	Activity	Description
June 2021	Biweekly calls started between Advisor indigenous & External Affairs, THREAT Project Lead, TCG Communications Director, TCG Membership & Genealogy Director, TCG Lead Socio-Cultural Working Group and Newcrest Senior and Superintendent Community Relations	Discussion on collecting Tahltan social baseline info from the perspective of what metrics Tahltan would like to monitor and collaboration of what data required for Newcrest and Skeena as projects go forward.
	Biweekly Tahltan EMC/industry calls Tahltan EMC leads and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	EMC calls adjusted to biweekly frequency Continued discussions on management of COVID-19 and keeping people at site and Tahltan communities safe.
June 2, 2021	Posting to SharePoint from Skeena EA Manager to THREAT Lead and advisor	Soils draft baseline reports for Tahltan review.
June 10, 2021	Presentation from Skeena Resources VP Sustainability to Tahltan Leadership	Update on Skeena Resources, 2021 work at site, Tahltan involvement at site and plans going forward.
June 23, 2021	Skeena Resources hosted virtual open house for Tahltan members	Virtual open house chaired by Skeena Resources VP Sustainability & Sustainability Manager & Engagement Coordinator to introduce project and address questions and concerns from Tahltan community members.
June 26, 2021	Skeena Resources hosted virtual open house for Tahltan members	Virtual open house chaired by Skeena Resources VP Sustainability & Sustainability Manager & Engagement Coordinator to introduce project and address questions and concerns from Tahltan community members.
July 2021	Virtual Biweekly THREAT/Skeena technical workshop	Two half-day workshops held in July with updates regarding the Project's regulatory process development, presentations from Skeena Resources Engineering team presenting updates on project design, presentations from consultants regarding 2021 baseline studies and various open discussions addressing THREAT questions and concerns.
	Calls with Newcrest, Advisor Indigenous & External Affairs Skeena and Tahltan Key Informants	Discussion with key informants in Tahltan communities to inform information collected/studies in Social Baseline Project.
	Biweekly Tahltan EMC/industry calls Tahltan EMC leads and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	EMC calls adjusted to biweekly frequency Continued discussions on management of COVID-19 and keeping people at site and Tahltan communities safe.
	Weekly virtual meetings with THREAT, EAO and IAAC representatives	Meetings regarding the development of the Project regulatory process.

Date	Activity	Description
July 2021	Weekly meeting with Community Relations Manager, Sustainability Project Manager, VP Sustainability and TCG Employment and Contract Director	Weekly calls to update TCG Employment and Contracts Director on upcoming opportunities.
	Weekly calls with Skeena Permitting and Compliance Advisor THREAT Advisor and Land Technician	Weekly calls regarding operational permitting plans.
August 2021	Virtual Biweekly THREAT/Skeena technical workshop	Two half-day workshops held in July with updates regarding the Project's regulatory process development, presentations from Skeena Resources Engineering team presenting updates on project design, presentations from consultants regarding 2021 baseline studies and various open discussions addressing THREAT questions and concerns.
	Calls with Newcrest, Advisor Indigenous & External Affairs Skeena and Tahltan Key Informants	Discussion with key informants in Tahltan communities to inform information collected/studies in Social Baseline Project.
	Biweekly Tahltan EMC/industry calls Tahltan EMC leads and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	EMC calls adjusted to biweekly frequency Continued discussions on management of COVID-19 and keeping people at site and Tahltan communities safe.
	Weekly virtual meetings with THREAT, EAO and IAAC representatives	Meetings regarding the development of the Project regulatory process
	Weekly meeting with Community Relations Manager, Sustainability Project Manager, VP Sustainability and TCG Employment and Contract Director	Weekly calls to update TCG Employment and Contracts Director on upcoming opportunities.
	Weekly calls Skeena Compliance and Permitting Advisor with THREAT Advisor and Land Technician	Weekly calls regarding operational permitting plans.
September 2021	Virtual Biweekly THREAT/Skeena technical workshop	Two half-day workshops held in July with updates regarding the Project's regulatory process development, presentations from Skeena Resources Engineering team presenting updates on project design, presentations from consultants regarding 2021 baseline studies and various open discussions addressing THREAT questions and concerns.
	Virtual Biweekly THREAT/Skeena Closure and Reclamation Planning Oversite Team Workshops	One half-day workshop held in September to initiate the Closure and Reclamation Planning Oversite Team. Focus is on developing land use objectives and criteria for the Project.

Date	Activity	Description
September 2021	Calls with Newcrest, Advisor Indigenous & External Affairs Skeena and Tahltan Key Informants	Discussion with key informants in Tahltan communities to inform information collected/studies in Social Baseline Project.
	Biweekly Tahltan EMC/industry calls Tahltan EMC leads and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	EMC calls adjusted to biweekly frequency Continued discussions on management of COVID-19 and keeping people at site and Tahltan communities safe.
	Weekly virtual meetings with THREAT, EAO and IAAC representatives	Meetings regarding the development of the Project regulatory process.
	Weekly meeting with Community Relations Manager, Sustainability Project Manager, VP Sustainability and TCG Employment and Contract Director	Weekly calls to update TCG Employment and Contracts Director on upcoming opportunities.
September 16, 2021	Weekly calls Skeena Compliance and Permitting Advisor with THREAT Advisor and Land Technician	Weekly calls regarding operational permitting plans.
September 17, 2021	Eskay Creek Revitalization Project Virtual Information Session hosted in partnership with TCG, EAO and IAAC	Public information session with presentations on the regulatory process from THREAT, EAO and IAAC and an introduction to the Project from the Skeena team. Time allotted for questions from participants.
September 21, 2021	Tahltan Social Baseline Survey Community Visit	Skeena and Newcrest representatives present in person to assist community members filling out the Tahltan Nation Social Community Survey.
September 22, 2021	Eskay Creek Revitalization Project Virtual Information Session hosted in partnership with TCG, EAO and IAAC	Public information session with presentations on the regulatory process from THREAT, EAO and IAAC and an introduction to the Project from the Skeena Sustainability team. Time allotted for questions from participants.
September 24, 2021	Tahltan Social Baseline Survey Community Visit	Skeena and Newcrest representatives present in person to assist community members filling out the Tahltan Nation Social Community Survey.
September 28, 2021	Tahltan Social Baseline Survey Community Visit	Skeena and Newcrest representatives present in person in community to assist community members filling out the Tahltan Nation Social Community Survey.
October 2021	Virtual Biweekly THREAT/Skeena technical workshop	Two half-day workshops held in October with updates regarding the Project's regulatory process development, presentations from Skeena Resources Engineering team presenting updates on project design, presentations from consultants regarding 2021 baseline studies and various open discussions addressing THREAT questions and concerns.

Date	Activity	Description
October 2021	Virtual Biweekly THREAT/Skeena Closure and Reclamation Planning Oversite Team Workshops	Two half-day workshop held in October to initiate the Closure and Reclamation Planning Oversite Team. Focus is on developing land use objectives and criteria for the Project.
	Biweekly Tahltan EMC/industry calls Tahltan EMC leads and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	EMC calls adjusted to biweekly frequency Continued discussions on management of COVID-19 and keeping people at site and Tahltan communities safe.
	Weekly virtual meetings with THREAT, EAO and IAAC representatives	Meetings regarding the development of the Project regulatory process.
	Weekly meeting with Community Relations Manager, Sustainability Project Manager, VP Sustainability and TCG Employment and Contract Director	Weekly calls to update TCG Employment and Contracts Director on upcoming opportunities.
October 1, 2021	Tahltan Social Baseline Survey Community Visit	Skeena and Newcrest representatives present in person to assist community members filling out the Tahltan Nation Social Community Survey.
October 7, 2021	Email from THREAT advisor to Skeena Engagement Coordinator	THREAT provided Tahltan Application Information Requirements guideline.
October 7, 2021	Presentation from THREAT Project lead to Skeena Sustainability Team	Presentation lead by THREAT team to Skeena Sustainability team and representatives from EAO, IAAC and EMLI regarding THREAT Application Information Requirements.
October 26, 2021	Workshop with THREAT, EAO, IAAC, EMLI and MOE representatives, and Skeena Sustainability Team	Workshop with small group in-person in Smithers, BC and rest of participants joining virtually. Discussed approach for Project meeting Tahltan, provincial and federal requirements for regulatory process.
November 2021	Virtual Biweekly THREAT/Skeena technical workshop	Two half-day workshops held in November with discussion regarding Skeena questions about approach on hybrid AIR, updates on the development of the engineering FS, the Technical Sample water management plan, and THREAT presented hybrid AIR structure.
	Virtual Biweekly THREAT/Skeena Closure and Reclamation Planning Oversite Team Workshops	Three half-day Closure and Reclamation Planning Oversite Team workshops held in November. Discussed the development of preliminary revegetation, hydrology, geochemistry, and geotechnical success criteria.
	Biweekly Tahltan EMC/industry calls Tahltan EMC leads and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	EMC calls adjusted to biweekly frequency Continued discussions on management of COVID-19 and keeping people at site and Tahltan communities safe.

Date	Activity	Description
November 2021	Weekly virtual meetings with THREAT, EAO and IAAC representatives	Meetings regarding the development of the Project regulatory process. • Development of a Tahltan specific Application Information Requirements document. THREAT presented hybrid AIR table of contents.
	Weekly meeting with Community Relations Manager, Sustainability Project Manager, VP Sustainability and TCG Employment and Contract Director	Weekly calls to update TCG Employment and Contracts Director on upcoming opportunities.
	Weekly calls Skeena Compliance and Permitting Advisor with THREAT Advisor and Land Technician	Weekly calls regarding operational permitting plans and to provide opportunity for THREAT to review any permit applications before submission.
November 8, 2021	Virtual meeting with TCG Lands Director, THREAT Advisor, Skeena EA Manager, Skeena Engagement Coordinator, Skeena consultants	Virtual meeting regarding updating Skeena's Tahltan Knowledge Agreement to ensure it is adequate to support Tahltan Knowledge use for hybrid AIR.
November 12, 2021	Virtual meeting with TCG Lands Director, THREAT Advisor, Skeena EA Manager, Skeena consultants, Skeena Engagement Coordinator	Call to discuss Skeena's questions on Tahltan dAIR guidance document.
November 25, 2021	Virtual meeting with TCG Lands Director, THREAT Advisor, Skeena EA Manager, EAO and IAAC representatives	Call to discuss Tahltan hybrid AIR structure.
November 29, 2021	Virtual meeting with TCG Lands Director, THREAT Advisors and SMEs, Skeena EA Manager, Skeena Regulatory Specialist and Skeena Community Relations Manager	Meeting to introduce the Skeena team and the Eskay Creek Revitalization Project to new THREAT team members.
December 2021	Virtual Biweekly THREAT/Skeena technical workshop	Two half-day workshops held in December with discussion regarding orienting broader Skeena consulting team to THREAT EA Strategy, Skeena questions about approach on hybrid AIR, updates on the development of the engineering FS, the Technical Sample water management plan, and THREAT presented hybrid AIR structure.
	Biweekly Tahltan EMC/industry calls Tahltan EMC leads and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	EMC calls adjusted to biweekly frequency Continued discussions on management of COVID and keeping people at site and Tahltan communities safe.
	Weekly virtual meetings with THREAT, EAO and IAAC representatives	Meetings regarding the development of the Project regulatory process. • Development of a Tahltan specific Application Information Requirements document. THREAT presented hybrid AIR table of contents.

Date	Activity	Description
December 2021	Weekly meeting with Community Relations Manager, Sustainability Project Manager, VP Sustainability and TCG Employment and Contract Director	Weekly calls to update TCG Employment and Contracts Director on upcoming opportunities.
	Weekly calls Skeena Compliance and Permitting Advisor with TCG Lands Director THREAT Advisor and Land Technician	Weekly calls regarding operational permitting plans and to provide opportunity for THREAT to review any permit applications before submission.
December 2, 2021	Virtual meeting with TCG Lands Director, Skeena EA Manager, Skeena consultants, EAO representatives and IAAC representatives	Meeting to discuss spatial boundaries of Tahltan Values.
December 6, 2021	Letter from Skeena Community Relations Manager to Tahltan Emergency Management Committee	Letter Congratulating the Tahltan Emergency Management Committee on winning the 2021 AME David Barr Award.
December 9, 2021	Skeena Community Relations Manager hosted in person information session in Iskut, BC with the rest of the Skeena team joining virtually. TCG Lands Director participated and contributed answers during Q&A	Skeena Community Relations Manager lead a presentation introducing the Skeena team and the Eskay Creek Revitalization Project. Questions raised about: Engagement Transboundary Indigenous Groups, Tahltan EA Strategy, and education for high school students about mining.
December 10, 2021	Letter from Skeena Community Relations Manager to TCG President and Board of Directors	Letter sent introducing Skeena's Community Relations Manager, an update on the Eskay Creek revitalization Project, and encouraging TCG leadership to contact them with any questions.
December 10, 2021	Letter from Skeena Community Relations Manager to TNDC Board	Letter sent introducing Skeena's Community Relations Manager, providing an update on the Eskay Creek Revitalization Project, and encouraging TNDC to contact them with any questions.
December 16, 2021	Skeena Community Relations Manager hosted an in-person community information session in Dease Lake, BC with the rest of the Skeena team participating virtually. TCG land director participated virtually and contributed answers to the Q&A.	Skeena Community Relations Manager lead a presentation introducing the Skeena team and the Eskay Creek Revitalization Project.
January 2022	Virtual Biweekly THREAT/Skeena Closure and Reclamation Planning Oversite Team Workshops	One half-day Closure and Reclamation Planning Oversite Team workshops held in January. Discussed social transition criteria.
	Biweekly Tahltan EMC/industry calls Tahltan EMC leads and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	EMC calls adjusted to biweekly frequency Continued discussions on management of COVID-19 and keeping people at site and Tahltan communities safe.

Date	Activity	Description
January 2022	Weekly virtual meetings with THREAT, EAO and IAAC representatives	Meetings regarding the development of the Project regulatory process. • Development of a Tahltan specific Application Information Requirements document. THREAT presented hybrid AIR table of contents.
	Weekly meeting with Community Relations Manager, Sustainability Project Manager, VP Sustainability and TCG Employment and Contract Director	Weekly calls to update TCG Employment and Contracts Director on upcoming opportunities.
	Weekly calls Skeena Compliance and Permitting Advisor with THREAT Advisor and Land Technician	Weekly calls regarding operational permitting plans and to provide opportunity for THREAT to review any permit applications before submission.
January 17, 2022	Virtual meeting with Skeena Community Relations Manager, Skeena Engagement Coordination and School District 87 management	Meeting to discuss opportunity for School District 87 students to participate in a Skeena sponsored trip to a Tahltan artist exhibit in Whistler BC.
January 20, 2022	Virtual meeting with Skeena Community Relations Manager, Skeena Engagement Coordinator and Klappan School Principal	Meeting to discuss opportunity for Klappan School students to participate in Skeena sponsored trip to a Tahltan artist exhibit in Whistler BC.
February 2, 2022	In person presentation from Skeena VP Sustainability, Skeena VP Communications, Skeena VP Operations to TCG leadership	Presentation provided an update on the Eskay Creek Revitalization project and planned work for 2022.
February 18, 2022	E-mail from Skeena EA Manager to TCG Lands Director	Skeena EA Manager provided draft sections of DPD related to TCG's role in the assessment of the Project and engagement with Tahltan Nation.
March 8, 2022	E-mail from Skeena Regulatory Specialist to TCG Technical Advisor	Skeena Regulatory Specialist reached out to TCG to offer to meet in person in Dease Lake to discuss draft Tahltan Sections in draft DPD.
March 9, 2022	E-mail from TCG Lands Director to Skeena EA Manager	TCG Lands Director provided wording regarding Tahltan assessment of cumulative effects to be included in DPD.
March 14, 2022	E-mail form Skeena Regulatory Specialist to TCG Technical Advisor	Skeena provided draft EA schedule to TCG team.
March 18, 2022	E-mail from Skeena EA Manager	Skeena EA Manager provided first draft of DPD to TCG Lands Director.
March 30, 2022	Virtual workshop with Skeena Senior Regulatory Affairs Manager, Skeena Community Relations Manager, TCG Lands Director, TCG Technical Advisor, TCG Engagement Coordinator	Virtual workshops to update TCG on permitting plans to support the ongoing work at the Eskay Creek site and the Eskay Creek Revitalization Project.
April 6, 2022	E-mail from TCG Technical Advisor to Skeena EA Manager	TCG Advisor provided updated draft hybrid AIR to Skeena EA Manager.

