SCHAFT CREEK MINE PROJECT

Application Information Requirements / Environmental Impact Statement Guidelines

As Issued by the
Environmental Assessment Office
and
Canadian Environmental Assessment Agency

On
February 7, 2011

For
Copper Fox Metals Inc.'s
Application for an Environmental Assessment Certificate / Environmental Impact Statement for a Comprehensive Study

Preface to the Application Information Requirements

The purpose of the Preface to the Application Information Requirements (AIR) is to provide the reader with background to the provincial and federal environmental assessment processes, the nature of the Project and its assessment and the purpose of AIR document

The text in italics in the AIR is meant to provide background and context for the reader.

PROJECT SUMMARY

The following Project summary is based on the current understanding of the Schaft Creek Mine Project (Project) proposed by Copper Fox Metals Inc. (Copper Fox). Details are subject to change as Copper Fox advances the Project from pre-feasibility to full feasibility.

1.1.1 Location

Copper Fox Metals Inc. (Copper Fox) is a Canadian mineral exploration and development company focused on developing the Schaft Creek Project (Proposed Project) deposit located in northwestern British Columbia, approximately 60 km south of the village of Telegraph Creek (Figure 1.1-1). The Schaft Creek deposit was discovered in 1957 and has since been investigated by prospecting, geological mapping, geophysical surveys as well as diamond and percussion drilling.

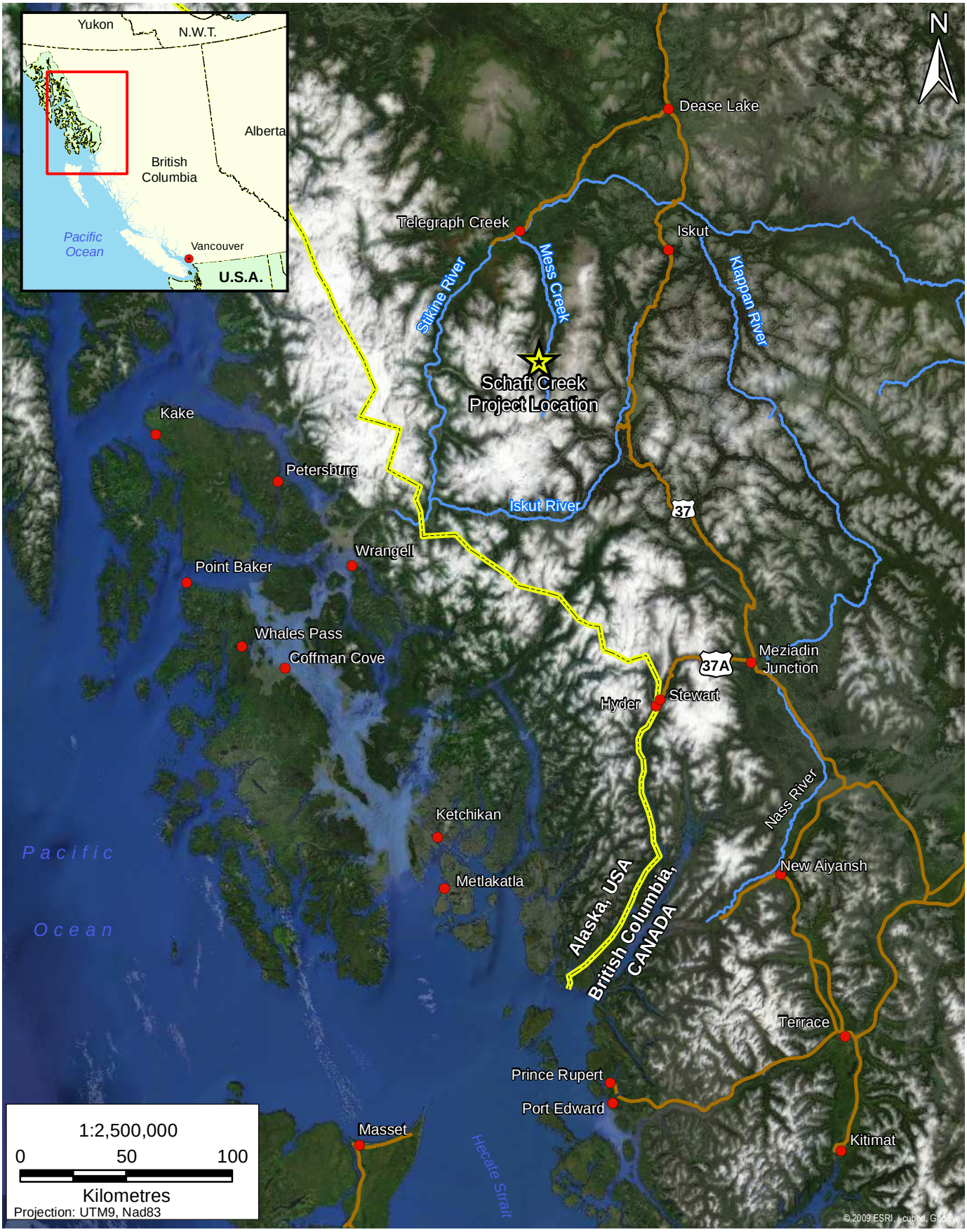
The deposit is situated within the upper source regions of Schaft Creek, which drains northerly into Mess Creek and onwards into the Stikine River. The Stikine River is an international river that crosses the US/Canadian border near Wrangell, Alaska. The Schaft Creek deposit is a polymetallic (copper-gold-silver-molybdenum) deposit located in the Liard District of northwestern British Columbia (Latitude 57° 22' 42''; Longitude 130°, 58' 48.9"). The property is comprised of 40 mineral claims covering an area totalling approximately 20,932 ha within the Cassiar Iskut-Stikine Land and Resource Management Plan (CISLRMP) (Figure 1.1-2).

The Project is located within the traditional territory of the Tahltan Nation. Copper Fox has been in discussions with the Tahltan Central Council (TCC) and the Tahltan Heritage Resources Environmental Assessment Team (THREAT) since initiating exploration activities in 2005. Copper Fox will continue to work together with the Tahltan Nation as work on the Schaft Creek Mine Project continues.

1.1.2 Mine Plan

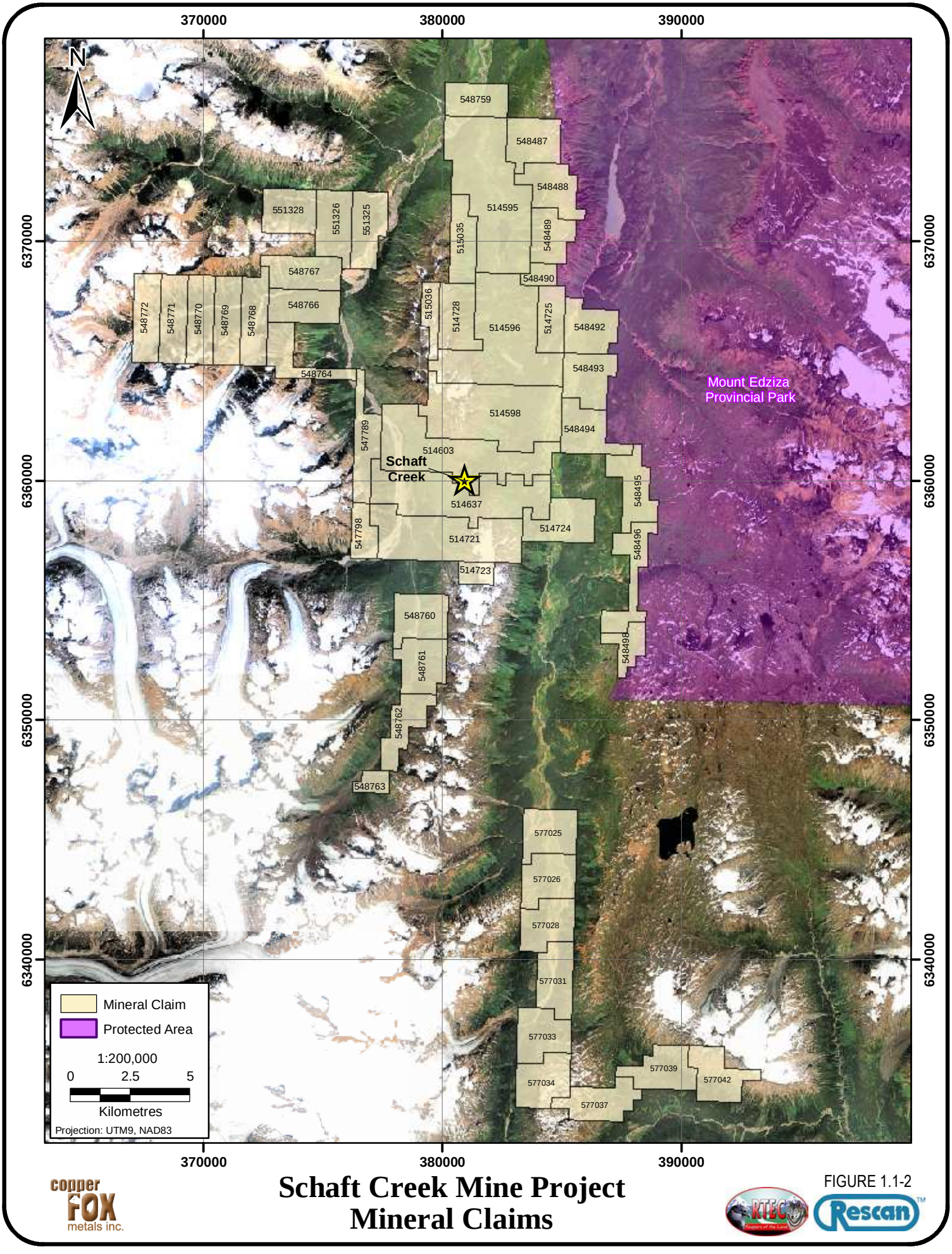
The current mine plan would see ore mined from an open pit up to a rate of up to 150,000 tonnes per day. The current mine plan includes 812 million tonnes of Measured and Indicated Mineable resources providing for an estimated 15-year mine life at 150,000 tonnes per day. The Project is estimated to generate up to 2,100 jobs during the construction phase and approximately 700 permanent jobs during mine operations.

Based on the current mine plan, it is estimated that the pre-construction/construction, operation, closure/decommissioning and post-closure phases will be 3 years, 15 years, 1 year and up to 50 years, respectively. Phase duration will be finalized in the Application.



Location Map for Schaft Creek Mine Project

FIGURE 1.1-1



Schaft Creek Mine Project
Mineral Claims

FIGURE 1.1-2

The deposit would be mined with large truck/shovel operations and typical drill and blast techniques. The ore would be crushed, milled, and filtered on site to produce separate copper and molybdenum concentrates. The Process Plant would include a typical comminution circuit (Semi-Autogenous Mill, Ball Mill, and Pebble Crusher) followed by a flotation circuit and a copper circuit with thickener, filtration and concentrate loadout and transportation. The proposed Process Plant includes a designated molybdenum circuit with thickener, filtration, drying and bagging. A tailings thickener and water reclaim system would be used to recycle process water. The circuit would have a design capacity of 108,700 tonnes per day and a nominal capacity of up to 150,000 tonnes per day. Approximately 494,200 dry tonnes of concentrates would be produced each year, which would be transported via truck to the port of Stewart, BC, for onward shipping to markets.

The proposed Project would generate an estimated 1,547 million tonnes of waste rock. Waste rock storage facilities are proposed mainly to the east of the Schaft Pit, with one waste rock storage facility to the west (Figure 1.1-3). Preliminary information suggests that the volumes of potentially ARD generating (PAG) wastes will be low for Schaft Creek as compared other mining projects. However, the potential for metal leaching and acid rock drainage (ML/ARD) are key areas of study for the Schaft Creek Mine Project and will be given full consideration in the environmental assessment.

Over the life of the mine, the Project would generate over 812 million tonnes of tailings, which would be managed in the Tailings Storage Facility (TSF). The TSF would not span the low relief watershed divide between Skeeter and Start watersheds. The TSF would require three embankments to contain the tailings generated over the life of the mine (Figure 1.1-4). Based on average climatic conditions, the TSF would have a positive water balance. Discharge from the TSF would be to Skeeter Creek.

The proposed Project would be a fly-in, fly-out operation, and a new airfield capable of handling a Boeing 737 will be constructed to the east of the Pit (Figure 1.1-3). The preliminary design includes a 1,600 m compacted gravel landing strip, terminal building, fuelling facilities, small maintenance facility and control and lighting systems.

A permanent camp would be constructed to support approximately 700 employees. Other facilities include a truck shop, warehouse, administration, maintenance laboratory, explosive storage, water treatment facilities, and potable water storage.

1.1.3 Access and Power

Copper Fox proposes to construct an access road to the mine site (Schaft Creek Access Road; Schaft Road) to the 65.1 km point of the Galore Creek Access Road (Galore Road). The proposed Schaft Road would cover a distance of 39.5 km from the Galore Road to the Schaft mine site (Figure 1.1-5). Both the Galore and Schaft roads would be gravel roads with a six-metre wide driving surface. Pullouts and radio controls would be used to manage two-way traffic on the road. The Schaft Road would be a private road used to service the Schaft Creek mine.

The Galore Road is a fully permitted multi-use road: British Columbia Ministry of Forests and Range Special Use Permit (S24637). Galore Creek Mining Corporation is constructing the Galore Road. Currently, Galore Creek Mining is only planning to construct the Galore Road to 40 km while they review the current Galore Creek Project for which the road was to service. Copper Fox will engage Galore Creek Mining Corporation with respect to the completion of the Galore Road, and if necessary, arrange to transfer the permit to Copper Fox as the Schaft Creek Mine Project advances.

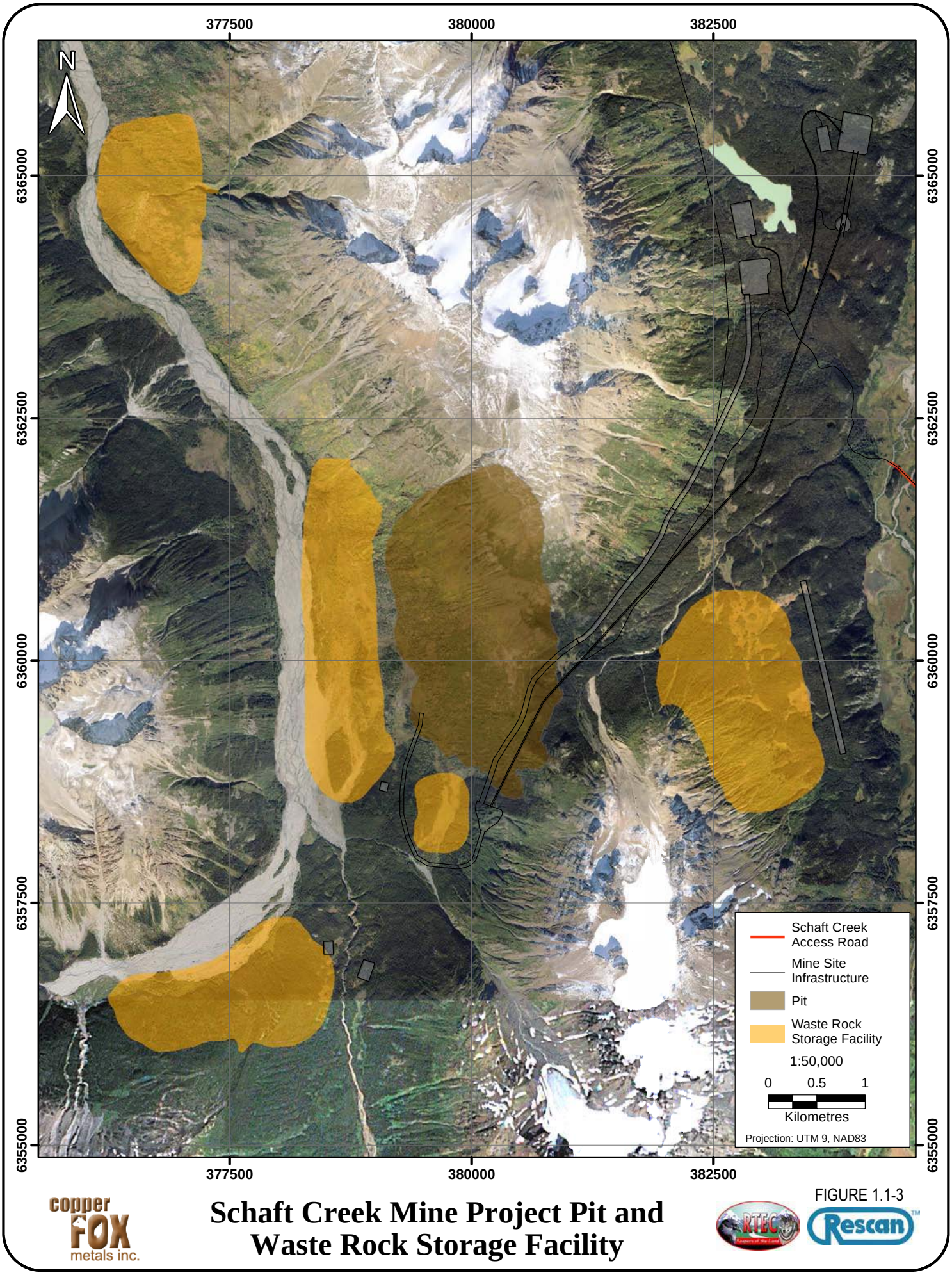


FIGURE 1.1-3

Schaft Creek Mine Project Pit and Waste Rock Storage Facility

The Galore Road connects to Highway 37 near Bob Quinn Lake. The total road distance from the Schaft mine site to Highway 37 is 105 km. The majority of the proposed 39.5 km Schaft Road is within the Mess Creek Watershed. In order to avoid geohazards along the Mess Creek valley, the Schaft Road would cross Mess Creek twice (Figure 1.1-5). Mess Creek is considered navigable as per Transport Canada criteria. The Schaft Road would also cross at least one other navigable creek; Little Arctic Creek.

After crossing Mess Creek at the north end of the Schaft Road (32.5 km), the proposed route rises up the side of Mount LaCasse crossing Shift Creek (10 m bridge) and Big B Creek (10 m bridge). The route terminates at Snipe Lake (39.5 km). Conventional 30-tonne trucks will be used to transport concentrate from the mine site to the Bob Quinn area along the Schaft and Galore roads. From Bob Quinn to Stewart, conventional B-train commercial truck haulage can then be used along Highway 37 and 37A. There would be 96 concentrate trucks along this route over a 24-hour period, seven days per week.

Electrical power to the mine site would be provided via a 287 kV transmission line, extending from Bob Quinn Lake to the Project approximately along the proposed corridor for the Galore and Schaft roads. The proposed transmission line assumes that electrical power will be supplied from British Columbia Transmission Corporation's (BCTC) proposed new 287 kV Northwest Transmission Line from a point near Bob Quinn Lake.

REQUIREMENT FOR AN ENVIRONMENTAL ASSESSMENT CERTIFICATE

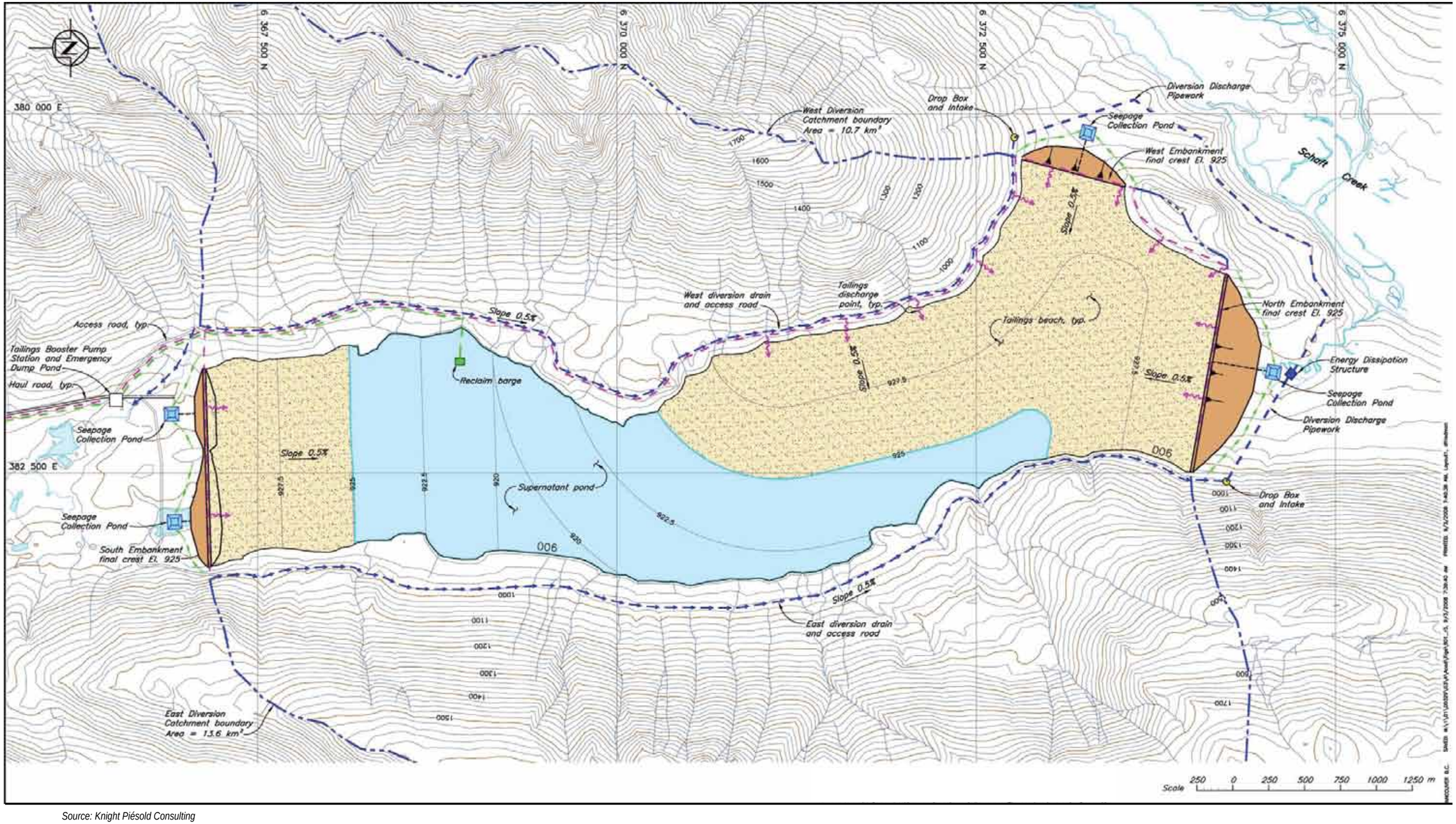
The Schaft Creek Mine Project proposed by Copper Fox comprises the mining and processing of a multi-metal porphyry deposit located in northwestern British Columbia. The Project constitutes a reviewable project pursuant to Part 3 of the Reviewable Projects Regulation (B.C. Reg. 370/02) as the Project is a new mine facility that during operations will have a production capacity of greater than 75,000 tonnes per year of mineral ore. As required by BCEAA and specified in the section 10 order issued by the EAO on August 14, 2006, Copper Fox must submit an application for an environmental assessment certificate (Application) and receive and Environmental Assessment Certificate (EA Certificate) before proceeding with activities related to construction and operation of the Project.

The province's Environmental Assessment Office (EAO) is responsible for administering the EA review and presenting its findings to the Ministers of Environment and Forests, Mines and Lands for a decision on issuance of an Environmental Assessment Certificate (Certificate).

The Project is currently in the first of the province's two staged environmental assessment (EA) process. The pre-application stage focuses on identification of the issues and concerns to be addressed in the Application and reflected in the AIR. The pre-application stage is considered completed on acceptance of the Application for review by the EAO, initiating the Application Review stage of the EA process.

The Application must assess potential adverse environmental, social, economic, heritage and health effects, and practical means to prevent or reduce to acceptable level any potential adverse effects. The Application must also assess potential adverse effects on First Nation Aboriginal Interests and to the extent appropriate propose means to avoid, mitigate or otherwise accommodate such potential adverse effects.

The Application must comply with the Project specific, Application Information Requirements (AIR) that is formally approved and issued by the EAO.



Source: Knight Piésold Consulting

Note: This layout represents the tailings storage facility in the final years of operation prior to closure. Several years before the end of operations and closure, the tailings deposition pattern will be modified to relocate the supernatant pond towards the north of the facility, where a permanent spillway will be constructed in the west abutment of the North Embankment.

FIGURE 1.1-4

Schaft Creek Mine Project - Tailings Storage Facility

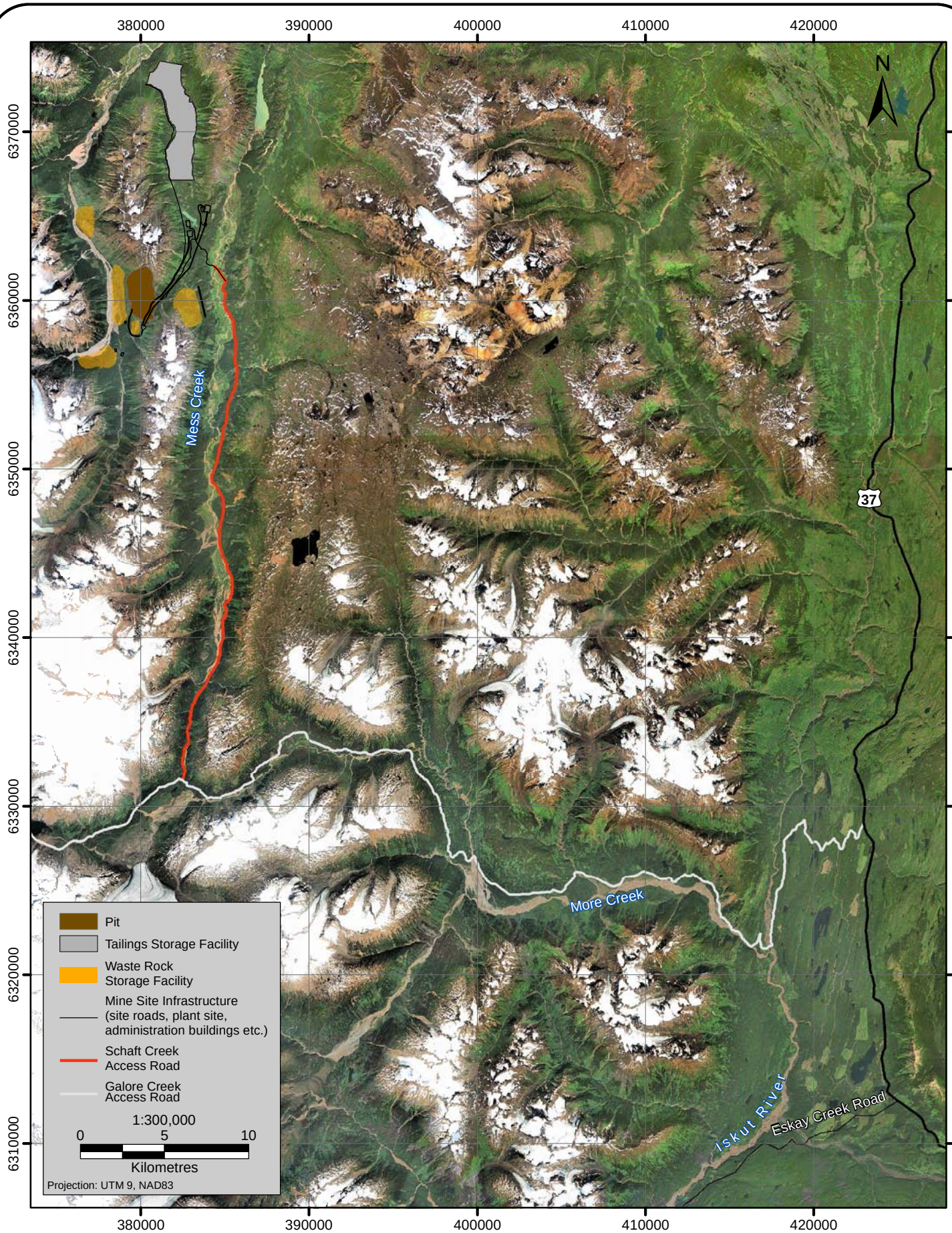


FIGURE 1.1-5

Schaft Creek Mine Project – Schaft Access Road

REQUIREMENT FOR FEDERAL APPROVAL

The Project is also be subject to federal review under the Canadian Environmental Assessment Act, SC 1992, c.37 (CEAA) due to the requirement for federal statutory authorizations. Natural Resources Canada (NRCan) is a confirmed Responsible Authority (RA) under section 11(1) of the CEAA, due to the requirement for issuance of a licence under section 7(1)(a) of the *Explosives Act*. Fisheries and Oceans Canada (DFO), is also a confirmed RA due to the requirement for authorisation under subsection 35(2) of the *Fisheries Act*. Environment Canada has also confirmed RA status due to the likelihood that it will need to issue a licence under subsection 10(1) of the *International River Improvements* Regulations. Transport Canada (TC) is a potential RA as it may need to issue an approval under section 5 of the *Navigable Waters Protection Act*. Since the Project is listed in the schedule of the Comprehensive Study List Regulations (i.e. a proposed metal mine with a capacity of greater than 3,000 tonnes per day), it will be subject to a comprehensive study. Pursuant to subsection 11.01 (1) of the CEAA, the Canadian Environmental Assessment Agency (CEA Agency) will exercise the powers and perform the duties and functions of the RAs until the comprehensive study report is provided to the Minister of the Environment.

The Canada/British Columbia Agreement on Environmental Assessment Cooperation (2004) provides for cooperative environmental assessments (EA) to minimize duplication whenever possible. A cooperative assessment will be undertaken, pursuant to this agreement, and will be led by the EAO and CEA Agency. To ensure the EA of the Project is harmonized to the greatest extent possible, the EAO and CEA Agency will develop a work plan covering aspects of the EA such as timelines, Aboriginal and public consultation, and agency/departmental roles and responsibilities.

The federal information requirements are set out in the AIR which, for the purposes of this cooperative EA, is considered to fulfil the requirement of a federal impact statement guidelines document. These federal requirements include: the potential environmental effects of the Project, including any changes the Project may cause to federally-listed wildlife species, and the anticipated significance of the effects, effects of the environment on the Project, effects of accidents or malfunctions, and cumulative environmental effects; feasible measures that would mitigate adverse environmental effects; need for the Project and alternatives to the Project; and Aboriginal consultation undertaken by the Proponent during the EA. Due to the requirement of a comprehensive study under CEAA, the following information is also required: purpose of the Project, alternative means of carrying out the Project; the need for and requirements of any follow-up program to verify the accuracy of the EA and to assess the effectiveness of measures to mitigate the adverse environmental effects of the Project; and the capacity of renewable resources that are likely to be affected by the Project to meet present and future needs.