Date	Activity	Description
April 14, 2022	Skeena Community Relations Manager and Regulatory Specialist hosted an in-person community information session in Telegraph Creek, BC with the rest of the Skeena team participating virtually.	Skeena Community Relations Manager lead a presentation introducing the proposed Technical Sample at the Eskay site, the EA process and Skeena's Indigenous Entrepreneurship Program.
April 19, 2022	E-mail from TCG Technical Advisor to Skeena EA Manager	TCG Advisor provided TCG comments on Skeena's draft DPD.
April 28,, 2022	In person workshop with TCG Lands Director, TCG Technical Advisor, BCEAO representatives, IAAC representatives, EMLI representatives, MOE representatives, Skeena VP Sustainability, Skeena EA Manager, Skeena Regulatory Affairs Manager in Smithers, BC Skeena Community Relations Manager and Regulatory Specialist hosted an in-person community information session in Dease Lake, BC with the rest of the Skeena team participating virtually.	Workshop to discuss the Eskay Creek Revitalization Environmental Assessment Schedule to ensure TCG, provincial and federal requirements will be met. Skeena Community Relations Manager lead a presentation introducing the proposed Technical Sample at the Eskay site, the EA process and Skeena's Indigenous Entrepreneurship Program.
April 29, 2022	In person workshop with TCG Lands Director, TCG Technical Advisor, Skeena EA Manager, Skeena consultant team, Skeena Community Relations Manager in Smithers, BC	Workshop to develop the Hybrid AIR that will integrate TCG requirements.
May 4, 2022	Community Newsletter sent to residents of Dease Lake, Iskut and Telegraph Creek via mail	Newsletter updating community members and governments on the Eskay Creek Revitalization Project and Skeena’s community initiatives
May 12, 2022	Skeena Community Relations Manager and Regulatory Specialist hosted an in-person community information session in Iskut, BC with the rest of the Skeena team participating virtually.	Skeena Community Relations Managers hosted an in-person community visit with Skeena representatives joining virtually. Updated communities on the Project's Environmental Assessment and introduced Skeena's Entrepreneurship Program.
May 18, 2022	E-mail from EA Coordinator to TCG Lands Director and TCG Technical Advisor	E-mail providing 2021 baseline reports to TCG.
May 26, 2022	Skeena Community Relations Manager, Engagement Coordinator, Sustainability Coordinator, Mine Manger and Regulatory Specialist hosted an in-person community information session in Iskut, BC with the rest of the Skeena team participating virtually.	Skeena Community Relations Manager hosted and in-person community event with Skeena representatives joining both in person and virtually. The focus of the meeting was on topics community members raised in previous community visits including additional information on Tom MacKay Storage Facility, Project impacts on Hwy 37/37a traffic and employment opportunities.

Date	Activity	Description
May 27, 2022	Skeena Tahltan Mentees presented at Dease Lake School in Dease Lake BC	Skeena Tahltan mentees presented to students and staff, and discussed their roles at Skeena, the Eskay Creek Revitalization Project and employment opportunities.
May 30, 2022	Skeena Tahltan Mentees presented at Tahltan School in Telegraph Creek BC	Skeena Tahltan mentees presented to students and staff, and discussed their roles at Skeena, the Eskay Creek Revitalization Project and employment opportunities.
May 30, 2022	E-mail from TCG Technical Advisor to Skeena EA Manager	TCG provided Tahltan sections of the hybrid AIR.
May 31, 2022	Skeena Tahltan Mentees presented at Klappan School in Iskut BC	Skeena Tahltan mentees presented to students and staff, and discussed their roles at Skeena, the Eskay Creek Revitalization Project and employment opportunities.
June 2, 2022	Skeena Community Relations Manager hosted an in-person community information session in Iskut, BC with the rest of the Skeena team participating virtually.	Skeena Community Relations Manager hosted and in-person community event with Skeena representatives joining both in person and virtually. The focus of the meeting was on topics community members raised in previous community visits including additional information on Tom MacKay Storage Facility, Project impacts on Hwy 37/37a traffic and employment opportunities.
June 6, 2022	E-mail from EA Coordinator to TCG Lands Director	E-mail offering to plan a separate tour of Eskay Creek Mine Site to accommodate TCG's availability.
June 13, 2022	Virtual Meeting with Skeena EA Manager, TCG Lands Director, TCG Technical Advisor, EAO representatives and IAAC representatives	Meeting to plan workshop on hybrid AIR for technical advisors.
June 15, 2022	Virtual workshop with technical advisors including representatives from: EAO, IAAC, ECCC, DFO, EMLI, MOF, ENV, Transport Canada, EMLI, Indigenous Services Canada, EMPR, ENV, MIRR, WAGE, Northern Health, NOAA Fisheries	Workshop introducing the hybrid AIR and the Tahltan Environmental Assessment Strategy to technical advisors.
June 16, 2022	Skeena Community Relations Manager and Regulatory Specialist hosted an in-person community information session in Telegraph Creek BC, BC with the rest of the Skeena team participating virtually.	Skeena Community Relations Manager hosted and in-person community event with Skeena representatives joining both in person and virtually. Focus on meeting was on topics community members raised in previous community visits including additional information on Tom MacKay Storage Facility, Project impacts on Hwy 37/37a Traffic and employment opportunities.

* Skeena's Sustainability Team includes: VP Sustainability, EA Manager, Manager of Permitting and Compliance, Advisor Indigenous & External Affairs, Community Relations Manager, Sustainability Project Manager and Engagement Coordinator.

Appendix D: Summary of Skeena Resources Engagement with Tsetsaut Skii km Lax Ha on Eskay Creek Revitalization

Date	Activity	Description
February 26, 2018	Letter to Chief sent by email and with a hard copy was delivered by regular mail.	Provided summary of 2018 exploration program.
March 5, 2018	Phone call with Chief	Left a message to request a meeting. No response.
March 12, 2018	Email to Chief	Left a message to check on availability for meeting in Hazelton during the following week. No response.
March 15, 2018	Phone call with Chief	Call from Hazelton. Follow up on invitation to meet. Left a message to provide contact information and check on availability for a meeting. No response.
July 9, 2020	Email to Chief	Invitation to comment on Archaeological Field Work.
July 28, 2020	Phone call with Chief	Skeena offered to have a meeting and walk through of the Project. Primarily interested in employment opportunities. Skeena agreed to forward job postings.
August 14, 2020	Meeting in Kispiox Valley with head of SKLH business entity	Provided overview of project and discussion focused on employment opportunities.
September 3, 2020	Zoom call with head of SKLH business entity	Discussed contract with TVVL Ventures for workers at site.
October to February 2020	Email/calls with TSKLH business entity	Continued discussions with TVVL Ventures for workers at site.
February 9, 2020	Email from VP Sustainability to Chief	Shared draft version of IPD/EP and offered to meet to discuss.
February 16, 2020	Email and letter from Chief to VP Sustainability	Interested in meeting and need time to review the documents.
February 19, 2020	Call with Chief and VP Sustainability and Skeena Resources Advisor Indigenous & External Affairs	Discussion re rights and title and capacity funding to review documents.
March 1 & 8, 2021	Emails between Chief to VP Sustainability	Discussion re rights and title and capacity funding to review documents.
April 5, 2021	Email from Advisor Indigenous & External Affairs to Chief	Shared interim report related to Heritage and Culture in Project area.

Date	Activity	Description
July 2021	Biweekly virtual meeting with Skeena Community Relations Manager and Sustainability Project Manager and TSKLH Business Owner	Meeting regarding upcoming contracting opportunities.
August 2021	Biweekly virtual meeting with Skeena Community Relations Manager and Sustainability Project Manager and TSKLH Business Owner	Meeting regarding upcoming contracting opportunities
September 2021	Biweekly virtual meeting with Skeena Community Relations Manager and Sustainability Project Manager and TSKLH Business Owner	Meeting regarding upcoming contracting opportunities.
November 19, 2021	Call with TSKLH business owner and Skeena Community Relations Manager	Biweekly meetings moved to calls on add-needed basis at request of TSKLH business owner.
December 2, 2021	Email from Skeena Community Relations Manager to TSKLH Business owner	Invitation to meet in person in early December in Hazelton BC.
January 1, 2022	Skeena Community Relations Manager texted TSKLH business owner	Invitation to meet in person in late January in Hazelton.
January 24, 2022	Letter from Skeena Community Relations Manager to TSKLH Chief	Letter updating TSKLH leadership on the EA process and invitation to meet at their earliest convenience.
February 1, 2022	In person meeting with Skeena VP Sustainability and Community Relations Manager and TSKLH Business owners	Meeting to discuss contracting opportunities at the Eskay Site and how Skeena can support the growth of the business.
April 7, 2022	Letter from Skeena Community Relations Manager to TSKLH Chief	Skeena provided draft DPD to TSKLH leadership requesting feedback and provided draft capacity funding agreement requesting to meet with TSKLH Chief in person in Hazelton in late May.
April 26, 2022	Call from Skeena Community Relations Manager to TSKLH Business Entity	Skeena Relations Manager reached out to TSKLH business entity regarding contracting opportunities at the Eskay site and to offer to meet with business entity in person in Hazelton BC in late May.
May 5, 2022	E-mail from TSKLH Chief to Skeena Community Relations Manager	E-mail confirming interest in meeting with Skeena Community Relations Manger in person in late May.
June 30, 2022	Phone call from Skeena Relations Manager to TSKLH Business Entity	Call updated business entity on the development of Skeena Entrepreneurship Program.

Appendix E: Summary of Skeena Resources Engagement with Nisg̲a'a Nation on Eskay Creek Revitalization

Date	Activity	Description
February 16, 2021	Letter to NLG President sent by email and with a hard copy was delivered by regular mail.	Introduction to the Eskay Creek Revitalization Project and invitation to meet with Skeena Sustainability Team.
March 4, 2021	Virtual Meeting with Skeena VP Sustainability, NLG President, Chairperson of the Council of Elders, NLG CEO, Executive Chairperson, NLG Secretary Treasurer	Introductory meeting regarding the Eskay Creek Revitalization project with representatives from the Nisg̲a'a Lisims Government. Skeena representatives presented on the Company and Project and answered questions.
September 8, 2021	Letter from Nisg̲a'a regarding Eskay Creek Revitalization Process	Skeena received letter from NLG CEO regarding Eskay Creek Revitalization.
January 24, 2022	Letter from Skeena Community Relations Manager to NLG President	Invitation to meet regarding the Eskay Creek Revitalization Project EA Process.
April 4, 2022	E-mail from Skeena Community Relations Manager to NLG President, NLG CEO, NLG Land Director and NLG Lands Officer	Skeena Community Relations Manager provided NLG with a copy of the draft DPD.
April 5, 2022	Virtual Meeting with Skeena Community Relations Manager, Skeena VP Communications, Skeena Engagement Coordinator, NLG Lands Director, NLG Lands Officer, NLG legal advisors, NLG technical advisors	Skeena VP Sustainability led presentation introducing Skeena Resources, the Eskay Creek Revitalization Project, and the potential effects of the Project on Nisg̲a'a Treaty Rights.
June 20, 2022	E-mail from NLG Lands Officer to Skeena Engagement Coordinator	NLG provided NFA Section 10 assessment documents after the completion of a Confidentiality Agreement between NLG and Skeena.

Appendix F: Summary of Skeena Resources Engagement with Gitanyow Nation on Eskay Creek Revitalization

Date	Activity	Description
February 16, 2021	Letter sent to Simogyet Malii, President of Gitanyow Hereditary Chiefs	Introduction to the Eskay Creek Revitalization Project and invitation to meeting with the Skeena Sustainability Team.
March 9, 2021	Introductory meeting with Skeena VP Sustainability, Skeena Sustainability Coordinator, Simogyet Malii, President of Gitanyow Hereditary Chiefs, Executive Director of Gitanyow Hereditary Chiefs and Head Fish Biologist at Gitanyow Fisheries Authority	Introductory meeting regarding the Eskay Creek Revitalization project with representatives from the Gitanyow Leadership. Skeena representatives presented on the Company and Project and answered questions.
January 24, 2022	Letter from Skeena Community Relations Manager to Gitanyow Hereditary Chiefs Office	Letter inviting Gitanyow Hereditary Chiefs Office President to meet regarding the Gitanyow Wilp Sustainability Assessment Process.
February 25, 2022	Virtual Meeting with Gitanyow Chief, Gitanyow Consultant, Skeena VP Sustainability, Skeena Community Relations Manager and Skeena Engagement Coordinator	Meeting updating GHC on the Eskay Creek Revitalization Project, outlining potential impacts on Gitanyow Traditional Territory and Skeena participating in Gitanyow Wilp Sustainability Assessment Process (WSAP).
April 6, 2022	E-mail from Skeena Community Relations Manager to GHC Sustainability Advisor	Skeena Community Relations Manager provided Skeena's draft DPD.
May 4, 2022	Community Newsletter sent to GHC and community members in the Gitanyow communities of Gitanmax, Gitwangak, Gitanyow, Cedervale and Gitsegukla via mail	Newsletter updating community members and governments on the Project and Skeena’s community initiatives.
June 13, 2022	Virtual Meeting with GHC representatives	Meeting regarding the development of the Engagement Agreement between GHC and Skeena.

Appendix G: Summary of Skeena Resources Engagement with Métis Nation on Eskay Creek Revitalization

Date	Activity	Description
June 1, 2021	Letter sent to President of Tris-River Métis Association, The MNBC head office and the MNBC Northwest Office	Introduction to the Eskay Creek Revitalization Project and invitation to meet with the Skeena Sustainability Team.
April 4, 2022	Letter from Skeena Community Relations Manager to MNBC CEO, MNBC Senior Director, President of Norwest BC Metis Association, President Tris-River Metis Association	Introduction to Skeena Resources and the Eskay Creek Revitalization Project, providing the draft DPD and requesting a meeting.

Appendix H: Summary of Skeena Resources Engagement with Local Governments and Public

Date	Activity	Description
February 2, 2021	Letter to Mayor of District of Stewart from Skeena VP Sustainability	Introduction to Skeena Resources and the proposed Eskay Creek Revitalization Project and an invitation to meet with the Skeena Sustainability Team. No response received.
February 17, 2021	Letter to Mayor of Town of Smithers from Skeena VP Sustainability	Introduction to Skeena Resources and the proposed Eskay Creek Revitalization Project and an invitation to meet with the Skeena Sustainability Team.
February 17, 2021	Letter to Mayor of City of Terrace from Skeena VP Sustainability	Introduction to Skeena Resources and the proposed Eskay Creek Revitalization Project and an invitation to meet with the Skeena Sustainability Team.
February 17, 2021	Letter to Mayor District of Kitimat-Stikine from Skeena VP Sustainability	Introduction to Skeena Resources and the proposed Eskay Creek Revitalization Project and an invitation to meet with the Skeena Sustainability Team.
March 25, 2021	Presentation for Terrace City Council from Skeena VP Sustainability	Presentation introducing the Eskay Creek Revitalization Project during a regular city council meeting which is streamed to the City of Terrace website available to the public.
June 7, 2021	Letter to Mayor of District of Stewart from Skeena VP Sustainability	Second introductory letter sent to Mayor of District of Stewart introducing the Eskay Creek Revitalization project and an invitation to a meeting with Skeena Sustainability Team. No response received.
June 8, 2021	Letter sent to tenure holders in proximity to project	Letter introducing Skeena Resources and the Eskay Creek Revitalization Project.
June 25, 2021	Presentation for Regional District of Kitimat and Stikine board meeting from Skeena VP Sustainability	Presentation introducing Skeena Resources and the Eskay Creek Revitalization Project. Board meeting with streamed live online to the RDKS website for public viewing.
June 20, 2021	Presentation for Tenure holders in proximity to project from Skeena VP Sustainability	Presentation introducing the Eskay Creek Revitalization Project including figures showing the location of the participant's tenure in relation to the project.
June 27, 2021	Presentation for tenure holder in proximity to project from Skeena VP Sustainability	Presentation introducing the Eskay Creek Revitalization Project including figures showing the location of the participant's tenure in relation to the project.