PURPOSE AND DEVELOPMENT OF THE AIR DOCUMENT

The purpose of the AIR is to identify the information that will be needed to conduct a cooperative BC-Canada environmental assessment (EA), and to ensure that the identified information will be included in the Application (which is equivalent to the federal environmental impact statement.

In developing the Schaft Creek AIR, Copper Fox has been guided by EAO's Application Information Requirements Template, March 29, 2010 (Template). The Template provides a consistent framework for all EAs, specifying the format required for the AIR and the information it should include, ensuring that for all proposed Projects that the AIR documents will be clear, consistent and thorough. Any deviations from the template were discussed during the early stages of development of the AIR, with the EAO.

While the approved AIR provides a framework for preparing and completing the Application, it is Copper Fox's responsibility to provide sufficient data and analysis to allow evaluation of the potential effects of the Project by First Nations, government agencies, local governments, stakeholders and the public.

In developing the AIR, Copper Fox consulted with local, provincial and federal government representatives, First Nations and the public regarding issues and concerns related to the Project. Early in the pre-application stage, Copper Fox held open houses in Telegraph Creek, Dease Lake, Iskut, Smithers, Terrace, Stewart and Kitimat; and with EAO's Schaft Creek advisory working group to identify issues and concerns to be identified in the AIR and addressed in the Application.

EAO's advisory Schaft Creek Working Group (Working Group) is comprised of representatives from federal, provincial, local governments, Tahltan First Nations, the State of Alaska and the United States (U.S.) federal government.

Canadian Federal departments and agencies represented include: the CEA Agency, Environment Canada (EC), Health Canada (HC), Transport Canada (TC), Fisheries and Oceans Canada (DFO) and Natural Resources Canada (NRCan).

Provincial agencies include: the ministries of Environment (MOE), Natural Resources Operations (MNRO), Trade and Economic Development (MTTED), Forest and Range (MOF), Healthy Living and Sport (MHLS), Transportation and Infrastructure (MOI), Small Business, Technology and Regional Development (MSTRD), Tourism, Culture and Arts (MTSA), Health Services (MHS), Community and Rural Development (MCD); and Integrate Land Management Bureau (ILMB) and the EAO.

Local government is represented by the District of Stewart and the Regional District of Kitimat Stikine.

The Tahltan First Nation is represented by the Tahltan Heritage Resources Environment Assessment Team (THREAT). With respect to the FNs other than the Tahltan Nation and the dAIR, the EAO has initiated consultation with the Nisga'a Nation, the Gitanyow wilp Wii Litsxw and the Gitxsan wilp Skii Km Lax Ha and invited them to provide comments during all public comment periods. However, at this point EAO has indicated that there is not a need to include them in the section 11 Order, or invite them to Working Group meetings.

The Department of Natural Resources and the office of the State of Alaska represent the State of Alaska. The U.S. Department of Interior, U.S. Department of Agriculture - Forest Service (FS), the National Oceanic and Atmospheric Administration (NOAA), U.S Environmental Protection Agency (EPA), U.S. Department of the Interior (DOI) and the National Marine Fisheries Service (NMFS) are other federal agencies that may be involved in the review of the Project.

The draft AIR was provided to the EAO and the Working Group for initial review and comment in June 2010. Copper Fox addressed comments and provided the revised draft to the EAO.

The EAO subsequently posted the draft AIR on the EAO's Project Information Centre (E-PIC) website and initiated a 30 day public comment period, as specified in the Section 11 Order issued April 21, 2010. During the public comment period, Copper Fox held public meetings at the following locations Terrace, Stewart, Telegraph Creek, Dease Lake and Iskut to discuss the Project, the draft AIR and issues that should be addressed in the EA. Following the 30 day comment period, Copper Fox reviewed the comments received from the public, First Nations and government agencies and revised the draft AIR as required and submitted it for approval by the EAO. All agency, First Nation and public

comments, and Copper Fox's responses have been identified in a tracking table and posted on the EAO's website.

In addition to written comments forwarded to the EAO, the public had the opportunity to provide comments through an online form on the EAO website. For each project in an open comment period, the EAO website contains links to this form and a listing of all public comments provided for that project. All comments have been tracked and responded to by Copper Fox.

NEXT STEPS IN THE ENVIRONMENTAL ASSESSMENT OF THE PROJECT

Following approval of the AIR, Copper Fox will submit a draft Application to the EAO and CEA Agency for screening to ensure compliance with the AIR. Following any changes required by the EAO based on feedback from the Working Group, Copper Fox will submit the final Application to the EAO and EAO will initiate the Application review phase, to be completed within 180 days. The Application will be made available to First Nations listed on the EAO's section 11 order, government agencies, local governments, and the public. In the early stages of the Application review, the EAO will initiate a 45 day public comment period on the Application, as set out in the section 11 order. Following the public comment period, Copper Fox will track and address the issues raised during the Application review. At the end of the review the EAO will submit an assessment report, and recommendations to the provincial Minister of Environment and Minister of Forests, Mines and Lands for a decision on the issuance of the EA Certificate.

The federal government, on completing its review under the CEAA, will submit its conclusions and recommendations, in the form of a comprehensive study report, to the federal Minister of the Environment for a decision under section 23 of the CEAA, whether to refer the Project back to the RAs for a course of action decision under section 37 of the CEAA.

Providing that provincial and federal EA approvals are obtained, Copper Fox will require a number of permits and authorizations from both provincial and federal departments before construction and operation can be initiated. Copper Fox has indicated that it intends on submitting applications for provincial permits and authorizations related to the construction of the access road, concurrently during the Application review. While the province's Concurrent Approval Regulation (B.C. Reg. 371/2002) allows for submission of eligible approvals required to construct and operate the Project during the province's review of the Application for an Environmental Assessment Certificate, a decision on those approvals cannot be made until and unless the certificate has been issued. There is no federal concurrent approval mechanism, and RAs will move into their permitting/authorization decision processes if and after making a course of action decision under section 37 of the CEAA.

PROJECT AND REVIEW SCHEDULING

In anticipation that the AIR will be approved and issued by the EAO in the first quarter of 2011, Copper Fox has targeted the second quarter of 2011 for submission of their Schaft Creek EA Application. It anticipates that following certification (if granted) under BC EAA and completion (if successful) of the federal comprehensive study EA process, construction of the Schaft Creek Mine Project's access road will be initiated in the fourth quarter of 2011.

SCHAFT CREEK MINE PROJECT
APPLICATION INFORMATION REQUIREMENTS

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Part A - Schaft Creek Mine Project Application Information Requirements

TABLE OF CONCORDANCE

Copper Fox commits to providing a table of concordance (using the format below) in the Application that presents all requirements for content and methodological approaches in the approved AIR that are to be addressed by the Application, with volume, section and page references.

Table 1. Table of Concordance between Approved AIR and Application Documentation

SECTION	BRIEF DESCRIPTION OF RELEVANT SECTION AND SUB-SECTION	APPLICATION VOLUME AND SECTION

PREFACE TO THE APPLICATION

Copper Fox commits to provide the following in the Application:

- State that the proposed Project is subject to review under the BC Environmental Assessment Act (BCEEA) and the trigger for the review under the BCEAA;
- State that the proposed Project is subject to a comprehensive study assessment under the Canadian Environmental Assessment Act (CEAA) and why;
- Information on any other EA approval processes the proposed Project is undergoing (if applicable), especially if they interact/overlap with the CEAA;
- State that the Application has been developed pursuant to the AIR approved by EAO with input from Federal Responsible Authorities and the Canadian Environmental Assessment Agency (CEA Agency), and complies with relevant instructions provided in the Section 11 Order;
- State that the Application has been developed pursuant to federal information requirements as communicated by the CEA Agency and/or federal responsible authorities; and
- Identify the agencies, First Nations and other parties involved in the development of the Application.

ACRONYMS

Copper Fox commits to provide in the Application a list of all acronyms and abbreviations used and their definitions. Acronyms used in the AIR are presented below:

AIR	Application Information Requirements
BC	British Columbia
BCEAA	British Columbia Environmental Assessment Act
BMP	Best Management Practices

CDC	Conservation Centre
CEAA	Canadian Environmental Assessment Act
CEA Agency	Canadian Environmental Assessment Agency
EA	Environmental Assessment
EAO	Environmental Assessment Office
TCC	Tahltan Central Council
THREAT	Tahltan Heritage Resources Environmental Assessment Team
VC	Valued Component

EXECUTIVE SUMMARY

Copper Fox commits to provide the following in the Application:

- Brief description of the proposed Project;
- Summary of the consultations undertaken;
- Summary of anticipated Project Benefits;
- Summary of the issues and potential Project effects identified;
- Summary of the recommended mitigation measures;
- Summary of the potential residual effects and cumulative effects;
- Summary of the follow-up program(s) proposed; and
- Copper Fox's conclusions from the EA.

PART A – INTRODUCTION AND BACKGROUND

1. Purpose of the Application

Copper Fox commits to provide the following in the Application:

- Purpose of the Application; and
- Indication that the Application satisfies federal requirements for a comprehensive study.

2. Proposed Project Overview

2.1 Copper Fox Metals – Corporate Overview

Copper Fox commits to provide the following in the Application:

- Description of Copper Fox Metals Inc., including history, type of company, affiliations, headquarters location and contact information including contact names, addresses, telephone numbers, fax numbers and e-mail addresses;
- Name and contact for the firm/individual managing the proposed Project EA; and
- Generally indicate where information in the Application is prepared by a qualified professional and the information relates to the qualified professional's expertise.

2.2 Proposed Project Description

Copper Fox commits to provide the following in the Application:

- Reference to the BC EA trigger;
- Reference to the CEAA trigger(s) including:
  - Type of federal EA required;
  - Federal authorizations/permits required that triggered an EA under section 5 of the CEAA; and
  - A note that the Project has not been designated as a major resource project pursuant to the federal Cabinet Directive on improving the Performance of the Regulatory System for Major Resource Projects.
- Location of the proposed Project and the longitude and latitude of the site and maps showing both regional context (identify nearby communities) and site-specific setting;
- Identification of the distance to nearby communities and note the communities on the regional map;
- Identification of known or asserted First Nation traditional territories in the vicinity of the Project area;
- Any relevant history of the proposed Project (e.g. mineral exploration history, past proposals to EAO or federal agencies);
- Description of all on-site components and associated on-site and off-site infrastructure and other facilities associated with the proposed Project, and include figures of components. Note that due to the complexity of a large mine, details of the mine plan will be provided in section 3 of the AIR;
- Description of the activities and timeframes associated with preconstruction/construction, operation, decommissioning/closure, and post-closure of the proposed Project and provide figures of activities; and
- A summary of the environmental management system and adaptive management approach for the proposed Project.

2.3 Provincial Scope of Proposed Project

Copper Fox commits to provide the following in the Application:

- A description of the scope of the proposed Project to be assessed in the provincial EA (pursuant to the section 11 Order).

2.4 Federal Scope of the Proposed Project

Copper Fox commits to provide the following in the Application:

- A description of the scope of the proposed Project to be assessed as directed by federal responsible authorities.

2.5 Alternative Means of Undertaking the Proposed Project

Copper Fox will complete alternative assessments for the following Project components:

- Access road options (i.e. Mess Creek Valley road alignment versus Tahltan Highland road alignment;
- Mess Creek Causeway;
- Tailings management options (e.g. dry stack tailings vs. submerged tailings);
- Power supply options;
- Transmission line options;
- Waste rock storage options (including waste rock management rationale and justification);
- Stream crossing design alternatives on fish-bearing streams where potential Habitat Alteration, Disruption or Destruction (HADD) of fish or fish habitat has been identified;
- Concentrate transportation modes (i.e., slurry pipeline to Bob Quinn Lake area, slurry pipeline to Stewart versus trucking direct from mine site to Stewart);
- Concentrate filtering at site versus off site;
- Tailings management (i.e., location of tailings storage facility); and
- An analysis of different processing throughputs and justification for the current production configuration of 150,000 tpd and an operating mine life of 15 years.

Each assessment of alternatives will include the following:

- A brief description of the proposed Project alternatives;
- Identification of the key issues in considering the alternative means of undertaking the proposed Project;
- Analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible; and
- Identification of the rationale for selecting the preferred alternative.

In developing this section, Copper Fox will refer to the guidelines in the CEAA Operational Policy Statement, CEAA (1998) Addressing "Need for", "Purpose of" "Alternatives to" and "Alternative Means" under the Canadian Environmental Assessment Act.

2.6 Project Land Use

Copper Fox commits to provide the following in the Application:

- Description of the land ownership and land use regime , including tenures, licenses, permits or other authorizations that would be potentially affected by the proposed Project and report on the status of consultations with holders of such tenures and permits, and private land owners on resolving issues with tenure and permit holders;
- Description of the Cassiar Iskut-Stikine Land and Resource Management Plan (CIS-LRMP), including a list of management objectives;
- Description of the Kitimat-Stikine Rural Land Use Bylaw (RLUB) for the area around Bob Quinn; and the Stewart Community Plan;

- Management Plan for Stikine Protected Areas within the Project area, November 2003;
- A summary of Tahltan land use and a reference to First Nation Information requirements, Section 13 for additional information on Tahltan land use;
- Identification of future developments that are reasonably foreseeable and sufficiently certain to proceed as defined in section 5.1.4; and
- Identification of other developments that may result in overlapping effects with the proposed project.

2.7 Project Benefits

Copper Fox commits to provide the following in the Application:

- Initial capital construction cost estimates including:
  - Breakdown of costs for the land, buildings, and equipment associated with the proposed project; and,
  - Indicate the potential for use of local facilities and indicate if these are currently under-utilized.
- Estimated operating costs over the life of the proposed project (for land, buildings and equipment) including:
  - Estimated annual operating costs (excluding labour);
  - Indicate how the costs are measured; and
  - Costs for decommissioning/closure/abandonment/reclamation.
- Employment estimates including:
  - Direct employment, stated in number of person years (PY: defined as a single person employed full-time for one year) to be created by major job category during construction and operation, distinguishing among full-time, part-time and seasonal workers;
  - Wage levels, by major job category, for the construction and operating periods;
  - Breakdown of the number of people that will be hired locally, provincially, nationally or internationally;
  - Potential for the Proponent to use local human resources currently under-utilized;
  - Indicate any relevant employment policies/practices; and
  - Indirect employment for the construction and operation phases of the proposed project. Any assumptions relating to industry specific multipliers or other multipliers used will be included.
- Contractor supply services estimates including:
  - List of the major types of businesses/contractors, broken down at the local, provincial, and national level that will benefit from the overall proposed project;
  - Value of supply of service contracts expected for both the construction and operation phases of the proposed project; and
  - Information about a local purchasing strategy, if any.
- Annual government revenues for the construction and operation phases of the proposed project including:
  - Local/municipal (property taxes, other);

  - Regional District (taxes, other);
  - Provincial (income tax, sales tax, lease, license and tenure, royalties, other); and,
  - Federal (income tax, Harmonized Sales Tax (HST), payroll taxes, other).

- State all assumptions and reference information sources for the above information;
- Identify proposed project contributions to healthy living; and
- Identify proposed project contributions to community development.

The following is a list of references that will be used in providing the above information:

- BC Stats, Quarterly Regional Statistics – http://www.bcstats.gov.bc.ca/pubs/pr_qrs.asp
  - Quarterly data on Labour Force Survey, manufacturing, building permits, tourism, incorporations and bankruptcies, economic structure, unemployment, income assistance and population.
- BC Stats, BC Input-Output Model – http://www.bcstats.gov.bc.ca/pubs/pr_pem.asp
  - Economic (GDP, employment) and government revenue multipliers allow users to quickly gauge the potential impact of industrial development/contraction in the Province.
- BC Stats, Current Labour Force Data - http://www.bcstats.gov.bc.ca/pubs/pr_lfs.asp
  - This summary of labour force conditions shows employment and unemployment by age, gender, occupation and industry, with a breakdown for Development Regions, Metropolitan Vancouver and Victoria.
- BC Stats, Regional District Data - http://www.bcstats.gov.bc.ca/regions.asp
  - Breakdown of regional statistics by population, socioeconomic profile, Aboriginal profiles, and population projections.
- BC Stats, Socioeconomic profiles - http://www.bcstats.gov.bc.ca/data/sep/index.asp
  - The profiles consist of charts and tables for the 26 Regional Districts, 86 Local Health Areas, 16 Health Service Delivery Areas, 5 Health Authorities, 8 Development Regions, and 15 College Regions within the Province of British Columbia. Also included are the special geographies of the Georgia, Fraser, and Columbia Basins.
- Statistics Canada - Community Profiles - http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/index.cfm?Lang=E
  - These profiles present community-level information from the 2006 Census of Population.

2.8 Applicable Permits

Copper Fox commits to provide the following in the Application:

- List of applicable provincial and federal licenses and permits required for the construction, operation and decommissioning of the proposed Project and the associated responsible regulatory agency;

- If Skeeter Lake is deemed navigable by TC, then a Governor in Council exemption will be required under s.23 of the Navigable Waters Protection Act to allow the deposition of mine tailings into Skeeter Lake; and
- Indication if a request for concurrent permitting is being requested under the BCEAA pursuant to the Concurrent Approval Regulation (BC Reg. 371/2002).

3. Detailed Description of Project Components

Copper Fox commits to provide the following in the Application:

- Maps at an appropriate scale that include site-specific setting and the proposed layout of Project components and activities; and
- A description of existing infrastructure on the site (general infrastructure, roads, water and power).

3.1 Project Rationale

Copper Fox commits to provide the following in the Application:

- Description of the purpose and need for the Project;
- Rationale for proceeding with the development at this time within the context of regional, provincial and federal economies, as well as global implications of supply and demand on metal mines and markets;
- A summary of the economic feasibility (considering metal prices, concentrate and shipping charges) of developing the Schaft Creek deposit and state the key commercial assumptions used in the analysis such as metal prices and concentrate shipping and refining charges; and
- In developing this section, Copper Fox will refer to the guidelines in the CEAA Operational Policy Statement, CEAA (1998) Addressing "Need for", "Purpose of" "Alternatives to" and "Alternative Means" under the Canadian Environmental Assessment Act.

3.2 Climate and Length of Operating Season

Copper Fox commits to provide the following in the Application:

- A summary of climatic conditions, with reference to the operating season.

3.3 Physiography and Vegetation

Copper Fox commits to provide the following in the Application:

- A summary of physiography and vegetation of the site.

3.4 Mineral Tenure, Land Status and Description of Leasehold Interest

Copper Fox commits to provide the following in the Application:

- Provincial mineral tenure of the Schaft Creek property, including maps.

3.5 Mining History and Exploration Activity

Copper Fox commits to provide the following in the Application:

- An outline of the Project's history including previous ownership and exploration.

3.6 Geology

3.6.1 Regional Geology

Copper Fox commits to provide the following in the Application:

- A description of the regional geology.

3.6.2 Local Geology

Copper Fox commits to provide the following in the Application:

- A description of the property's geology relative to the mine plan, including:
  - Lithology;
  - Alteration;
  - Veining; and
  - Structure and structural controls.

3.6.3 Schaft Creek Deposit

Copper Fox commits to provide the following in the Application:

- A description of the deposit geology, including:
  - Porphyry copper definition;
  - Schaft Creek porphyry system;
  - Alteration mineralization and structural features; and
  - Condemnation drilling associated with the proposed mill, waste rock storage areas, tailings impoundment and infrastructure.

3.7 Mineral Resources

Copper Fox commits to provide the following in the Application:

- A definition of the mineral resources including measured, indicated and inferred categories; and
- Mineral reserve estimates if available.

3.8 Site Geochemistry

Note that the geochemistry information presented in this section does not include geochemical predictions needed to complete the water quality effects assessment. Geochemistry predictions are presented within Mine Water Management (section 3.18).

Copper Fox commits to provide the following in the Application:

- The application will be developed in accordance with the following ML/ARD policy and guidelines documents:
  - Policy for Metal Leaching and Acid Rock Drainage at Minesites in British Columbia, Ministry of Energy and Mines and Ministry of Environment, Lands and Parks, July 1998.
  - Guidelines for Metal Leaching and Acid Rock Drainage at Minesites in British Columbia, Ministry of Energy and Mines, August 1998.

- Description of sampling and analytical approach used in characterizing geology and geochemistry.
  - The ML/ARD prediction and prevention program will be representative of the geochemical materials to be disturbed or created during mining. Materials at the Schaft Creek Mine Project that will be investigated for ML/ARD potential include overburden, waste rock, ore, low grade ore and tailings. Mine components of the Project that will be assessed for ML/ARD potential include the pit walls, waste rock dumps, low grade ore and ore stockpiles, tailings impoundment, and various on site infrastructure. The application will provide information to demonstrate that sufficient geochemically suitable materials are available to meet construction requirements of the project.

3.9 Mining Method

Copper Fox commits to provide the following in the Application:

- Description of the mining method to be used.

3.10 Schaft Pit

Copper Fox commits to provide the following in the Application:

- Description of the open pit development plan including pit phases and phase designs;
- Pit designs including slopes, haul road widths, design standards and geotechnical and hydrogeological considerations (i.e. pit wall management);
- Description of pit water management including inflow diversions and dewatering methods;
- Description of conceptual instrumentation and monitoring of the pit during operations;
- Description of the geohazards of influence to the pit; and
- Discussion of ore grade and waste control.

3.11 Mine Production Schedule

Copper Fox commits to provide the following in the Application:

- General mining plan;
- Ore and waste production; and
- Annual metal production in concentrate.

3.12 Metallurgy and Ore Processing

Copper Fox commits to provide the following in the Application:

- Description of the process plant operations including:
  - Process description;
  - Process flow sheet;
  - Metallurgical investigations, and conclusions;
  - List of reagents; and
  - Process plant construction methods.

3.13 Tailings Storage Facility

Copper Fox commits to provide the following in the Application:

- Geotechnical investigations of the tailings area;
- Detailed information on siting considerations and constraints, foundation characteristics and geohazards in the area;
- Embankment design criteria;
  - Source of embankment construction material;
  - Hazard classification;
  - Seismicity;
  - Storage capacity;
  - Layout; and
  - Tailing properties.
- Proposed borrow locations (if any);
- Description of operations;
- Description of the water reclaim system;
- Description of any structures designed to divert water from entering the TSF;
- Description of tailings water seepage;
- Description of conceptual instrumentation and monitoring of the TSF during operations;
- Proposed development stages; and
- Construction methods.

3.14 Waste Rock Storage and Ore Stockpiles

Copper Fox commits to provide the following in the Application:

- Waste rock storage locations, volumes and development;
- Geotechnical conditions;
- Detailed information on siting considerations and constraints, foundation characteristics and geohazards in the area;
- Description of the waste rock water management components of the Project, including:
  - Design criteria;
  - Instrumentation and monitoring;
  - Water management and erosion control measures that will separate mine affected and non-mine affected drainages and seepages; and
  - Link the management strategies related to waste rock and water management components to the mine.
- Description of ore stockpiling, including low grade ore;
- Description of pre-production development; and
- Proposed development stages.

3.15 Overburden and Topsoil Stockpile Configuration

Copper Fox commits to provide the following in the Application:

- Description of topsoil and overburden salvage and storage and location; and
- Description of pre-production development.

3.16 Mining Equipment

Copper Fox commits to provide the following in the Application:

- A list of mining equipment, including its capacity and source, to be used during construction and operations.

3.17 Blasting

Copper Fox commits to provide the following in the Application:

- Description of the type, quantity, manufacturing, storage and use of explosives;
- Description of the storage quantity and capacity of the explosive factory and magazine during both construction and operations (including the number of magazines);
- Description of the transportation method of explosives; and
- Description of the potential effluent.

3.18 Mine Water Management

Copper Fox commits to provide the following in the Application:

- Summary of water management facilities for the pit, tailings storage facility, waste rock, ore stockpiles, concentrate stockpiles, overburden, mine infrastructure;
- Site water balance, during construction, operations, closure/decommissioning and post-closure;
- Delineation of geochemical source terms (ML/ARD, process chemicals, explosive residuals etc) including influence from pit walls, waste rock, ore stockpiles, concentrate stockpile, overburden and tailings discharge) and methods utilized in geochemical predictive modeling (including the use of any relevant geochemical analogues). Implications of lag times on pit wall ML/ARD potential, as well as any temporary storage of waste or ore will be considered. Information will be presented in a clear and transparent manner; and
- The application will integrate results of the ML/ARD prediction work, baseline water quality, hydrology/water quantity (including extreme event), and water balance information to develop water quality predictions that will be used as a basis for effects assessment and to determine materials handling procedures and to assess and develop ML/ARD mitigation/management requirements for the project. Geochemical modeling will be presented in a clear and transparent manner and the methods, assumptions and rationale used to estimate water quality will be thoroughly explained.

3.19 Schaft Creek Access Road

Copper Fox commits to provide the following in the Application:

- Description of the road access, including:
  - Alignment and relevant design criteria;
  - Location of any temporary and ancillary access roads;
  - Rock cut locations;
  - Geochemical assessment and an outline of a ML/ARD management plan for cut materials;
  - Geohazard mapping;
  - Stream crossing structures, including;
    - Description of any associated activities (dredging, alteration of water bed or banks);
    - Description of ancillary and temporary works (cofferdams, temporary bridges, etc.;
    - Dimensions of works;
    - Any known navigational use of the watercourse; and
    - Photos taken upstream, downstream and across the watercourse at the proposed crossing.
  - Proposed borrow sources;
  - Construction methods to be used, including:
    - Staging areas to facilitate the construction process.
  - Use of road during construction and operations;
  - The size and type of vehicles to be used;
  - An estimate of the types and quantities of goods to be moved, including fuel products or other hazardous material; and
  - The frequency and approximate timing of trips, including trucks carrying concentrate, fuel and other supplies.

- For watercourse crossings where a DFO operational statement will not apply, the description will also include the extent of anticipated riparian clearing.

3.20 Power Supply and Distribution

Copper Fox commits to provide the following in the Application:

- Description of the Power Line, including:
  - Power Line route and all relevant design criteria;
  - Width of the right-of-way (currently set at 40 metres);
  - Geohazard mapping;
  - Stream crossing structures;
  - Staging areas to facilitate the construction process;
  - The size of poles to be used;
  - Stream crossing structures;
  - Power capacity of the line; and
  - Construction methods to be used.

3.21 Infrastructure

Copper Fox commits to provide the following in the Application:

- Description of the proposed site infrastructure, including:
  - Site layout;
  - Site access;
  - Site roads (including stream crossing structures);
  - Process Plant and Ancillary Facilities:
    - Concentrate Storage;
    - Process Plant;
    - Warehouse;
    - Truck shop;
    - Mine dry;
    - Permanent operations camp;
    - Administration building; and
    - Assay laboratory.
  - Airfield;
    - Purpose and frequency of flights;
    - Flight levels;
    - Direction of approach;
    - Prevailing wind direction relative to the landing approaches;
    - Anticipated types of aircraft; and
    - Anticipated scheduling.
  - Water supply and distribution;
  - Fueling facilities;
  - Fire protection;
  - Sanitary sewage;
  - Domestic waste disposal and wildlife protection/control;
  - Communications;
  - Property security and medical services; and
  - Construction methods.

3.22 Transportation

Copper Fox commits to provide the following in the Application:

- Description of the general condition of Highway 37, general traffic volumes, changes in traffic volumes due to the Project, and Highway 37 suitability to accommodate this traffic;
- Description of the transport of concentrate from the mine site to the Port of Stewart, including size, type and vehicle configuration to be used;
- Description of the truck transfer station near Highway 37, including location, approximated size of the facility footprint, a general description of infrastructure and the access road;
- Description of any infrastructure, and related activities, as well as any changes to road access required at the junction with Highway 37;
- Estimation of the average number of truck trips per day (both to the port and returning from the port) and anticipated load and fuel capacity of haul trucks; and
- Description of any changes that would be required to the Port of Stewart resulting from the Project.

3.23 Materials Management

Copper Fox commits to provide the following in the Application:

- List of hazardous materials and anticipated quantities; including:
  - Fuel and lubricant storage;
  - Process chemical storage; and
  - Other chemicals need relatively large quantities.

3.24 Capital and Operating Costs

Copper Fox commits to provide the following in the Application:

- Description of the anticipated capital and operating costs of the Project (as presented in Section 2.7).

3.25 Project Execution

Copper Fox commits to provide the following in the Application:

- Execution strategy:
  - Management procedures;
  - Risk management; and
  - Project scheduling and progress reporting.
- Construction strategy;
- Construction labour requirements;
- Construction camps;
- Construction methods; and
- Project team responsibilities.

3.26 Corporate Policy

Copper Fox commits to provide the following in the Application:

- Description of the following plans and corporate strategies:
  - Health, safety, environment and security plan;
  - Procurement strategy;
  - Hiring practices and local hiring plan;
  - Worker commuting strategy;
  - Potential Tahltan business opportunities; and
  - Worker training and education strategy.
- Description of healthy living initiatives.

3.27 Mitigation Design Features

Copper Fox commits to provide the following in the Application:

- Description of the Project design features incorporated into the Project specifically to avoid or minimize potential adverse environmental, social, economic, heritage and health effects; and First Nations' asserted aboriginal rights and interest; and
- A summary of the trade-off studies that have been completed as part of the mitigation design process.

3.28 Closure and Reclamation

Copper Fox commits to provide the following in the Application:

- Description of the regulatory framework and requirements and government agreements that are needed with respect to the closure and reclamation phase of the Project;
- An overview of the proposed conceptual closure and reclamation plan (including the access road, end water use objectives, watercourse reclamation methods, etc.);
- Description of the measures to be implemented through the mine site reclamation plan to mitigate the long-term adverse effects of the Project;
- An outline of the end land use objectives, as well as information on re-vegetation species, proposed reclamation methods and expected capability of the reclaimed area for vegetation and wildlife, especially wildlife and plant species identified as valued components;
- Description of the proposed development site at closure, and after reclamation. This will include a description of how the land use objectives will create post mine ecosystems with similar ecological values and land capabilities as existed before the Project. Reclamation of each Project component will be discussed individually and criteria for evaluating reclamation success will be defined;
- A list of closure, decommissioning and reclamation components and activities; and
- A plan for temporary closure.