Date	Activity	Description
June 28, 2021	Meeting with City of Terrace with Economic Development Manager and Skeena Community Relations Manager and Engagement Coordinator	Met regarding getting insights into how Skeena can best engage with the community of Terrace and strategies to advertise for the Public Comment Period and Virtual Information Session.
July 29, 2021	Project website published	Skeenaeskaycreek.com public engagement website published.
September 15, 2021	Engagement Postcard sent to: Town of Smithers Mayor, Mayor of the City of Terrace, Mayor of the District of Stewart, Mayor of the Regional District of Kitimat and Stikine and Members of the BC Parliament	Postcard inviting local government with engage with Eskay Creek Revitalization project providing introduction to project and links to project website.
September 16, 2021	Public Virtual Information Session hosted in partnership with THREAT, EAO and IAAC representatives	Virtual Information Session including presentations on the regulatory process from THREAT, EAO and IAAC representatives and an introduction to the Eskay Creek Revitalization Process.
September 17, 2021	Invitation email sent to the mayor and board of the Regional District of Kitimat and Stikine from Skeena Community Relations Manager	email inviting the mayor and board of the Regional District of Kitimat and Stikine to participate in the VIS and comment on the Project's IPD.
September 17, 2021	Invitation email sent to the Mayor and City Council of the City of Terrace from Skeena Community Relations Manager	email inviting the mayor and city council of the City of Terrace to participate in the VIS and comment on the Project's IPD.
September 17, 2021	Invitation email sent to the mayor and city council of the Town of Smithers from Skeena Community Relations Manager	email inviting the Mayor and City Council of the Town of Smithers to participate in the VIS and comment on the Project's IPD.
September 17, 2021	Invitation email sent to the mayor and city councils of the District of Stewart	email inviting the mayor and board of the District of Stewart to participate in the VIS and comment on the Project's IPD.
September 21, 2021	Public Virtual Information Session hosted in partnership with THREAT, EAO and IAAC representatives	Virtual Information Session including presentations on the regulatory process from THREAT, EAO and IAAC representatives and an introduction to the Eskay Creek Revitalization Process.
September 28, 2021	Presentation to the Smithers Town Council by Skeena Community Relations Manager	Presentation introducing Skeena Resources and the Eskay Creek Revitalization project. Town Council meeting was streamed live online for public viewing.
November 25, 2021	Letter sent to Mayor of District of Stewart from Skeena Community Relations Manager	Letter introducing the Eskay Creek Revitalization Project and inviting to meet with the Skeena team.

Date	Activity	Description
January 13, 2022	Email sent from Skeena Community Relations Manager to Mayor and Council of Town of Smithers, Mayor and Council of City of Terrace, Mayor and Council of District of Stewart and Chair and Board of RDKS	Invitation to attend Skeena's Virtual Information Sessions.
January 18, 2022	Skeena Community Relations Manager hosted Virtual Information Session on Eskay Creek Revitalization Project with Mayor and Council of City of Terrace	Skeena Community Relations Manager presented an update on the Eskay Creek Revitalization Project. Interests/Concerns raised: Economic development opportunities.
January 19, 2022	Skeena Community Relations Manager hosted Virtual Information Session on Eskay Creek Revitalization Project with Board members of RDKS	Skeena Community Relations Manager presented an update on the Eskay Creek Revitalization Project. Interests/Concerns raised: No questions or concerns.
April 11, 2022	Skeena Community Relations Manager in person presentation to Town of Stewart Mayor and Council Members	Skeena Community Relations Manager led presentation introducing Skeena Resources and the Eskay Creek Revitalization Project focusing on potential impacts to Town of Stewart.
April 12, 2022	Virtual Presentation from BCEAO, IAAC, TCG and Skeena representatives to Project Technical Advisors including representatives from: EMLI, MOE, DFO, RDKS, FLNRO, Environment Canada, Indigenous Services Canada, ECCC, Health Canada, Transport Canada, Northern Health, US EPA, Alaska Department of Fish and Game, Alaska Department of Environmental Conservation, Alaska Department of Natural Resources, and US EPA	BCEAO, IAAC and TCG presented an update on the assessment process including TCG introducing the Tahltan Environmental Assessment Strategy. Skeena EA Manager presented an update on the DPD including major updates from IPD.
May 4, 2022	Community Newsletter sent to tenure holders, local governments of Smithers, Terrace, RDKS and Stewart, and mail dropped to communities of Dease Lake, Iskut, Telegraph Creek, Gitanmax, Gitwangak, Gitanyow, Cedervale and Gitsegukla	Community newsletter updating community members and governments on the Project and Skeena community initiatives.
May 13, 2022	Update letter sent to Guide Outfitters	Letter sent from Skeena Community Relations Manager to Guide Outfitters Skeena has previously reached out to.
May 18, 2022	Update letter sent to Trapline holders TR0621T005, TR0621T004, TR021T001 and TR0621T003	Letter sent from Skeena Community Relations Manager to Trapline holders Skeena has previously reached out to.

Date	Activity	Description
May 20, 2022	Introduction letter sent to Trapline Holders TR0616T011 and TR0617T015	Letter sent from Skeena Community Relations Manager introducing Skeena Resources and the proposed Project to Trapline holders not adjacent to the Project that Skeena has not previously reached out to.
May 25, 2022	Skeena Tahltan Mentees presented at iCOUNT school in Witset BC	Skeena Tahltan mentees on their roles at Skeena and the Project.
June 15, 2022	Virtual workshop with technical advisors including representatives from: EAO, IAAC, ECCC, DFO, EMLI, MOF, ENV, Transport Canada, EMLI, Indigenous Services Canada, EMPR, ENV, MIRR, WAGE, Northern Health, NOAA Fisheries	Workshop introducing the hybrid AIR and the Tahltan Environmental Assessment Strategy to technical advisors.
June 20, 2022	Skeena EA Manager presented at Hwy 37 Working Group with representatives from local governments. MOTI, BCEAO, industry and community organizations	Skeena EA Manager presented an introduction to the Project at the Hwy 37 Working Group focusing on projects predicated effects on Hwy 37/37a traffic.
June 21, 2022	Site tour of Eskay Creek Mine site with representatives from MOF, ENV and RDKS	Skeena hosted a tour of the Eskay Creek Mine site for technical advisors including a helicopter, driving and walking tour.
June 23, 2022	Site tour of Eskay Creek Mine site with representatives from EMLI, MOF and Northern Health	Skeena hosted a tour of the Eskay Creek Mine site for technical advisors including a helicopter, driving and walking tour.
June 29, 2022	Site tour of Eskay Creek Mine site for representatives from EMLI, IAAC, BCEAO, MOF and ECCC	Skeena hosted a tour of the Eskay Creek Mine site for technical advisors including a helicopter, driving and walking tour.

Appendix I: Response to Joint Summary of Issues and Engagement

Comment ID	Topic/ Indigenous Group	Issues, Description or Comment	Skeena Resources Response	Relevant Section of Detailed Project Description
1	Tahltan Nation	Tahltan Nation will provide a decision on consent or lack of consent regarding the project's environmental assessment certificate based under the forthcoming Section 7 Agreement	Skeena Resources acknowledges that the Agreement under Section 7 is being developed and is the first of its kind under the new legislation. Skeena understands that Tahltan Nation will provide its consent decision on the EA based on incorporation of the elements of the Agreement into the rest of the EA process. A reference to the Section 7 Agreement has been added to the DPD and will be included in all regulatory context sections developed for assessment process deliverables. Skeena Resources will continue to work with the Tahltan Nation to understand its requirements through meetings and workshops in a transparent thoughtful manner. Skeena is committed to working collaboratively to incorporate Tahltan Knowledge into the Project, and consideration of Tahltan Values and interests.	Section 6.1 Section 7
2	Tahltan Nation	Impacts to Tahltan Nation and their Section 35 rights will be assessed by Tahltan through Tahltan Assessment principles, policy, methods, and process elements	Skeena Resources understands that the Tahltan Environmental Assessment Strategy Framework and Section 7 Consent Agreement will form the basis of consent and assessment of potential effects on Section 35 rights. References to the Tahltan Environmental Assessment Strategy Framework have been added to the DPD, as well as to related process elements such as the Tahltan draft Application Information Requirements (TdAIR) and Tahltan-defined criteria (e.g., Environmental and Social Design principles based on the 1987 Tahltan Resource Development Policy). The TdAIR requirements will also become part of the Hybrid AIR being developed to guide the Project assessment process. The Hybrid AIR will be finalized during the process planning phase.	Section 6.1 Section 6.2 Section 7
3	Tahltan Nation	Application of Tahltan Knowledge and Assessment Requirements on Tahltan Values is being scoped with the proponent and regulatory agencies	Skeena Resources is actively working with THREAT and regulatory agencies to understand information and assessment requirements, including substantial engagement and workshops/meetings to discuss methodology and approaches for developing assessments combining Tahltan Knowledge and Values with inputs from western science. Skeena Resources will continue to work with THREAT to ensure that Tahltan Nation information requirements, including those expressed in the T-dAIR in alignment with the Tahltan Environmental Assessment Strategy Framework, are addressed during the assessment process and reflected in the design of the Project.	Section 5 Section 6.1 Section 6.2.1 Section 7
4	Tahltan Nation	Importance of establishing the land and water to support existing and future uses by Tahltan people	Skeena Resources understands that land and water that supports existing and future uses by Tahltan people is an important Tahltan Value and will work with TCG to support a Tahltan assessment that adequately addresses these requirements. This will include assessing TdAIR requirements in the Hybrid AIR that will guide the EAC Application. Skeena Resources meets regularly with THREAT to discuss and share information on Tahltan Values, information requirements, and Tahltan Knowledge and how those are linked with reclamation/closure vision, land use planning, engineering design progress, water modelling and water management, and effects assessment planning. Skeena's knowledge of existing and future uses of the land and water will be informed by community engagement as well as input from THREAT.	Section 5 Section 6.1 Section 6.2.1 Section 7
5	Tahltan Nation	Jointly establishing the scope and requirements for project effects and cumulative effects	Skeena Resources understands that Tahltan Nation has requirements around scoping and assessment approaches for both Project-specific and cumulative effects that may differ from those required by provincial and federal regulators. Skeena Resources will continue to work with THREAT to understand the Tahltan EA Requirements and its application to scope and information requirements and Project documents throughout the assessment process.	Section 5 Section 6.1 Section 6.2.1 Section 7
6	Tahltan Nation	Ensuring the information generated by the environmental assessment captures the uncertainties and contingencies of the potential effects	Skeena Resources understands that Tahltan Nation has requirements relating to assessment of risks and project uncertainties that may differ from those required by provincial and federal regulators. Skeena Resources is committed to continue to work with THREAT to define and understand what the Tahltan Nation requirements are and approaches to effects assessment, including uncertainty and contingency planning.	Section 5 Section 6.1 Section 6.2.1 Section 7
7	Tahltan Nation	Impacts to food security and social, cultural, economic, and environmental traditional practices and uses	Skeena Resources understands that an assessment of Tahltan Nation values must include consideration of impacts to food security and social, cultural, economic, and environmental traditional practices and uses. Skeena has completed a Tahltan Social Baseline Survey in collaboration with Newcrest Mining and TCG. The results of the survey will inform the consideration of potential impacts of the Project on Tahltan communities and provide a more appropriate and Tahltan territory focused outcome compared to broadly aggregated data from StatsCan. Skeena Resources is committed to continue to work with TCG to understand and assess the Tahltan Nation requirements.	Section 5 Section 6.1 Section 6.2.1 Section 7
8	Tahltan Nation	Downstream concerns with salmon and hooligan [eulachon] fish populations	Skeena Resources acknowledges Tahltan Nation's concerns regarding impacts to salmon and hooligan/eulachon populations. Specific references to these species have been added to the DPD and will be included in the draft Hybrid AIR. The Hybrid AIR will be finalized during the process planning phase. Historical work between Tahltan fisheries and former operators Barrick regarding salmon inventories were part of an earlier EA Certificate. Follow-up with the Tahltan Fisheries Dept. and THREAT will help define the specific concerns, current status of information and approaches.	Section 5 Section 6.1 Section 6.2.1 Section 7

Comment ID	Topic/ Indigenous Group	Issues, Description or Comment	Skeena Resources Response	Relevant Section of Detailed Project Description
9	Tahltan Nation	Avoidance of long-term treatment, and closure requirements	Skeena Resources understands that avoidance of long-term treatment, particularly post-closure, is a key concern for Tahltan Nation. Skeena Resources will work with the Tahltan Nation to define requirements around scoping and assessment approaches for both project-specific and cumulative effects that may differ from those required by provincial and federal regulators. Skeena Resources is committed to working with TCG to understand the Tahltan Nation concerns and how to address sustainability and risk requirements.	Section 5 Section 6.1 Section 6.2.1 Section 7
10	Nisga’a Nation	The Nisga’a Final Agreement requires that the Agency and the EAO assess the impacts of the proposed Eskay Creek Project on the Nisga’a Nation’s treaty interests. Specifically, the proposed project must undergo the assessments in accordance with paragraphs 8(e) and 8(f) of Chapter 10 Environmental Protection and Assessment. As such, the Initial Project Description (IPD), the Engagement Plan and the Detailed Project Description must adequately describe (i) the Nisga’a Nation’s Treaty rights and interests that may be impacted and (ii) how the proponent intends to engage with the Nisga’a Nation in a way that will ensure that the assessments required under the Nisga’a Treaty will be properly carried out in accordance with Nisga’a Chapter 10 guidance.	Skeena Resources has made several corrections to the DPD in order to address these comments. In addition, Skeena Resources understands that Nisga'a Nation does not need to identify as a Participating Indigenous Nation under the new EAO legislation to have an assessment under Chapter 10 of the Nisga’a Final Agreement. Skeena Resources will continue to engage with Nisga’a Nation on these requirements, potential effects and mitigations and related supporting information. Skeena Resources reached out to the Nisga’a Nation in a January 21, 2022 letter to set up a meeting to discuss the Nation’s interests and concerns about potential impacts, and how assessments can be structured to address the identified concerns.	Section 6.1.3 Section 7.3 Section 10
11	Nisga’a Nation	Potential impacts of trucking concentrate and other materials within the Nass Area and Nass Wildlife Area via the proposed trucking route along highways 37 and 37A. Potential impacts include mortality of wildlife and impacts to freshwater and marine aquatic values by accidents and malfunctions along the trucking routes.	Skeena Resources has updated the DPD to reflect Nisga'a Nations' concerns relating to trucking and potential impacts from accidents and malfunctions to the described values. These concerns have been identified in the DPD as potential effects, primarily via the biophysical interactions, along with Skeena Resource's proposed approach to addressing them. A new row of potential effects for traffic and shipping has been added to Table 10-1, and the potential for effects on Nisga’a Nation Treaty rights has been added to Table 10-2. Skeena Resources reached out to the Nisga’a Nation in a January 21, 2022 letter to set up a meeting to discuss the Nation's interests and concerns, and will continue to engage as to how assessments can be structured to address the identified concerns.	Section 4.1.1 Section 7.3 Section 10
12	Nisga’a Nation	Shipping-related effects in Portland Canal and Portland Inlet – including potential impacts to freshwater and marine aquatic values due to accidents and malfunctions along the transport routes, and shipping effects	Skeena Resources has updated the DPD to reflect Nisga’a Nation’s concerns about shipping-related effects on stated values (Tables 6.3-1 and 10-2). Skeena Resources reached out to the Nisga’a Nation in a January 21, 2022 letter to set up a meeting to discuss the Nation's interests and concerns, and will continue to engage as to how assessments can be structured to address the identified concerns.	Section 4.1.1 Section 7.3 Section 10
13	Nisga’a Nation	Shipping navigation including potential spill-response delays, compromised ship tracking, and communication limitations within Portland Canal	Skeena Resources has updated the DPD to reflect Nisga’a Nation’s concerns about shipping-related effects within Portland Canal. These concerns have been identified in the DPD in Table 6.3-1, along with Skeena Resource's intention to engage directly to understand the concerns. Marine transportation, of an average of 200,000 tonnes per year of concentrate, will be the responsibility of concentrate purchasers using third parties for shipping. Skeena Resources reached out to the Nisga’a Nation in a January 21, 2022 letter to set up a meeting to discuss the Nation's interests and concerns, and insight to these identified challenges for shipping.	Section 4.1.1 Section 7.3 Section 10
14	Nisga’a Nation	A requirement that aquatic and wildlife effects be clearly stated in the IPD to include all project-related road and marine traffic within the Nass Area or Nass Wildlife Area	Skeena Resources has revised the text of the DPD to clearly state this requirement.	Section 9
15	Nisga’a Nation	Effects on the current and future social, cultural, and economic well-being of Nisga’a Citizens. The Nisga’a Final Agreement requires that the Agency and the EAO assess the impacts of the proposed Eskay Creek project on the Nisga’a Nation’s treaty interests.	Skeena Resources acknowledges Nisga’a Nation’s stated concerns for the well-being of Nisga’a Citizens. These concerns have been identified in Table 10-2 of the DPD, along with Skeena Resource's proposed approach addressing them. Skeena Resources reached out to the Nisga’a Nation in a January 21, 2022 letter to set up a meeting to discuss the concerns and ensure an approach to assessing potential impacts on their treaty interests.	Section 9
16	Gitanyow Nation	Gitanyow interest in EAO’s recognition of Gitanyow’s Wilp Sustainability Process (WSAP) and how the WSAP could be applied to the assessment of the Eskay Creek project.	Skeena Resources will continue to engage with Gitanyow Nation on the Wilp Sustainability Assessment Process. Skeena Resources reached out to the Gitanyow Nation on January 21, 2022 to set up a meeting in late February to discuss the Nation's interests and concerns.	Section 9
17	Accidents, Malfunctions, and Public Safety	Potential for adverse environmental effects from accidents and malfunctions (e.g., tailings dam breach, wastewater spill, water treatment system failure, propane release, fuel spill)	Skeena Resources has noted the potential for effects due to accidents and malfunctions related to project infrastructure, processes, and associated activities (e.g., trucking) as well as potential for spill incidents to land, water, and air, including releases of hazardous materials. Skeena Resources will include the requirement to assess potential effects of accidents and malfunctions in the draft Hybrid AIR, and will be scoped and assessed in the EAC Application. The Hybrid AIR will be finalized during the process planning phase.	Section 8.3.7

Comment ID	Topic/ Indigenous Group	Issues, Description or Comment	Skeena Resources Response	Relevant Section of Detailed Project Description
18	Accidents, Malfunctions, and Public Safety	Concern that an accidental release or spill of contaminants could result in effects to air quality, water quality, wildlife, and wildlife habitat	Skeena Resources has noted the potential for spill incidents to land, water, and air, including releases of hazardous materials in the DPD. Skeena Resources will include the requirement to assess potential for accidental releases or spills of contaminants to affect the environment in the draft Hybrid AIR, to be assessed in the EAC Application. The Hybrid AIR will be finalized during the process planning phase.	Section 8.3.7
19	Accidents, Malfunctions, and Public Safety	Accidents during mining operations may result in contamination of drinking/recreational water and traditional foods	Skeena Resources has added the potential for impacts to human health to the list of potential effects of accidents and malfunctions in the DPD. The requirement to assess the potential effects of accidents and malfunctions will be included in the draft Hybrid AIR and assessed in the EAC Application.	Section 8.3.7
20	Accidents, Malfunctions, and Public Safety	Request that impacts to public health are included in the assessment of accidents and malfunctions. Concern about increased risk of vehicle accidents on Highway 37, and effects to human health, wildlife (e.g., increased mortality), and freshwater and marine aquatic values. Support for an assessment of potential for accidents and malfunctions from increased traffic on Highway 37 and 37A	Skeena Resources has added the specific risk of vehicle accident on Highway 37 and 37A to the list of potential effects from accidents and malfunctions in the DPD. Skeena Resources will include the requirement to assess the potential effects of accidents and malfunctions, including impacts to human health, in the draft Hybrid AIR, to be assessed in the EAC Application. The Hybrid AIR will be finalized during the process planning phase. To understand potential changes in accident/incident frequency, Skeena Resources has updated the traffic study to reflect average concentrate hauling of 200,000 tonnes per year during operations. Results of the updated traffic study in the DPD found negligible change in incident frequency of less that 1%. This information was added to the DPD.	Section 4.2.1 Section 6.1.2 Section 8.3.7
21	Accidents, Malfunctions, and Public Safety	Concern about accidents and malfunctions (e.g., open pit flooding) caused by inaccurate water balance projections	Skeena Resources has noted the risk of accidents and malfunctions in the DPD. Skeena Resources will include a requirement to develop a set of potential accident and malfunction scenarios for the Project in the draft Hybrid AIR, with the effects of these scenarios to be assessed in the EAC Application along with characterization of the degree of uncertainty for all predictions. The Hybrid AIR will be finalized during the process planning phase.	Section 8.3.7
22	Accidents, Malfunctions, and Public Safety	Concern about tailings dam failure and the reliance on the structural integrity of three tailings dams	Skeena Resources acknowledges the concerns related to dam failure and geotechnical integrity of constructed infrastructure and is undertaking geotechnical design and investigative programs to support robust tailings dam design, including consideration of classification criteria and site specific features. Skeena Resources has added the potential for impacts due to accidents and malfunctions at the tailings dam to the list in the DPD. The potential effects of accidents and malfunctions will be included in the draft Hybrid AIR and assessed in the EAC Application. The Hybrid AIR will be finalized during the process planning phase.	Section 8.3.7
23	Accidents, Malfunctions, and Public Safety	Describe the geotechnical studies that will occur to evaluate stability of the TMSF, including any independent engineering reviews. Request for an evaluation of geotechnical stability of the tailings dams under static and seismic conditions, and a risk assessment for potential impacts of a tailings dam breach (e.g., breach assessment, inundation analysis)	Skeena Resources conducted a preliminary geotechnical program in 2020 for the PFS. A supplemental geotechnical field program has been completed and a laboratory program is underway for both foundation and construction materials to support the FS. Skeena Resources will use information from these programs to update geotechnical properties of both the foundation and dam materials, design, and evaluation of seepage and stability of this facility. In addition, Skeena Resources has conducted a preliminary risk assessment, including a dam breach and inundation study on the PFS design to determine dam classification. This will be incorporated into the FS design underway in early 2022. Additional details generated for the PFS regarding geotechnical and design considerations are available in the NI43-101 Technical Report and Pre-feasibility Study (Ausenco 2021) posted on Skeena Resources website: https://skeenaresources.com/eskay-creek/technical-reports/. Skeena Resources will obtain an independent review for the permitting and final design phase. Consideration of accidents and malfunctions including a tailings dam breach will be part of the Hybrid AIR requirements and scoped during the process planning stage.	Section 3.5.2 Section 8.3.7
24	Accidents, Malfunctions, and Public Safety	Request for a notification strategy for the State of Alaska, Alaska Tribes, and the U.S. Federal Government in the event of a tailings dam incident	Skeena Resources has added the potential for impacts due to accidents and malfunctions at the tailings dam to the list of potential effects in the DPD. The potential effects of accidents and malfunctions will be included in the draft Hybrid AIR and assessed in the EAC Application. Skeena Resources will also include management plans, such as Spill Prevention and Emergency Response Plans, which will include notification strategies in the EAC Application.	Section 8.3.7

Comment ID	Topic/ Indigenous Group	Issues, Description or Comment	Skeena Resources Response	Relevant Section of Detailed Project Description
25	Accidents, Malfunctions, and Public Safety	Concern that the Project may accumulate contaminated water throughout the mine life without implementation of water treatment solutions, resulting in potential for accidents and malfunctions, and increased financial liability	The potential for impacts due to accidents and malfunctions of water treatment has been added to the list in the DPD and will be included in the Hybrid AIR, and assessed in the EAC Application. The Hybrid AIR will be finalized during the process planning phase. A Water Management Plan is in development and will include water quality modelling, contact/non-contact water conveyance design, water balance and where required, water treatment and mitigation measures. Capability exists at the Eskay Creek Mine presently for water treatment of underground mine effluent for certain metals, pH and TSS. As the Water Management Plan is developed for the Revitalization Project, use of those and other mitigation methods to achieve discharge quality and permit limits for operations to minimize potential impacts will be assessed. Skeena understands the concern related to accumulation of excess water and associated risks tied to discharge approvals, mitigation, and accidents/malfunctions. Once water modelling outputs are available in mid-2022 to help with mitigation planning, the Water Management Plan will be updated and considered during the EA process.	Section 4.1.5 Section 8.3.7
26	Accidents, Malfunctions, and Public Safety	The Reclamation Plan should include consideration of real progressive reclamation, including operating water treatment plants throughout the mine life, and treating/discharging water to reduce dam storage volume and the need for management post-closure	Progressive reclamation during mine operations is considered as part of the vision for mine closure. Closure will be considered in the Hybrid AIR and assessed in the EAC Application. Activities during post-closure phase are outlined in the DPD and are anticipated to be focused on monitoring and inspections and any actions resulting from monitoring. However, it's acknowledged this is performance based and subject to reporting under the BC *Mines Act*. Water management planning includes the need for contingencies, effects of the environment on the project and the accidents and malfunctions as outlined in the DPD.	Section 4.1.5 Section 4.2.2 Section 8.3.7 Section 9
27	Acoustic Environment	Include a noise assessment in accordance with Health Canada guidance to assess potential effects of noise on sensitive receptors, including the potential for sleep disturbance	Skeena Resources has included noise and vibration in the list of Valued Components provided with the DPD. Skeena Resources will include the potential effects of noise and vibration in the draft Hybrid AIR and will follow all applicable guidance, including Health Canada. The Hybrid AIR will be finalized during the process planning phase.	Section 10
28	Alternative Means of Carrying Out the Project	Include potential impacts of the alternative means of carrying out the Project on greenhouse gas (GHG) emissions, and consider GHG emissions as a criterion in the evaluation and selection of alternatives	Skeena Resources will consider any differentiating aspects of GHG emissions during the assessment of alternatives for the Project. Skeena Resources will include a requirement to carry out this assessment in the draft Hybrid AIR, which will be finalized during the process planning phase.	Section 4.8
29	Alternative Means of Carrying Out the Project	Consider possible environmental repercussions from dam failure, acid rock drainage, leaching, climate change, and catastrophic events as criteria in the evaluation and selection of alternatives	Skeena Resources will consider any differentiating aspects relating to accidents and malfunctions (i.e., the environment consequences of failure) during the assessment of alternatives for the Project as well as potential influences of climate change as a component of the Hybrid AIR. Skeena Resources will include a requirement to carry out this assessment in the draft Hybrid AIR. The Hybrid AIR will be finalized during the process planning phase.	Section 4.8
30	Alternative Means of Carrying Out the Project	Concern that the Project is an open-pit mine, rather than underground. Request for engagement of participants in the assessment of pit development and mining method alternatives, ways to decrease the surface disturbance of the Project, and the environmental benefits/drawbacks of each option	Skeena Resources will consider feedback from engagement on environmental values, cost, and mining methods during the assessment of alternatives for the Project. The draft Hybrid AIR will include a requirement to carry out this assessment and will be finalized during the process planning phase. Skeena Resources will continue to engage with stakeholders throughout the assessment of the Project and the design development will re-use existing disturbed areas as much as possible to maintain as compact a footprint as possible. Engagement with the TAC during Process Planning and Alternatives Assessment scoping will include updated information about engineering and geotechnical constraints which drive the open pit development and waste management approaches.	Section 4.8
31	Alternative Means of Carrying Out the Project	Concern about the lack of alternative waste management options to reduce risks of leakages and failures, and that the proposed method was chosen based on cost, rather than safety, current scientific, technological, and political standards, or the potential to reduce environmental harms, including cumulative effects to transboundary waters	Skeena Resources will include consideration of environmental, technical, Tahltan value and social and economic factors during the assessment of alternatives for the Project. The draft Hybrid AIR will include a requirement to carry out this assessment and will be finalized during the process planning phase. Skeena Resources will continue to engage with stakeholders throughout the assessment of the Project. Sub-aqueous disposal of PAG waste was the preferred option identified in the 2000 environmental review/assessment to prevent ARD and metal leaching, due to the absence of oxygen in a waterbody, and represents a proven technique for mitigation of ML/ARD from PAG waste rock and tailings.	Section 4.8
32	Alternative Means of Carrying Out the Project	Consider thickened/paste tailings and waste backfilling options to reduce the need for additional capacity at the tailings management storage facility. Other options to consider include a filtered tailings facility that is not sited on existing tailings facilities, and a reduced water tailings facility (paste or water pumped off) with a dry closure	Skeena Resources considered a range of waste/tailings disposal options during the PFS stage, which included thickened tailings, using mined out spaces for storing waste rock/tailings, long-term stability and geochemical performance in sub-aerial and sub-aqueous settings. Skeena Resources will include consideration of these options in the assessment of tailings management alternatives which will be required in the draft Hybrid AIR. The Hybrid AIR will be finalized during the Process Planning phase. Skeena Resources will continue to engage with stakeholders throughout the assessment of the Project.	Section 4.5.2 Section 4.8

Comment ID	Topic/ Indigenous Group	Issues, Description or Comment	Skeena Resources Response	Relevant Section of Detailed Project Description
33	Alternative Means of Carrying Out the Project	Evaluate additional waste rock alternatives, especially for on-land or in-pit storage facilities, including: isolated and non-subaqueous waste rock disposal that includes a liner (if potentially acid generating (PAG) or metal leaching) and seepage control; backfilling waste rock into the existing underground workings and the new open pits; and scenarios in which additional capacity is required if there is more than expected PAG material	Skeena Resources will include consideration of the trade-off studies conducted in the PFS and FS stages for waste disposal in the assessment of alternatives for the Project. Skeena Resources has included updated information on the ongoing geochemical characterization program in the DPD. The liner system proposed for the TMSF is a composite liner on the upstream side of the embankment (i.e., geomembrane, low permeability, and transition zones) that is designed to prevent water ingress into the dam structure and associated seepage, compared to other sand/rock dam designs. Seepage quality to groundwater will be monitored by up to 5 monitoring wells around the infrastructure. Skeena Resources will include a requirement for the alternatives assessment to provide contingency storage capacity for NPAG and PAG materials in the draft Hybrid AIR, which will reflect that the TMSF can store between 3 and 4 Mt of waste per vertical meter of elevation increase in the final dam height. The Hybrid AIR will be finalized during the process planning phase.	Section 4.1.3 Section 4.8
34	Alternative Means of Carrying Out the Project	The alternatives assessment should be independently reviewed as per the Global Tailings Standards	An independent review per the BC *Mines Act* will be conducted during the permitting/final design phase of the Project. The alternatives assessment in the EAC Application will be at the feasibility level of permitting which does not require an independent review and sign-off from an independent tailings review board (as required by the Code). Skeena Resources anticipates establishing an independent tailings review board in the future. At present, the permitted TMSF is a natural depression in bedrock and is not presently a dammed impoundment.	This sheet
35	Alternative Means of Carrying Out the Project	Consider using non-degradation principles as goalposts when developing water quality objectives and required water treatment methods	Skeena Resources will consider water use protection and water management principles, as well as Tahltan sustainability criteria, when developing water quality management approaches, mitigations, and if required water treatment methods. Skeena Resources will consider this suggestion when developing the water management plan for the Project.	This sheet
36	Alternative Means of Carrying Out the Project	Recommend a thorough assessment and evaluation of design alternatives for the proposed construction of the three starter embankment dams to raise the water in the TMSF	Skeena Resources will consider alternative dam and tailings storage approaches during the assessment of alternatives for the Project. The Hybrid AIR will include a requirement to carry out this assessment and will be finalized during the process planning phase. Skeena Resources will continue to engage with stakeholders throughout the assessment of the Project.	This sheet
37	Alternative Means of Carrying Out the Project	Explain why the south pit could not be developed in the early mining phase to accommodate tailings and/or PAG waste rock disposal	Skeena Resources has assessed the mining schedule and there are two reasons why the south pit cannot be developed early in the mining schedule. The most effective way to access the south pit is to ramp up, off the WRSF that will be built during the operations phase. This requires significantly less road development and can be easily built into the Project later in the mine life. The south pit is also not a very high value mining area and contains very hard rock for processing. Skeena Resources could still use the south pit later in the mine schedule for PAG storage if that provides a technical advantage for ML/ARD management over other approaches.	This sheet
38	Atmospheric Environment	Potential for emissions of contaminants such as sulfur oxides (SO_x), nitrogen oxides (NO_x), volatile organic compounds (VOCs), and particulate matter ($PM_{2.5}$, PM_{10}, and PM) from mining operations, processing, and combustion, including from marine shipping, road, and rail traffic	Skeena Resources has noted the potential for impacts to air quality from Project-related activities in the DPD. Skeena Resources will include the potential effects to air quality caused by Project-related emissions and activities (including contaminants such as SO_x, NO_x, VOCs, and particulate matter), as well as a human health risk assessment in the draft Hybrid AIR. The Hybrid AIR will be finalized during the process planning phase.	Section 4.1.2 Section 10
39	Atmospheric Environment	Recommend the air quality assessment consider nitrogen dioxide (NO_2), sulphur dioxide (SO_2), carbon monoxide (CO), VOCs, polycyclic aromatic hydrocarbons (PAHs), particulate matter, metals, and diesel particulate matter (DPM)	Skeena Resources has noted the potential for impacts to air quality from Project-related activities in the DPD. Skeena Resources will include the potential effects to air quality caused by Project-related emissions and activities (including contaminants such as NO_2, SO_2, CO, VOCs, PAHs, DPM, and particulate matter) in the draft Hybrid AIR, to be assessed in the EAC Application. The Hybrid AIR will be finalized during the process planning phase.	Section 4.1.2 Section 10
40	Atmospheric Environment	Potential for introduction of particulate matter to the atmosphere from activities causing physical disturbance to the land (e.g., blasting)	Skeena Resources has noted the potential for impacts to air quality from Project-related activities to land in the DPD. Skeena Resources will include the potential effects to air quality caused by Project-related emissions and activities (such as the introduction of particulate matter) in the draft Hybrid AIR, to be assessed in the EAC Application. The Hybrid AIR will be finalized during the process planning phase.	Section 4.1.2 Section 10
41	Atmospheric Environment	Emission of air contaminants can result in local or regional degradation of ambient air quality, with potential impacts on human health and sensitive ecosystem receptors	Skeena Resources has noted the potential for impacts to air quality from Project-related activities, and links with human and ecological health in the DPD. Skeena Resources will include the potential effects to air quality caused by Project-related emissions and activities, as well as a human health risk assessment in the draft Hybrid AIR, to be assessed in the EAC Application. The Hybrid AIR will be finalized during the process planning phase.	Section 4.1.2 Section 10