3.29 Project Component Summary

Tables 3.2-1 to Table 3.2-4 list the project components included for EA within the Application for each phase of the project; preconstruction/construction, operations, closure and decommissioning and post-closure.

Table 3.2-1. Pre-Construction/Construction Components and Activities

Project Component	Project Activity/Pathway to Effect
Corporate Policy:	Worker Health and Safety
	Procurement policy
	Recruiting
	Organization and workforce
	Commuting
	Work schedule
	Local Business Opportunities
	Training and education
	Healthy Living Programs

(continued)

Table 3.2-1. Pre-Construction/Construction Components and Activities (continued)

Project Component	Project Activity/Pathway to Effect
Schaft Creek Access Road:	Site Clearing and grading (including works in riparian areas)
	Soil Salvage
	Topsoil Storage
	Civil Works
	Cut and Fill (bedrock/overburden disturbance)
	Water Management
	Explosives Use
	Quarry
	Stream Crossings
Power Supply and Distribution:	Site Clearing and grading (including works in riparian areas)
	Soil Salvage
	Topsoil Storage
	Civil Works
	Cut and Fill (bedrock/overburden disturbance)
	Water Management
	Explosives Use
	Stream Crossings
Schaft Pit:	Site Clearing and grading (including works in riparian areas)
	Soil Salvage
	Topsoil Storage
	Civil Works
	Explosives Use
	Pit Access Roads
	Surface Water Management
	Ground Water Management
Tailings Storage Facility (TSF):	Site Clearing and grading (including works in riparian areas)
	Soil Salvage
	Topsoil Storage
	TSF Access Roads
	Pipeline Construction/Installation
	Civil Works
	Surface Water Management
	Ground Water Management
	Embankment Construction
	Quarry
Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles:	Site Clearing and grading (including works in riparian areas)
	Soil Salvage
	Topsoil Storage
	WRSF Access Roads
	Surface Water Management
	Ground Water Management

(continued)

Table 3.2-1. Pre-Construction/Construction Components and Activities (completed)

Project Component	Project Activity/Pathway to Effect
Site infrastructure:	Site Clearing and grading (including works in riparian areas)
	Soil Salvage
	Topsoil Storage
	Infrastructure Access Roads
	Civil Works
	Air traffic
	Potable Water
	Sewage/Gray Water Treatment
	Surface Water Management
	Ground Water Management
Transportation:	Increased Traffic
	Material transfer station
	Hazardous Materials
Port of Stewart:	No activities

Table 3.2-2. Operation Components and Activities

Project Component	Project Activity/Pathway to Effect
Corporate Policy:	Worker Health and Safety
	Procurement policy
	Recruiting
	Organization and workforce
	Commuting
	Work schedule
	Training and education
	Healthy Living Programs
Schaft Creek Access Road:	Top Soil Storage (runoff)
	Exposed Bedrock & overburden
	Road Use
	Shipping of hazardous materials
	Road/Stream Crossing Structures Maintenance
Power Supply and Distribution:	Operations and Maintenance
Schaft Pit:	Top Soil Storage (runoff)
	Surface Water Management
	Ground Water Management
	Pit Access Roads Use
	Pit Traffic
	Explosives Use
Tailings Storage Facility (TSF):	Top Soil Storage (runoff)
	TSF Access Roads Use
	Surface Water Management
	Ground Water Management
	Conveyor

(continued)

Table 3.2-2. Operation Components and Activities (completed)

Project Component	Project Activity/Pathway to Effect
Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles:	Top Soil Storage (runoff)
	WRSF Access Roads
	Surface Water Management
	Ground Water Management
	Active Reclamation
Site infrastructure:	Top Soil Storage (runoff)
	Potable Water
	Sewage/Gray Water Treatment
	Water Management
	Air traffic
	Infrastructure Access Roads
Transportation:	Increased Traffic
	Material transfer station
	Hazardous Materials
Port of Stewart:	Port Use

Table 3.2-3. Closure and Decommissioning Components and Activities

Project Component	Project Activity/Pathway to Effect
Corporate Policy:	Worker Health and Safety
	Corporate Closure Policies
Schaft Creek Access Road:	Decommissioning and Reclamation
	Water Management
Power Supply and Distribution:	Decommissioning and Reclamation
Schaft Pit:	Pit Reclamation
	Pit Access Road Decommissioning and Reclamation
	Surface Water Management
	Ground Water Management
Tailings Storage Facility (TSF):	TSF Reclamation
	TSF Access Road Decommissioning and Reclamation
	Surface Water Management
	Ground Water Management
Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles:	WRSF Reclamation
	WRSF Access Road Decommissioning and Reclamation
	Surface Water Management
	Ground Water Management
Site Infrastructure:	Air traffic
	Site Decommissioning and Reclamation
	Infrastructure Access Road Decommissioning and Reclamation
	Water Management
Transportation:	General Traffic
	Load/material transfer station
Port of Stewart:	End of Port Use

Table 3.2-4. Post-Closure Components and Activities

Project Component	Project Activity/Pathway to Effect
Corporate Policy:	Worker Health and Safety Corporate Post-Closure Policies
Schaft Creek Access Road:	Monitoring reclamation Reporting
Power Supply and Distribution:	Monitoring reclamation Reporting
Schaft Pit:	Monitoring reclamation Reporting
Tailings Storage Facility (TSF):	Monitoring reclamation Reporting
Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles:	Monitoring reclamation Reporting
Airfield:	Monitoring reclamation Reporting
Site Infrastructure:	Monitoring reclamation Reporting Air traffic
Transportation:	No activities
Port of Stewart:	No activities

4. Assessment Process

4.1 Provincial Review

4.1.1 Pre-Application Stage

Copper Fox commits to provide the following in the Application:

- List of the agencies/ departments /organizations likely to be involved in the review;
- List applicable milestones; and
- Issue tracking tables to document issues and concerns raised and the degree to which issues are considered resolved or addressed by Copper Fox and other parties during the preparation of the Application by each of the following groups:
  - Public;
  - Aboriginal Groups; and
  - Local, provincial and federal government agencies.

4.2 Federal Review

Copper Fox commits to provide the following in the Application:

- List of the agencies/ departments /organizations likely to be involved in the review, and their anticipated or confirmed roles;
- List applicable federal milestones; and

- Summarize the issue and concerns identified in the issue tracking tables referred to in section 4.1 and how these matters were addressed.

4.3 First Nations Information Distribution and Consultation

4.3.1 Pre-Application Consultation

Copper Fox commits to provide the following in the Application:

- Summary of consultation activities undertaken with the identified First Nations potentially affected by the proposed Project, including the exploration stage and covering the preparation of the AIR; and
- Summarize the issue and concerns identified in the issue tracking tables referred to in Section 4.1 and how these matters were addressed.

4.3.2 Consultation Planned during Application Review

Copper Fox commits to provide the following in the Application:

- *Description of the First Natio*ns consultation programs proposed for the Application review stage; and
- Documentation of the proposed methods and process to resolve outstanding issues.

4.4 Public and Agency Information Distribution and Consultation

4.4.1 Pre-Application Consultation

Copper Fox commits to provide the following in the Application:

- Summary of consultations with public and other key stakeholders, federal, provincial and local government agencies;
- Description of the means of information distribution and consultation used at public meetings and open houses; one-on-one meetings with interested parties; publication of articles in the media including; enclosures and community newspapers; through interviews on local radio and television; and by means of participation in community events; and
- Summary of the issue and concerns identified in the issue tracking tables referred to in Section 4.1 and how these matters were addressed.

4.4.2 Consultation Planned during Application Review

Copper Fox commits to provide the following in the Application:

- Description of the public consultation program proposed for the Application review stage of the EA process;
- Description of the proposed programs for consultation with government agencies; and
- Documentation of the proposed methods and process to resolve outstanding issues.

Part B – Assessment of Potential Effects, Mitigation, and Significance of Residual Effects

5. General

The application will contain a sufficient level of baseline information to predict positive and negative effects and describe the extent to which negative effects may be avoided, minimized, reduced, or otherwise mitigated.

5.1 Assessment Methodology

The assessment methodology will include the following:

- Scope of the EA;
- A description of the agencies, First Nations, and stakeholders that reviewed and commented on the draft AIR;
- A list of the guidance documents provided by agencies used to develop the assessment methodology;
- A description of standards used for baseline studies and EA analysis;
- A list of applicable federally/provincially/regionally developed best management practices and guidance documents that would be implemented;
- Traditional ecological or community knowledge will be included where available. Where not available, Copper Fox's efforts to obtain this information will be discussed;
- Identification of valued components (VC) within environment, economic, social, heritage and health;
- An introduction for each of the five groups of VCs (i.e. environment, economic, social, heritage and health).The introduction will include:
  - VC scoping and rationale (including relevant legislation and legal framework);
  - Spatial boundaries including maps detailing the local and regional study areas for each VC;
  - A description of the temporal extent of the EA relative to the selected VCs for all project phases (preconstruction/construction, operations, decommissioning and closure, and post closure). Based on the current mine plan the temporal boundaries for the project stages will be as follows: pre-construction/construction (3 years), operations (15 years), closure/decommissioning (1 year) and post-closure (50 years). Temporal boundaries for effects analyses will vary depending on each group of VCs and each effect (e.g. an effect realized in pre-construction/construction may last 3 years or through post-closure). These will be finalized in the EA; and
  - For temporal boundaries, include any annual or seasonal variation related to the VCs for all project phases.
- Generalized potential effects.

In the EA of each VC, the following will generally be included:

- Identification of the existing environment relevant for each VC;

- Identification of the Potential Effects of the Proposed Project and Proposed Mitigation:
  - Identification of project components that interact with each VC;
  - Identification of pathways to potential effects for each VC;
  - Identification of mitigation measures for each VC; and
  - Validation of pathways to potential effects for each VC.

- Assessment of residual effects and their significance for each VC:
  - Classification of residual effects, both direct and cumulative, by pathway for each VC, based on:
    - Direction, magnitude, geographic extent, duration and frequency, reversibility, context and probability. These terms are defined as follows:
      - Direction: This refers to whether the effect on the VC will be adverse, positive, or neutral;
      - Magnitude: This refers to the magnitude or severity of the effect. Low magnitude effects may have no impact, while high magnitude effects may have an impact;
      - Geographic Extent: This refers to the extent of change for a particular VC. The geographic extent of effects can be local or regional. Local effects may have a lower impact than regional effects;
      - Duration and Frequency: This refers to the length of time the effect lasts and how often the effect occurs. The duration of an effect can be short term or long term. The frequency of an effect can be frequent or infrequent. Short term and/or infrequent effects may have a lower impact than long term and/or frequent effects;
      - Reversibility: This refers to the degree to which the effect is reversible. Effects can be reversible or permanent. Reversible effects may have lower impact than irreversible or permanent effects;
      - Context: This refers to the ability of the environment to accept change. For example, the effects of a Project may have an impact if they occur in areas that are ecologically sensitive, with little resilience to imposed stresses; and
      - Probability: The likelihood that an effect will occur in circumstances where it is not certain that the effect will materialize.
    - Significance determination for each VC;
    - Level of certainty in the significance determination; and
- Summary of the potential residual effects for each VC.

Note: VCs within environment, economic, social, heritage and health will generally be structured as above; however, the assessment of effects on archaeology will follow a revised methodology more suitable to this discipline.

5.1.1 Cumulative Effects Assessment

The Provincial cumulative effects approach differs from the federal approach in that a cumulative effects assessment on residual Project (direct) effects is conducted for each VC, if the Project effect is not negligible. If the cumulative effect is determined to be significant using the methodology outlined in Section 5.1 then additional mitigation may be proposed. Spatial and temporal boundaries for the cumulative effects assessment may vary depending on the VC.

For each VC, Copper Fox commits to provide the following in the Application:

- The methodology and rationale used to identify other developments, including reasonably foreseeable future developments that may, in concert with the potential effects of the proposed Project, lead to cumulative effects. This methodology will be consistent with federal requirements (Section 18.8, cumulative effects will include effects from Past, present and reasonably foreseeable future Projects and activities), unless otherwise indicated;
- Description of the developments identified; and
- A summary table identifying and describing the projects included in the cumulative effects assessment.

6. Assessment of Potential Environmental Effects

Copper Fox commits to provide the predicted effects on each Environmental VC resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary. Where applicable, Copper Fox will provide a general discussion regarding the potential environmental implications of changes to the project development schedule and annual production rate.

6.1 Environmental Context

Copper Fox commits to provide the following in the Application:

- A general description of the existing biophysical environment, including surrounding areas within the zone of potential influences of the proposed Project. The following subheadings will be in the Application.
  - Atmospheric;
  - Groundwater;
  - Surface Hydrology;
  - Surface Water Quality and Aquatic Resources;
  - Fish and Fish Habitat;
  - Terrestrial; and
  - Wildlife and Wildlife Habitat.

6.2 Atmospheric Environment

6.2.1 Introduction

Copper Fox commits to provide the following in the Application:

- A general introduction to the area of study will be provided which describes the climate characteristics of the area. Traditional ecological or community knowledge will be included, where available.

6.2.1.1 VC Scoping and Rationale

Copper Fox commits to provide the following in the Application:

- The rationale for choosing and assessing Atmospheric Environment VCs. Justification for each VC included in the analysis will be given, based on information from:
  - Federal and Provincial regulations;
  - First Nations;
  - Applicable government agencies;

- Land and resource management plans;
- The public and other stakeholders; and
- Scientific literature and professional knowledge.

6.2.1.1.1 Relevant Legislation and Legal Framework

Copper Fox commits to provide the following in the Application:

- Reference to guidance documents prepared by The Federal-Provincial-Territorial Committee on Climate Change and Environmental Assessment; and
- Any relevant legislation and the legal framework related to the assessment of the atmospheric environment.

6.2.1.2 Spatial and Temporal Boundaries

Copper Fox commits to provide the following in the Application:

- Temporal and spatial assessment boundaries for climate effects.
  - Figure 6.2-1 presents the spatial study area boundary. The cumulative effects assessment spatial boundary may use a larger area, depending on the VC and projects/disturbances considered in the cumulative effects assessment.
- Description of any annual or seasonal variation related to VCs and biophysical constraints for all phases of the proposed Project.

6.2.1.3 Potential Effects

Copper Fox commits to provide the following in the Application:

- The general predicted effects for the atmospheric environment. These are likely to include:
  - Climate change.

Note: changes to air quality is addressed in Assessment of Potential Health Effects (section 10); changes to noise are addressed in Wildlife and Wildlife Habitat (section 6.8) and Assessment of Potential Health Effects (section 10).

6.2.2 VC#1 – Climate

6.2.2.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline information and its source; This baseline will include:
  - Climatic setting as measured on site (from the Schaft Camp, LaCasse, and Saddle meteorological stations) and regional climate data for:
    - Monthly and annual air temps (mean, maximum, and minimum);
    - Monthly and annual precipitation;
    - Measured monthly and annual solar radiation;
    - Seasonal evapotranspiration rates;
    - Measured seasonal wind speed and direction; and
    - Measured snow depths and snow-water-equivalent.
- References to meteorological and climate baseline reports.

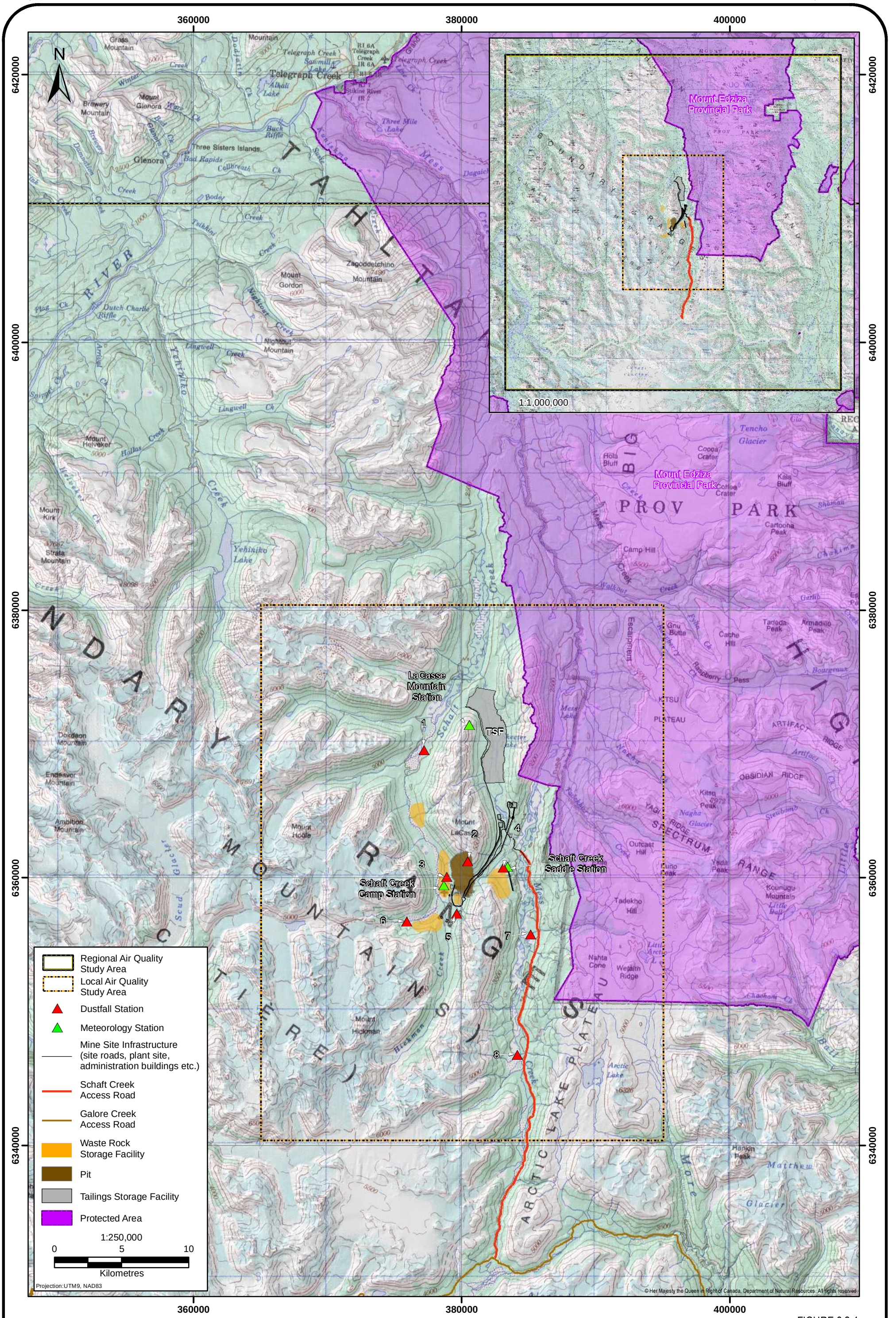


FIGURE 6.2-1

Atmospheric Environment Study Area

6.2.2.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.2.2.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for climate. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles;
  - Site Infrastructure; and
  - Transportation.

6.2.2.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for climate.

6.2.2.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on groundwater quantity.

6.2.2.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for climate.

6.2.2.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational and closure/decommissioning stages of the Schaft Creek Mine Project. The analysis will include:
  - Computation of Project generated GHG emissions in the form of CO_2 equivalence (CO_2-eq) based on fuel and energy consumption including diesel, gasoline, natural gas, and electricity;
  - Estimates of loss of carbon sink due to forest clearing at the mine site and along the access road;
  - Comparison of predicted GHG emissions to federal, provincial, and mining industry GHG inventories in terms of absolute emissions and emission intensities; and
  - Comparison of predicted emissions to the existing emissions limit of 100 kt CO_2-eq per year for reporting GHG emissions under the Canadian *Environmental Protection Act*, as well as to any relevant provincial or federal legislation enacted prior to the completion of the environmental effects assessment.

6.2.2.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual Project effects and cumulative effects after mitigation on climate using the terms presented in section 5; and
- Climate specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.2.2.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on the climate VC based on the terms defined in the Residual Effects Classification section.

6.2.2.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on the climate VC.

6.2.2.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for climate.

6.3 Groundwater

6.3.1 Introduction

Copper Fox commits to provide the following in the Application:

- A general introduction to the area of study will be provided which describes both the groundwater characteristics of the area and also provides background which is common to all groundwater VCs. Traditional ecological or community knowledge will be included, where available.

6.3.1.1 VC Scoping and Rationale

Copper Fox commits to provide the following in the Application:

- The rationale for choosing and assessing Groundwater VCs. Justification for each VC included in the analysis will be given, based on information from:
  - First Nations;
  - Applicable government agencies;
  - Land and resource management plans;
  - The public and other stakeholders; and
  - Scientific literature and professional knowledge.

6.3.1.1.1 Relevant Legislation and Legal Framework

Copper Fox commits to provide the following in the Application:

- Any relevant legislation and the legal framework related to the assessment of groundwater.

6.3.1.2 Spatial and Temporal Boundaries

Copper Fox commits to provide the following in the Application:

- Temporal and spatial assessment boundaries for groundwater effects.
  - Figure 6.3-1 presents the spatial study area boundary. The cumulative effects assessment spatial boundary may use a larger area, depending on the VC and projects/disturbances considered in the cumulative effects assessment.

- Description of any annual or seasonal variation related to VCs and biophysical constraints for all phases of the proposed Project.

6.3.1.3 Potential Effects

Copper Fox commits to provide the following in the Application:

- The general predicted effects for groundwater. These are likely to include:
  - Change in groundwater quantity and quality in the Schaft Creek watershed (Pit area and waste rock storage areas) and the Skeeter Creek watershed (TSF).

6.3.2 VC#1 – Groundwater Quantity

6.3.2.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Characterization of the existing baseline groundwater regime based on the baseline quantity data to support the definition of potential effects, mitigation measures, monitoring and contingency planning as mine planning proceeds. The following baseline groundwater quantity information for the study area will be provided:
  - Identification, justification and rationale of the location of drill holes installed as part of geotechnical and groundwater programs;
  - Discussion of groundwater usage in the study area. This will include the location of all existing potable water wells;
  - Description of the methodology, analysis and results of hydraulic testing such as falling/rising head tests as well as packer testing. Well yields will be provided if available;
  - Installation details of groundwater wells;
  - Groundwater level measurements with an examination of seasonal fluctuations and spatial
  - variations;
  - Characterization of the regional and study area geology, including interpretation of aquifer
  - and aquitard locations in the study area. This will include information on aquifer extent, thickness, depth, hydraulic properties, and connections to aquifers in surrounding areas;
  - Characterization of the bulk hydraulic conductivity for overburden and bedrock materials;
  - Estimates of the rate and direction of groundwater flow;
  - Maps indicating the direction of groundwater flow, velocity, and hydraulic gradients; and
  - Expected interaction of groundwater with surface water.

6.3.2.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.3.2.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for groundwater quantity. These will be:
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

6.3.2.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for groundwater quantity.

6.3.2.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on groundwater quantity.

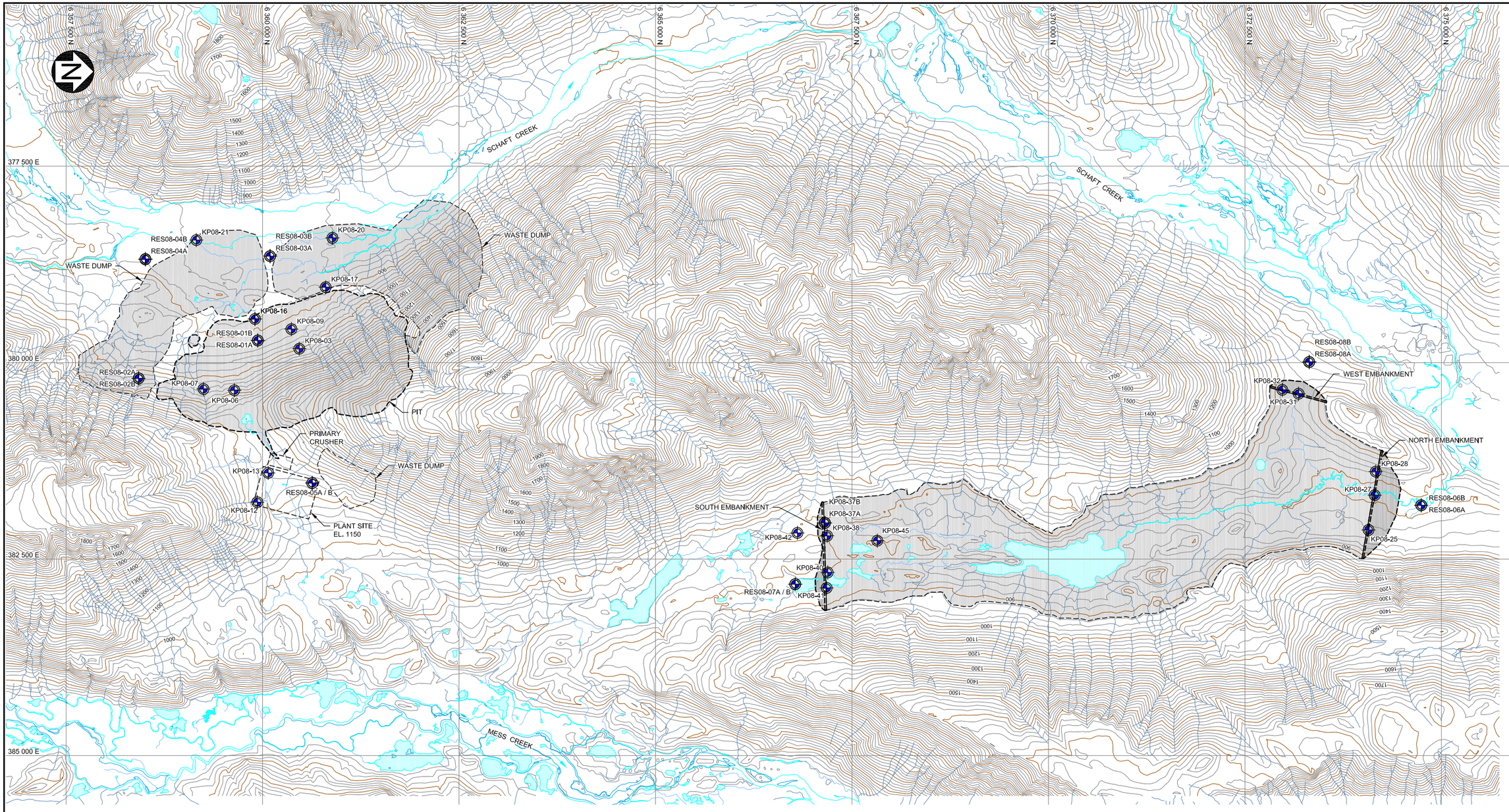
6.3.2.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for groundwater quantity.

6.3.2.3 Residual Effects and their Significance

- Description of the methods and results of assessments to evaluate potential Project direct and cumulative effects associated with mine development, operations and closure on groundwater quantity. The assessment approach will include:
  - A site-wide water balance model that incorporates baseline conditions as well as the components and phases of the mine development under a range (including extremes) of climatic conditions. All parameters (e.g. precipitation, evapotranspiration, groundwater flows, and stream-flows) that are reported will include the source of information (empirical or estimated). The results of the water balance calculations will be reported as well as references to selected methodologies and assumptions used in the water balance. A discussion of the potential changes to groundwater-surface water interactions resulting from project activities. This will include potential effects from pit-dewatering on groundwater levels and water table drawdown.



NOTES:

1. COORDINATE GRID IS UTM (NAD83) ZONE 9V.
2. 20 m INTERNAL TRIM MAP PROVIDED BY COPPER FOX (JANUARY 2008).
3. PROPOSED MINE FACILITIES IN ACCORDANCE WITH MOOSE MOUNTAIN PRELIMINARY MINE PLAN (MAY 2008).

LEGEND:

KP08-09 — 2008 DRILL HOLES WITH PIEZOMETERS INSTALLED

GROUNDWATER STUDY AREA

SCALE A: 500 250 0 500 1000 1500 2000 2500 m

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHK'D	APP'D
A	14JUN'10	ISSUED FOR INFORMATION	AMM	NSD	DF	KJB

COPPER FOX METALS INC.

SCHAFT CREEK PROJECT

GROUNDWATER STUDY AREA

Knight Piésold CONSULTING

P/A NO. VA101-329/5

REF NO.

FIGURE 6.3-1

REV A

6.3.2.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on groundwater quantity using the terms presented in Section 5; and
- Groundwater specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.3.2.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on the groundwater quantity VC based on the terms defined in the Residual Effects Classification section.

6.3.2.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on the groundwater quantity VC.

6.3.2.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for groundwater quantity.

6.3.3 VC#2 – Groundwater Quality

6.3.3.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Characterization of the baseline groundwater quality in the study area that will include:
  - Identification of the location of the groundwater wells installed on site and reference to the protocols and frequency of groundwater sample collection;
  - Analysis results of baseline groundwater samples collected from overburden and bedrock groundwater wells and comparison to the BC Water Quality Guidelines and Canadian Council of the Ministers of Environment (CCME) aquatic habitat standards; and
  - Interpretation of any potential relationships between groundwater quality results and geology as well as the identification of any potential spatial and temporal variations.

6.3.3.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.3.3.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for groundwater quality. These will be:

- Schaft Pit;
- Tailings Storage Facility (TSF);
- Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
- Site Infrastructure.

6.3.3.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for groundwater quality.