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42	Atmospheric Environment	Use of the most stringent Canadian Ambient Air Quality Standards to undertake an assessment of existing baseline, project-only, and future (baseline + project), and cumulative effects	Skeena Resources will include a requirement to carry out an assessment of impacts to air quality caused by Project-related emissions and activities in the draft Hybrid AIR for the Project. The draft Hybrid AIR will set out the approach for the assessment and will list the guidance and standards to be used, including Canadian Ambient Air Quality Standards. The Hybrid AIR will be finalized during the process planning phase. Scoping of the standards and methods and spatial issues will be done during the process planning phase with input from the Tahltan and TAC and public feedback.	Section 4.1.2 Section 10
43	Atmospheric Environment	Assess carcinogenic and non-carcinogenic health impacts of DPM, secondary pollutants (e.g., ground level ozone (O_3), secondary fine particulate matter ($PM_{2.5}$)), chemicals associated with ore extraction (e.g., emissions from ammonium nitrate), and processing (e.g., ammonia). Clarify which chemicals will be used in processing	Skeena Resources has noted the potential for impacts to air quality from Project-related activities, and links with human health in the DPD. Skeena Resources will include the potential effects to air quality and human health caused by Project-related emissions and activities, including DPM, O_3 and particulate matter, as well as chemicals used in processing in the draft Hybrid AIR, to be assessed in the EAC Application. The Hybrid AIR will be finalized during the process planning phase. The list of anticipated chemicals used in processing was updated into the DPD.	Section 4.1.2Section 10
44	Atmospheric Environment	Recommend the air quality assessment include waste incinerator emissions and all transportation-related activities that may be scoped into the assessment	Skeena Resources has noted the potential for impacts to air quality from Project-related activities in the DPD. Skeena Resources will include the potential effects to air quality caused by Project-related emissions and activities, including Project equipment and other emission sources, in the draft Hybrid AIR. The Hybrid AIR will be finalized during the process planning phase.	Section 4.1.2 Section 10
45	Atmospheric Environment	Request that metals be considered as a potential air contaminant of potential concern (COPC), including impacts on inhalation, ingestion, and other human health pathways	Skeena Resources has noted the potential for impacts to air quality from Project-related activities, and links with human health in the DPD. Skeena Resources will include the potential effects to air quality and human health caused by Project-related emissions and activities, including metals as a COPC, in the draft Hybrid AIR, to be assessed in the EAC Application. The Hybrid AIR will be finalized during the process planning phase.	Section 4.1.2 Section 10
46	Atmospheric Environment	Request that a “likely conservative” (rather than an “overly conservative”) model be used in the air quality assessment to ensure an accurate evaluation of potential impacts	Skeena Resources is still developing the models used in the assessment of the Project. Skeena Resources will continue to engage on this topic as the Project progresses and anticipates that the draft Model Plan will be developed and discussed during the process planning phase with the TAC and others.	Section 4.1.2 Section 10
47	Atmospheric Environment	Clarify if the overland conveyer will have a cover to mitigate dust	Skeena Resources currently plans to cover the stockpile feed conveyor and the mill feed conveyor, and has added this information to the DPD.	Section 4.1.3
48	Atmospheric Environment	Request mitigation measures for fugitive dust (e.g., wheel cleaning stations) to address effects to both water and air quality	Skeena Resources has included implementation of a Project-specific management plan to mitigate fugitive dust in the list of potential mitigations in the DPD and this suggestion will be considered as part of the list. Additional information about mitigation measures will be required by the Hybrid AIR and included in the EAC Application. The Hybrid AIR will be finalized during the process planning phase.	Section 4.1.2 Section 10
49	Climate Change and Greenhouse Gas Emissions	Describe land areas expected to be impacted by the Project by ecosystem type, over the course of the Project lifetime, and including any areas of restored or reclaimed ecosystems. Quantify GHG emissions from land-use change and emissions associated with the post-closure phase as per the Strategic Assessment of Climate Change guidance	Skeena Resources has noted the potential for the Project to impact ecosystems through land disturbance/change and change in GHG emissions in the DPD. Skeena Resources will include requirements to quantify areas of disturbance caused by the Project by ecosystem type (including areas that will be restored or reclaimed). GHG emissions from Project-related activities, including impacts to carbon sinks will also be included in the Hybrid AIR, to be assessed in the EAC Application. The Hybrid AIR will be finalized during the process planning phase. Skeena Resources anticipates updating the calculation of the GHG emissions early in 2022 once the FS equipment list and fuel use becomes available. Land use change and impacts on carbon sinks will be considered in the Hybrid AIR and process planning in detail.	Section 4.5.1.2 Section 10
50	Climate Change and Greenhouse Gas Emissions	Consider best available technologies, best environmental practices, and mitigation and offset measures to reduce GHG emissions	Skeena Resources has noted the potential mitigation measures to reduce GHG emissions in the DPD, and BAT. Best environmental practices, and other mitigation and offset measures will be considered. More information about mitigation measures will be required by the Hybrid AIR and included in the EAC Application. The Hybrid AIR will be finalized during the process planning phase.	Section 4.5.1.2 Section 4.6 Section 10
51	Climate Change and Greenhouse Gas Emissions	Changes in the Project area due to climate change may alter baseline conditions, with implications for climate sensitive aspects of Project design and associated effects on the environment; or cause impacts to the environment from accidents and malfunctions	Skeena Resources has noted the potential effects of the environment on the Project from a changing climate with updated information in the DPD about general trends, and the potential for accidents and malfunctions. Skeena Resources will include requirements to assess the impacts of the environment, including climate change, as well as the risk of accidents and malfunctions, in the draft Hybrid AIR. The Hybrid AIR will be finalized during the process planning phase.	Section 8 Section 10

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52	Climate Change and Greenhouse Gas Emissions	Describe activities that would result in impacts on carbon sinks	Skeena Resources has noted the potential impacts of the Project on carbon sinks, particularly around vegetation clearing for infrastructure, in Section 10 of the DPD, and provided some additional analysis on land use change carbon sources in Section 4.5.1.2. A description of the ecosystems and vegetation types occurring in the Project area is provided in Section 8.2.1. The Hybrid AIR will include requirements to assess impacts of the Project on carbon sinks and will be finalized during the process planning phase. Skeena Resources anticipates negligible impacts to downstream wetlands and little requirement for vegetation removal, beyond immediate footprint effects under proposed infrastructure including roads, WRSF, process plant, expanded TMSF and pits.	Section 4.5.1.2 Section 8.2.1 Section 10
53	Climate Change and Greenhouse Gas Emissions	Concern about impacts to Indigenous communities from localized climatic changes caused by potential emissions	Skeena Resources has noted the potential impacts of the Project on Indigenous community interests, including to health and well-being, in the DPD, and will include this as a requirement in the draft Hybrid AIR. The Hybrid AIR will be finalized during the process planning phase and consider spatial extent, scope and duration of potential effects related to emissions.	Section 10
54	Cultural	Concern about impacts to Indigenous communities from loss of food security, and impacts to sacred sites and other cultural and heritage-sensitive areas	Skeena Resources has noted the potential impacts to food security and to cultural, spiritual, and heritage sites in the DPD. The impacts of the Project on Indigenous community interests, including food security, sacred sites, and other cultural and heritage sensitive areas, will be included in the Hybrid AIR, to be assessed in the EAC Application. Feedback from Indigenous communities and members has been helpful to appreciate these concerns. The Hybrid AIR will be finalized during the process planning phase. Skeena Resources undertook a joint Tahltan Social and economic Baseline study in August/September 2021 to obtain specific information to understand community interests and concerns about food security, and opinions on the mining sectors influence on the local communities. The baseline study will inform the effects assessment and linkages to Tahltan Values and VC, particularly for heritage/culture. Additional information from the Social and economic baseline work has been included in the DPD.	Section 6.1.1 Section 10
55	Cumulative Effects	Concern about impacts to Indigenous communities from the cumulative effects of significant historic oil, gas, forestry, and mining development activities in the Project area	Skeena Resources has noted the potential for cumulative effects on environmental, economic, social, cultural and health values in the DPD. The impacts of the Project on Indigenous community interests, including effects in combination with historic development activities, will be a requirement in the Hybrid AIR, which will be finalized during the process planning phase. Skeena Resources undertook a joint Tahltan Social and economic Baseline study in August/September 2021 to obtain specific information to understand community interests and concerns about food security, potential effects and opinions on the mining sectors influence on the local communities. The baseline study will inform the effects assessment and linkages to Tahltan Values and VC, particularly for context of cumulative effects, health, and the Nation.	Section 6.2.1 Section 10.2
56	Cumulative Effects	Concern that the Project will add to cumulative effects in the region (particularly with other mining Projects including Brucejack and Kerr-Sulphurets Mitchell (KSM)) on communities, regional air and water quality, and fish and wildlife in the Unuk River watersheds	Skeena has noted the potential for cumulative effects on environmental, economic, social, cultural and health values in the DPD. The Hybrid AIR will include a requirement to assess the cumulative effects of the Project with other activities in the region, including the Brucejack Mine and KSM Mine. The Hybrid AIR will be finalized during the process planning phase. Figure 7.1-3 was added to the DPD to help appreciate the spatial extent of 2020 and 2021 sampling of VCs in the upper Unuk River Watershed and provide spatial context relative to other existing or proposed mining projects.	Section 8.1 Section 10.2
57	Cumulative Effects	The list of past, present, and reasonably foreseeable future activities in the Project area for the cumulative effects assessment should include the Eskay Creek Mine, Brucejack, KSM, Snip Mine, Rio Tinto BC Works, Vopak Pacific Canada, Coastal GasLink, and proposed projects in the Unuk River watershed; these activities should also be included on the regional study area maps	A list of past, present, and reasonably foreseeable future projects was updated to include the historic Eskay Creek Mine, Rio Tinto BC Works, Vopak Pacific Canada, future Snip Mine, and Coastal Gaslink; the Brucejack and KSM mines were already listed. The regional study area maps developed for the Project assessment will include these projects and the Process Planning phase and Hybrid AIR will refine the scope and projects to be included in the assessment.	Section 8.1 Section 10.2
58	Cumulative Effects	Cumulative activities may influence the water balance or water quality in the Unuk River. The conceptual model for water balance should include upstream and downstream sampling nodes (if they exist), and other land-based activities upstream of Ketchum Creek and downstream of Harrymel Creek	Upstream sampling nodes have been added to the conceptual water balance model depicted in the DPD and additional maps have been included in the DPD to show sampling locations and spatial distribution in the Unuk River watershed and near the mine site. The influence of other land use activities on water quality and quantity in the Unuk River will be captured Hybrid AIR and assessed in the EAC Application. The Hybrid AIR will be finalized during the process planning phase.	Section 4.1.5 Section 8.1
59	Cumulative Effects	Recommend the proponent continue the Bilateral Working Group water monitoring program with the Alaska Tribes, and use the previously collected data in the development of baseline conditions	Sampling locations for both historic monitoring and recent baseline studies are characterized in Figure 7.3-1 based upon professional advice to Skeena and consideration of near and far-field exposure and reference sites. The Bilateral Working Group program may not represent sampling sites best suited to the Project.	Section 8.1