6.3.3.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on groundwater quality. As appropriate to the final mine plan, the following mitigation considerations will be discussed:
  - If waste rock segregation is proposed, the application will demonstrate the feasibility to successfully segregate PAG and non-PAG waste materials during operations, propose geochemical segregation criteria and identify operational methods to achieve geochemical characterization and segregation during operations (i.e. geochemical surrogates, on site lab, procedures needed etc). The application will include a sensitivity analysis to assess the effects of imperfect segregation of waste rock;
  - If a water cover is proposed for ML/ARD management, information will be provided to identify the types, volumes and geochemistry of mine waste to be flooded, the lag time to onset of ML/ARD in mine waste to be flooded, the disposal methods and location, the time until full flooding will occur, information to demonstrate that mine wastes will remain flooded during extreme climatic events, measures to mitigate soluble contaminants that could affect water quality, an assessment of geochemical stability under flooded conditions, and monitoring and maintenance requirements to ensure geochemical and physical security of flooded mine wastes (refer also to ML/ARD guidelines);
  - If engineered cover systems are proposed as a ML/ARD mitigation plan for the project, a conceptual design will be provided including the design objectives and principles, the characteristics and volumes of cover materials required, construction methods, assessment of expected performance and long-term effectiveness under the expected range of climatic conditions, monitoring and maintenance requirements, contingency plans and costs of constructing and long-term monitoring and maintenance (refer also to ML/ARD guidelines);
  - If blending of PAG and non-PAG materials to produce a benign composite is proposed as a ML/ARD mitigation strategy, information will be presented on the geochemistry of individual wastes and mixed wastes including metal release characteristics, site specific management criteria for blending, detailed waste handling and placement plans, demonstration of adequate proportions of PAG and non-PAG wastes throughout mine life, an assessment of waste dump hydrology, proposed operational monitoring plans and contingency plans for seepage water quality management (refer also to ML/ARD guidelines);
  - If drainage collection and treatment is proposed as a mitigation strategy for the project, a conceptual design will be provided including location, characterization of influent and effluent chemistry and flow, demonstration of the effectiveness of the drainage collection and holding system, conceptual design information on the treatment process, predicted reagent use, assessed performance under the expected range of flow and climatic conditions, sludge disposal plan, the operating, monitoring and maintenance requirements

to ensure successful treatment is sufficient to achieve long-term environmental protection requirements, and capital and operating costs (refer also to ML/ARD guidelines);
- ML/ARD prevention/management strategies under a temporary closure or early permanent closure scenario, including waste rock, ore stockpiles, low grade ore, pit water quality;
- Contingency plans will be provided where there are significant uncertainties or risks associated with the predicted water quality, and for dealing with excessive run-off events and drought conditions if necessary; and
- Concepts for operational and post-closure monitoring and maintenance plans will be provided.

6.3.3.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for groundwater quality.

6.3.3.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Description of the method and results of an analytical groundwater quality model developed to estimate potential proposed Project direct and cumulative effects on groundwater quality based on baseline groundwater quality with mine site seepage quantity and quality estimates. Predicted groundwater concentrations will be evaluated in a thermodynamic equilibrium model such as PHREEQC to assess major parameters and potential solubility constraints on predicted concentrations.

The assessment of potential proposed Project direct and cumulative effects to both groundwater and surface water quality will be based on water quality predictions under key flow conditions and relevant time-steps in the mine life (i.e. temporal boundaries will include operations, closure, post-closure, future pit lake discharge, steady state conditions etc.). The water quality predictions will be made for major mine components (waste rock dumps, open put, low grade ore stockpile, ore stockpiles, tailings impoundments, etc.), site surface water discharges, groundwater seepages and relevant receiving environment locations.

Water quality predictions and effects assessments will include pH, alkalinity, sulphate, cations, major and trace metal/metalloids, nitrogen species, etc. and include comparison to all relevant water quality guidelines and objectives.

6.3.3.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on groundwater quality using the terms presented in Section 5; and
- Groundwater specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.3.3.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on the groundwater quality VC based on the terms defined in the Residual Effects Classification section.

6.3.3.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on the groundwater quality VC.

6.3.3.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for groundwater quality.

6.4 Surface Hydrology

6.4.1 Introduction

Copper Fox commits to provide the following in the Application:

- A general introduction to the area of study will be provided which describes the surface hydrology of the area. Traditional ecological or community knowledge will be included, where available.

6.4.1.1 VC Scoping and Rationale

Copper Fox commits to provide the following in the Application:

- The rationale for choosing and assessing surface hydrology VCs. Justification for each VC included in the analysis will be given, based on information from:
  - Federal and Provincial regulations;
  - First Nations;
  - Applicable government agencies;
  - Land and resource management plans;
  - The public and other stakeholders; and
  - Scientific literature and professional knowledge.

6.4.1.1.1 Relevant Legislation and Legal Framework

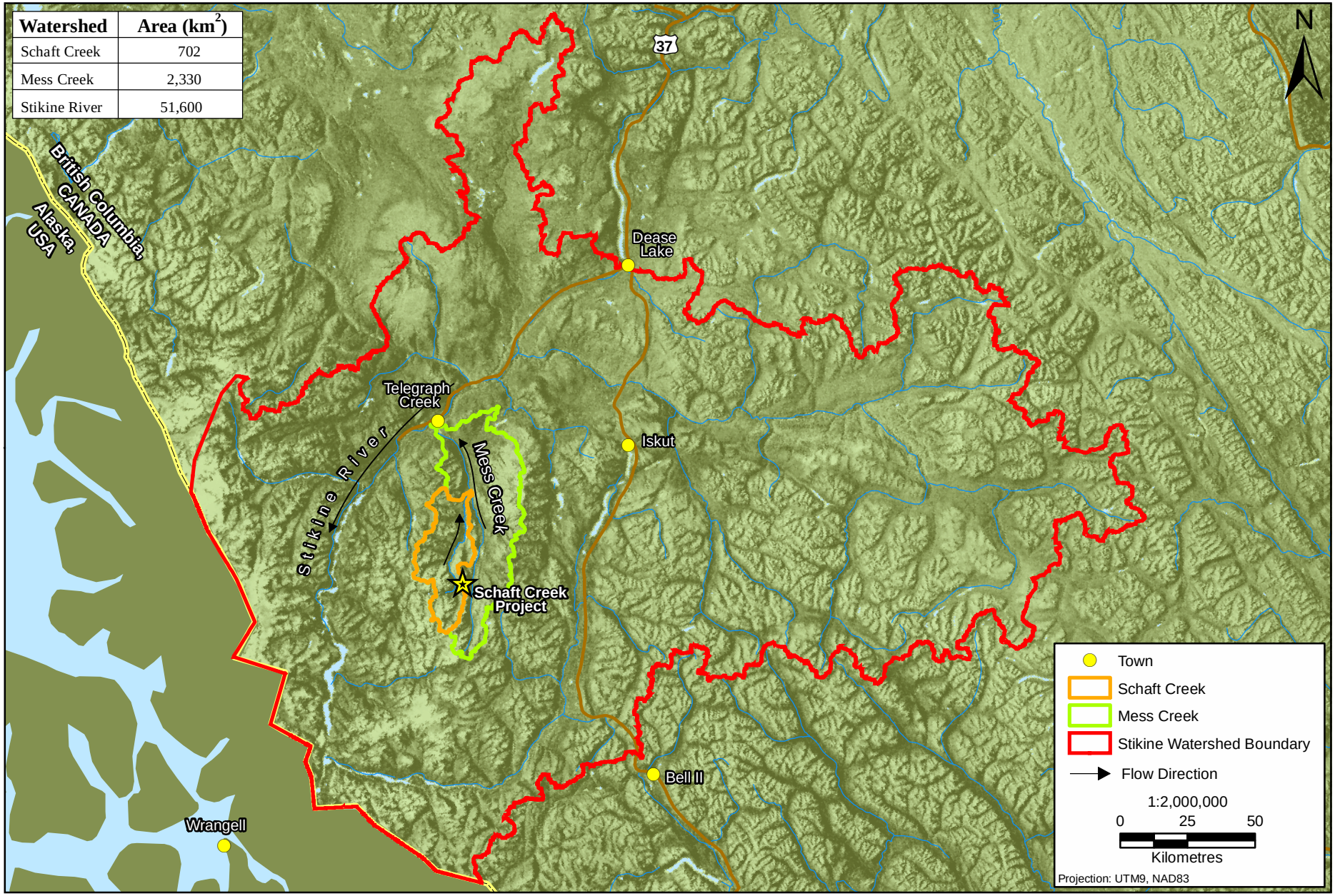
Copper Fox commits to provide the following in the Application:

- Any relevant legislation and the legal framework related to the assessment of surface hydrology.

6.4.1.2 Spatial and Temporal Boundaries

Copper Fox commits to provide the following in the Application:

- Temporal and spatial assessment boundaries for surface hydrology effects.
  - Figure 6.4-1 presents the spatial study area boundary. The cumulative effects assessment spatial boundary may use a larger area, depending on the VC and projects/disturbances considered in the cumulative effects assessment.
- Description of any annual or seasonal variation related to VCs and biophysical constraints for all phases of the proposed Project.



Surface Hydrology Study Area

FIGURE 6.4-1

6.4.1.3 Potential Effects

Copper Fox commits to provide the following in the Application:

- The general predicted effects for surface hydrology. These are likely to include:
  - Change in flow magnitude, timing and duration of flows in the Skeeter Creek and Schaft Creek watersheds.

6.4.2 VC#1 – Flow Magnitude, Timing and Duration

6.4.2.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Delineation of drainage basins at an appropriate scale for the major Project watersheds including Mess, Start, Skeeter and Schaft creeks;
- Description of stream flow gauging program on site;
- Review of regional hydrometric data;
- Description of hydrological regimes including seasonal fluctuations and year-to-year variability using hydrologically similar small watersheds; and
- Baseline information for the major project watersheds, including: Mess, Start, Skeeter, and Schaft Creeks:
  - Mean annual and return period runoff;
  - Mean monthly flow distribution;
  - Return period peak daily and instantaneous flows;
  - Return period 7-day low flows; and
  - Design flood flow rates at all stream crossings (Schaft Creek Access road).

6.4.2.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.4.2.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for flow magnitude, duration, and timing. These will be:
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

6.4.2.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for flow magnitude, duration, and timing.

6.4.2.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on flow magnitude, duration, and timing.

6.4.2.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for flow magnitude, duration, and timing.

6.4.2.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on flow magnitude, duration, and timing. The analysis will include:
  - Use of a numerical site-wide water balance model to simulate long-term baseline and project-affected flows in the project area;
  - In addition, alternate methods will be used as needed to assess the effects of proposed water management plans including alteration of drainage pathways, withdrawals, diversions, and effluent discharges on the baseline hydrology; and
  - Hydraulic modelling (HEC-RAS; U.S. Army Corps of Engineers, 2002) in Skeeter Creek to predict effects of changes in flow on fish habitat features such as depth, velocity, and wetted perimeter.

6.4.2.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on flow magnitude, duration, and timing using the terms presented in Section 5; and
- Surface hydrology specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.4.2.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on the flow magnitude, duration, and timing VC based on the terms defined in the Residual Effects Classification section.

6.4.2.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on the flow magnitude, duration, and timing VC.

6.4.2.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for flow magnitude, duration, and timing.

6.5 Surface Water Quality and Aquatic Resources

6.5.1 Introduction

Copper Fox commits to provide the following in the Application:

- A general introduction to the area of study will be provided which describes both the aquatic ecology of the area and also provides background which is common to all surface water quality and aquatic resources VCs. Traditional ecological or community knowledge will be included, where available.

6.5.1.1 VC Scoping and Rationale

Copper Fox commits to provide the following in the Application:

- The rationale for choosing and assessing surface water quality and aquatic resources. Justification for each VC included in the analysis will be given, based on information from:
  - Federal and Provincial regulations;
  - First Nations;
  - Applicable government agencies;
  - Land and resource management plans;
  - The public and other stakeholders; and
  - Scientific literature and professional knowledge.

6.5.1.1.1 Relevant Legislation and Legal Framework

Copper Fox commits to provide the following in the Application:

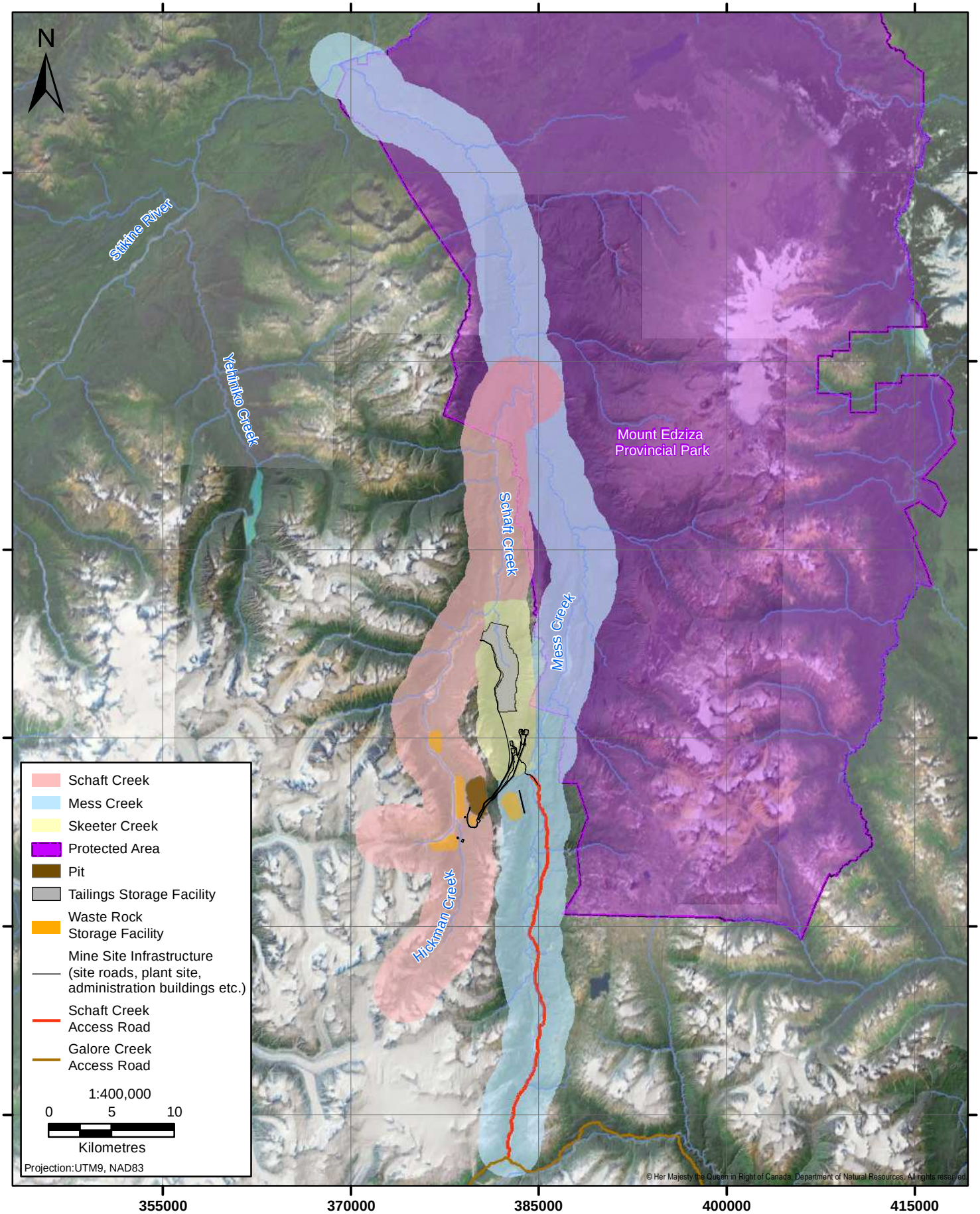
- Any relevant legislation and the legal framework related to the assessment of surface water quality and aquatic resources. These will include:
  - B.C. MOE water quality guidelines for the protection of aquatic life; and
  - 2007 CCME water quality guidelines for the protection of aquatic life.

6.5.1.2 Spatial and Temporal Boundaries

Copper Fox commits to provide the following in the Application:

- Temporal and spatial assessment boundaries for surface water quality and aquatic resources effects.
  - Figure 6.5-1 presents the spatial study area boundary. The cumulative effects assessment spatial boundary may use a larger area, depending on the VC and projects/disturbances considered in the cumulative effects assessment.

- Description of any annual or seasonal variation related to VCs and biophysical constraints for all phases of the proposed Project.



Surface Water Quality and Aquatic Resources Study Area

FIGURE 6.5-1

6.5.1.3 Potential Effects

Copper Fox commits to provide the following in the Application:

- The general predicted effects for surface water quality and aquatic resources. For water quality and aquatic resources, these are likely to include the following effects within the Skeeter Creek, Schaft Creek and Mess Creek watersheds:
  - Change in water quality parameter concentrations;
  - Change in aquatic habitat (quantity and quality);
  - Change in productivity; and
  - Change in diversity and community structure.

6.5.2 VC#1 – Water Quality

6.5.2.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline surface water quality information and its source from the following watersheds:
  - Mess Creek;
  - Schaft Creek;
  - Skeeter Creek;
  - Start Creek; and
  - Stikine River.
- Baseline water quality information will include:
  - Seasonal trends;
  - Physical characteristics (pH, conductivity, suspended solids, dissolved solids, anions etc.);
  - Nutrient concentrations; and
  - Total and dissolved metal concentrations.

6.5.2.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.5.2.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for surface water quality. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

6.5.2.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for surface water quality.

6.5.2.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on groundwater quality. As appropriate to the final mine plan, the following mitigation considerations will be discussed:
  - If waste rock segregation is proposed, the application will demonstrate the feasibility to successfully segregate PAG and non-PAG waste materials during operations, propose geochemical segregation criteria and identify operational methods to achieve geochemical characterization and segregation during operations (i.e. geochemical surrogates, on site lab, procedures needed etc). The application will include a sensitivity analysis to assess the effects of imperfect segregation of waste rock;
  - If a water cover is proposed for ML/ARD management, information will be provided to identify the types, volumes and geochemistry of mine waste to be flooded, the lag time to onset of ML/ARD in mine waste to be flooded, the disposal methods and location, the time until full flooding will occur, information to demonstrate that mine wastes will remain flooded during extreme climatic events, measures to mitigate soluble contaminants that could affect water quality, an assessment of geochemical stability under flooded conditions, and monitoring and maintenance requirements to ensure geochemical and physical security of flooded mine wastes (refer also to ML/ARD guidelines);
  - If engineered cover systems are proposed as a ML/ARD mitigation plan for the project, a conceptual design will be provided including the design objectives and principles, the characteristics and volumes of cover materials required, construction methods, assessment of expected performance and long-term effectiveness under the expected range of climatic conditions, monitoring and maintenance requirements, contingency plans and costs of constructing and long-term monitoring and maintenance (refer also to ML/ARD guidelines);
  - If blending of PAG and non-PAG materials to produce a benign composite is proposed as a ML/ARD mitigation strategy, information will be presented on the geochemistry of individual wastes and mixed wastes including metal release characteristics, site specific management criteria for blending, detailed waste handling and placement plans, demonstration of adequate proportions of PAG and non-PAG wastes throughout mine life, an assessment of waste dump hydrology, proposed operational monitoring plans and contingency plans for seepage water quality management (refer also to ML/ARD guidelines);
  - If drainage collection and treatment is proposed as a mitigation strategy for the project, a conceptual design will be provided including location, characterization of influent and effluent chemistry and flow, demonstration of the effectiveness of the drainage collection and holding system, conceptual design information on the treatment process, predicted reagent use, assessed performance under the expected range of flow and climatic conditions, sludge disposal plan, the operating, monitoring and maintenance requirements to ensure successful treatment is sufficient to achieve long-term environmental protection requirements, and capital and operating costs (refer also to ML/ARD guidelines);
  - ML/ARD prevention/management strategies under a temporary closure or early permanent closure scenario, including waste rock, ore stockpiles, low grade ore, pit water quality;
  - Contingency plans will be provided where there are significant uncertainties or risks associated with the predicted water quality, and for dealing with excessive run-off events and drought conditions if necessary; and
  - Concepts for operational and post-closure monitoring and maintenance plans will be provided.

6.5.2.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for surface water quality assessment.

6.5.2.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on surface water quality. The analysis will include:
  - Water quality assessment (including modelling) predictions will include:
    - Geochemistry predictions at various stages of the Project:
      - Residue from blasting;
      - Waste rock and overburden;
      - Influence of pit walls; and
      - Ore and concentrate stockpiles.
    - Results from the site water balance (surface and ground water) that includes the Tailings Storage Facility and discharge, site runoff from waste rock and overburden, ore and concentrate stockpiles;
    - Baseline data;
    - Mixing in the receiving environment; and
    - Loadings.
- The evaluation of the potential need to collect and treat.

The assessment of potential proposed Project direct and cumulative effects to both groundwater and surface water quality will be based on water quality predictions under key flow conditions and relevant time-steps in the mine life (i.e. temporal boundaries will include operations, closure, post-closure, future pit lake discharge, steady state conditions etc.). The water quality predictions will be made for major mine components (waste rock dumps, open put, low grade ore stockpile, ore stockpiles, tailings impoundments, etc.), site surface water discharges, groundwater seepages and relevant receiving environment locations.

Water quality predictions and effects assessments will include pH, alkalinity, sulphate, cations, major and trace metal/metalloids, nitrogen species, etc. and include comparison to all relevant water quality guidelines and objectives.

6.5.2.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on surface water quality using the terms presented in Section 5; and
- Surface water quality specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.5.2.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on surface water quality based on the terms defined in the Residual Effects Classification section.

6.5.2.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on surface water quality.

6.5.2.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for surface water quality.

6.5.3 VC#2 – Aquatic Resources

6.5.3.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline aquatic resources information and its source from lakes, wetlands and streams from the following watersheds;
  - Mess Creek;
  - Schaft Creek;
  - Skeeter Creek; and
  - Start Lake.

- Baseline aquatic resources information will include:
  - Sediment quality;
  - Primary production (periphyton in streams; phytoplankton in lakes/wetlands);
  - Benthic invertebrates; and
  - Zooplankton in lakes.

6.5.3.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.5.3.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for aquatic resources. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

6.5.3.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for aquatic resources.

6.5.3.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on aquatic resources.

6.5.3.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for aquatic resources assessment.

6.5.3.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on aquatic resources. The analysis will include:
  - Findings of the water quantity assessment (section 6.4) including potential for changes in aquatic habitat and changes to the hydrograph (timing, magnitude and duration);
  - Findings of the water quality assessment (section 6.5.2) including hydraulic modeling and the site water balance; and
  - Relevant aquatic toxicity test work.

6.5.3.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on aquatic resources using the terms presented in Section 5; and
- Aquatic resources specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.5.3.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on aquatic resources based on the terms defined in the Residual Effects Classification section.

6.5.3.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on aquatic resources.

6.5.3.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for aquatic resources.

6.6 Fish and Fish Habitat

6.6.1 Introduction

Copper Fox commits to provide the following in the Application:

- A general introduction to the area of study will be provided which describes both the aquatic ecology of the area and also provides background which is common to all fish and fish habitat VCs. Traditional ecological or community knowledge will be included, where available.

6.6.1.1 VC Scoping and Rationale

Copper Fox commits to provide the following in the Application:

- The rationale for choosing and assessing fish and fish habitat VCs. Justification for each VC included in the analysis will be given, based on information from:
  - Federal and Provincial regulations;
  - First Nations;
  - Applicable government agencies;
  - Land and resource management plans;
  - The public and other stakeholders; and
  - Scientific literature and professional knowledge.

6.6.1.1.1 Relevant Legislation and Legal Framework

Copper Fox commits to provide the following in the Application:

- Any relevant legislation and the legal framework related to the assessment of fish and fish habitat. This will include:
  - Government acts, standards and guidelines (for example: DFO Operational Statements, the federal *Fisheries Act*, and the BC Fish Protection Act).

6.6.1.2 Spatial and Temporal Boundaries

Copper Fox commits to provide the following in the Application:

- Temporal and spatial assessment boundaries for fish and fish habitat effects.
  - Figure 6.6-1 presents the spatial study area boundary. The cumulative effects assessment spatial boundary may use a larger area, depending on the VC and projects/disturbances considered in the cumulative effects assessment.

- Description of any annual or seasonal variation related to VCs and biophysical constraints for all phases of the proposed Project.

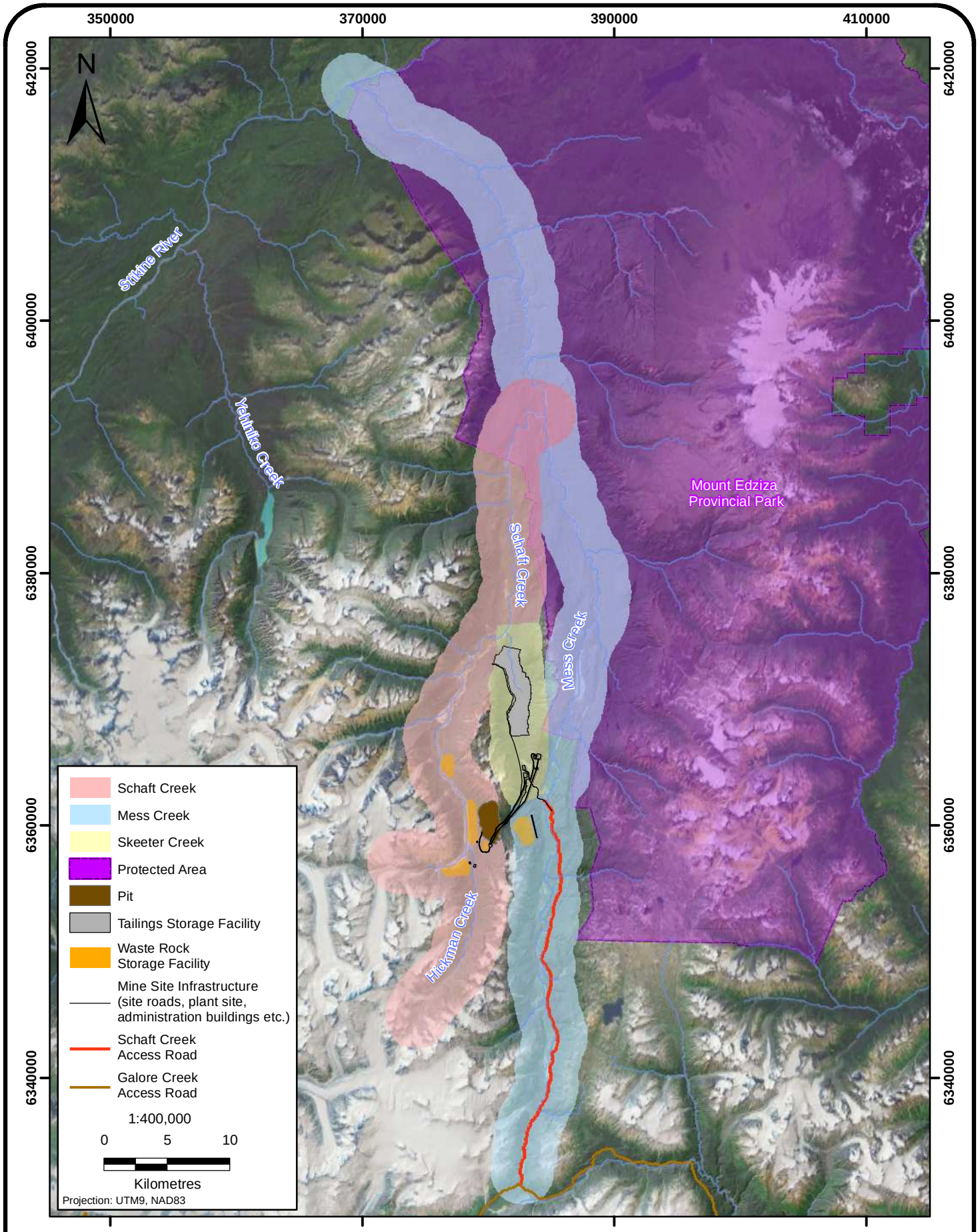


FIGURE 6.6-1

Fish and Fish Habitat Study Area

6.6.1.3 Potential Effects

Copper Fox commits to provide the following in the Application:

- The general predicted effects for fish and fish habitat. For fish and fish habitat, these are likely to include:
  - Change in distribution and population size through loss of habitat and degradation of habitat.

6.6.2 VC#1 – Schaft and Skeeter Creek Rainbow Trout

6.6.2.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline Schaft and Skeeter Creek Rainbow Trout data and its source; this baseline will include:
  - Habitat use by fish (spawning, rearing, migration, over wintering);
  - Habitat type: streams (in-channel, off-channel, riparian), lakes, wetlands and riparian;
  - Identification of barriers to fish passage;
  - Species composition and distribution;
  - Fish presence survey results;
  - Critical/important habitat locations;
  - Confirmation of non-fish-bearing status of Skeeter/Upper Schaft watersheds;
  - Fish health, abundance, life history characteristics; and
  - Tissue metals and MMER sample results.

6.6.2.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.6.2.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for Schaft and Skeeter Creek Rainbow Trout. These will be:
  - Site clearing and grading within riparian areas;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

6.6.2.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for Schaft and Skeeter Creek Rainbow Trout.

6.6.2.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on Schaft and Skeeter Creek Rainbow Trout; and
- A summary of a technically feasible fish habitat compensation plan (Section 18.5).

6.6.2.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for Schaft and Skeeter Creek Rainbow Trout assessment.

6.6.2.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on Schaft and Skeeter Creek Rainbow Trout. This analysis will consider:
  - The water quality effects assessment;
  - The water quantity effects assessment;
  - The aquatic resources effects assessment;
  - An assessment of the potential HADDs (Harmful Alteration, Disruption or Destruction of Fish Habitat) of fish habitat including;
    - A description of harmful alteration, disruption or destruction of fish habitat including the locations and estimated areas of fish habitat affected;
    - A description of types of fish habitats that would be affected (e.g. wetlands, stream channels, riparian habitat, etc.) as well as the use by fish (e.g. spawning/incubation, rearing, food/nutrient, overwintering, migration, etc.) including habitats that would be affected by flow changes; and the extent (i.e. square metre/habitat type) and expected duration of impact;
    - A table summarizing the areas of fish habitat affected and fish habitat types and use by fish; and
    - An estimated population size or numbers of fish that use the habitat that would be affected by the Project, if available.
  - Technically feasible fish habitat compensation plans to offset the potential harmful alteration, disruption or destruction of fish habitat; and
  - Government acts, standards and guidelines (for example: DFO Operational Statements, the federal *Fisheries Act*).

6.6.2.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on Schaft and Skeeter Creek Rainbow Trout using the terms presented in Section 5; and
- Fish and fish habitat specific definitions for residual effects classification terms (magnitude, duration, etc.)

6.6.2.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on Schaft and Skeeter Creek Rainbow Trout based on the terms defined in the Residual Effects Classification section.

6.6.2.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on Schaft and Skeeter Creek Rainbow Trout.

6.6.2.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for Schaft and Skeeter Creek Rainbow Trout.

6.6.3 VC#2 – Mess Creek Rainbow Trout and Kokanee

6.6.3.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline Mess Creek Rainbow Trout and Kokanee data and its source; including:
  - Habitat use by fish (spawning, rearing, migration, over wintering);
  - Habitat type: streams (in-channel, off-channel, riparian), lakes, wetlands and riparian;
  - Identification of barriers to fish passage;
  - Species composition and distribution;
  - Fish presence survey results;
  - Critical/important habitat locations;
  - Fish-bearing/non-fish-bearing stream crossings;
  - Fish health, abundance;
  - Status of Kokanee in Mess Creek; and
  - A description of the existing environment at the causeway and Mess creek crossing locations, including:
    - A description of the flood frequency and duration; connectivity of the wetland area to Mess Creek during flooding events and the related seasonal accessibility of the wetland by fish;
    - How the causeway may alter flow regimes during flooding events; and
    - A general assessment of the food and nutrient contribution of the wetland to fish bearing waters and how the causeway may impact this contribution.

6.6.3.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.6.3.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for Mess Creek Rainbow Trout and Kokanee. These will be:
  - Site clearing and grading within riparian areas;
  - Schaft Creek Access Road;
  - Power Supply and Distribution; and
  - Site Infrastructure.

6.6.3.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis of Mess Creek Rainbow Trout and Kokanee.

6.6.3.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on Mess Creek Rainbow Trout and Kokanee.
- A summary of a technically feasible fish habitat compensation plan (Section 18.5).

6.6.3.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for Mess Creek Rainbow Trout and Kokanee assessment.

6.6.3.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on Mess Creek Rainbow Trout and Kokanee. This analysis will consider:
  - The water quality effects assessment;
  - The water quantity effects assessment;
  - The aquatic resources effects assessment;
  - An assessment of the potential HADDs (Harmful Alteration, Disruption or Destruction of Fish Habitat) of fish habitat including;
    - A description of harmful alteration, disruption or destruction of fish habitat including the locations and estimated areas of fish habitat affected;
    - A description of types of fish habitats that would be affected (e.g. wetlands, stream channels, riparian habitat, etc.) as well as the use by fish (e.g. spawning/incubation, rearing, food/nutrient, overwintering, migration, etc.) including habitats that would be affected by flow changes; and the extent (i.e. square metre/habitat type) and expected duration of impact; and
    - A table summarizing the areas of fish habitat affected and fish habitat types and use by fish.
  - An estimated population size or numbers of fish that use the habitat that would be affected by the Project, if available;
  - Technically feasible fish habitat compensation plans to offset the potential harmful alteration, disruption or destruction of fish habitat; and
  - Government acts, standards and guidelines (for example: DFO Operational Statements, the federal *Fisheries Act*).

6.6.3.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on Mess Creek Rainbow Trout and Kokanee using the terms presented in Section 5; and
- Fish and fish habitat specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.6.3.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on Mess Creek Rainbow Trout and Kokanee based on the terms defined in the Residual Effects Classification section.

6.6.3.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on Mess Creek Rainbow Trout and Kokanee.

6.6.3.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for Mess Creek Rainbow Trout and Kokanee.

6.6.4 VC#3 – Start Watershed Rainbow Trout

6.6.4.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline Start Watershed Rainbow Trout data and its source; including:
  - Habitat use by fish (spawning, rearing, migration, over wintering);
  - Habitat type: streams (in-channel, off-channel, riparian), lakes, wetlands and riparian;
  - Identification of barriers to fish passage;
  - Species composition and distribution;
  - Fish presence survey results; Critical/important habitat locations; and
  - Fish health, abundance, life history characteristics.

6.6.4.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.6.4.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for Start Watershed Rainbow Trout. These will include:
  - Site clearing and grading within riparian areas;

- Schaft Creek Access Road;
- Power Supply and Distribution;
- Tailings Storage Facility (TSF); and
- Site Infrastructure.

6.6.4.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis of Start Watershed Rainbow Trout.

6.6.4.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on Start Watershed Rainbow Trout.

6.6.4.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for Start Watershed Rainbow Trout.

6.6.4.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on Start Watershed Rainbow Trout. This analysis will consider:
  - The water quality effects assessment;
  - The water quantity effects assessment;
  - The aquatic resources effects assessment;
  - An assessment of the potential HADDs (Harmful Alteration, Disruption or Destruction of Fish Habitat) of fish habitat including;
    - A description of harmful alteration, disruption or destruction of fish habitat including the locations and estimated areas of fish habitat affected;
    - A description of types of fish habitats that would be affected (e.g. wetlands, stream channels, riparian habitat, etc.) as well as the use by fish (e.g. spawning/incubation, rearing, food/nutrient, overwintering, migration, etc.) including habitats that would be affected by flow changes; and the extent (i.e. square metre/habitat type) and expected duration of impact; and
    - A table summarizing the areas of fish habitat affected and fish habitat types and use by fish.
  - An estimated population size or numbers of fish that use the habitat that would be affected by the Project, if available;
  - Technically feasible fish habitat compensation plans to offset the potential harmful alteration, disruption or destruction of fish habitat; and
  - Government acts, standards and guidelines (for example: DFO Operational Statements, the federal *Fisheries Act*).

6.6.4.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on Start Watershed Rainbow Trout using the terms presented in Section 5; and
- Fish and fish habitat specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.6.4.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on Start Watershed Rainbow Trout based on the terms defined in the Residual Effects Classification section.

6.6.4.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on Start Watershed Rainbow Trout.

6.6.4.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for Start Watershed Rainbow Trout.

6.6.5 VC# 4- Mess Creek and Stikine River Pacific Salmon

6.6.5.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline Mess Creek and Stikine River Pacific Salmon data from the Mess Creek and Stikine River watersheds and it's source;
- Upper extent of Pacific Salmon distribution in Mess Creek; and
- Identification of barriers to upstream migration of Pacific Salmon in Mess Creek.

6.6.5.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.6.5.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for Mess Creek and Stikine River Salmon. These will be:
  - Schaft Pit;
  - Tailings Storage Facility (TSF); and
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles.

6.6.5.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis of Mess Creek and Stikine River Salmon.

6.6.5.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on Mess Creek and Stikine River Salmon.

6.6.5.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for Mess Creek and Stikine River Salmon.

6.6.5.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on Mess Creek and Stikine River Pacific Salmon. This analysis will take into consideration:
  - The water quality effects assessment;
  - The water quantity effects assessment; and
  - The aquatic resources effects assessment.

6.6.5.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on Mess Creek and Stikine River Pacific Salmon using the terms presented in Section 5; and
- Fish and fish habitat specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.6.5.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on Mess Creek and Stikine River Pacific Salmon based on the terms defined in the Residual Effects Classification section.

6.6.5.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on Mess Creek and Stikine River Pacific Salmon.

6.6.5.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for Mess Creek and Stikine River Pacific Salmon.

6.7 Terrestrial Environment

6.7.1 Introduction

Copper Fox commits to provide in the Application:

- A general introduction to the area of study will be provided which describes both the terrestrial ecology of the area and also provides background which is common to all terrestrial environment VCs. Traditional ecological or community knowledge will be included, where available. This introduction will include the following headings:
  - Regional Ecology;
  - Land Management Structure;
  - Protected Areas; and
  - The results of Terrestrial Ecosystem Mapping (TEM) and Predictive Ecosystem Mapping (PEM).

6.7.1.1 VC Scoping and Rationale

Copper Fox commits to provide the following in the Application:

- The rationale for choosing and assessing each wildlife VC will be discussed. Justification for each VC included or excluded from the analysis will be given, based on information from:
  - Federal and Provincial regulations;
  - First Nations;
  - Applicable government agencies;
  - Land and resource management plans;
  - The public and other stakeholders; and
  - Scientific literature and professional knowledge.

6.7.1.1.1 Relevant Legislation and Legal Framework

Copper Fox commits to provide the following in the Application:

- The relevant policies, legislation and the legal framework will be reviewed related to the assessment of wildlife and wildlife habitat, including the:
  - Canada Species at Risk Act (2002);
  - BC Wildlife Act (1996) (as wildlife habitat);
  - Federal Policy on Wetland Conservation;
  - BC Red- and Blue-list (BC Conservation Data Centre); and
  - BC Forests and Range Protection Act (2002).

- Any relevant regulations which govern or manage protected areas near the Project Area, including the:
  - BC Park Act (1996).

- Any relevant local land use plans will also be considered, including:
  - Land Use Plans (LUP);
  - Land and Resource Management Plans (LRMP); and
  - Sustainable Resource Management Plans (SRMP).

6.7.1.2 Spatial and Temporal Boundaries

Copper Fox commits to provide the following in the Application:

- Temporal and spatial assessment boundaries for the terrestrial environment effects.
  - Figure 6.7-1 presents the spatial study area boundary. The cumulative effects assessment spatial boundary may use a larger area, depending on the VC and projects/disturbances considered in the cumulative effects assessment.
- Description of any annual or seasonal variation related to VCs and biophysical constraints for all phases of the proposed Project.

6.7.1.3 Potential Effects

Copper Fox commits to provide the following in the Application:

- The general predicted effects of the Project on terrestrial ecosystems. These will likely include, but are not limited to:
  - Direct removal and alteration;
  - Indirect effects resulting in degradation of terrestrial ecosystems due to edge effects, dust, and windthrow;
  - Introduction of invasive plants;
  - Alteration of local hydrology and water flow; and
  - Increased fire risk.

6.7.2 VC#1 –Soil and Terrain

6.7.2.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- The existing environment for Soil and Terrain will be described, including:
  - A summary of results from the field program within the mine site area and along the access road including information on:
    - Slope, aspect;
    - Surface expression;
    - Surficial material;
    - Drainage;
    - Texture;
    - Coarse fragment content;
    - Soil structure;
    - Roots;
    - Soil classification;
    - BEC zone;
    - Reference to background climate and geology; and
    - Description of surficial materials, soil types, drainage, surface expression, and BEC zone in the Project area.

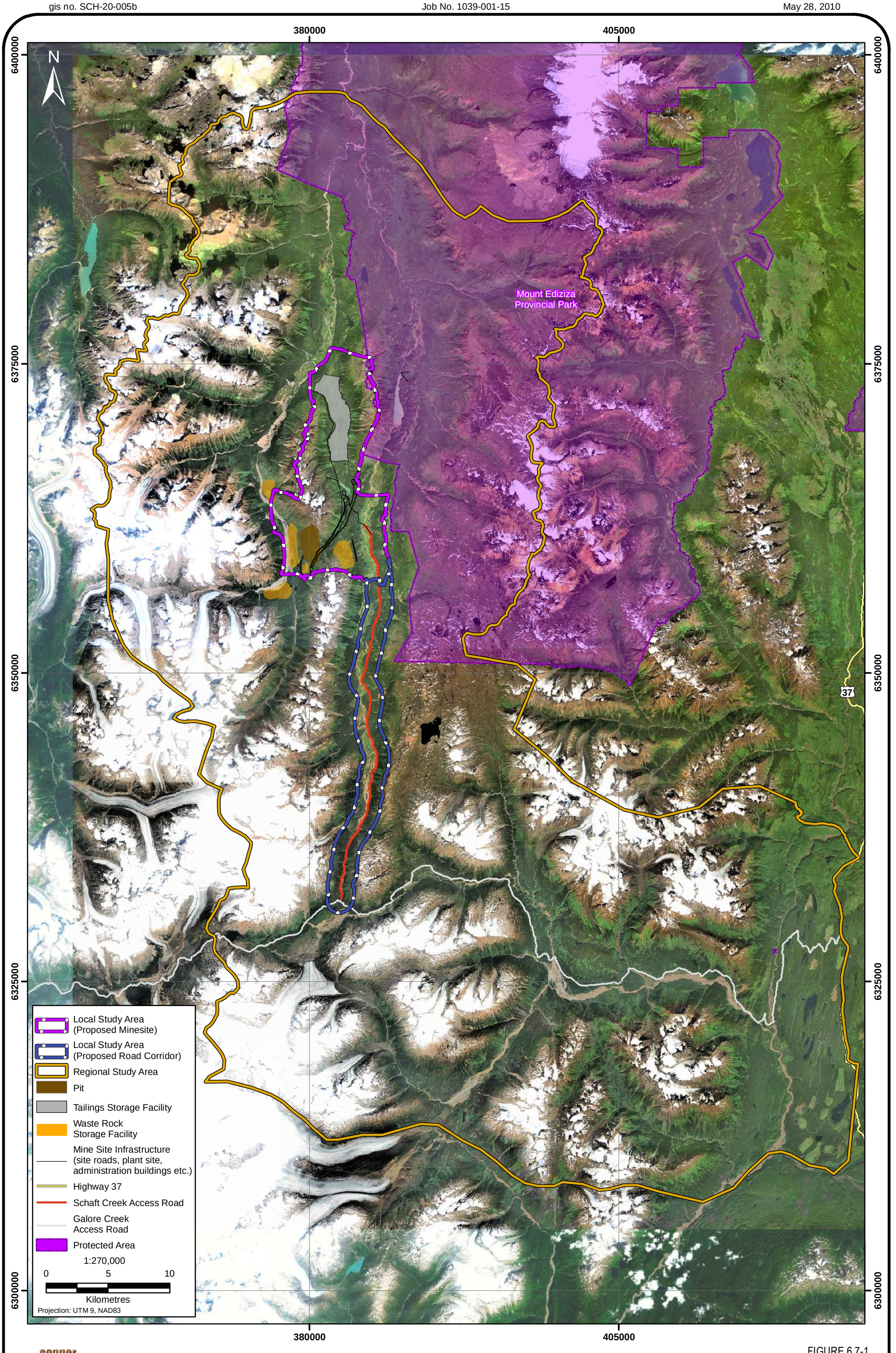


FIGURE 6.7-1

Terrestrial Ecosystems Study Area

6.7.2.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.7.2.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for soil and terrain. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

6.7.2.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for soil and terrain.

6.7.2.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on soil and terrain.

6.7.2.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for soil and terrain.

6.7.2.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on soil and terrain. The analysis will include:
  - Computation of disturbed surface soil area based on Project footprint and TEM and PEM;
  - Soil salvage and management planning; and
  - Comparison to BC Guidelines for Contaminated Site Regulations.

6.7.2.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation soil and terrain using the terms presented in Section 5; and

- Soil and terrain specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.7.2.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on soil and terrain based on the terms defined in the Residual Effects Classification section.

6.7.2.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on soil and terrain.

6.7.2.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for soil and terrain.

6.7.3 VC #2 – Listed Ecosystems and Plants

6.7.3.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- The existing environment for listed ecosystems and plants will be described, including:
  - Results of search of BC CDC database of listed ecosystems in the study area;
  - A description of each of these ecosystems and why they are have been listed by the BC CDC;
  - The results of TEM and PEM mapping for listed ecosystems – location and extent;
  - Consulting the listings in Schedule 1 of the federal Species at Risk Act;
  - An overview of rare plant research in the regional area surrounding the Project; and
  - Results of field surveys for rare plants.

6.7.3.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.7.3.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for listed ecosystems and plants. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

6.7.3.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for listed ecosystems and plants.

6.7.3.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on listed ecosystems and plants.

6.7.3.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for listed ecosystems and plants.

6.7.3.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on listed ecosystems and plants. The analysis will include:
  - Computation of rare and listed ecosystem area lost and disturbed during construction and operations, based on Project footprint and TEM and PEM;
  - The potential effects of invasive species, referencing publications from CDC and MOE; and
  - The potential effects of edge effects, such as windthrow.

6.7.3.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on listed ecosystems and plants using the terms presented in Section 5; and
- Listed ecosystem and plant specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.7.3.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on listed ecosystems and plants based on the terms defined in the Residual Effects Classification section.

6.7.3.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on listed ecosystems and plants.

6.7.3.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for listed ecosystems and plants.

6.7.4 VC #3 – Sensitive Terrestrial Ecosystems

6.7.4.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- The existing environment for sensitive ecosystems will be described, including:
  - Background on the designation of certain ecosystems, such as riparian areas, including legal and scientific background;
  - A description of each of these ecosystems and why they are have been characterized as sensitive;
  - The results of TEM and PEM mapping for sensitive ecosystems; and
  - Results of field surveys for sensitive ecosystems.

6.7.4.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.7.4.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for sensitive ecosystems. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

6.7.4.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for sensitive ecosystems.

6.7.4.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on sensitive ecosystems.

6.7.4.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for sensitive ecosystems.

6.7.4.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on sensitive ecosystems. The analysis will include:
  - Computation of lost and disturbed ecosystem area based on Project footprint and TEM and PEM; and
  - The potential effects of invasive species, referencing publications from CDC and MOE; and
  - The potential effects of edge effects, such as windthrow.

6.7.4.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on sensitive ecosystems using the terms presented in Section 5; and
- Sensitive terrestrial ecosystem specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.7.4.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on sensitive ecosystems based on the terms defined in the Residual Effects Classification section.

6.7.4.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on sensitive ecosystems.

6.7.4.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for sensitive ecosystems.

6.7.5 VC #4 – Wetland Ecosystems

6.7.5.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- The existing environment for wetland ecosystems will be described, including:
  - A description of each of these ecosystems within the study area;
  - The results of TEM and PEM mapping for wetland ecosystems;
  - An overview of wetland ecosystem function in the regional area surrounding the Project; and
  - Results of field surveys for wetland ecosystems.

6.7.5.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.7.5.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for wetland ecosystems. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

6.7.5.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for wetland ecosystems.

6.7.5.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to avoid or mitigate proposed Project effects on wetland ecosystems; and
- Conceptual wetland habitat compensation framework (if required by the Government of Canada).

6.7.5.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for wetland ecosystems.

6.7.5.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on wetland ecosystems. The analysis will include:
  - Computation of lost and disturbed wetland ecosystem area based on Project footprint and mapped wetlands;
  - The potential effects of invasive species, referencing publications from CDC and MOE; and
  - Potential effects of development on provincially red- and blue-listed wetland ecosystems referencing publications from CDC.

6.7.5.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on wetland ecosystems using the terms presented in Section 5; and
- Wetland ecosystem specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.7.5.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on wetland ecosystems based on the terms defined in the Residual Effects Classification section.

6.7.5.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on wetland ecosystems.

6.7.5.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for wetland ecosystems.

6.7.6 VC #5 – Species or Groups of Cultural, Economic or Social Importance

6.7.6.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- The existing environment for species or groups of cultural, economic or social importance will be described, including:
  - Results of consultation with First Nations on which species or groups should be included;
  - Results of searches in land management plans, scientific journals, government, and professional opinion for which species or groups should be included;
  - The results of TEM and PEM mapping for species or groups of cultural, economic or social importance; and
  - Results of field surveys for species or groups of cultural, economic or social importance.

6.7.6.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.7.6.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for species or groups of cultural, economic or social importance. These will be:
  - Schaft Creek Access Road;

- Power Supply and Distribution;
- Schaft Pit;
- Tailings Storage Facility (TSF);
- Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
- Site Infrastructure.

6.7.6.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for species or groups of cultural, economic or social importance.

6.7.6.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on species or groups of cultural, economic or social importance.

6.7.6.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for species or groups of cultural, economic or social importance.

6.7.6.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on species or groups of cultural, economic or social importance. The analysis will include:
  - Computation of lost and disturbed species or groups of cultural, economic or social importance area based on Project footprint and TEM and PEM;
  - The potential effects of invasive species, referencing publications from CDC and MOE; and
  - The potential effects of edge effects, such as windthrow.

6.7.6.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on species or groups of cultural, economic or social importance using the terms presented in Section 5.1.8; and
- Species or groups of cultural, economic or social importance specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.7.6.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on species or groups of cultural, economic or social importance based on the terms defined in the Residual Effects Classification section.

6.7.6.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on species or groups of cultural, economic or social importance.

6.7.6.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for species or groups of cultural, economic or social importance.

6.7.7 VC #6 – Unlisted Ecosystems (All Other Vegetated Areas)

6.7.7.1 Existing Environment

Unlisted ecosystems are all those ecosystems not encompassed by the terrestrial ecosystems VCs #2-5 and comprise the vegetated ground cover within study area. Copper Fox commits to provide the following in the Application:

- The existing environment for unlisted ecosystems will be described, including:
  - A description of the unlisted ecosystems in the study area;
  - The results of TEM and PEM mapping for unlisted ecosystems; and
  - Results of field surveys for rare plants.

6.7.7.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.7.7.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for unlisted ecosystems. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

6.7.7.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for unlisted ecosystems.

6.7.7.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on unlisted ecosystems.

6.7.7.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for unlisted ecosystems.

6.7.7.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project residual and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on unlisted ecosystems. The analysis will include:
  - Computation of lost and disturbed areas of unlisted ecosystems based on Project footprint and TEM and PEM;
  - The potential effects of invasive species, referencing publications from CDC and MOE; and
  - The potential effects of edge effects, such as windthrow.

6.7.7.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on unlisted ecosystems using the terms presented in Section 5; and
- Unlisted ecosystem specific definitions for residual effects classification terms (magnitude, duration, etc.)

6.7.7.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on unlisted ecosystems.

6.7.7.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on unlisted ecosystems.

6.7.7.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for unlisted ecosystems.

6.8 Wildlife and Wildlife Habitat

6.8.1 Introduction

Copper Fox commits to provide in the Application:

- A general introduction to the area of study will be provided which describes both the terrestrial ecology of the area and also provides background which is common to all wildlife and wildlife habitat VCs. Traditional ecological or community knowledge will be included, where available. This introduction will include the following headings:
  - Regional Ecology;
  - Land Management Structure;
  - Protected Areas;
  - Habitats of Concern, including:
    - Sensitive habitats;
    - Movement corridors;
    - High quality habitats; and
    - Areas of limited access.
  - Current Pressures on Wildlife, including:
    - Hunting;
    - Forestry practices; and
    - Existing roads.

6.8.1.1 VC Scoping and Rationale

Copper Fox commits to provide the following in the Application:

- The rationale for choosing and assessing each wildlife VC will be discussed. Justification for each VC included in the analysis will be given, based on information from:
  - Federal and Provincial regulations;
  - First Nations;
  - Applicable government agencies;
  - Land and resource management plans;
  - The public and other stakeholders; and
  - Scientific literature and professional knowledge.

6.8.1.1.1 Relevant Legislation and Legal Framework

- The relevant legislation and the legal framework will be reviewed related to the assessment of wildlife and wildlife habitat, including the:
  - Canada Species at Risk Act (2002);
  - BC Wildlife Act (1996);
  - BC Red- and Blue-list (BC Conservation Data Centre);
  - Canada Migratory Birds Convention Act (1994);
  - BC Water Act (1996); and
  - BC Forests and Range Protection Act (2002).

- Any relevant regulations which govern or manage protected areas near the Project Area, including:
  - BC *Park Act* (1996).

- Any relevant local land use plans will also be considered, including:
  - Land Use Plans (LUP);
  - Land and Resource Management Plans (LRMP); and
  - Sustainable Resource Management Plans (SRMP).

6.8.1.2 Spatial and Temporal Boundaries

Copper Fox commits to provide the following in the Application:

- Temporal and spatial assessment boundaries for wildlife and wildlife habitat effects.
  - Figure 6.8-1 presents the spatial study area boundary. The cumulative effects assessment spatial boundary may use a larger area, depending on the VC and projects/disturbances considered in the cumulative effects assessment.
- Description of any annual or seasonal variation related to VCs and biophysical constraints for all phases of the proposed Project.

6.8.1.3 Potential Effects

Copper Fox commits to provide the following in the Application:

- The predicted effects of the Project on wildlife and wildlife habitat will be described. These will likely include, but are not limited to:
  - Direct habitat removal and alteration;
  - Indirect habitat alteration and loss due to noise, human presence, physical barriers and/or other disturbances;
  - Direct mortality;
  - Indirect mortality due to increased access; and
  - Wildlife attractants such as odours.

6.8.2 VC#1 – Grizzly Bears

6.8.2.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- The existing environment for grizzly bears will be described, including:
  - General ecology and habitat preferences;
  - Habitat suitability modelling;
  - Habitat suitability modelling conducted by the MoE (if available);
  - Habitat protected areas such as Wildlife Habitat Areas;
  - Available population estimates and trends;
  - First Nations TK/TU and other local knowledge;
  - Incidental observations and other data; and
  - Existing pressures on grizzly bears.

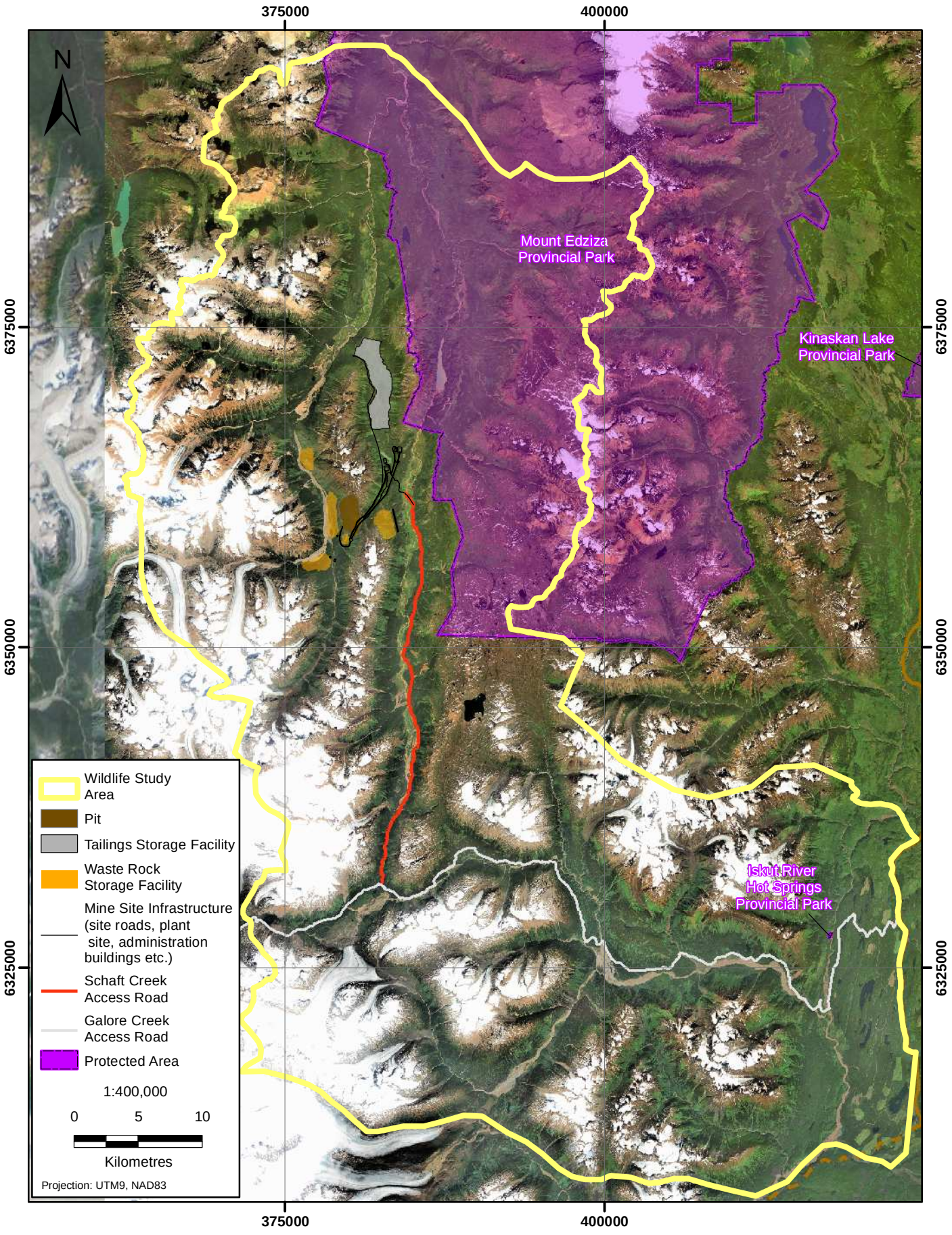


FIGURE 6.8-1

Wildlife Study Area

6.8.2.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.8.2.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for grizzly bears. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles;
  - Site Infrastructure (including air traffic); and
  - Transportation.

6.8.2.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for grizzly bears.

6.8.2.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on grizzly bears.

6.8.2.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for grizzly bears.

6.8.2.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on grizzly bears. The analysis will include:
  - Grizzly bear habitat suitability modeling within the wildlife regional study area using *Wildlife Habitat Ratings Standards* methodology – Resources Inventory Committee. May 1999. Version 2.

6.8.2.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on grizzly bears using the terms presented in Section 5; and

- Grizzly bear specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.8.2.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on grizzly bears based on the terms defined in the Residual Effects Classification section.

6.8.2.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on grizzly bears.

6.8.2.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for grizzly bears.

6.8.3 VC#2 – Moose

6.8.3.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- The existing environment for moose will be described, including:
  - General ecology and habitat preferences;
  - Habitat suitability modelling;
  - Habitat suitability modelling conducted by the MoE;
  - Habitat protected areas such as Ungulate Winter Ranges;
  - Available population estimates and trends;
  - First Nations TK/TU and other local knowledge;
  - Incidental observations and winter aerial survey data; and
  - Existing pressures on moose.

6.8.3.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.8.3.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for moose. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles;
  - Site Infrastructure (including air traffic); and
  - Transportation.

6.8.3.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for moose.

6.8.3.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Mitigation measures will be described that Copper Fox commits to undertaking to mitigate potential Project effects on moose.

6.8.3.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for moose.

6.8.3.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on moose. The analysis will include:
  - Habitat suitability modeling within the wildlife regional study area using *Wildlife Habitat Ratings Standards* methods – Resources Inventory Committee. May 1999. Version 2.

6.8.3.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on moose using the terms presented in Section 5; and
- Moose specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.8.3.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on moose based on the terms defined in the Residual Effects Classification section.

6.8.3.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on moose.

6.8.3.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for moose.

6.8.4 VC#3 – Mountain Ungulates

6.8.4.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- The existing environment for mountain ungulates will be described, including:
  - General ecology and habitat preferences;
  - Habitat suitability modelling;
  - Habitat suitability modelling conducted by the MoE;
  - Habitat protected areas such as Ungulate Winter Range;
  - Available population estimates and trends;
  - First Nations TK/TU and other local knowledge;
  - Incidental observations and summer and winter aerial survey data; and
  - Existing pressures on mountain ungulates.

6.8.4.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.8.4.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for mountain ungulates. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure (including air traffic).

6.8.4.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for mountain ungulates.

6.8.4.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Mitigation measures will be described that Copper Fox commits to undertaking to mitigate potential Project effects on mountain ungulates.

6.8.4.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for mountain ungulates.

6.8.4.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on mountain ungulates. The analysis will include:
  - Habitat suitability modeling within the wildlife regional study area using *Wildlife Habitat Ratings Standards* methods – Resources Inventory Committee. May 1999. Version 2.

6.8.4.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on mountain ungulates using the terms presented in Section 5; and
- Mountain ungulate specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.8.4.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on mountain ungulates based on the terms defined in the Residual Effects Classification section.

6.8.4.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on mountain ungulates.

6.8.4.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for mountain ungulates.