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60	Cumulative Effects	Consider the cumulative effects of shipping out of the Port of Stewart on U.S./Alaska marine waters	Skeena Resources has noted the potential for cumulative effects on values in the DPD. The Hybrid AIR will be finalized during the process planning phase, and will include a requirement to assess the cumulative effects of the Project with other activities in the region, including the Brucejack Mine and KSM Mine. Concerns about marine shipping were raised in JSOIE Comments 11, 12, 13 and the outcomes of further engagement with Indigenous Peoples will inform the Hybrid AIR scoping for cumulative effects.	Section 6.1 Section 10.2
61	Differential Impacts on Diverse Persons and Groups	Use a Gender Based Analysis Plus (GBA Plus) approach throughout the assessment to understand the differential impacts and experiences of risks, benefits, and impacts of the Project on men, women, gender-diverse persons and people from a range of groups and communities	Skeena Resources has added the potential for impacts differentiated by gender and other factors in the DPD. The Hybrid AIR will include a requirement to consider the impacts to diverse populations differentiated by gender and other factors, and this will be assessed in the EAC Application using a GBA Plus approach. The Hybrid AIR will be finalized during the process planning phase.	Section 6 Section 10
62	Differential Impacts on Diverse Persons and Groups	Use disaggregated data (e.g., qualitative and quantitative data on positive and negative impacts on diverse people, disaggregated by sex, gender, age, etc.). If disaggregated data is limited, identify data gaps and how the needs of diverse people will be understood and reflected in Project design. Where available, include the views of diverse people, including those who are marginalized, and information on how their views will help shape the Project. Ensure inclusiveness in consultation and engagement	Skeena Resources has added a specific acknowledgement of the potential for impacts differentiated by gender and other factors to the DPD. Skeena Resources has noted its commitment to incorporating the principles of GBA Plus in its approach to engagement in the DPD. All site staff have completed the federal GBA Plus online course and all site staff in supervisory roles will be required to take "Be More than a Bystander" train-the-trainer program to enable them to train site staff on how to address and eliminate toxic workplace culture and foster an inclusive workplace. The Hybrid AIR will outline the approach used for the assessment of the Project, including potential data sources, and will be finalized during the process planning phase.	Section 6 Section 7.3 Section 10
63	Differential Impacts on Diverse Persons and Groups	Identify barriers to equality, including the position of various groups with respect to decision making, participation, access and control over resources, and norms, values, and rights	Skeena Resources has added a specific acknowledgement of the potential for impacts differentiated by gender and other factors to the DPD. The Hybrid AIR will set out the approach used for the assessment of the Project, including identification of barriers to equality, and will be finalized during the process planning phase.	Section 7.3 Section 10
64	Differential Impacts on Diverse Persons and Groups	Include information on what will be done to ensure the Project strengthens capacities and quality of life for diverse groups and individuals, how the Project seeks to address the identified needs of various people, and whether the Project outcomes include a broader commitment to improving equality and not perpetuating norms and structures that have contributed to inequality. Include an analysis of differential impacts to determine if diverse populations will get a fair share of Project benefits or will be disproportionately affected by negative consequences (e.g., gender based violence)	Skeena Resources has added a specific acknowledgement of the potential for impacts differentiated by gender and other factors to the DPD. The Hybrid AIR will set out the approach used for the assessment of the Project, including identification of specific mitigation strategies, and will be finalized during the process planning phase. Skeena Resources will develop programs and mitigation strategies for the social impacts of the project informed by the outcomes of the Tahltan Community Baseline survey and feedback received during community engagement sessions.	Section 7.3 Section 10
65	Differential Impacts on Diverse Persons and Groups	Include information about corporate policies on equality, anti-harassment, or other relevant policies; whether the current workforce is diverse, whether there's a history of abuses or infractions related to social justice issues, and whether training is provided on issues related to equality, diversity, and inclusion	Skeena Resources will set out the approach used for the assessment of the Project, including provision of descriptions of Skeena Resource policies relevant to equality, diversity, and inclusion in the Hybrid AIR. The Hybrid AIR will be finalized during the process planning phase. Skeena Resources will develop programs and mitigation strategies for the social impacts of the project informed by the outcomes of the Tahltan Community Baseline survey and feedback received during community engagement sessions.	Section 8.3
66	Economic Conditions	Prioritize hiring local residents, and consider collaborating with local Project stakeholders and Indigenous groups to support training and hiring of underrepresented groups; finding economic opportunities from local employment and training; and spending on local supplies, services, and transportation	Skeena Resources has ongoing discussions and engagement with local project stakeholders and Indigenous nations to discuss and support training and hiring. Skeena Resources and the Tahltan Nation (as represented by TCG) have had annual Communication Agreements in place since 2016 relative to other sites, and the Eskay Creek property was added to the 2018 Agreement when Skeena Resources optioned into the property. Skeena Resources also entered into an Opportunities Sharing Agreement in February of 2020 with the Tahltan Nation (as represented by TCG) to maximize contracting and employment opportunities for Tahltan members and businesses. Skeena Resources will include requirements to describe the potential benefits, including job opportunities for Indigenous groups and local residents, economic opportunities for local businesses and services, and training opportunities, in the draft Hybrid AIR, which will be finalized in the process planning phase.	Section 9 Section 10
67	Economic Conditions	Describe how training and employment opportunities would be provided to Indigenous peoples from potentially affected Indigenous groups, and clarify whether the Project will have Indigenous employment targets	Skeena Resources supports reconciliation and engagement with Indigenous communities and nations regarding workforce and community skills and capacities. Skeena Resources has ongoing engagement with potentially affected nations to scope capacity, interest, and status of work force. Specific workforce development plans have yet to be developed or formally set, though Skeena Resources will continue engagement with Indigenous communities to inform development of these plans.	This sheet

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68	Economic Conditions	Provide Project workforce projections for construction and operations, including median and maximum workforce numbers, and details of where workers will come from	Skeena Resources has provided Project workforce projections, including median and maximum workforce numbers, in Section 4.4 of the DPD. Skeena Resources expects that 50% of the Project positions will be filled by northern BC residents and is presently undertaking a labour market study to help inform the source of workers and the nature of specific roles and responsibilities to fill. The initial approaches to workforce composition and origin will be updated for the EA once the FS is completed.	Section 4.3
69	Economic Conditions	Provide more information on current social and economic conditions within potentially affected communities (e.g., regional unemployment/underemployment rates)	Skeena Resources has provided additional information on social and economic conditions, in the form of local community profiles, in the DPD. Additional research will be included in the Social and economic baseline studies of the local and regional study areas.	Section 8.3.5
70	Economic Conditions	Consider potential for increased risk of adverse social and economic impacts related to boom-bust cycles and negative economic effects (e.g., change in income equity)	Skeena Resources will include a requirement in the draft Hybrid AIR for an economic assessment of the Project that will include the potential effects at mine closure and consideration of boom/bust cycles, and will include mitigation measures for adverse effects. The Hybrid AIR will set out the approach used for assessing the potential for the Project to have differentiated impacts/benefits on distinct populations (GBA Plus), and will be finalized during the process planning phase.	Section 10
71	Economic Conditions	Consider financial planning supports, support for traditional economies, and investments into the local economy as mitigation measures	Skeena Resources will consider these mitigation measures as part of its ongoing Project planning and will include a requirement to describe mitigation measures for economic effects of the Project in the Hybrid AIR, which will be finalized during the process planning phase.	Section 10
72	Ecosystems	Concern about impacts to Indigenous communities from loss of lands with native habitats and associated wildlife, and impacts to soils, waters, and fish habitat	Skeena Resources has noted the potential to affect Indigenous interests, including through the potential impacts of the Project on the biophysical environment, in the DPD. Skeena Resources will include the impacts of the Project on Indigenous community interests, including loss of lands with native habitats and associated wildlife as well as impacts to soils, waters, and fish habitat in the Hybrid AIR, which will be finalized during the process planning phase. These examples of concerns have been added to the potential impacts listed in Table 10-2 of the DPD.	Section 10
73	Ecosystems	Settling of air contaminants from mining activities (e.g., metals, polycyclic aromatic compounds) into the surrounding environment may cause adverse impacts to terrestrial and aquatic ecosystems, including water, soil, flora, and fauna	Skeena Resources will include a requirement to assess impacts to terrestrial and aquatic ecosystems, including water, soil, wildlife, and vegetation to the Hybrid AIR. This will be linked to the assessment of the Project's effects on air quality, and will be included in the EAC Application. The Hybrid AIR will be finalized during the process planning phase.	Section 8.2.1Section 10
74	Ecosystems	Emissions of NO_x and SO_2 may lead to acidification and potential exceedance of critical load, and may affect plants, wildlife, and fish and fish habitat	Skeena Resources will include a requirement to assess impacts to terrestrial and aquatic ecosystems, including water, soil, wildlife, and vegetation in the Hybrid AIR. This will be linked to the assessment of the Project effects on air quality, emissions and HHRA, and will be included in the EAC Application. The Hybrid AIR will be finalized during the process planning phase.	Section 8.2.1 Section 10
75	Ecosystems	Concern about further habitat fragmentation, cumulative effects, and reduction in biodiversity and healthy habitat for many species at risk in the region, including grizzlies, wolverines, western toads, and northern goshawks	Skeena Resources has noted the potential Project effects on wildlife and wildlife habitat, including fragmentation via land clearing and mine construction in the DPD. Skeena Resources will include requirements in the Hybrid AIR to assess potential Project-specific and cumulative effects to wildlife, including species at risk, and to provide a summary of the Project's effects on the biophysical factors that support ecosystem function. The Hybrid AIR will be finalized during the process planning phase.	Section 10
76	Effects of the Environment on the Project	Changes to the Project caused by climate change (e.g., from extreme weather events) may cause issues, such as equipment failures, that can threaten the environment, impact human health and safety, interrupt essential services, disrupt economic activity, and incur high costs for recovery and replacement	Skeena Resources has noted the potential effects of the environment on the Project in the DPD. The Hybrid AIR will include requirements to assess the impacts of the environment (including climate change and extreme weather events), as well as assess the risk of accidents and malfunctions associated with climate change on the Project, and will be finalized during the process planning phase. Additional information on effects of climate change have been included in the DPD.	Section 9
77	Effects of the Environment on the Project	Include a discussion of reasonably foreseeable effects that climate change may have on the Project and surrounding area, including long-term stability of infrastructure (e.g., tailings/water treatment facilities)	Skeena Resources has noted the potential effects of the environment on the Project in Section 8 of the DPD. The Hybrid AIR will be finalized during the process planning phase and will include requirements to assess the impacts of the environment (including climate change and extreme weather events), as well as assess the risk of accidents and malfunctions associated with climate change on the Project. The potential effects of extreme events, such as precipitation and stream flows, on long-term stability of infrastructure will be factored into the consideration and will form part of the engineering design.	Section 9
78	Effects of the Environment on the Project	Consider impacts of climate change to any modeling associated with risk analysis of tailings storage facility dam failure	Skeena Resources has noted the potential effects of the environment on the Project in the DPD. The Hybrid AIR will be finalized during the process planning phase and will include requirements to assess the impacts of the environment (including climate change), as well as assess the risk of accidents and malfunctions associated with climate change on the Project.	Section 9

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79	Environmental and Impact Assessment Processes	Include all transportation routes into and out of the mine site, all proposed ancillary infrastructure which the Project cannot proceed without (e.g., construction of the electric transmission line), and the entire TMSF (not just the expansion) in the assessment	Skeena Resources understands that the scope of the assessment, including the components of the Project that will be included in the assessment, as well as the Hybrid AIR and process order, will be discussed and determined during the process planning phase. Skeena Resources has updated information, in the DPD, on the traffic routes considered and site infrastructure anticipated to exist just prior to the construction phase of the Project.	Section 4.2
80	Environmental and Impact Assessment Processes	Concern that one year of baseline studies is not adequate (should be minimum 3-5 years), and is not enough time for rights holders and stakeholders to review the data and analysis. Baseline studies for the existing mine are dated and irrelevant to creating a current baseline	To characterize conditions immediately prior to the Project, Skeena Resources is undertaking environmental, social, economic, heritage, and health studies in 2020, 2021 and 2022. These studies are being undertaken to meet current standards, address refinement of the Project design, and reflect current regulatory requirements in support of provincial and federal assessments. The early baseline studies and extensive monitoring data from 1990-2020 will provide additional data richness and longer-term information to be considered in the EA.	Section 8
81	Environmental and Impact Assessment Processes	Recommend that only pre-mining (early 1990s) environmental conditions be used to characterize the effects of the Project on the environment	Skeena Resources will summarize pre 2020 environmental information in the environmental assessment. The temporal scope of the Project assessment will be determined during the process planning phase.	Section 8
82	Environmental and Impact Assessment Processes	Include all future site activities, regardless of whether they are captured under existing permits, in the assessment to ensure the public, stakeholders, and regulators fully understand the scale of the Project and its potential impacts	Skeena Resources understands that the scope of the assessment, including the Project activities that will be included in the assessment, will be discussed and determined during the process planning phase. The Eskay Creek Mine (underground) has two Environmental Certificates in effect at present.	Section 3 Section 4
83	Environmental and Impact Assessment Processes	Request for identification of Alaska Tribes that have traditional, cultural, and subsistence uses of the Unuk River, and a description of those uses and potential impacts from the Project	Skeena Resources has received the request and will review it in context of the Hybrid AIR and process planning for the EA. Skeena Resources has included additional characterization of the effects of the environment on the Project in Section 8 and has received input from the TAC and EAO for characterization of information.	Section 8
84	Environmental and Impact Assessment Processes	Regional study areas should include Alaska and salmon populations of the Unuk River, and the assessment of downstream impacts should be developed and executed with significant input from Alaska Tribes, communities, and their scientific representatives	Skeena Resources understands that the scope of the assessment, including spatial boundaries (local and regional) will be discussed and determined during the process planning phase with key input from the TAC, including the representatives from these organizations.	Section 4 Section 6
85	Fish and Fish Habitat	Effects on fish mortality and productivity through harmful alteration, disruption, and destruction during construction and operation	Skeena Resources has noted the potential for the Project to affect fish through changes to fish habitat in the DPD. No fish populations exist at the mine site, only in downstream waterbodies including the Unuk River and Iskut River. Potential effects from accidents and malfunctions and interaction with fish and fish habitat will be considered.	Section 10
86	Fish and Fish Habitat	Concerns about impacts to fish, including salmon health and fish passage, due to sediment from road dust along highways 37 and 37A	Skeena Resources has noted in the DPD, the potential for the Project to affect fish through dust deposition to waterbodies. Mitigation measures will be considered and since much of the transportation route along highways 37 and 37A is paved, additional details will be scoped for the Hybrid AIR in the Process Planning phase.	Section 10
87	Fish and Fish Habitat	Clarify if and where there are fish in Ketchum Creek (including between the D7 discharge point and the confluence of the Unuk River) and the locations of existing fish barriers	Skeena Resources has updated the figure in the DPD and has included a figure showing fish bearing stream reaches and barriers to clarify this point. No fish were found in Ketchum Creek despite numerous sampling events over multiple decades. A major fish passage barrier was observed on Ketchum Creek approximately 30 m upstream of the Unuk River confluence; fish cannot ascend this barrier. Upstream of this barrier, the creek flows through a canyon which is characterized mainly by cascades and chutes for approximately 2 km. Within this section of Ketchum Creek, limited velocity refugia for fish were identified, and therefore this section poses a velocity barrier for fish passage upstream.	Section 8.2.3
88	Fish and Fish Habitat	Provide additional information on planned downstream water and fish monitoring efforts in the Unuk River during operations and post-closure	Skeena Resources will include a requirement in the Hybrid AIR to describe the proposed monitoring plans for VCs during all Project phases, and this information will be provided in the EAC Application. The Hybrid AIR will be finalized in the process planning phase. Skeena Resources will continue to undertake an Aquatic Effects Monitoring Program at a frequency that will be determined during the permitting process. Skeena Resources anticipates that a Monitoring Program will be developed during the EA process.	Section 8.1.1 Section 8.2.3
89	Fish and Fish Habitat	Recommend the proponent study both historical and present hooligan (eulachon) fish populations in the lower Unuk River with Alaska Tribes	Skeena Resources conducted fish tissue sampling of Dolly Varden in 2020 at two sites in the Unuk River, a reference site 6 km upstream of the confluence of Ketchum Creek, and an exposure site several kilometers downstream of the confluence of Ketchum Creek. The two locations provide current conditions data close to the mine site, compared to the lower Unuk River, to inform monitoring and effects assessments that are not potentially affected by other mining operations (e.g., Brucejack Mine discharge into Sulphurets Creek and eventually the lower Unuk River). No fish sampling is currently planned in the lower Unuk River for tissue metals as other entities conduct monitoring programs in those areas.	Section 8.2.3