6.8.5 VC#4 – Hoary Marmots

6.8.5.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- The existing environment for hoary marmots will be described, including:

- General ecology and habitat preferences;
- Habitat suitability modelling;
- Habitat suitability modelling conducted by the MoE;
- Habitat protected areas;
- Available population estimates and trends;
- First Nations TK/TU and other local knowledge;
- Incidental observations and other data; and
- Existing pressures on hoary marmots.

6.8.5.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.8.5.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for mountain ungulates. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

6.8.5.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for hoary marmots.

6.8.5.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Mitigation measures will be described that Copper Fox commits to undertaking to mitigate potential Project effects on hoary marmots.

6.8.5.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for hoary marmots.

6.8.5.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on hoary marmot. The analysis will include:
  - Habitat suitability modeling within the wildlife regional study area using *Wildlife Habitat Ratings Standards* methods – Resources Inventory Committee. May 1999. Version 2.

6.8.5.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on hoary marmots using the terms presented in Section 5; and
- Hoary marmot specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.8.5.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on hoary marmots based on the terms defined in the Residual Effects Classification section.

6.8.5.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on hoary marmots.

6.8.5.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for hoary marmots.

6.8.6 VC#5 – Furbearers (Marten and Wolverine)

6.8.6.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- The existing environment for furbearers will be described, including:
  - General ecology and habitat preferences;
  - Habitat suitability modelling;
  - Habitat suitability modelling conducted by the MoE;
  - Habitat protected areas;
  - Available population estimates and trends;
  - First Nations TK/TU and other local knowledge;
  - Incidental observations and other data; and
  - Existing pressures on furbearers.

6.8.6.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.8.6.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for furbearers. These will be:

- Schaft Creek Access Road;
- Power Supply and Distribution;
- Schaft Pit;
- Tailings Storage Facility (TSF);
- Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
- Site Infrastructure.

6.8.6.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for furbearers.

6.8.6.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Mitigation measures will be described that Copper Fox commits to undertaking to mitigate potential Project effects on furbearers.

6.8.6.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for furbearers.

6.8.6.3 Residual Effects and their significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on furbearers. The analysis will include:
  - Habitat suitability modeling within the wildlife regional study area using *Wildlife Habitat Ratings Standards* methods – Resources Inventory Committee. May 1999. Version 2.

6.8.6.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on furbearers using the terms presented in Section 5.; and
- Furbearer specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.8.6.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on furbearers based on the terms defined in the Residual Effects Classification section.

6.8.6.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on furbearers.

6.8.6.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for furbearers.

6.8.7 VC#6 – Bats

6.8.7.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- The existing environment for bats will be described, including:
  - General ecology and habitat preferences;
  - Habitat protected areas;
  - Available population estimates and trends;
  - First Nations TK/TU and other local knowledge;
  - Incidental observations and summer inventory data; and
  - Existing pressures on bats.

6.8.7.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.8.7.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for bats. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

6.8.7.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for bats.

6.8.7.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Mitigation measures will be described that Copper Fox commits to undertaking to mitigate potential Project effects on bats.

6.8.7.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for bats.

6.8.7.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on bats.

6.8.7.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on bats using the terms presented in Section 5; and
- Bat specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.8.7.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on bats based on the terms defined in the Residual Effects Classification section.

6.8.7.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on bats.

6.8.7.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for bats.

6.8.8 VC#7 – Amphibians

6.8.8.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- The existing environment for amphibians will be described, including:
  - General ecology and habitat preferences;
  - Available population estimates and trends;
  - Habitat protected areas;
  - First Nations TK/TU and other local knowledge;
  - Incidental observations and aerial and ground survey data; and
  - Existing pressures on amphibians.

6.8.8.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.8.8.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for amphibians. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

6.8.8.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for amphibians.

6.8.8.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Mitigation measures will be described that Copper Fox commits to undertaking to mitigate potential Project effects on amphibians.

6.8.8.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for amphibians.

6.8.8.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on amphibians.

6.8.8.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on amphibians using the terms presented in Section 5; and
- Amphibian specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.8.8.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on amphibians based on the terms defined in the Residual Effects Classification section.

6.8.8.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on amphibians.

6.8.8.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for amphibians.

6.8.9 VC#8 – Waterfowl and Riverine Birds

6.8.9.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- The existing environment for waterfowl and riverine birds (water birds) will be described, including:
  - General ecology and habitat preferences;
  - Habitat protected areas;
  - Available population estimates and trends;
  - First Nations TK/TU and other local knowledge;
  - Incidental observations and spring and summer survey data; and
  - Existing pressures on water birds.

6.8.9.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.8.9.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for water birds. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

6.8.9.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for water birds.

6.8.9.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Mitigation measures will be described that Copper Fox commits to undertaking to mitigate potential Project effects on water birds.

6.8.9.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for water birds.

6.8.9.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on water birds.

6.8.9.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on water birds using the terms presented in Section 5; and
- Water bird specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.8.9.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on water birds based on the terms defined in the Residual Effects Classification section.

6.8.9.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on water birds.

6.8.9.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for water birds.

6.8.10 VC#9 – Songbirds

6.8.10.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- The existing environment for songbirds will be described, including:
  - General ecology and habitat preferences;
  - Habitat protected areas;
  - Available population estimates and trends;
  - First Nations TK/TU and other local knowledge;
  - Incidental observations and summer survey data; and
  - Existing pressures on songbirds.

6.8.10.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.8.10.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for songbirds. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

6.8.10.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for songbirds.

6.8.10.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Mitigation measures will be described that Copper Fox commits to undertaking to mitigate potential Project effects on songbirds.

6.8.10.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for songbirds.

6.8.10.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on songbirds.

6.8.10.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on songbirds using the terms presented in Section 5; and
- Songbird specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.8.10.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on songbirds based on the terms defined in the Residual Effects Classification section.

6.8.10.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on songbirds.

6.8.10.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for songbirds.

6.8.11 VC#10 – Raptors

6.8.11.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- The existing environment for raptors will be described, including:
  - General ecology and habitat preferences;
  - Habitat protected areas;
  - Available population estimates and trends;
  - First Nations TK/TU and other local knowledge;
  - Incidental observations and summer survey data; and
  - Existing pressures on raptors.

6.8.11.2 Potential Effects of the Proposed Project and Proposed Mitigation

6.8.11.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for raptors. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

6.8.11.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for raptors.

6.8.11.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Mitigation measures will be described that Copper Fox commits to undertaking to mitigate potential Project effects on raptors.

6.8.11.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for raptors.

6.8.11.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on raptors.

6.8.11.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on raptors using the terms presented in Section 5; and
- Raptor specific definitions for residual effects classification terms (magnitude, duration, etc.).

6.8.11.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on raptors based on the terms defined in the Residual Effects Classification section.

6.8.11.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on raptors.

6.8.11.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for raptors.

6.9 Summary of Potential Environmental Effects Analysis

Copper Fox commits to provide the following in the Application:

- A summary table of the potential environmental effects analysis.

Table 6.9-1. Summary of Potential Environmental Effects Analysis

Valued Components (note phase of Project)*	Potential Effects (including Cumulative Effects)	Key Mitigation Measures	Significance Analysis of Residual Effects (summary statement)
Atmospheric Environment			
VC #1- Climate Change			
Surface Hydrology			
VC #1- Magnitude, Duration, Timing			
Groundwater			
VC# 1- Ground Water Quantity			
VC# 2- Ground Water Quality			
Water Quality & Aquatic Resources			
VC# 1- Water Quality			
VC# 2- Aquatic Resources			

(continued)

Table 6.9-1. Summary of Potential Environmental Effects Analysis (completed)

Valued Components (note phase of Project)*	Potential Effects (including Cumulative Effects)	Key Mitigation Measures	Significance Analysis of Residual Effects (summary statement)
Fish & Fish Habitat			
VC#1 Schaft & Skeeter Creek Rainbow Trout			
VC#2 Mess Creek Rainbow Trout and Kokanee			
VC#3 Start Creek Rainbow Trout			
VC#4 Mess Creek & Stikine Pacific Salmon			
Terrestrial Environment			
VC#1 – Soil and Terrain			
VC #2 – Listed Ecosystems and Plants			
VC#3 – Sensitive Terrestrial Ecosystems			
VC#4 – Wetland Ecosystems			
VC #5 – Species or Groups of Cultural, Economic, or Social Importance			
VC#6 – Unlisted Ecosystems			
Wildlife and Wildlife Habitat			
VC #1 – Grizzly Bears			
VC#2 – Moose			
VC#3 – Mountain Ungulates			
VC#4 – Hoary Marmot			
VC#5 – Furbearers (Marten and Wolverine)			
VC#6 – Bats			
VC#7 – Amphibians			
VC#8 – Waterfowl and Riverine Birds			
VC#9 – Songbirds			
VC#10 – Raptors			

** Pre-construction/Construction Phase = C; Operation Phase = O; Closure/Decommissioning Phase = C; Post-Closure Phase = P.*

7. Assessment of Potential Economic Effects

7.1 Economic Context

Copper Fox commits to provide the following in the Application:

- A general description of the existing economic environment, including surrounding areas within the zone of potential influences of the proposed Project.

7.2 Economics

7.2.1 Introduction

Copper Fox commits to provide the following in the Application:

- A general introduction to the area of study which describes both the economic context of the area and also provides background which is common to all economic VCs. Input from all First Nations, non-Aboriginal communities, governments, land and resource users (both individual and corporate) interests will be included where applicable.

7.2.1.1 VC Scoping and Rationale

Copper Fox commits to provide the following in the Application:

- The rationale for choosing and assessing VCs. Justification for each VC included in the analysis will be given, based on information from:
  - Federal and Provincial regulations;
  - First Nations;
  - Applicable government agencies;
  - Land and resource management plans;
  - The public and other stakeholders; and
  - Scientific literature and professional knowledge.

7.2.1.1.1 Relevant Legislation and Legal Framework

Copper Fox commits to provide the following in the Application:

- Assessing all relevant legislation and the legal framework that may influence the economic context for the study area and the potential effects on the project, where applicable and relevant to the project. This will include any government land and resource planning for the area, existing ministerial planning relevant to economic activity. The reasoning for any focus on relevant legislation and legal framework will be provided.

7.2.1.2 Spatial and Temporal Boundaries

Copper Fox commits to provide the following in the Application:

- Temporal and spatial assessment boundaries for economic effects.
  - Figure 7.2-1 presents the spatial study area boundary. The cumulative effects assessment spatial boundary may use a larger area, depending on the VC and projects/disturbances considered in the cumulative effects assessment.

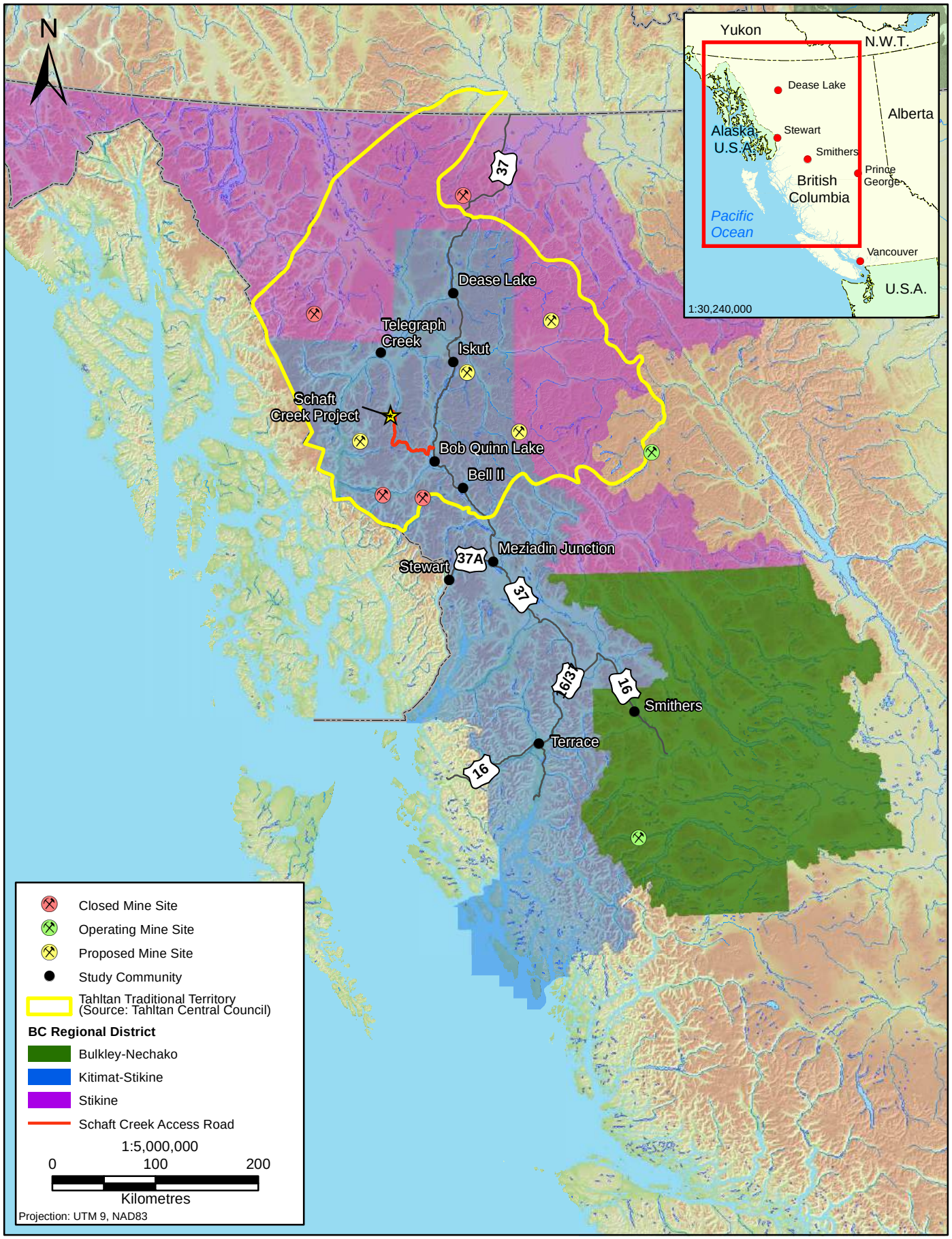


FIGURE 7.2-1

Economic Study Area

- Description of any annual or seasonal variation related to VCs and biophysical constraints for all phases of the proposed Project.

7.2.1.3 Potential Effects

Copper Fox commits to provide the following in the Application:

- The general predicted effects for economics, which are likely to be:
  - Employment and income effects;
  - Economic and business development opportunities; and
  - Education, training and skills development.

7.3 VC#1 Employment and Income

7.3.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline employment and income information for the study area, including:
  - Mining exploration and activity;
  - Forestry and logging;
  - Power generation and supply;
  - Agriculture;
  - Fishing;
  - Commercial recreation;
  - Tourism and recreation;
  - Guide outfitting and trapping;
  - Other major employers involving land and resource access; and
  - Major employers such as governments, health authorities, and school boards.

7.3.2 Potential Effects of the Proposed Project and Proposed Mitigation

7.3.2.1 Project Components

Copper Fox commits to provide the following in the application:

- The Project components that will be considered in the residual effects analysis for employment and income. These will be:
  - Corporate Policy;
  - Procurement Policy
  - Recruitment
  - Organization and Workforce
  - Training and Education
  - Transportation; and
  - Port of Stewart.

7.3.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the application:

- The identified pathways considered in the residual effects analysis for employment and income.

7.3.2.3 Mitigation Measures

Copper Fox commits to provide the following in the application:

- Description of the measures that Copper Fox commits to undertaking to mitigate/enhance proposed Project's effects on employment and income.

7.3.2.4 Pathway Validation

Copper Fox commits to provide the following in the application:

- Description and results of the pathway validation process for pathways identified for employment and income.

7.3.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on employment and income. The analysis will include:
  - British Columbia Input/Output economic model.

7.3.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the application:

- Classification of any potential residual effects after mitigation/enhancement on employment and income using the terms presented in Section 5; and
- Employment and income specific definitions for residual effects classification terms (magnitude, duration, etc.).

7.3.3.2 Significance Determination

Copper Fox commits to provide the following in the application:

- Determination of the significance of any potential residual effects after mitigation/enhancement of employment and income based on the terms defined in the Residual Effects Classification section.

7.3.3.3 Level of Certainty

Copper Fox commits to provide the following in the application:

- The level of certainty of the significance of any potential residual effects after mitigation/enhancement on employment and income.

7.3.4 Conclusion

Copper Fox commits to provide the following in the application:

- A summary of any potential residual effects of the proposed Project and their significance for employment and income.

7.4 VC #2 - Economic Development and Business Opportunities

7.4.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline economic development and business opportunities information for the study area, including:
  - Mining exploration and activity;
  - Forestry and logging;
  - Power generation and supply;
  - Agriculture;
  - Fishing;
  - Tourism and Recreation;
  - Commercial recreation;
  - Guide outfitting and trapping;
  - Major employers involving land and resource access; and
  - Other major employers such as governments, health authorities, and school boards.

7.4.2 Potential Effects of the Proposed Project and Proposed Mitigation

7.4.2.1 Project Components

Copper Fox commits to provide the following in the application:

- The Project components that will be considered in the residual effects analysis for economic development and business opportunities. These will be:
  - Corporate Policy;
  - Procurement Policy;
  - Recruitment;
  - Organization and Workforce;
  - Commuting;
  - Training and Education;
  - Transportation; and
  - Port of Stewart.

7.4.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the application:

- The identified pathways considered in the residual effects analysis for economic development and business opportunities.

7.4.2.3 Mitigation Measures

Copper Fox commits to provide the following in the application:

- Description of the measures that Copper Fox commits to undertaking to mitigate/enhance proposed Project's effects on economic development and business opportunities.

7.4.2.4 Pathway Validation

Copper Fox commits to provide the following in the application:

- Description and results of the pathway validation process for pathways identified for economic development and business opportunities.

7.4.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on economic development and business opportunities. The analysis will include:
  - British Columbia Input/Output economic model.

7.4.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the application:

- Classification of any potential residual effects after mitigation/enhancement on economic development and business opportunities using the terms presented in Section 5; and
- Economic development and business opportunity specific definitions for residual effects classification terms (magnitude, duration, etc.).

7.4.3.2 Significance Determination

Copper Fox commits to provide the following in the application:

- Determination of the significance of any potential residual effects after mitigation/enhancement of economic development and business opportunities based on the terms defined in the Residual Effects Classification section.

7.4.3.3 Level of Certainty

Copper Fox commits to provide the following in the application:

- The level of certainty of the significance of any potential residual effects after mitigation/enhancement on economic development and business opportunities.

7.4.4 Conclusion

Copper Fox commits to provide the following in the application:

- A summary of any potential residual effects on the proposed Project and their significance for economic development and business opportunities.

7.5 VC#3 Education, Training and Skills Development

7.5.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline education, training and skills development information for the study area, including:

- Mining exploration and activity;
- Forestry and logging;
- Power generation and supply;
- Agriculture;
- Fishing;
- Tourism and recreation;
- Commercial recreation;
- Guide outfitting and trapping;
- Major employers involving land and resource access; and
- Other major employers such as governments, health authorities, and school boards.

7.5.2 Potential Effects of the Proposed Project and Proposed Mitigation

7.5.2.1 Project Components

Copper Fox commits to provide the following in the application:

- The Project components that will be considered in the residual effects analysis for education, training and skills development. These will be:
  - Corporate Policy;
  - Training and Education; and
  - Transportation.

7.5.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the application:

- The identified pathways considered in the residual effects analysis for education, training and skills development.

7.5.2.3 Mitigation Measures

Copper Fox commits to provide the following in the application:

- Description of the measures that Copper Fox commits to undertaking to mitigate/enhance proposed Project's effects on education, training and skills development.

7.5.2.4 Pathway Validation

Copper Fox commits to provide the following in the application:

- Description and results of the pathway validation process for pathways identified for education, training and skills development.

7.5.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on education, training and skills development. The analysis will include:
  - Education, training and skills development effects throughout all the stages of the Project

7.5.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the application:

- Classification of any potential residual effects after mitigation/enhancement on education, training and skills development using the terms presented in Section 5; and
- Education, training and skills specific definitions for residual effects classification terms (magnitude, duration, etc.).

7.5.3.2 Significance Determination

Copper Fox commits to provide the following in the application:

- Determination of the significance of any potential residual effects after mitigation/enhancement of education, training and skills development based on the terms defined in the Residual Effects Classification section.

7.5.3.3 Level of Certainty

Copper Fox commits to provide the following in the application:

- The level of certainty of the significance of any potential residual effects after mitigation/enhancement on education, training and skills development.

7.5.4 Conclusion

Copper Fox commits to provide the following in the application:

- A summary of any potential residual effects on the proposed Project and their significance for education, training and skills development.

7.6 Summary of Potential Economic Effects Analysis

Copper Fox commits to provide the following in the Application:

- A summary table of the potential Economic effects analysis.

Table 7.6-1. Summary of Potential Economic Effects Analysis

Valued Components (note phase of Project)*	Potential Effects (including Cumulative Effects)	Key Mitigation Measures	Significance Analysis of Residual Effects (summary statement)
VC#1 Employment and Income			
VC#2 Economic Development and Business Opportunities			
VC#3 Education, Training, and Skills Development.			

** Pre-construction/Construction Phase = C; Operation Phase = O; Closure/Decommissioning Phase = C; Post-Closure Phase = P.*

8. Assessment of Potential Social Effects

8.1 Social Context

Copper Fox commits to provide the following in the Application:

- A general description of the existing economic environment, including surrounding areas within the zone of potential influences of the proposed Project. The following subheadings will be in the Application.
  - Social; and
  - Land and Resource Use.

8.2 Social

8.2.1 Introduction

Copper Fox commits to provide the following in the Application:

- A general introduction to the area of study will be provided which describes both the social context of the area and also provides background which is common to all social VCs. Input from all First Nations, non-Aboriginal communities, governments, land and resource users (both individual and corporate) interests will be included where applicable.

8.2.1.1 VC Scoping and Rationale

Copper Fox commits to provide the following in the Application:

- The rationale for choosing and assessing VCs. Justification for each VC included in the analysis will be given, based on information from:
  - Federal and Provincial regulations;
  - First Nations;
  - Applicable government agencies;
  - Land and resource management plans;
  - The public and other stakeholders; and
  - Scientific literature and professional knowledge.

8.2.1.1.1 Relevant Legislation and Legal Framework

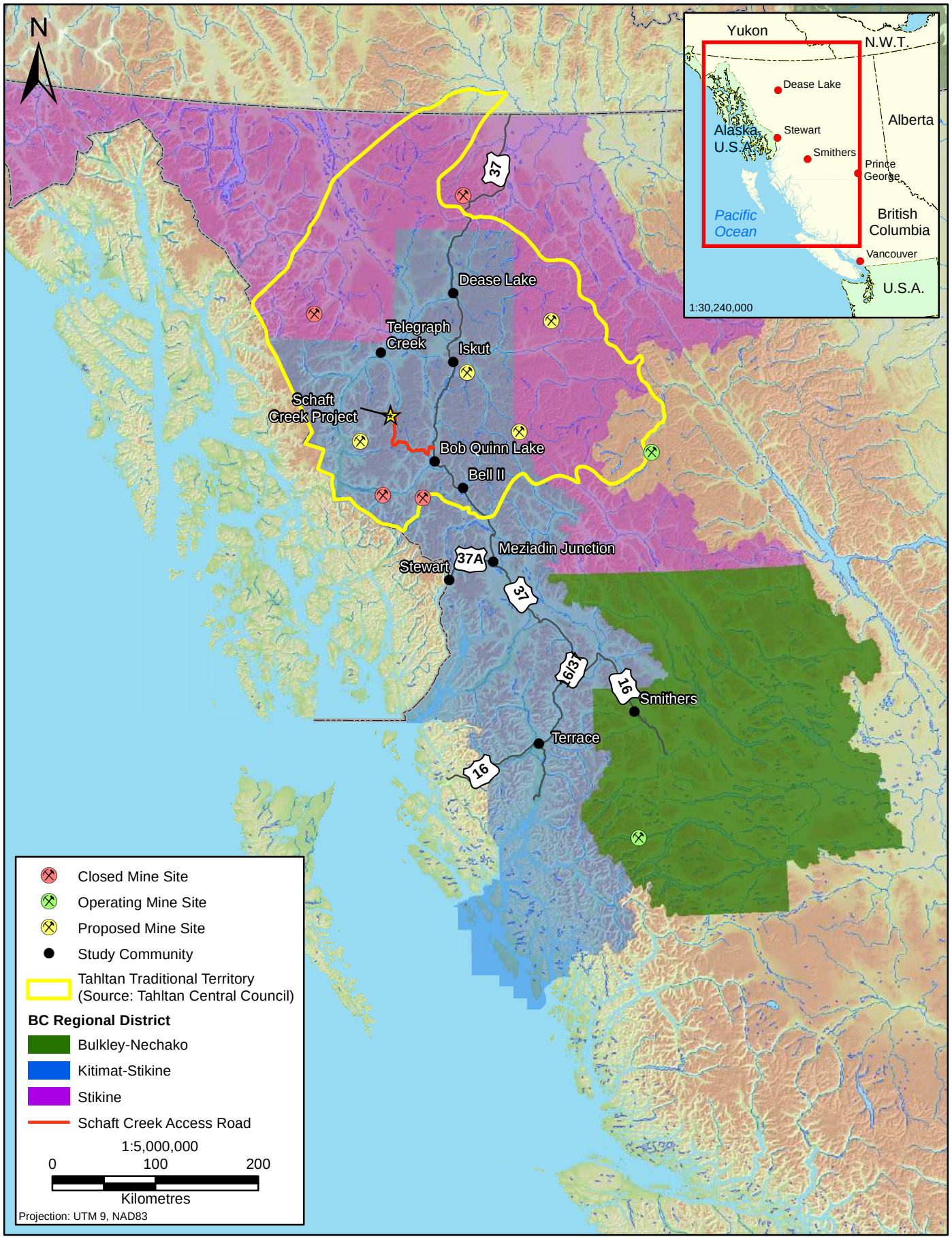
Copper Fox commits to provide the following in the Application:

- Assessing all relevant legislation and the legal framework that may influence the social context for the study area and the potential effects on the project, where applicable and relevant to the project. This will include any government land and resource planning for the area, existing ministerial planning relevant to social and economic activity. The reasoning for any focus on relevant legislation and legal framework will be provided.

8.2.1.2 Spatial and Temporal Boundaries

Copper Fox commits to provide the following in the Application:

- Temporal and spatial assessment boundaries for social effects.
  - Figure 8.2-1 presents the spatial study area boundary. The cumulative effects assessment spatial boundary may use a larger area, depending on the VC and projects/disturbances considered in the cumulative effects assessment.



Social Study Area

FIGURE 8.2-1

- Description of any annual or seasonal variation related to VCs and biophysical constraints for all phases of the proposed Project.

8.2.1.3 Potential Effects

Copper Fox commits to provide the following in the Application:

- The general predicted social effects, which are likely to be:
  - Community Demographics, Infrastructure and Services;
  - Quality of Life; and
  - Socio-cultural values.

8.2.2 VC#1 – Community Demographics, Infrastructure and Services

8.2.2.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline social information for the study area, including:
  - Community Demographics;
  - Community Infrastructure;
  - Community Services;
  - Social and Health Issues; and
  - Education and training levels.

8.2.2.2 Potential Effects of the Proposed Project and Proposed Mitigation

8.2.2.2.1 Project Components

Copper Fox commits to provide the following in the application:

- The Project components that will be considered in the residual effects analysis for community demographics, infrastructure and services, these will be:
  - Corporate Policy;
    - Procurement Policy;
    - Recruitment;
    - Organization and Workforce;
    - Commuting;
    - Work Schedule;
    - Training and Education;
    - Healthy Living Programs; and
    - Worker Health and Safety.
  - Transportation; and
  - Port of Stewart.

8.2.2.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the application:

- The identified pathways considered in the residual effects analysis for community demographics, infrastructure and services.

8.2.2.2.3 Mitigation Measures

Copper Fox commits to provide the following in the application:

- Description of the measures that Copper Fox commits to undertaking to mitigate/enhance proposed Project's effects on community demographics, infrastructure and services.

8.2.2.2.4 Pathway Validation

Copper Fox commits to provide the following in the application:

- Description and results of the pathway validation process for pathways identified for community demographics, infrastructure and services.

8.2.2.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on community demographics, infrastructure and services. The analysis will include:
  - Community demographics, infrastructure and services effects throughout all the stages of the Project.

8.2.2.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the application:

- Classification of any potential residual effects after mitigation/enhancement on community demographics, infrastructure and services using the terms presented in Section 5; and
- Community demographics, infrastructure and services specific definitions for residual effects classification terms (magnitude, duration, etc.).

8.2.2.3.2 Significance Determination

Copper Fox commits to provide the following in the application:

- Determination of the significance of any potential residual effects after mitigation/enhancement of community demographics, infrastructure and services based on the terms defined in the Residual Effects Classification section.

8.2.2.3.3 Level of Certainty

Copper Fox commits to provide the following in the application:

- The level of certainty of the significance of any potential residual effects after mitigation on community demographics, infrastructure and services.

8.2.2.4 Conclusion

Copper Fox commits to provide the following in the application:

- A summary of any potential residual effects of the proposed Project and their significance for community demographics, infrastructure and services.

8.2.3 VC#2 - Quality of Life

8.2.3.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline social information for the study area, including:
  - Community Demographics;
  - Community Infrastructure;
  - Community Services;
  - Social and Health Issues; and
  - Education and training levels.

8.2.3.2 Potential Effects of the Proposed Project and Proposed Mitigation

8.2.3.2.1 Project Components

Copper Fox commits to provide the following in the application:

- The Project components that will be considered in the residual effects analysis for quality of life. These will be:
  - Corporate Policy;
    - Organization and Workforce;
    - Commuting;
    - Work Schedule;
    - Training and Education;
    - Healthy Living Programs; and
    - Worker Health and Safety.

8.2.3.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the application:

- The identified pathways considered in the residual effects analysis for quality of life.

8.2.3.2.3 Mitigation Measures

Copper Fox commits to provide the following in the application:

- Description of the measures that Copper Fox commits to undertaking to mitigate/enhance proposed Project's effects on quality of life.

8.2.3.2.4 Pathway Validation

Copper Fox commits to provide the following in the application:

- Description and results of the pathway validation process for pathways identified for quality of life.

8.2.3.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on quality of life.

8.2.3.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the application:

- Classification of any potential residual effects after mitigation/enhancement on quality of life using the terms presented in Section 5; and
- Quality of life specific definitions for residual effects classification terms (magnitude, duration, etc.).