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90	Fish and Fish Habitat	Request for mitigation measures in the Unuk River that directly relate to Alaska salmon legislation	Skeena Resources will include a requirement to describe the proposed mitigation measures for Project-specific and cumulative residual effects, along with the regulatory frameworks, legislation, and guidance that those mitigation measures will follow in the Hybrid AIR. The Hybrid AIR will be finalized in the process planning phase and this information will be provided in the EAC Application.	Section 6
91	Fish and Fish Habitat	Concern about relying on previous assessments and monitoring (that were not based on thorough and robust scientific research methods) that concluded the Unuk River and its salmon were not impacted by mining activities in the area	Skeena Resources will include a requirement to describe the data sources that were relied upon for the assessment, including those used to characterize existing conditions to support the EA assessment and process planning, in the draft Hybrid AIR. The Hybrid AIR will be finalized in the process planning phase.	Section 10
92	Geology, Geochemistry, and Geological Hazards	Provide additional details about the existing underground mine, including: whether past tailings were used as backfill for the underground workings, the mine's groundwater monitoring program, the design of the existing TMSF (i.e., whether it is lined and how water is managed), and any water quality or geotechnical compliance issues	Tailings between 1994 and 2008 were deposited to either Albino Storage Facility or TMSF (post 2001). Significant volumes of backfill were used in the underground mine to create safe working conditions when underground mining was active. The hydraulic backfill was typically composed of run of river gravels imported to the mine site and mixtures of either 6% cement (for mining activities located below fill stopes) and 4% (for mining activities located above fill stopes). Some inert solid waste/construction materials were disposed underground per authorizations. Groundwater monitoring wells were installed through the mine life with reduced monitoring prior to 2017; additional groundwater wells were installed by Skeena Resources in 2020 and 2021 to increase data monitoring and collection to model and monitor the site conditions. Skeena Resources proposes to fully describe the groundwater characterization program in the EA Application to meet current standards and regulatory expectations. The existing TMSF was a non-fish bearing and permitted natural lake waterbody into which tailings were deposited between 2001 and 2008, typically below 25 m water depth in a deeper bowl in middle. Approximately 400,000 m^3 of tailings were placed subaqueously in the middle of the facility. No tailings were placed underground. There are no dams or impoundments on the TMSF, only a small temporary weir for water level monitoring at the outlet (Site TM-1). The discharge from the TMSF is not held by permanent water retention structures, and reflects the natural hydrograph of the water body and does not have any geotechnical compliance issues. Skeena Resources routinely monitors water quality per permit conditions which has always been below discharge permit levels for monitored parameters. Average flows from the facility range over the year from 0.07 m^3/s to 1 m^3/s. There are no compliance issues with the TMSF.	Section 4.1
93	Geology, Geochemistry, and Geological Hazards	Provide a conceptual design of the proposed expanded TMSF, including dam heights, dam construction techniques and whether the facility is proposed to be lined	Skeena Resources has included additional information on the TMSF in the DPD. The current TMSF was a non-fish bearing alpine waterbody that was designated as a tailings impoundment area (TIA) under federal legislation in 2002. The conceptual design is being updated in the FS stage and has been increased in size and water elevation from the IPD version as shown on Figure 4.1-5. A cross section and plan view of the TMSF dams is shown on Figure 4.1-5. The dams of the TMSF will have liners to improve water holding capacity and reduce seepage since tailings beaches are not planned up against the dams.	Section 4.1.3
94	Geology, Geochemistry, and Geological Hazards	Request that liners and/or seepage collection and treatment be utilized for facilities that hold acid generating/metal leaching wastes and tailings	The liner system proposed for the TMSF is the composite liner system on the upstream side of the TMSF embankment (i.e., geomembrane, low permeability, and transition zones). Four to five monitoring wells will be installed downslope of the TMSF dams to monitor seepage water quality. The WRSF is unlined; seepage will be collected and routed to holding ponds where water quality monitoring will occur to determine if treatment or discharge to the environment or TMSF will be required. If water quality does not meet water quality standards for direct release to the environment it could be diverted to a water treatment plant or the TMSF, depending on what modelling results indicate. Skeena Resources will provide additional details as design and the Water Management Plan progresses. Liners may be used for facilities or components which may contain metal leaching by-products.	Section 4
95	Geology, Geochemistry, and Geological Hazards	Ensure the waste rock segregation program used to identify PAG rock is adequately described, including: the criteria or thresholds that are proposed to be used to distinguish non-PAG rock from PAG; whether the geochemical characterization scope includes evaluation of the potential for neutral metals leaching for parameters such as arsenic, antimony, mercury, and selenium; geochemical characterization of historic and future subaqueous stored mine wastes and neutral metal leaching in both subaerial and subaqueous conditions; and the timing for completion of geochemical characterization	Skeena Resources conducted a preliminary geotechnical program in 2020 for the PFS. A supplemental geotechnical field program has been completed and a laboratory program is underway for foundation and construction materials, as well as waste rock, tailings, and overburden. Skeena Resources will use information from these programs to update geotechnical properties of both the foundation and dam materials, design, and evaluation of seepage and stability of this facility. The timing of reporting and waste characterization criteria for distinguishing non-PAG and PAG rock is being informed by the geochemistry program described in Section 3.5.2 of the DPD and will be described in the EAC Application. Source term reports for static and kinetic work, ML/ARD baseline data and waste management reports will be generated in 2022 as laboratory programs are completed and interim results are being used to guide engineering design. The consideration of neutral metal leaching is a part of the scope of work for a range of constituents historically associated with the Eskay Creek Mine. Humidity cell testing, saturated columns and field leach barrels are being used to inform characterization work and criteria as well as the extensive historical data set.	Section 3

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96	Geology, Geochemistry, and Geological Hazards	Ensure the metal leaching and acid rock drainage management plan, source term model, and site wide water balance and quality model include sediment quality	Skeena Resources intends to run the water balance and water quality model for the various constituents to understand concentration changes over time, and then use those results to qualitatively assess if there is potential for surface water quality changes to affect sediment quality.	This sheet
97	Geology, Geochemistry, and Geological Hazards	Explain why column tests are not planned for submergence of PAG rock	Skeena Resources initiated two column tests on rock types that will be mined by open pit operations. Subaqueous column tests were performed by Barrick on eight samples of the rock types located closest to the ore zone. Data from a total of ten column test samples will be available for the Project.	This sheet
98	Geology, Geochemistry, and Geological Hazards	Provide additional information on best practices for advancing open-pit mining operations through existing underground voids	Skeena Resources included information about working around voids in the PFS 43-101. Best practice for advancing open pit mining operations through existing underground voids is to fill them with either waste or mill feed, which removes the void and supports the wall rock around the void. Although working around known voids will present some challenges that a management technique will be developed to address, there is potential to encounter some unmapped voids. Skeena Resources anticipates that the RC grade control drilling program will provide additional information regarding the location of the voids in advance of mining equipment being present. Additional time will be required working around and preparing the old mine workings during open pit mining. Skeena Resources expects the issue will be drifts as opposed to stopes, as the stopes were backfilled with cemented material for stability.	Section 4.1.2 This sheet
99	Geology, Geochemistry, and Geological Hazards	Describe how the TMSF and waste rock pile would be rehabilitated, and on whether engineered covers or backfill would be used	Skeena Resources will develop a conceptual Closure and Reclamation Plan for inclusion in the EAC Application. Maintenance of the long-term water cover over the submerged PAG tails/waste rock in the TMSF is the primary option, while a variety of options will be investigated for the waste rock piles, eventually leading to a vegetative cover. Some material may also be backfilled.	Section 4.1.2 Section 4.2.2
100	Geology, Geochemistry, and Geological Hazards	Provide the occurrence rate of historical seismicity in the Project region, and include natural and induced or mining-related earthquakes in the potential effects of the Project Human Health and Well-Being	Skeena Resources has incorporated additional information about natural and induced seismicity in the DPD and additional info will be characterized for the EA.	Section 8.3.7 Section 10
101	Human Health and Well-being	Effects to human health from exposure to COPC through air, consumption of local foods or water, dermal contact with contaminated surface/groundwater, and working in a highly mineralized area	Skeena Resources will include a Human Health Risk Assessment in the EAC Application, which will present a problem formulation identifying types and sources of COPCs, transport pathways, exposure pathways, and potential human receptors groups including Indigenous and non-Indigenous land users and off-duty workers. Skeena Resources added an air quality and dust control plan and site water management plan to the potential mitigations listed in the DPD.	Section 4
102	Human Health and Well-being	Include the locations of all potential permanent/temporary/seasonal human receptors (e.g., residences, sensitive locations), waterbodies used for recreational or ceremonial purposes, sites used for drinking water, and the distance between them and the Project components that may affect them	Skeena Resources will include a Human Health Risk Assessment in the EAC Application, which will include the locations of potential human receptors as well as transport and exposure pathways between Project components and activities and human receptors.	Section 4
103	Human Health and Well-being	Include a detailed Health Impact Assessment to capture positive and adverse effects on social, economic, and health conditions. Consider community concerns (e.g., employment) and use GBA Plus to assess effects on sub-populations	Skeena Resources will include a Human Health Risk Assessment prepared by a qualified professional in the EAC Application and will continue engagement to understand community concerns. Skeena Resources will include requirements for the assessment approach (including use of GBA Plus) in the draft Hybrid AIR, which will be finalized during the process planning phase.	Section 4
104	Human Health and Well-being	Include a multi-media Human Health Risk Assessment when elevated levels of COPC are identified in the environment and there are possible exposure pathways to humans. The assessment should include a screening-level assessment before eliminating any pathways or parameters, and in the full assessment, consider problem formulation, a toxicity (or hazard) assessment, an exposure assessment, and a risk characterization for all receptor locations (e.g., worker accommodations, recreational areas, drinking water sources)	Skeena Resources will include a Human Health Risk Assessment prepared by a qualified professional in the EAC Application and will continue engagement to understand community concerns. Skeena Resources will include requirements for the assessment approach (including use of GBA Plus) in the draft Hybrid AIR, which will be finalized during the process planning phase.	Section 4
105	Human Health and Well-being	Provide distance from nearest healthcare facilities and service centres, including those located in Iskut, Terrace, and Stewart	Skeena Resources has added additional information on services to community profiles in the DPD. Skeena Resources will include a requirement to provide detailed information on infrastructure and services in regional communities in the Hybrid AIR and will be assessed in the EAC Application. The Hybrid AIR will be finalized during the process planning phase.	Section 8.3.5

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106	Human Health and Well-being	Ensure that the appropriate regulations are referenced in the Detailed Project Description for sewage, drinking water, and industrial camps, and include current health permits/approvals in the summary of existing permits/approvals	Skeena Resources has added a summary of current health permits and approvals to the DPD. Skeena Resources will include a list of guidance documents and regulations for human health in the draft Hybrid AIR, to include the documents listed by this reviewer. The Hybrid AIR will be finalized during the process planning phase.	Section 5.3 Section 5.4
107	Indigenous Peoples' Rights	Concern that the Project lacks the Free, Prior, and Informed Consent of all impacted Indigenous peoples, including downstream Alaska Tribes represented by SEITC	Skeena Resources works to provide information to support and fulfill approaches to FPIC as part of the EA process and corporate approach to the Project. Additional engagement by Skeena Resources through the TAC, which is anticipated to include Alaskan representatives, and other venues and sharing of information, including draft versions of process documents like this DPD, will help broaden the understanding of both the Project and Indigenous concerns and interests touched by it.	Section 6 Section 7.1 Section 10
108	Infrastructure and Services	Concern about impacts of traffic on Highway 37 North, especially at the Bob Quinn intersection	Skeena Resources has added the specific risk of traffic accidents on Highway 37/37A to the list of potential effects from accidents and malfunctions in the DPD. Skeena Resources has completed a traffic study that will inform the assessment of these impacts in the EAC Application. An updated assessment of project traffic and expected incident rates was included in the DPD, although no meaningful change in incident rates was noted as a key outcome due to Project traffic.	Section 8.3.7
109	Land and Resource Use	Refer to the Bob Quinn Rural Land Use Bylaw for the design of the transmission line to the Bob Quinn substation	The DPD has affirmed that the transmission line is not planned to connect to the Bob Quinn substation, as such the Bob Quinn Rural Land Use Bylaw is not application to the transmission line. However, project components in the area covered by the bylaw e.g., KM2 laydown on the Eskay Creek Mine Access Road will be developed in consideration of bylaws.	Section 6.2.2
110	Marine Shipping	Potential effects to air quality from emissions due to marine shipping, resulting in degradation of local or regional ambient air quality, contamination of land and waterbodies, and effects to plants, wildlife, and fish and fish habitat	Skeena Resources considered these potential effects to air quality from emissions due to marine shipping in the DPD and will include a requirement to consider potential effects to VCs during all Project phases in the draft Hybrid AIR. The requirements in the Hybrid AIR will be finalized in the process planning phase to inform the Process Order and the EAC Application.	Section 10
111	Marine Shipping	Provide updated information on existing and future marine traffic volumes	Skeena Resources provided these details in the DPD. Skeena anticipates concentrate tonnage for shipping to be 200,000 tonnes per year, an increase of 40,000 tonnes compared to the IPD. The specific number of vessels, if fully loaded would be two more at 20,000 tonnes per vessel compared to the IPD. Typically shipping of bulk mining products is split among multiple vessels in lots of 6,000 to 8,000 tonne compartments so multiple customers products are handled per ship load. Skeena Resources will provide additional information in the EAC Application based upon FS study outcomes and additional investigation of shipping logistics, typically arranged by third parties on behalf of customers (i.e., smelters) who purchase the product at dockside. The Hybrid AIR will be finalized in the process planning phase to reflect this.	Section 4.1.1
112	Marine Shipping	Concern about shipping-related effects in Portland Canal and Portland Inlet, including effects to marine aquatic values and potential impacts on Nisga'a Nation interests	Skeena Resources has included potential shipping-related effects in Portland Canal and Portland Inlet and related impacts to wildlife and freshwater/marine aquatic values, as well as the proposed approach to addressing these potential effects in the DPD, and subsequent Hybrid AIR during process planning.	Section 8 Section 10
113	Migratory Birds	Effects of noise, vibration, artificial lighting, and contaminant exposure on migratory birds and their habitat	Skeena Resources will include a requirement in the draft Hybrid AIR to identify the potential pathway of effects for selected Valued Components, including migratory birds, which may comprise the effects of noise, vibration, artificial lighting, and contaminant exposure. This will be reflected in the EAC Application. The Hybrid AIR will be finalized in the process planning phase. Skeena Resources has added this to Section 10 of the DPD.	Section 10
114	Migratory Birds	Clarify which species of migratory birds could be affected by the Project, and propose mitigation measures for habitat loss, alteration, and disturbance	Skeena Resources will include a requirement in the draft Hybrid AIR to list the wildlife species to be included in the assessment of the Project, including migratory birds, along with mitigation measures to address any residual Project-specific or cumulative effects. This will be reflected in the EAC Application. The Hybrid AIR will be finalized in the process planning phase. Migratory bird inventories were completed in 2020/21 to inform the occurrence within the Project area.	Section 10
115	Navigation	Provide information on impacts on navigation from the proposed water control structures in the TMSF	Skeena Resources confirms that TMSF has not been classified as a navigable waterbody since the early 2000s when the waterbody was designated as a TIA federally and subsequently excluded from consideration as a navigable waterbody under federal navigable waters legislation.	This sheet
116	Other	Include details on the post-closure phase, including length, activities, and potential impacts	Skeena Resources has included the estimated length of the post-closure phase. Activities during the post-closure phase are outlined in the DPD and are anticipated to be focused on monitoring and inspections and any actions resulting from monitoring. However, it's acknowledged this is performance based and subject to reporting under the BC *Mines Act*. Skeena Resources will include a requirement in the draft Hybrid AIR for a more fulsome description of post-closure phase activities and a detailed assessment of the potential impacts of those activities, which will be presented in the EAC Application. The Hybrid AIR will be finalized in the process planning phase.	Section 4.2 Section 4.3 Section 10

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117	Other	Include additional information on reclamation and closure concepts, and end land-use objectives	Skeena Resources added additional details related to the Closure and Reclamation Plan in the DPD. Closure activities are anticipated to include the demolition and remove of processing and mine support facilities, deactivation of linear features, application of any cover, recontouring and scarifying and ongoing monitoring and maintenance. The closure phase is estimated to take 3 years after operations cease, and a Closure and Reclamation Plan will be included the EAC Application.	Section 4.2.2
118	Other	Include additional information on the timing, and other details as and when available, of pit development phases	Skeena Resources has provided additional detail regarding the timing and sequencing of pit development in the DPD. Information on the pit development considered for the PFS 43-101 is available via the publicly posted (Skeena Resources website) technical report. The North pit will be developed progressively through the mine life, from the south end (uphill) during the 2 years of construction adjacent to the Technical Sample quarries to north end (deepest) at end of mine life.	Section 4.1.2
119	Other	Suggest adding a description of the Project Coordinated Authorizations Process Charter	Skeena Resources has added a brief description of the Eskay Revitalization Project Coordinated Authorizations Process Charter to the DPD.	Section 5.1
120	Other	Include dam monitoring and/or removal cost estimates and responsibility	Skeena Resources will include a requirement for information about dam monitoring in the draft Hybrid AIR, which will be reflected in the EAC Application. The Hybrid AIR will be finalized during the process planning phase. Removal cost estimates for the TMSF dams likely do not apply.	This sheet
121	Other	Request for a description of the likely monitoring plans to be developed and implemented under the Environmental Management System	Skeena Resources has provided a list of management plans in Section 4.6 of the DPD. Skeena Resources will include a requirement to describe these monitoring plans in the draft Hybrid AIR and these management plans will be presented in the EAC Application along with any requirements for follow-up monitoring. Monitoring will include measures to evaluate the effects assessment predictions contained in the EAC Application against the effectiveness of mitigation measures proposed by Skeena Resources, and protocols to follow (including additional mitigation measures) in case the predictions prove inaccurate or the proposed mitigation measures are not as effective as anticipated.	Section 4.6 Section 10
122	Other	Include details on re-opening risks and environmental impacts (e.g., from de-flooding underground workings)	Skeena Resources will include evaluation of the risks and potential impacts of development of the pit overtop of the underground workings in the EA, particularly from a safety and environmental hazard perspective. Skeena Resources will update procedures and considerations regarding re-opening and collect information to update the current understanding. Skeena Resources will include this in the draft Hybrid AIR, along with mitigation measures (e.g., if water treatment is needed for dewatering) based on the timing and type of development around the existing underground needed. Generally, the risk of impacts from dewatering are mainly around managing water quantity and quality, and if any mitigations are needed to comply with permit requirements and will be factored into the Water Management Plan.	Section 10
123	Other	Include a schedule for completing the engineering and technical studies, and key Project plans (draft Water Management, Waste Management, Reclamation and Closure)	Engineering for the FS and technical studies to inform the EA are ongoing into Q3 2022 to support concurrent permitting and EA work, while the anticipated timelines have been added to Table 5.2-2.	Section 5.2.2
124	Other	Include the dimensions of the Main and South Pits at maximum buildout	Skeena Resources has added approximate pit dimensions, based on current design to the DPD.	Section 4.1.2
125	Public and Stakeholder Engagement	Engage health and social service providers, Kitimat-Stikine Electoral Area Directors (from Area A, D, and F), and Alaska Tribes in future public and stakeholder opportunities	Skeena Resources will advertise and reach out to ensure providers, regional/local governments, public and stakeholders are aware of timing and format for future events.	This sheet
126	Public and Stakeholder Engagement	Ensure that the Engagement Plan is designed for participants living in a rural area with limited access to virtual engagement opportunities	Skeena Resources has conducted mail drops for community engagement sessions to all residents in Stewart, Dease Lake, Iskut and Telegraph Creek. Skeena Resources also used Zoom and MS Teams platforms for previous virtual engagements, which allows participants to call in if they do not have access to internet, and will continue to provide opportunities for rural residents. Skeena Resources will work to engage with in-person opportunities for those more comfortable with that format, where safe to do so under Covid-19 and public health safety measures, through our team based in Tahltan territory, Smithers, Lower Mainland, and other communities in northwest BC.	This sheet
127	Social Conditions	Concern about impacts to Indigenous communities' social well-being and economic prosperity	Skeena Resources has noted in the DPD, the potential for the Project to impact social and economic conditions. Skeena Resources will include requirements in the draft Hybrid AIR to assess the Project's potential to impact Indigenous communities' social well-being and economic prosperity, and this requirement will be reflected in the EAC Application. The Hybrid AIR will be finalized during the process planning phase. Skeena Resources will continue to engage with Indigenous communities on this topic and additional effort will be focused with Indigenous peoples and their representatives.	Section 10