8.2.3.3.2 Significance Determination

Copper Fox commits to provide the following in the application:

- Determination of the significance of any potential residual effects after mitigation/enhancement of quality of life based on the terms defined in the Residual Effects Classification section.

8.2.3.3.3 Level of Certainty

Copper Fox commits to provide the following in the application:

- The level of certainty of the significance of any potential residual effects after mitigation on quality of life.

8.2.3.4 Conclusion

Copper Fox commits to provide the following in the application:

- A summary of any potential residual effects of the proposed Project and their significance for quality of life.

8.2.4 VC #3 – Socio-Cultural Values

8.2.4.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline social information for the study area, including:
  - Community Demographics;
  - Community Infrastructure;
  - Community Services;
  - Cultural norms and activities specific to communities and residents;
  - Social and Health Issues; and
  - Education and training levels.

8.2.4.2 Potential Effects of the Proposed Project and Proposed Mitigation

8.2.4.2.1 Project Components

Copper Fox commits to provide the following in the application:

- The Project components that will be considered in the residual effects analysis for socio-cultural values. These will be:
  - Corporate Policy;

- Recruitment;
- Organization and Workforce;
- Commuting;
- Work Schedule;
- Training and Education; and
- Healthy Living Programs.

8.2.4.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the application:

- The identified pathways considered in the residual effects analysis for socio-cultural values.

8.2.4.2.3 Mitigation Measures

Copper Fox commits to provide the following in the application:

- Description of the measures that Copper Fox commits to undertaking to mitigate/enhance proposed Project's effects on socio-cultural values.

8.2.4.2.4 Pathway Validation

Copper Fox commits to provide the following in the application:

- Description and results of the pathway validation process for pathways identified for socio-cultural values.

8.2.4.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning.

8.2.4.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the application:

- Classification of any potential residual effects after mitigation/enhancement on socio-cultural values using the terms presented in Section 5; and
- Socio-cultural values specific definitions for residual effects classification terms (magnitude, duration, etc.).

8.2.4.3.2 Significance Determination

Copper Fox commits to provide the following in the application:

- Determination of the significance of any potential residual effects after mitigation/enhancement of socio-cultural values based on the terms defined in the Residual Effects Classification section.

8.2.4.3.3 Level of Certainty

Copper Fox commits to provide the following in the application:

- The level of certainty of the significance of any potential residual effects after mitigation on socio-cultural values.

8.2.4.4 Conclusion

Copper Fox commits to provide the following in the application:

- A summary of any potential residual effects of the proposed Project and their significance for socio-cultural values.

8.3 Land and Resource Use

8.3.1 Introduction

Copper Fox commits to provide the following in the application:

- A general introduction to the area of study which describes both the land and resource use of the area and also provides background which is common to all land and resource use VCs. Input from all First Nations, non-Aboriginal communities, governments, land and resource users (both individual and corporate) interests will be included where applicable.

8.3.1.1 VC Scoping and Rationale

Copper Fox commits to provide the following in the Application:

- The rationale for choosing and assessing VCs. Justification for each VC included in the analysis will be given, based on information from:
  - Federal and Provincial regulations;
  - First Nations;
  - Applicable government agencies;
  - Land and resource management plans and local government plans and bylaws;
  - The public and other stakeholders; and
  - Scientific literature and professional knowledge.

8.3.1.1.1 Relevant Legislation and Legal Framework

Copper Fox commits to provide the following in the Application:

- Copper Fox commits to assessing all relevant legislation and the legal framework that may influence the land and resource context for the study area and the potential effects on the project, where applicable and relevant to the project. This will include any government land and resource planning for the area, existing ministerial planning and management relevant to economic activity and documented land and resource use. The reasoning for any focus on relevant legislation and legal framework will be provided.

8.3.1.2 Spatial and Temporal Boundaries

Copper Fox commits to provide the following in the Application:

- Temporal and spatial assessment boundaries for land and resource use effects.

  - Figure 8.3-1 presents the spatial study area boundary. The cumulative effects assessment spatial boundary may use a larger area, depending on the VC and projects/disturbances considered in the cumulative effects assessment.

- Description of any annual or seasonal variation related to VCs and biophysical constraints for all phases of the proposed Project.

8.3.2 VC #1 - Land Access

8.3.2.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline land access information for the study area, including:
  - Mining exploration and activity;
  - Forestry and logging;
  - Power generation and supply;
  - Agriculture;
  - Fishing;
  - Commercial recreation;
  - Tourism and recreation;
  - Guide outfitting and trapping; and
  - Subsistence users.

8.3.2.2 Potential Effects of the Proposed Project and Proposed Mitigation

8.3.2.2.1 Project Components

Copper Fox commits to provide the following in the application:

- The Project components that will be considered in the residual effects analysis for land access. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles;
  - Site Infrastructure (including air traffic); and
  - Transportation, including the truck transfer station.

8.3.2.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the application:

- The identified pathways considered in the residual effects analysis for land access.

8.3.2.2.3 Mitigation Measures

Copper Fox commits to provide the following in the application:

- Description of the measures that Copper Fox commits to undertaking to mitigate/enhance proposed Project's effects on land access.

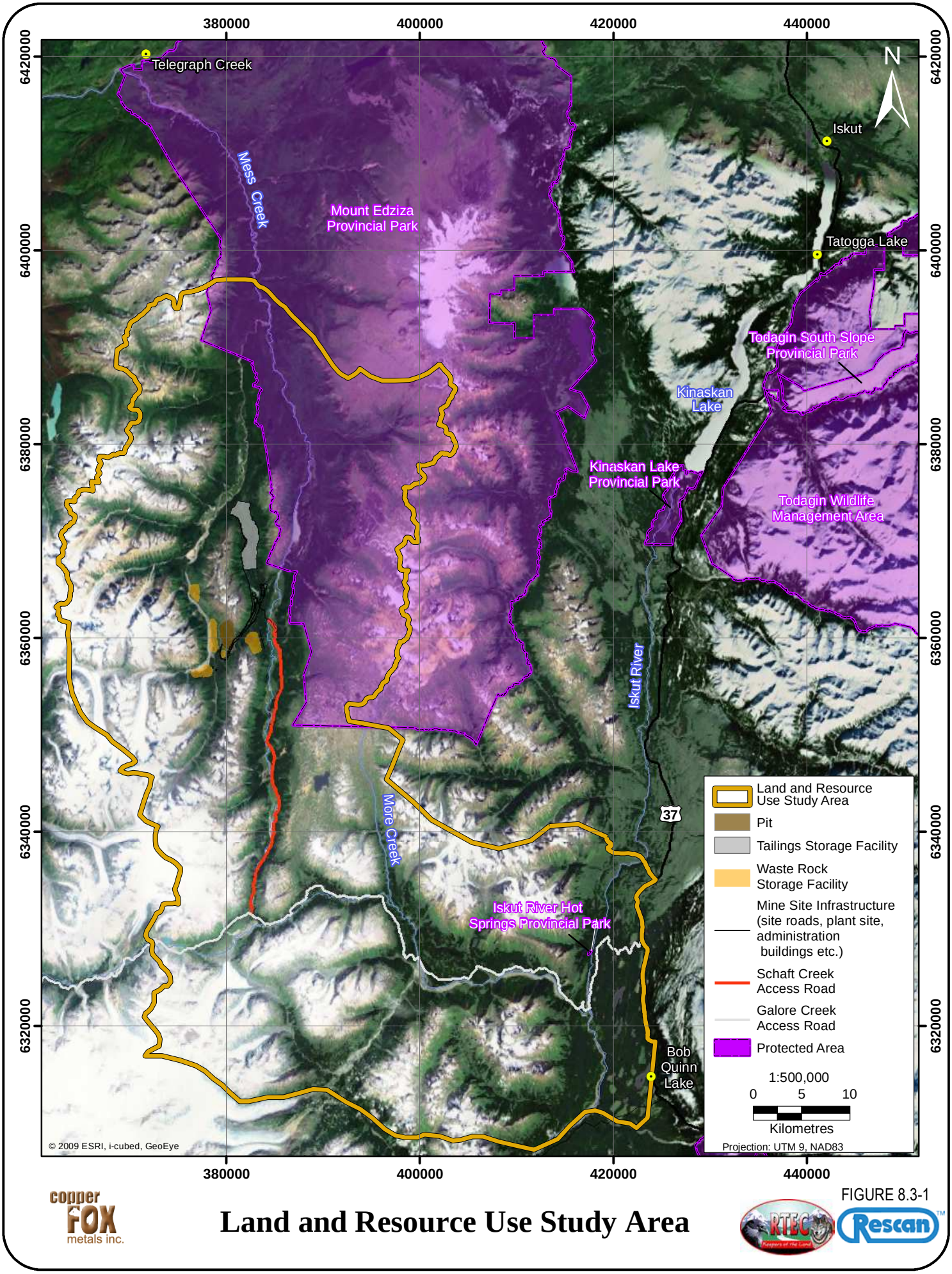


FIGURE 8.3-1

Land and Resource Use Study Area

8.3.2.2.4 Pathway Validation

Copper Fox commits to provide the following in the application:

- Description and results of the pathway validation process for pathways identified for land access.

8.3.2.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on land access.

8.3.2.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the application:

- Classification of any potential residual effects after mitigation/enhancement on land access using the terms presented in Section 5; and
- Land access specific definitions for residual effects classification terms (magnitude, duration, etc.).

8.3.2.3.2 Significance Determination

Copper Fox commits to provide the following in the application:

- Determination of the significance of any potential residual effects after mitigation/enhancement of land access based on the terms defined in the Residual Effects Classification section.

8.3.2.3.3 Level of Certainty

Copper Fox commits to provide the following in the application:

- The level of certainty of the significance of any potential residual effects after mitigation/enhancement on land access.

8.3.2.4 Conclusion

Copper Fox commits to provide the following in the application:

- A summary of any potential residual effects of the proposed Project and their significance for land access.

8.3.3 VC#2 - Land Use Quality Aesthetics

8.3.3.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Land Use Quality Aesthetics information for the study area, including:
  - Mining exploration and activity;
  - Forestry and logging;

- Power generation and supply;
- Agriculture;
- Fishing;
- Commercial recreation;
- Tourism and recreation;
- Guide outfitting and trapping; and
- Subsistence Users.

8.3.3.2 Potential Effects of the Proposed Project and Proposed Mitigation

8.3.3.2.1 Project Components

Copper Fox commits to provide the following in the application:

- The Project components that will be considered in the residual effects analysis for land use quality aesthetics. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpile;
  - Site Infrastructure; and
  - Transportation, including the truck transfer station.

8.3.3.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the application:

- The identified pathways considered in the residual effects analysis for land use quality aesthetics.

8.3.3.2.3 Mitigation Measures

Copper Fox commits to provide the following in the application:

- Description of the measures that Copper Fox commits to undertaking to mitigate/enhance proposed Project's effects on land use quality aesthetics.

8.3.3.2.4 Pathway Validation

Copper Fox commits to provide the following in the application:

- Description and results of the pathway validation process for pathways identified for land use quality aesthetics.

8.3.3.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the application:

- Identification and analysis of potential proposed Project effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on land use quality aesthetics. The analysis will include:
  - Land and resource effects assessment predictions, including:

- Land use quality aesthetics effects throughout all the stages of the Project.

8.3.3.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the application:

- Classification of any potential residual effects after mitigation/enhancement on land use quality aesthetics using the terms presented in Section 5; and
- Land use quality aesthetics specific definitions for residual effects classification terms (magnitude, duration, etc.).

8.3.3.3.2 Significance Determination

Copper Fox commits to provide the following in the application:

- Determination of the significance of any potential residual effects after mitigation/enhancement of land use quality aesthetics based on the terms defined in the Residual Effects Classification section.

8.3.3.3.3 Level of Certainty

Copper Fox commits to provide the following in the application:

- The level of certainty of the significance of any potential residual effects after mitigation/enhancement on land use quality aesthetics.

8.3.3.4 Conclusion

Copper Fox commits to provide the following in the application:

- A summary of any potential residual effects of the proposed Project and their significance for land use quality aesthetics.

8.3.4 VC#3 Current Use

8.3.4.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Current use information for the study area, including:
  - Mining exploration and activity;
  - Forestry and logging;
  - Power generation and supply;
  - Agriculture;
  - Fishing;
  - Commercial recreation;
  - Tourism and recreation;
  - Known current uses by Aboriginal peoples;
  - Guide outfitting and trapping; and
  - Subsistence users.

8.3.4.2 Potential Effects of the Proposed Project and Proposed Mitigation

8.3.4.2.1 Project Components

Copper Fox commits to provide the following in the application:

- The Project components that will be considered in the residual effects analysis for current use. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles;
  - Site Infrastructure; and
  - Transportation.

8.3.4.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the application:

- The identified pathways considered in the residual effects analysis for current use.

8.3.4.2.3 Mitigation Measures

Copper Fox commits to provide the following in the application:

- Description of the measures that Copper Fox commits to undertaking to mitigate/enhance proposed Project's effects on current use.

8.3.4.2.4 Pathway Validation

Copper Fox commits to provide the following in the application:

- Description and results of the pathway validation process for pathways identified for current use.

8.3.4.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the application:

- Identification and analysis of potential proposed Project effects resulting from the preconstruction/construction, operational, closure/decommissioning, and post-closure stages of the Schaft Creek Mine Project within the spatial assessment boundary on current use.

8.3.4.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the application:

- Classification of any potential residual effects after mitigation/enhancement on current use using the terms presented in Section 5; and
- Current use specific definitions for residual effects classification terms (magnitude, duration, etc.).

8.3.4.3.2 Significance Determination

Copper Fox commits to provide the following in the application:

- Determination of the significance of any potential residual effects after mitigation/enhancement of current use based on the terms defined in the Residual Effects Classification section.

8.3.4.3.3 Level of Certainty

Copper Fox commits to provide the following in the application:

- The level of certainty of the significance of any potential residual effects after mitigation/enhancement on current use.

8.3.4.4 Conclusion

Copper Fox commits to provide the following in the application:

- A summary of any potential residual effects of the proposed Project and their significance for current use.

8.4 Summary of Potential Social Effects Analysis

Table 8.4-1. Summary of Potential Social Effects Analysis

Valued Components (note phase of Project)*	Potential Effects (including Cumulative Effects)	Key Mitigation Measures	Significance Analysis of Residual Effects (summary statement)
Social Effects			
VC#1 Community Demographics, Infrastructure and Services			
VC#2 Quality of Life			
VC#3 Socio-Cultural Effects			
Land & Resource Use			
VC#1 Land Access			
VC#2 Land Use Quality Aesthetics			
VC#3 Current Use			

** Pre-construction/Construction Phase = C; Operation Phase = O; Closure/Decommissioning Phase = C; Post-Closure Phase = P.*

9. Assessment of Potential Heritage Effects

9.1 Heritage Context

Copper Fox commits to provide the following in the Application:

- A general description of the existing heritage environment, including surrounding areas within the zone of potential influences of the proposed Project.

9.2 Introduction

Copper Fox commits to provide the following in the Application:

- A general introduction to the area of study will be provided which describes the heritage context of the area. Input from all First Nations, non-Aboriginal communities, governments, land and resource users (both individual and corporate) interests will be included where applicable.

9.2.1 VC Scoping and Rationale

Copper Fox commits to provide the following in the Application:

- The rationale for choosing and assessing VCs. Justification for each VC included in the analysis will be given, based on information from:
  - Federal and Provincial regulations;
  - First Nations;
  - Government;
  - Land and resource management plans;
  - The public and other stakeholders; and
  - Scientific literature and professional knowledge.

9.2.1.1 Relevant Legislation and Legal Framework

Copper Fox commits to provide the following in the Application:

- Assessing all relevant legislation and the legal framework that may influence the heritage context for the study area and the potential effects on the project, where applicable and relevant to the project. This will include any government land and resource planning for the area, existing ministerial planning and management relevant to heritage. The reasoning for any focus on relevant legislation and legal framework will be provided.

9.2.2 Spatial and Temporal Boundaries

Copper Fox commits to provide the following in the Application:

- Temporal and spatial assessment boundaries for heritage effects.
  - Figure 9.2-1 presents the spatial study area boundary. The cumulative spatial effects assessment boundary may use a larger area, depending on the VC and projects/disturbances considered in the cumulative effects assessment.
- Description of any annual or seasonal variation related to VCs and biophysical constraints for all phases of the proposed Project.

9.2.3 Potential Effects

Copper Fox commits to provide the following in the Application:

- The general predicted effects for heritage. These are likely to be:
  - Effects to archaeology sites.

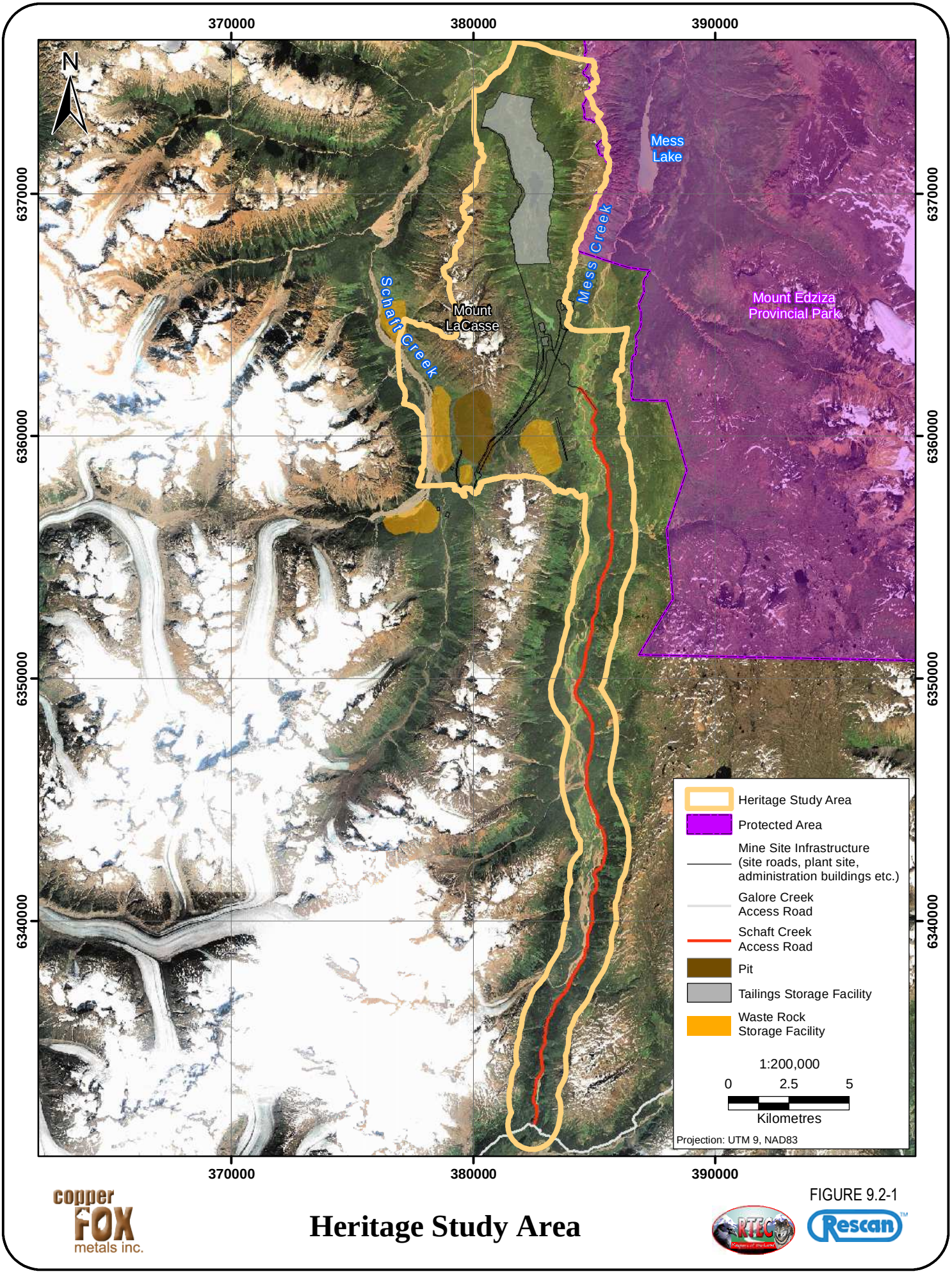


FIGURE 9.2-1

Heritage Study Area

9.3 VC#1 - Heritage

9.3.1 Description of Identified Heritage Concerns

Copper Fox commits to provide the following in the Application:

- Baseline information and its source; This baseline will include:
  - Review of information from the Archaeology Branch's archaeological site database;
  - Findings from the Archaeology Impact Assessment (AIA); and
  - Any additional information regarding Heritage that is provided by the Tahltan.

"Tahltan archaeological standards" provided by the Tahltan will be referenced for all archaeological baseline work undertaken.

9.3.2 Evaluation of Heritage Significance

Copper Fox commits to provide the following in the Application:

- An evaluation of overall heritage significance using the following criteria:
  - Scientific Significance;
  - Ethnic Significance;
  - Public Significance;
  - Economic Significance; and
  - Historic Significance.

9.3.3 Potential Effects of the Proposed Project and Proposed Mitigation

9.3.3.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for heritage. These will be:
  - Schaft Creek Access Road;
  - Power Supply and Transportation;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

9.3.3.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for heritage.

9.3.3.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on heritage.

9.3.3.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for heritage.

9.3.4 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Assessment of Impact Potential and Management Recommendations using the following criteria:
  - Potential Effects; and
  - Probability of Impact.

9.3.5 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for heritage.

9.4 Summary of Potential Heritage Effects Analysis

Table 9.4-1. Summary of Potential Heritage Effects Analysis

Valued Components (note phase of Project)*	Potential Effects (including Cumulative Effects)	Key Mitigation Measures	Significance Analysis of Residual Effects (summary statement)
VC#1 - Heritage			

** Pre-construction/Construction Phase = C; Operation Phase = O; Closure/Decommissioning Phase = C; Post-Closure Phase = P.*

10. Assessment of Potential Health Effects

10.1 Health Context

Copper Fox commits to provide the following in the Application:

- A general description of the existing health environment, including surrounding areas within the zone of potential influences of the proposed Project. The following subheadings will be in the Application:

  - Healthy Living;
  - Employee Health and Safety;
  - Country Foods;
  - Air Quality and Human Health;
  - Water Quality and Human Health; and
  - Noise and Human Health.

10.2 Introduction

Copper Fox commits to provide the following in the Application:

- A general introduction to the area of study will be provided which describes the human health of the area. Traditional ecological or community knowledge will be included, where available.

10.2.1 VC Scoping and Rationale

Copper Fox commits to provide the following in the Application:

- The rationale for choosing and assessing VCs. Justification for each VC included in the analysis will be given, based on information from:
  - Federal and Provincial regulations;
  - First Nations;
  - Applicable government agencies;
  - Land and resource management plans;
  - The public and other stakeholders; and
  - Scientific literature and professional knowledge.

10.2.1.1 Relevant Legislation and Legal Framework

Copper Fox commits to provide the following in the Application:

- Any relevant legislation and the legal framework related to the assessment of human health.

10.2.2 Spatial and Temporal Boundaries

Copper Fox commits to provide the following in the Application:

- Temporal and spatial assessment boundaries for health effects.
  - Figure 10.2-1 presents the spatial study area boundary. The cumulative effects assessment spatial boundary may use a larger area, depending on the VC and projects/disturbances considered in the cumulative effects assessment.
- Description of any annual or seasonal variation related to VCs and biophysical constraints for all phases of the proposed Project.

10.2.3 Potential Effects

Copper Fox commits to provide the following in the Application:

- The general predicted effects for human health. These are likely to be:
  - Changes to the availability and quality of country foods;
  - Work related injury;
  - Poor localized air quality; and
  - Noisy work environment and sleep disturbance for off-duty workers.

10.3 VC#1 Healthy Living

10.3.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline information and its source including:
  - Description of public use of the lands in the vicinity of the proposed Project, including recreational activities.

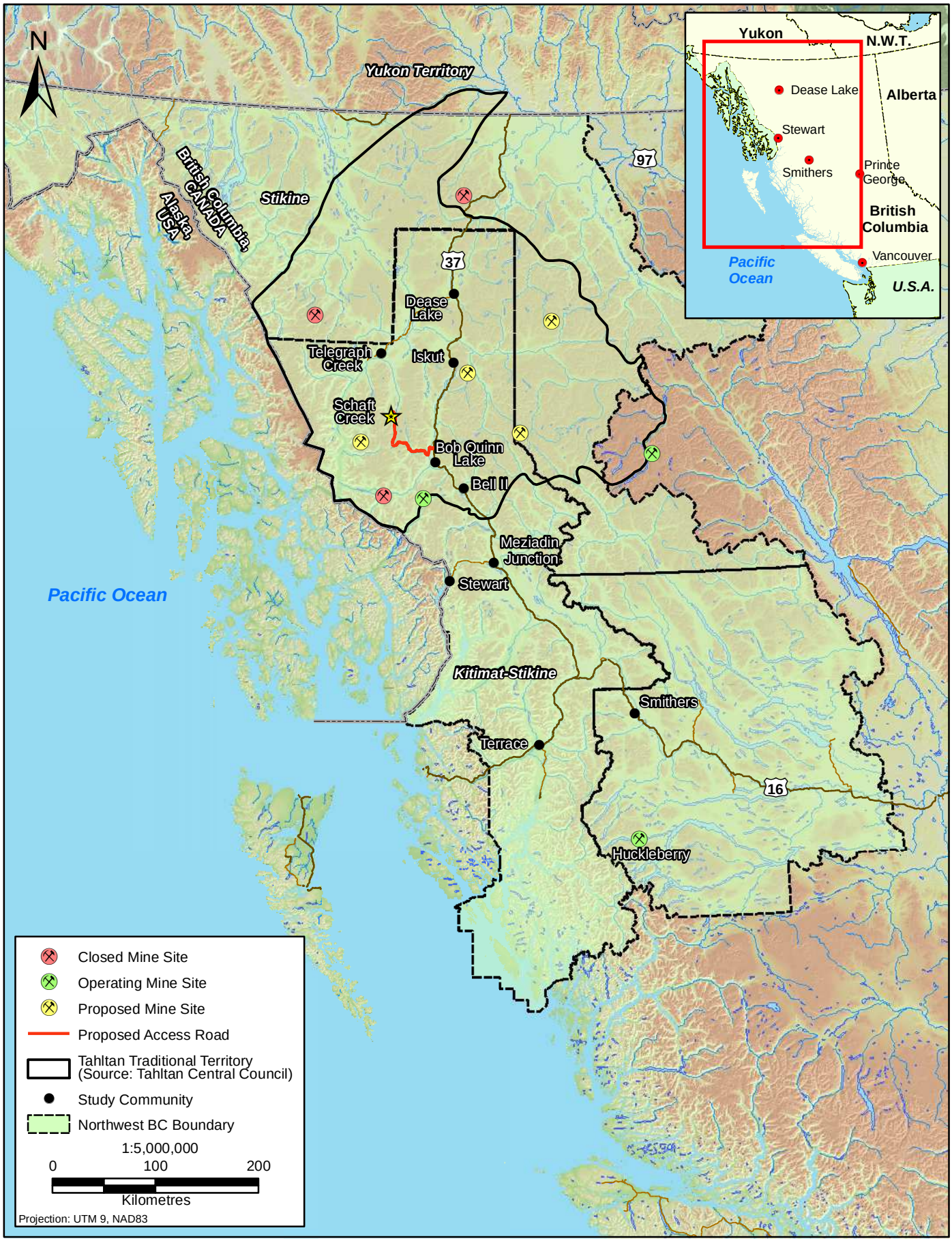


FIGURE 10.2-1

Human Health Study Area

10.3.2 Potential Effects of the Proposed Project and Proposed Mitigation

10.3.2.1 Project Components

Copper Fox commits to provide the following in the application:

- The Project components that will be considered in the residual effects analysis for healthy living. These will be:
  - Corporate Policy.

10.3.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for healthy living.

10.3.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on healthy living.

10.3.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for healthy living.

10.3.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational and closure/decommissioning stages of the Schaft Creek Mine Project. The analysis will include:
  - A description of healthy living activities that may be offered or facilitated through the Project; and
  - Reference to region-specific activities such as hiking, cross-country skiing, recreational sports, etc.

10.3.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on healthy living using the terms presented in Section 5; and
- Healthy living specific definitions for residual effects classification terms (magnitude, duration, etc.).

10.3.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on the healthy living VC based on the terms defined in the Residual Effects Classification section.

10.3.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on the healthy living VC.

10.3.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for healthy living.

10.4 VC - #2 Employee Health & Safety

10.4.1 Existing Environment

Copper Fox commits to provide in the Application:

- Baseline information and its source; This baseline will include:
  - Project Safety concerns. These will include but are not limited to:
    - Extreme weather;
    - Remote location/limited access to medical services;
    - Wildlife encounters; and
    - Rugged terrain.

10.4.2 Potential Effects of the Proposed Project and Proposed Mitigation

10.4.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for employee health and safety. These will be:
  - Corporate Policy;
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles;
  - Site Infrastructure; and
  - Transportation.

10.4.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for employee health and safety.

10.4.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on employee health and safety.

10.4.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for employee health and safety.

10.4.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational and closure/decommissioning stages of the Schaft Creek Mine Project.

10.4.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on employee health and safety using the terms presented in Section 5; and
- Employee Health and safety specific definitions for residual effects classification terms (magnitude, duration, etc.).

10.4.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on the employee health and safety VC based on the terms defined in the Residual Effects Classification section.

10.4.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on the employee health and safety VC.

10.4.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for employee health and safety.

10.5 VC#3 - Country Foods

10.5.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline information and its source; This baseline will include:
  - Country food setting with emphasis on the Tahltan and public use of country foods potentially affected by the Project.

10.5.2 Potential Effects of the Proposed Project and Proposed Mitigation

10.5.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for country foods. These will be:
  - Corporate Policy;
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles;
  - Site Infrastructure; and
  - Transportation.

10.5.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for country foods.

10.5.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Project effects on country foods.

10.5.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for country foods.

10.5.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project direct and cumulative effects resulting from the preconstruction/construction, operational and closure/decommissioning stages of the Schaft Creek Mine Project. The analysis will include:
  - Specific groups within any population have potentially higher vulnerability and/or sensitivity to effects from exposure to pollutants. For the country foods assessment, the most sensitive group of people within the population will be selected for evaluation.
  - Based on Health Canada (Health Canada, 2004) guidance, Copper Fox has selected toddlers (6 months to 4 years) and adults (20+ years) as the most sensitive country foods receptors.