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128	Social Conditions	Consider housing, education levels, equity, cost of living, racism/ discrimination, community cohesion, realities of rural living, access to services, colonization, GBA Plus, social conditions for different sub-populations, increases in traffic, and monitoring for negative impacts in the socioeconomic assessment	Skeena Resources will factor in these suggestions for assessment of potential effects and set out the scope of the assessment of the Project, including potential impacts on social, economic, and health values, in the draft Hybrid AIR, which will be finalized during the process planning phase and reflected in the EAC Application.	Section 10
129	Species at Risk, Wildlife and their Habitat	Effects to wildlife, migratory birds, species at risk, and their habitat in the Project area resulting from habitat loss, alteration or fragmentation, habitat avoidance, direct and indirect mortality, changes in predator/prey relationships, changes to migration or movement patterns, destruction or disturbance of residences, exposure to contaminants, and sensory disturbance (e.g., noise, vibration, artificial lighting)	Skeena Resources will consider these potential effects in the scope of the assessment of the Project. The draft Hybrid AIR will set out the approach to assessing potential impacts on wildlife and identifying pathways for those impacts, and will be reflected in the EAC Application. The Hybrid AIR will be finalized during the process planning phase.	Section 10
130	Species at Risk, Wildlife and their Habitat	Direct and indirect mortality and population impacts on mountain goats, ungulates, and bears from disturbance caused by helicopter use and Project-related road improvements	Skeena Resources will include the requirement to assess potential impacts on wildlife and identification of pathways for those impacts from Project activities, in the draft Hybrid AIR, to be reflected in the EAC Application. The Hybrid AIR will be finalized during the process planning phase.	Section 10
131	Species at Risk, Wildlife and their Habitat	Consider climate projections and scenarios that could affect the operation of the mine and cause greater impacts to wildlife and their habitat	Skeena Resources will include a requirement to assess the effects of climate change on the Project itself and to account for climate change effects in the context of impact predictions in the draft Hybrid AIR, to be assessed in the EAC Application. The Hybrid AIR will be finalized during the process planning phase.	Section 9 Section 10
132	Species at Risk, Wildlife and their Habitat	Request that aquatic and wildlife effects include all Project-related road and marine traffic within the Nass Area or Nass Wildlife Area	Skeena Resources has revised the text of the DPD to clearly state this requirement.	Section 7
133	Transboundary	Concerns about adverse direct and cumulative transboundary effects to U.S. waters, aquatic resources, and use by Alaska Tribes from changes in water quality and water flows, sedimentation, dust deposition, and potential accidents or malfunctions of the TMSF	Skeena Resources has noted the potential for direct and cumulative effects on values in the DPD. Skeena Resources will include consideration of potential effects to aquatic resources, water quality, hydrology, sediment quality, air quality, fish, Indigenous interest and potential accidents/malfunctions, in the draft Hybrid AIR, which will be finalized in the process planning phase. The consideration of those potential direct and cumulative effects and scope within BC will provide guidance if potential transboundary issues may arise.	Section 10
134	Transboundary	Assess effects of the Project during all phases on the Unuk River extending into the U.S., including impacts on people, water quality, and aquatic resources. Develop monitoring plans and a monitoring location to evaluate changes to Unuk River water quality and aquatic resources	Skeena Resources will include the requirement to assess potential effects to people, water quality, and aquatic resources in the draft Hybrid AIR, which will be finalized in the process planning phase with input from the TAC including Alaskan representatives. This will include definition of study areas in consideration of administrative boundaries. An aquatic effects monitoring plan will be included in the EAC Application informed by the effects assessment.	Section 10
135	Water Quality and Processes	Effects to surface and groundwater quality could result from increased erosion and sediment generation, transport, and deposition; dissolution of nitrates, deposition of particulate matter; discharges, spills, or seepage of other contaminants from mine and waste management infrastructure (e.g., metal leaching, acid rock drainage); reduced groundwater availability to recharge surface waterbodies; and increased contaminant concentrations	Skeena Resources has noted the potential effects to surface and groundwater quality that could result from these issues in the DPD. Skeena Resources will include the requirement to assess potential Project-specific and cumulative effects to surface and groundwater quality in the draft Hybrid AIR, which will be finalized during the process planning phase.	Section 4.2.2 Section 8.1 Section 10
136	Water Quality and Processes	Alteration of surface water flows and quantities, including from construction of the open pit, could impact water quality in the receiving environment (e.g., Unuk and Iskut rivers/watersheds)	Skeena Resources has noted potential effects of the Project to surface water flows and quantities in the DPD. Skeena Resources will include requirements to assess potential Project-specific and cumulative effects to surface water in the draft Hybrid AIR, which will be finalized during the process planning phase.	Section 8.1 Section 10
137	Water Quality and Processes	Impacts to water quantity from drawdown of the water table due to construction of the open pits or use in water-intensive operational processes	Skeena Resources has noted potential effects to groundwater quantity, resulting from the construction of Project components or through Project activities in the DPD. Skeena Resources will include requirements to assess potential Project-specific and cumulative effects to groundwater in the draft Hybrid AIR, which will be finalized during the process planning phase.	Section 8.1 Section 10

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138	Water Quality and Processes	Identify all drinking water sources and waterbodies used for traditional purposes, and confirm whether Indigenous users consume treated or untreated water from the Project	Skeena Resources is not aware of other licensed points of diversion for drinking water users situated along the Unuk River immediately downstream of Eskay Creek mine site in BC. However, consumption of surface water from the Unuk River for drinking water may occur from unregistered users. A Land Use and Occupancy Study has been completed by the Tahltan Nation which may further inform the assessment of water quality and potential effects. Skeena Resources will continue to engage with Indigenous groups and stakeholders and will consider any identified drinking water sources or waterbodies used for traditional purposes in the EA.	Section 8.1.1
139	Water Quality and Processes	Concern that monitoring conducted for the Eskay Creek mine at current monitoring sites, including those on the Unuk River, do not give the full picture of potential effects from the proposed expansion due to methods, locations, and sampling frequency. Request for a robust environmental effects monitoring program for baseline and ongoing monitoring that addresses these issues	Skeena Resources included additional information on the baseline/current conditions monitoring locations in Section 7 of the DPD, including the Aquatic Effects Monitoring Program which completed its 17th monitoring event since the late 1990's. Skeena Resources will include the requirement to consider the data collection program, scope and extent in the draft Hybrid AIR, which will be finalized during process planning. It is anticipated the EAC Application will include an Aquatic Effects Monitoring Plan informed by the outcome of the effects assessment.	Section 8
140	Water Quality and Processes	Describe the current water treatment process being used at the site, and the discharge rate of treated water	Skeena Resources has provided a summary of the water management approach for the Project in Section 4.2 of the DPD and additional work is ongoing during the FS in 2022.	Section 4.1
141	Water Quality and Processes	Clarify whether long-term water treatment will be needed, and if so, provide details to assess its effectiveness for treating parameters of concern, the expected by-products, and how they will be managed	Skeena Resources has provided a summary of the water management approach for the Project in Section 4.2 of the DPD. Detailed modelling of future water quality is ongoing to support engineering design and discharge planning and will be part of the inputs to the Water Management Plan for the Project, including mitigations. Skeena Resources has not yet completed detailed design of water treatment as outputs of detailed water quality modelling are pending. Skeena Resources will include this as a requirement in the draft Hybrid AIR, which will be finalized during process planning, and will provide updates to Indigenous Nations and TAC during that process.	Section 4.1
142	Water Quality and Processes	Provide water balance modeling, hydrological modeling, and water quality modeling to predict loading and concentrations of contaminants for all Project phases	Skeena Resources has provided a summary of the water management approach for the Project in Section 4.2 of the DPD. Detailed modelling of future water quality is ongoing and will be part of the inputs to the Water Management Plan for the Project, including discharge planning and mitigations. Skeena Resources has not yet completed detailed design of water treatment as outputs of detailed water quality modelling are pending. Skeena Resources will include this in the draft Hybrid AIR, which will be finalized during process planning, and will provide updates to Indigenous Nations and TAC during that process.	Section 4.1
143	Water Quality and Processes	Provide geochemical testing of representative pit wall material, waste rock, and tailings to characterize the potential for acid rock drainage and metal leaching	Skeena Resources has included a more detailed overview of the geochemical characterization program in the DPD. Baseline reports will provide extensive detail and analysis related to geochemistry, source term development and ML/ARD mitigation and planning and these will be available as part of the EA Application.	Section 3.5
144	Water Quality and Processes	Baseline conditions for water quality should include pre-Eskay Creek Mine and current baseline conditions	The temporal scope of the Project assessment will be determined during the process planning phase. Skeena Resources has information on pre-Eskay Creek Mine conditions, mine operations and post-operations monitoring data that is being considered for the characterization of environmental conditions, as well as detailed sampling data since 2020. Baseline and summaries of historic data reports will be included as part of the EAC Application to help characterize monitoring data extending back to the early 1990s.	Section 8
145	Water Quality and Processes	Explain why there are exceedances of freshwater British Columbia Water Quality Guidelines, whether exceedances are predicted to continue, and the steps taken to address them. Identify whether selenium is an element of concern	A summary of water quality conditions will be included in the baselines and factored into any effects assessment scope. Upstream (i.e., non-mine related) exceedances in streams near the mine site are thought to be a result of the naturally turbid water with high TSS coinciding with elevated total metals concentrations; this is not unusual for streams with glacial inputs in mineral enriched areas such as in the Unuk River and Ketchum Creek. Zinc concentrations are seasonally elevated above end of pipe criteria in the existing D7 discharge from closed upper mine workings and are also seasonally above freshwater aquatic life guidelines upstream of the existing mine (not due to mine influence). Environmental effects monitoring has shown effects as a result of the seasonal exceedances. A mine water management for the existing mine and advanced exploration will be developed unrelated to the Project to address existing end of pipe exceedances. The Hybrid AIR will include a list of Contaminants of Potential Concern either based on naturally elevated concentrations or those potentially affected by Project activities. Selenium maybe included in the list of COPCs given geochemical analysis conducted to date.	Section 3.4

Comment ID	Topic/ Indigenous Group	Issues, Description or Comment	Skeena Resources Response	Relevant Section of Detailed Project Description
146	Water Quality and Processes	Consider using State of Alaska water quality guidelines and science-based thresholds for chronic effects to aquatic life when determining impacts to water quality, discharge quality, and receiving environment water quality objectives	Skeena Resources will include a requirement in the draft Hybrid AIR to describe relevant guidelines and science-based thresholds to be used in assessment of the Project. This requirement will be addressed in the EAC Application. The Hybrid AIR will be finalized during the process planning phase with input from the TAC and representatives.	This sheet
147	Water Quality and Processes	Include tables showing constituents and range/maximum concentrations of all effluents and seepages currently being discharged from the site. Include this information for each of the sampling locations as compared to appropriate criteria, guidelines, and limits, including Unuk River data collected by the U.S. Geological Survey	Skeena Resources will present the information on discharges and receiving environment monitoring of the site, including data back to the early 1990s, in the comprehensive water quality baseline report (to be included with the EAC Application), rather than the DPD. Skeena Resources will include detailed water quality information in the draft Hybrid AIR, which will be finalized during the process planning stage.	Section 8
148	Water Quality and Processes	Request that the Environmental Management System consider implementing monitoring plans and activities during construction, operation, closure, and post-closure to evaluate effectiveness of mitigation strategies and detect potential changes in water quantity, water quality, and aquatic resources	Skeena Resources has updated Section 4.6 with a list of likely management plans that will be included as part of the EA process and likely reflect the suggestions presented. Skeena Resources will include a requirement in the draft Hybrid AIR to describe monitoring plans and other follow-up actions to mitigate any residual effects identified, and this requirement will be addressed in the EAC Application.	Section 4.6 Section 10
149	Water Quality and Processes	Work directly with the downstream Alaska Tribes to monitor water and sediment chemistry, benthic organism diversity and populations, and phytoplankton to assure waters are being protected and to detect changes in time for effective remediation	Skeena Resources will include a requirement in the draft Hybrid AIR to describe monitoring plans and other follow-up actions to mitigate any residual effects identified, and this requirement will be addressed in the EAC Application. The Hybrid AIR will be finalized during the process planning phase.	This sheet
150	Water Quality and Processes	Request that a long-term water balance model be developed to span the range of climate change predicted drought and flood conditions, and an analysis of how the open pits and subsequent dewatering may affect water levels in the nearby streams	Skeena Resources will develop a water balance model that takes climate change into consideration during the process planning phase, and reflected in requirements of the draft Hybrid AIR to inform the EAC Application and monitoring plans.	Section 4.1.5
151	Water Quality and Processes	Conduct dye studies to map potential groundwater connectedness between waste facilities and nearby surface waters	Skeena Resources will include the scope of groundwater studies as a component of the draft Hybrid AIR and addressed during process planning. The six MW17 wells installed through the groundwater baseline characterization program capture the potential for influence from existing mine groundwater infiltration, while surface water sampling does not. The detailed groundwater model for the project will consider interactions of proposed infrastructure and existing infrastructure, and develop approaches for establishing linkages to surface water systems. Skeena Resources established additional groundwater wells across the mine site in 2020 which are subject to quarterly quantity and quality monitoring, and augmented the monitoring well network in 2021 with vibrating wire piezometers (VWP).	This sheet
152	Wetlands	Effects to wetlands and their ecological functions, including alteration of hydrological regimes, which could affect the quality or availability of habitat for migratory birds, species at risk, and other wildlife, including areas used for breeding, foraging, resting, and migration	Skeena Resources has noted the potential effects of the Project on wetlands and their ecological functions and associated wildlife linkages in the DPD. Skeena Resources will include requirements in the draft Hybrid AIR to assess potential Project-specific and cumulative effects to wetlands, including potential habitat for wildlife and to provide a summary of the Project's effects on the biophysical factors that support ecosystem function. The Hybrid AIR will be finalized during the process planning phase.	Section 8.2.1 Section 10

Appendix J: Guidance and Standards to Be Used in Preparing Baseline Studies

Archaeology

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