10.5.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on country foods using the terms presented in Section 5; and
- Country foods specific definitions for residual effects classification terms (magnitude, duration, etc.).

10.5.4 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on the country foods VC based on the terms defined in the Residual Effects Classification section.

10.5.4.1 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on the country foods VC.

10.5.5 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for country foods.

10.6 VC#4 Air Quality and Human Health

10.6.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline information and its source. Including:
  - Project area approximation of current air quality.

10.6.2 Potential Effects of the Proposed Project and Proposed Mitigation

10.6.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for air quality and human health. These will be:
  - Corporate Policy;
  - Schaft Creek Access Road;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

10.6.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the residual effects analysis air quality and human health.

10.6.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for air quality and human health.

10.6.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for air quality and human health.

10.6.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project effects resulting from the preconstruction/construction, operational, closure/decommissioning and post closure stages of the Schaft Creek Mine Project. The analysis will include:
  - An emissions inventory for the Project, including diesel emissions from trucks and fugitive dust derived from drilling, blasting and traffic along the unpaved haul and access roads;
  - Comparison of site air quality to ambient air quality guidelines:
    - B.C. Occupational Health and Safety; and
    - Federal and B.C. ambient air quality guidelines.
  - Reference to health and safety management plans for on-site workers.

10.6.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on air quality and human health using the terms presented in Section 5; and
- Air quality and human health specific definitions for residual effects classification terms (magnitude, duration, etc.).

10.6.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on the air quality and human health VC based on the terms defined in the Residual Effects Classification section.

10.6.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on the air quality and human health VC.

10.6.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for air quality and human health.

10.7 VC#5 – Water Quality and Human Health

10.7.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline information and its source including:
  - Project area approximation of current air quality.

10.7.2 Potential Effects of the Proposed Project and Proposed Mitigation

10.7.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for water quality and human health. These will be:
  - Corporate Policy;
  - Schaft Creek Access Road;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

10.7.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for water quality and human health.

10.7.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on water quality and human health.

10.7.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for water quality and human health.

10.7.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project effects resulting from the preconstruction/construction, operational closure/decommissioning post-closure stages of the Schaft Creek Mine Project. The analysis will include:
  - Comparison of site water quality to water quality guidelines:
    - B.C. Occupational Health and Safety; and
    - Federal and B.C water quality guidelines.
  - Reference to health and safety management plans for on-site workers.

10.7.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on water quality and human health using the terms presented in Section 5; and
- Water quality and human health specific definitions for residual effects classification terms (magnitude, duration, etc.).

10.7.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on the water quality and human health VC based on the terms defined in the Residual Effects Classification section.

10.7.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on the water quality and human health VC.

10.7.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for water quality and human health.

10.8 VC#6 - Noise and Human Health

10.8.1 Existing Environment

Copper Fox commits to provide the following in the Application:

- Baseline information and its source including:
  - Project area baseline noise levels for daytime and night time.

10.8.2 Potential Effects of the Proposed Project and Proposed Mitigation

10.8.2.1 Project Components

Copper Fox commits to provide the following in the Application:

- The Project components that will be considered in the effects analysis for noise and human health. These will be:
  - Corporate Policy;
  - Schaft Creek Access Road;
  - Power Supply and Distribution;
  - Schaft Pit;
  - Tailings Storage Facility (TSF);
  - Waste Rock Storage Facility (WRSF), Overburden & Ore Stockpiles; and
  - Site Infrastructure.

10.8.2.2 Identification of Project Activities (i.e. Pathways) Leading to Effects

Copper Fox commits to provide the following in the Application:

- The identified pathways considered in the effects analysis for noise and human health.

10.8.2.3 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- Description of measures that Copper Fox commits to undertaking to mitigate proposed Projects effects on noise and human health.

10.8.2.4 Pathway Validation

Copper Fox commits to provide the following in the Application:

- Description and results of the pathway validation process for pathways identified for noise and human health.

10.8.3 Residual Effects and their Significance

Copper Fox commits to provide the following in the Application:

- Identification and analysis of potential proposed Project effects resulting from the preconstruction/construction, operational closure/decommissioning post-closure stages of the Schaft Creek Mine Project. The analysis will include:
  - Equipment specifications relating to noise generation;
  - Estimate of noise levels associated with specific Project activities, including the expected duration and frequency of any noise events; and
  - Noise modelling to assess the effects on on-site workers if an initial assessment of noise deems it appropriate.

10.8.3.1 Residual Effects Classification

Copper Fox commits to provide the following in the Application:

- Classification of any potential residual effects after mitigation on noise and human health using the terms presented in Section 5; and
- Noise and human health specific definitions for residual effects classification terms (magnitude, duration, etc.).

10.8.3.2 Significance Determination

Copper Fox commits to provide the following in the Application:

- Determination of the significance of any potential residual effects after mitigation on the noise and human health VC based on the terms defined in the Residual Effects Classification section.

10.8.3.3 Level of Certainty

Copper Fox commits to provide the following in the Application:

- The level of certainty of the significance of any potential residual effects after mitigation on the noise and human health VC.

10.8.4 Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of any potential residual effects of the proposed Project and their significance for noise and human health.

10.9 Summary of Potential Health Effects Analysis

Table 10.9-1. Summary of Potential Health Effects Analysis

Valued Components (note phase of Project)*	Potential Effects (including Cumulative Effects)	Key Mitigation Measures	Significance Analysis of Residual Effects (summary statement)
VC#1 Healthy Living			
VC#2 Employee Health and Safety			

(continued)

Table 10.9-1. Summary of Potential Health Effects Analysis (completed)

Valued Components (note phase of Project)*	Potential Effects (including Cumulative Effects)	Key Mitigation Measures	Significance Analysis of Residual Effects (summary statement)
VC#3 Country Foods			
VC#4 Air Quality & Human Health			
VC#5 Water Quality & Human Health			
VC#6 Noise and Human Health			

** Pre-construction/Construction Phase = C; Operation Phase = O; Closure/Decommissioning Phase = C; Post-Closure Phase = P.*

11. Summary of Proposed Environmental and Operational Management Plans

11.1 Environmental Management System

Copper Fox commits to provide in the Application:

- A description of the Environmental Management System (EMS) for the Project, including:
  - Conceptual EMS with personnel lists and responsibilities;
  - Reporting structure and responsibilities of personnel involved with environmental management;
  - Environmental awareness training programs that will be implemented for all personnel and contractors; and
  - An outline of training and professional development programs for environmental professionals responsible for environmental management for the Project.

- Description of First Nation, community and stakeholder involvement, including:
  - Planned initiatives for First Nations, Community and Stakeholder involvement with environmental management; and
  - An outline of planned educational and consultation programs on environmental management for the Project for First Nations, stakeholders and the general public.

11.2 Environmental Management Plans

Copper Fox commits to provide the following in the Application:

- A description of Environmental Management Plans (EMPs). The EMPs will describe the environmental practices, procedures, research opportunities, monitoring and surveillance to be applied during all phases of the Project. They will be based on the concept of adaptive management.
- Conceptual EMPs; including:
  - Water management plan;
  - Waste rock and overburden management plan;
  - Erosion and sediment control plan;
  - Dust management plan;
  - Fish habitat compensation plan(s);

  - Invasive species management plan;
  - Wildlife and wildlife habitat management plan;
  - Materials handling management plan;
  - Soil (salvage handling and storage) management plan;
  - Spill contingency and emergency response plan;
  - Hazardous waste management plan;
  - Waste (Refuse) management plan;
  - Archaeological impact management plan;
  - Transportation Safety Plan;
  - Access road maintenance and management plan; and
  - Airport and aircraft management plan.

- Methodology for ongoing (post-application) development of EMPs and adaptive management strategies.

11.2.1 Monitoring Plans and Data Management

Copper Fox commits to provide the following in the Application:

- Conceptual monitoring plans informed by the residual effects assessment; and
- Plans for long-term data management.

11.2.2 Reporting

Copper Fox commits to provide the following in the Application:

- Preliminary procedures for reporting on environmental management and performance; and
- A preliminary list of anticipated compliance monitoring obligations associated with permits and licences issued by Local, Provincial and Federal governments.

12. Compliance Reporting

Copper Fox commits to provide the following in the Application:

- The reporting structure as identified within the environmental management plans, monitoring plans and commitments. This will include:
  - A preliminary list of reporting procedures on environmental management and performance; and
  - A preliminary list of anticipated compliance monitoring obligations associated with permits, authorizations and licences issued.

Part C – First Nations Information Requirements

The Schaft Creek proposal is within the Tahltan First Nation's asserted traditional territories.

Nisga'a Nation, the Gitanyow wilp Wii Litsxw and the Gitxsan wilp Skii Km Lax Ha (which are outside the Project area and adjacent to the Tahltan First Nations) have been invited by the EAO to provide comments during all public comment periods.

A significant portion of the information to be provided in this section will have already been covered in detail in relevant sections of the Application. This information will be cross-referenced where applicable.

13. Background Information

Copper Fox commits to provide the following in the Application:

- Identification of the First Nations and Treaty Nations that could be potentially impacted by the proposed Project and their asserted or established traditional territory;
- Maps of the asserted or traditional territory of the potentially impacted First Nations and Treaty Nations (if available);
- A summary of the ethnography, land use setting, economic setting, and governance structure of the Tahltan Nation;
- Tahltan economic development structures and characteristics and resource development policy if available;
- A description of the Traditional Territories adjacent to that of the Tahltan First Nation; and
- Maps of identified First Nations' Traditional Territories (asserted territories or treaty lands).

14. Aboriginal Rights and Treaty Rights

Copper Fox commits to provide the following in the Application:

- Past, present and anticipated future uses of the proposed Project area by aboriginal groups;
- Any specific asserted aboriginal and treaty rights (including title), currently being practiced or that could potentially be carried out in the future, which are potentially impacted by the proposed Project;
- Identification of potential effects of the proposed Project on the uses and asserted rights identified by way of the preceding two bullet points;
- Identification that Copper Fox believes the transportation of mine products along Highway 37 is unlikely to significantly affect Nisga'a Nation interests set out in the Nisga'a Final Agreement; and
- Mitigation measures to avoid or reduce such effects.

15. Other Aboriginal Interests

Copper Fox commits to provide the following in the Application:

- Identification of aboriginal interests with respect to potential environmental, social, economic, heritage and health effects of the proposed Project to the extent not already identified in section 14 above; and
- A description of how these interests have been addressed.

16. Aboriginal Consultation

Copper Fox commits to provide the following in the Application:

- A summary of past and planned aboriginal consultation activities;
- A summary of key aboriginal issues and responses to these issues;
- Project components that were changed as a result of First Nations consultation;
- Studies or other efforts that were initiated as a result of First Nations consultation;
- A description of environmental management plans related to Tahltan Nation interests;
- A description of Copper Fox's corporate principles for sustainable relationships with First Nations; and
- Issues and responses will be summarized in a tracking table, and will be posted on the EAO's Project Information Centre.

17. Summary

Copper Fox commits to provide the following in the Application:

- Identification of accommodation measures including design considerations, mitigation measures and specific commitments which address potential effects on the matters identified in section 14 above and provide in form of a Table.

Part D – Federal Information Requirements

The information to be provided in this section must correspond to the federal scope and direction from responsible authorities and the CEA Agency.

18. Requirements for all Federal Comprehensive Study Assessment

The following information is required when the federal review is conducted by means of a, comprehensive study, mediation or assessment by a review panel, as described under CEAA.

18.1 Environmental Effects

Copper Fox commits to provide the following in the Application:

- An examination of potential environmental effects of the proposed Project corresponding to the federal scope.

18.2 Environmental Changes

Copper Fox commits to provide the following in the Application:

- A description of any change that the proposed Project may cause in the environment corresponding to the federal scope.

The factors to be considered and their scope will be defined by the responsible authorities based on the Project proposal and may include (but not be limited to):

- Climate change;
- Terrain and soils;
- Vegetation and plant communities (including species at risk);
- Wildlife and wildlife habitat (including species at risk);
- Surface water and groundwater quality and quantity;
- Aquatic environment (e.g. aquatic life, fish, fish habitat and aquatic species at risk);
- Heritage and archaeological resources;
- First Nations traditional use (current and historic);
- Land and resource use;
- Navigation; and
- Human health:
  - Air quality;
  - Water quality;
  - Noise; and
  - Country foods.

Note that the environmental context, the valued components, and potential effects on those valued components will have been described previously in section 6 through 17 with the exception of the

assessment of the proposed Project on navigation and species at risk. Where the information previously presented is adequate to satisfy federal information needs, references will be made to appropriate sections rather than duplicating the information. If additional information is required, it will be included in this section.

18.2.1 Navigation

Copper Fox commits to provide the following in the Application:

- A description of the methodology for determining navigable water;
- A description of existing navigable waters; including:
  - The navigability of Skeeter Lake; and
  - The navigability of streams to be crossed by the Schaft Creek Access Road.
- A description of the navigable waters issues raised through the pre-application phase of the EA; and
- An assessment of Potential effects on navigation of the navigable water bodies listed above.

18.2.2 Species at Risk

Copper Fox commits to provide the following in the Application:

- Description of any change that the proposed Project may cause to a listed wildlife or plant species, its critical habitat or the residences of individuals of that species, as those terms are defined in subsection 2(1) of the federal Species at Risk Act.

18.3 Effects of the Environment on the Project

Copper Fox commits to provide the following in the Application:

- Identification of the environmental factors deemed to have possible consequences on the proposed Project, including, but not limited to: extreme weather events (lightning, heavy precipitation, extreme temperatures, flooding); natural seismic events; fire; geohazards (e.g., debris flows/torrents; rock fall; snow avalanche); and, climate change;
- Identification of any changes or effects on the Project that may be caused by the above-mentioned environmental factors, whether the changes or effects occur within or outside of Canada. This analysis will include potential effects on the integrity of the proposed development infrastructure;
- Identification of the likelihood and severity of the changes or effects; and
- Identification of mitigation measures, including design strategies, planned to avoid or minimize the probability and severity of the changes or effects.

18.4 Accidents or Malfunctions

Copper Fox commits to provide the following in the Application:

- Identification of the potential accidents, malfunctions and unplanned events that could occur in any phase of the proposed Project; the likelihood and circumstances under which these events could occur; and the environmental effects that may result from such events, assuming contingency plans are not fully effective;

- Potential accidents, malfunctions and unplanned events to be considered in this Application; including (but not limited to):
  - Contamination due to construction equipment fuel or hydrocarbon spills;
  - Spills of hazardous substances stored on site (reagents, fuels, contained liquid waste);
  - Unintended leakage from containment ponds;
  - Accidental release of contaminants from stockpiles of ore or waste rock;
  - Breach or failure of tailings embankment or other containment structure;
  - Failure of the waste rock storage facility;
  - Accidental discharge of off-specification effluent from treatment plants;
  - Power outages;
  - Fires or explosions that could potentially be caused during construction or operation, such as brush fires caused by clearing and construction activities;
  - Fly rock from blasting;
  - Motor vehicle accidents involving construction, maintenance, or transport crews and any resulting contaminant spills;
  - Flooding, erosion and burial as a result of potential reservoir or tailings pond dam failures;
  - Acid or metal leaching downstream of reservoirs tailings ponds, road cuts, or other excavation; and
  - Sediment release into watercourses.
- Identification of any contingency plans and response options for probable accidents and/or malfunctions in the Environmental Management Systems; and
- A description of how potential accidents, malfunctions or unplanned events will be managed or mitigated.

18.5 Mitigation Measures

Copper Fox commits to provide the following in the Application:

- A description of any measures that are technically and economically feasible that would avoid or mitigate the environmental effects referred to in sections 18.1 to 18.4;
- A technically feasible fish habitat compensation plan. This will include:
  - DFO's hierarchy of preferences, as described in Section 4.1 of DFO's Practitioner's Guide to Habitat Compensation;
  - Fish species or stocks targeted in compensation objectives, and any fisheries management objectives, fishery use, or potential use of fish in the project area;
  - Opportunities to improve existing impacts or constraints to fish and fish habitat in the watershed;
  - First Nations traditional access to fish in the area, and traditional uses and ecological knowledge;
  - Compliance of compensation plans with recovery planning for species listed under the Species at Risk Act;
  - The type, amount and supply of habitat that is at both the impact and compensation sites;
  - The amount and temporal nature of impact (whether impacts are permanent or temporary);
  - The risk of failure and the time lag until compensatory habitats become fully functional;
  - When determining potential compensation work locations, consideration should be given to the potential for the proposed project to adversely affect the compensation works in the future;

  - Where existing habitat is to be enhanced, the intrinsic value of this habitat must be considered when determining the amount of productive capacity gained through compensation (i.e., enhancement); and,
  - Compensation works should be designed to function in perpetuity.
- A detailed description of the fish habitat likely to be impacted (i.e., type of habitat, species present, general productivity) and the extent (i.e., square metre/impacted habitat type) and expected duration of impact;
- A detailed description of the compensation sites and planned compensation works. This should include photographs and sketches/drawings of the sites identifying the approximate location (geographic coordinates), area, number and dimensions of compensation works and structures;
- Characterization of the habitat gains expected from the compensation works (i.e., the type and amount of habitat to be created, the species that will benefit, the habitat function or capacity that will be created, improved or enhanced, and how such gains will offset the HADD and achieve no net loss in the productive capacity of fish habitat);
- Identification of the general factors limiting the productive capacity and habitat function of the area in which the compensation works are being proposed;
- A description of any existing habitat in the area of the proposed compensation (i.e., type, species present, general productivity);
- The timeline for implementing the compensation plan;
- The general construction approach;
- A draft preliminary plan of compliance and effectiveness monitoring;
- The general description of monitoring commitments sufficient for an EA review;
- Identification of established stakeholder groups and Aboriginal groups as well as confirmation that consultation has occurred; and
- Considering that tender documents have not been developed and contractors have not been engaged, a cost estimate will be provided.

In addressing the federal requirements for mitigation measures, this section of the Application may refer back to the appropriate subsections to avoid repetition.

18.6 Residual Environmental Effects

Copper Fox commits to provide the following in the Application:

- A description of any residual environmental effects expected to remain following implementation of the mitigation measures described in section 18.5.

In addressing the federal requirements around significance assessment analysis, this section of the Application may refer back to the appropriate sections to avoid repetition.

18.7 Significance Assessment Analysis

For each residual environmental effect identified in section 18.6, Copper Fox commits to provide the following in the Application:

- A discussion of the significance of the effect following the methodology outlined in section 5.

It should be noted the final determination of significance will be made by the responsible authority (s) pursuant to the requirements of CEAA. In addressing the federal requirements for significance of residual environmental effects this section of the Application may refer back to the appropriate subsections to avoid repetition.

18.8 Cumulative Environmental Effects

For the purposes of the federal EA, cumulative environmental effects consist of both direct environmental effects and indirect social and economic effects caused by an activity in association with other, past, present and future human activities. Cumulative effects assessment is required by the federal EA process to ensure that the incremental effects resulting from the combined influences of various activities are considered. These combined effects may be significant even though the effects of each action, when individually assessed, are considered insignificant. Cumulative effects assessment includes effects that are likely to result from the proposed Project in combination with other Projects or activities that have been or will likely be present in a reasonable temporal and spatial scale. In addressing the federal requirements around cumulative environmental effects this section of the Application may refer back to the appropriate sections if the required information has already been presented, to avoid repetition.

Guidance on addressing cumulative environmental effects has been provided by the Canadian Environmental Assessment Agency's document: "Addressing Cumulative Environmental Effects under the Canadian Environmental Assessment Act, (November 2007).

Copper Fox commits to provide the following in the Application:

- A description of any cumulative environmental effects that are likely to result from the Project in combination with other Projects or activities that have been or will be carried out;
- Consideration of any available regional study results for cumulative environmental effects that may be likely to result from the proposed Project in combination with other Projects or activities that have been or will be carried out;
- Inclusion of both direct environmental effects and indirect social and economic effects, where applicable;
- Methodologies for the cumulative environmental effects (CEE) assessment that will follow the framework set out by the CEA Agency in the documents "Reference Guide: Addressing Cumulative Environmental Effects" (November 1994) and "Cumulative Effects Assessment Practitioners Guide" (February 1999). The operational policy statement entitled "Addressing Cumulative Environmental Effects under the Canadian Environmental Assessment Act" (CEA Agency, March 1999) provides further guidance, as well as a summary of the evolution of the previous two guides;
- The spatial area for the cumulative effects assessment, and state the rationale for the delineation of this area. Spatial boundaries will be identified using the following criteria:
  - The physical extent (terrestrial, aquatic and atmospheric) of the Project;
  - The extent of aquatic and terrestrial ecosystems, socio-economic systems, communities and First Nations interests potentially affected by the Project; the extent of potential effects arising from the Project; and
  - The size, nature and location of past, present and reasonably foreseeable Projects and activities which could interact with the above.
- Temporal boundaries that will be established on a case by case basis for each topic or VC, and the rationale for the boundaries will be clearly stated;
- Past, present and reasonably foreseeable future Projects and activities that will be included in the cumulative effects assessment;

  - Reasonably foreseeable future Projects are defined as those within the cumulative effects assessment study area that have entered or completed the BC or Canada EA process, or an equivalent permitting or approval process, but are not yet operational;

- Rationalization when activities will be excluded from the CEE assessment. This will only occur when the environmental effects of the other Projects are not likely to accumulate or interact measurably with the residual environmental effects of the Project; and
- Discussions of avoidance measures, mitigation measures and follow-up programs to address the cumulative effects assessment.

18.9 Aboriginal Consultation

Copper Fox commits to provide the following in the Application:

- A list of Aboriginal groups which the federal responsible authorities have identified as requiring consultation, and a summary, if applicable, of any groups or consultation activities different from provincial requirements.

18.10 Purpose of the Project

Copper Fox commits to provide the following in the Application:

- The purpose of the proposed Project.

In addressing the federal requirements around purpose of the project, this section of the Application may refer back to the appropriate sections to avoid repetition.

- The Canadian Environmental Assessment Agency document: Addressing "Need for", "Purpose of", "Alternatives to" and "Alternative Means" under the Canadian Environmental Assessment Act (November 2007)" will be referred to in addressing this CEAA requirement.

18.11 Alternative Means of Carrying Out the Project

Copper Fox commits to provide the following in the Application:

- Alternatives to the proposed Project and the reasons behind selecting the preferred option, as well as an analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible and the environmental effects of any such alternative means.
- Descriptions of technically and economically feasible alternatives of carrying out the Schaft Creek Mine Project, including descriptions of:
  - Access road options (i.e. Mess Creek Valley road alignment versus Tahltan Highland road alignment);
  - Mess Creek Causeway;
  - Power supply options;
  - Transmission line options;
  - Waste rock storage options;
  - Stream crossing design alternatives on fish-bearing streams where Habitat Alteration, Disruption or Destruction (HADD) has been identified;
  - Concentrate transportation modes (i.e., slurry pipeline to Bob Quinn Lake area, slurry pipeline to Stewart versus trucking direct from mine site to Stewart); and
  - Tailings management (i.e., location of tailings storage facility).

Each assessment will include the following:

- A brief description of the proposed Project alternatives,
- Identification of the key issues in considering the alternative means of the proposed Project;
- An analysis of the alternative means of carrying out the proposed Project that are technically and economically feasible; and
- Identification of the rationale for selecting the preferred alternative; and
- Reference to the guidelines in the CEAA Operational Policy Statement, CEAA (1998 and 2007) Addressing "Need for", "Purpose of" "Alternatives to" and "Alternative Means" under the Canadian Environmental Assessment Act.

18.12 Follow-Up Program

The purpose of a follow-up program is to verify the accuracy of the environmental assessment and to determine the effectiveness of measures taken to mitigate the potential adverse environmental effects of the proposed Project. A follow-up program may also be used to inform an adaptive management approach in relation to implementation of the proposed Project.

In developing the proposed follow-up program design and implementation, Copper Fox referred to guidance available from the Canadian Environmental Assessment Agency in the document: "Follow-up Programs under the Canadian Environmental Assessment Act (November 2007)" and on adaptive management in the document: "Adaptive Management Measures under the Canadian Environmental Assessment Act (March 2009)"

Copper Fox commits to provide the following in the Application:

- A description of the need for, and requirements of, any planned follow-up program; the type, frequency, duration and location of follow-up monitoring; and the planned approach to data management, analysis and reporting; including:
  - An overview of the proposed monitoring programs to be incorporated into each phase of the Project; and
  - The approach, objectives and proposed methodologies that will be used in proposed monitoring programs;
- A summary of who will be responsible for implementing the various components of the follow-up program; and
- A description of how the results of the follow-up program will be used to inform an adaptive management approach, if applicable.

Where applicable, the Application will make reference to earlier sections of the report which may address some or all of the above.

18.13 Capacity of Renewable Resources

Copper Fox commits to provide the following in the Application:

- An analysis of the capacity of renewable resources to meet the needs of the present and those of the future where these resources are likely to be significantly affected by the proposed project.

18.14 Need for Other Information as Required by a Responsible Authority

Copper Fox commits to provide the following in the Application:

- Other information as required by a responsible authority.

Part E – Conclusions

19. Summary of Residual Effects

Copper Fox commits to provide the following in the Application:

- A table summarizing the environmental, economic, social, heritage or health effects that cannot be completely avoided or mitigated through the re-design or relocation of the proposed Project or through the implementation of control measures or other mitigation measures; and
- Concluding statements regarding the significance of any residual effects predicted to occur as a result of the Project.

20. Summary of Commitments

Copper Fox commits to provide in the Application:

- A summary of Copper Fox's commitment to minimize the potential for the proposed Project to generate environmental, economic, social, heritage or health effects. The summary will include a table that identifies the specific commitments Copper Fox will implement.

21. Conclusion

Copper Fox commits to provide the following in the Application:

- A summary of Copper Fox's understanding of the BC EA process in promoting sustainable development while minimizing effects to environmental, economic, social, heritage and health values;
- A description of how the proposed Project aligns with the goal of the BC EAA process and, the CEAA process; and
- A statement of request for an EA Certificate for the proposed Project and the need to successfully complete a federal EA and subsequent permitting/ authorization processes prior to proceeding with proposed Project pre-construction/construction, operation, closure/decommissioning and post-closure activities.

REFERENCES

Copper Fox commits to provide a list of references used in developing the Application.

These will include:

1. Application Information Requirements Template, March 29, 2010.
2. Archaeology Branch. 1998. British Columbia Archaeological Impact Assessment Guidelines. Revised Edition. Ministry of Sustainable Resource Management, Archaeology and Forests Branch, Victoria.
3. Canadian Environmental Assessment Agency (CEA Agency). 1994. A Reference Guide for the Canadian Environmental Assessment Act: Addressing Cumulative Environmental Effects. Prepared by the Federal Environmental Assessment Review Office, November 1994

4. Canadian Environmental Assessment Agency (CEA Agency). 1998 Addressing "Need for", "Purpose of" "Alternatives to" and "Alternative Means" under the Canadian Environmental Assessment Act. Operational Policy Statement, OPS-EPO/2 – 1998.

5. Canadian Environmental Assessment Agency (CEA Agency). 1999. Cumulative Effects Assessment Practitioners Guide. Prepared by The Cumulative Effects Assessment Working Group and AXYS Environmental Consultancy, February 1999.

6. Canadian Environmental Assessment Agency (CEA Agency). 2003. Incorporating Climate Change Considerations in Environmental Assessment: General Guidance for Practitioners, November 2003.

7. The Canadian Environmental Assessment Agency (CEA Agency). 2007: Addressing "Need for", "Purpose of", "Alternatives to" and "Alternative Means" under the Canadian Environmental Assessment Act, (November 2007

8. The Canada/British Columbia Agreement on Environmental Assessment Cooperation, signed in March 2004

9. Copper Fox Meals Inc. 2008. Schaft Creek Project Description. Prepared by Rescan Tahltan Environmental Consultants for Copper Fox Metals Inc. September 2008.

10. Health Canada. 1996. Health-Based Tolerable Daily Intakes/Concentrations and Tumorigenic Doses/Concentrations for Priority Substances. Health Canada, Ottawa, Ontario.

11. Environment Canada. 2004. Environmental Assessment Best Practice Guide for Wildlife at Risk in Canada, First Edition

12. Health Canada. 2004a. Federal Contaminated Site Risk Assessment in Canada. Part I: Guidance on Human Health Preliminary Quantitative Risk Assessment (PQRA). Ottawa, Ontario.

13. Health Canada, 2004b. Canadian Handbook on Health Impact Assessment. Ministry of Health. Health Canada, Ottawa, Ontario.

14. Health Canada. 2004c. Estimated Number of Excess Deaths in Canada Due to Air Pollution. Health Canada, Ottawa, Ontario.

15. Health Canada. 2004d. Canadian Handbook on Health Impact Assessment. Volume 3: The Multidisciplinary Team. Chapter 8 Food Issues in Environmental Impact Assessment. Ottawa, ON: Health Canada.

16. Health Canada. 2006. Health Effects of Air Pollution. http://www.hc-sc.gc.ca/ewh-semt/air/out-ext/effe/health_effects-effets_sante_e.html. Accessed June, 2008.

17. Health Canada. 2007. Federal Contaminated Site Risk Assessment in Canada - Part IV Spreadsheet Tool: Guidance on Human Health Preliminary Quantitative Risk Assessment (PQRA). Health Canada, Ottawa, Ontario.

18. Ministry of Energy and Mines. 1998. Guidelines For Metal Leaching and Acid Rock Drainage at Minesites in British Columbia. William A. Price and John C. Errington August 1998

19. Ministry of Energy and Mines and Ministry of Environment, Lands and Parks. 1998. Policy for Metal Leaching and Acid Rock Drainage at Minesites in British Columbia, July 1998

20. Obedkoff, W., 2001. Stream flow in the Skeena Region. Water Inventory Section, Resources Inventory Branch, B.C. Ministry of Environment, Lands, and Parks. Victoria, B.C.

21. U.S. Army Corps of Engineers, 1995. Hydrologic Engineering Centers River Analysis System (HEC-RAS).

22. World Health Organization (WHO). 1999. Noise Guidelines for Community Health. Report Number, A68672.

23. World Health Organization (WHO). 2004. Health Aspects of Air Pollution "Results for the WHO Project", "Systematic Review of Health Aspects of Air Pollution in Europe". Report Number, E83080.

APPENDICES

Copper Fox commits to provide:

- Applicable appendices to the Application including where, in the course of developing an Application, information is prepared by professionals and provided under their professional seal. The sealed studies should be appended to the Application.
- The Application will include hard copies of supporting documentation (appendices) not previously distributed.
- All supporting documentation will be provided with each hard copy of the Application on DVDs.