

BERG COPPER PROJECT

# Initial Project Description Summary

September 2026

SURGE COPPER CORP

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# Acronyms and Abbreviations

| | |
|---|---|
| BC | British Columbia |
| CCN | Cheslatta Carrier Nation |
| EAO | Environmental Assessment Office |
| GHG | greenhouse gas |
| IAAC | Impact Assessment Agency of Canada |
| IPD | Initial Project Description |
| OW | Office of the Wet'suwet'en |
| VC | Valued Component |
| WFN | Wet'suwet'en First Nation |

# Symbols and Units

| | |
|---|---|
| % | percent |
| ha | hectare |
| km | kilometre |
| m | metre |
| tpd | tonnes per day |

# 1. Part A: General Information

This document is a summary of an Initial Project Description (IPD) for the Berg Copper Project (the Project) as required by the Impact Assessment Agency of Canada (IAAC) following Section 3 and Schedule 1 of the Information and Management of Time Limits Regulations and Annex I, paragraph 25 of the Guide to Preparing Project Descriptions (IAAC 2026) under the federal *Impact Assessment Act* (2019). It is intended to summarize the IPD in a condensed and accessible format. This document is divided into key sections, as follows:

- Part A presents general information about the Project, including the Project location, proponent, Project history, and existing permits and approvals;
- Part B presents information about the proposed Project, including Project components, activities, schedule, workforce, emissions and wastes, alternatives, safety, and the regulatory framework;
- Part C summarizes engagement with First Nations, government agencies, local governments, stakeholders, and the public; and
- Part D describes the existing environment and summarizes the potential effects of the Project, including potential effects on federal environmental components, effects outside British Columbia and Canada, and cumulative effects.

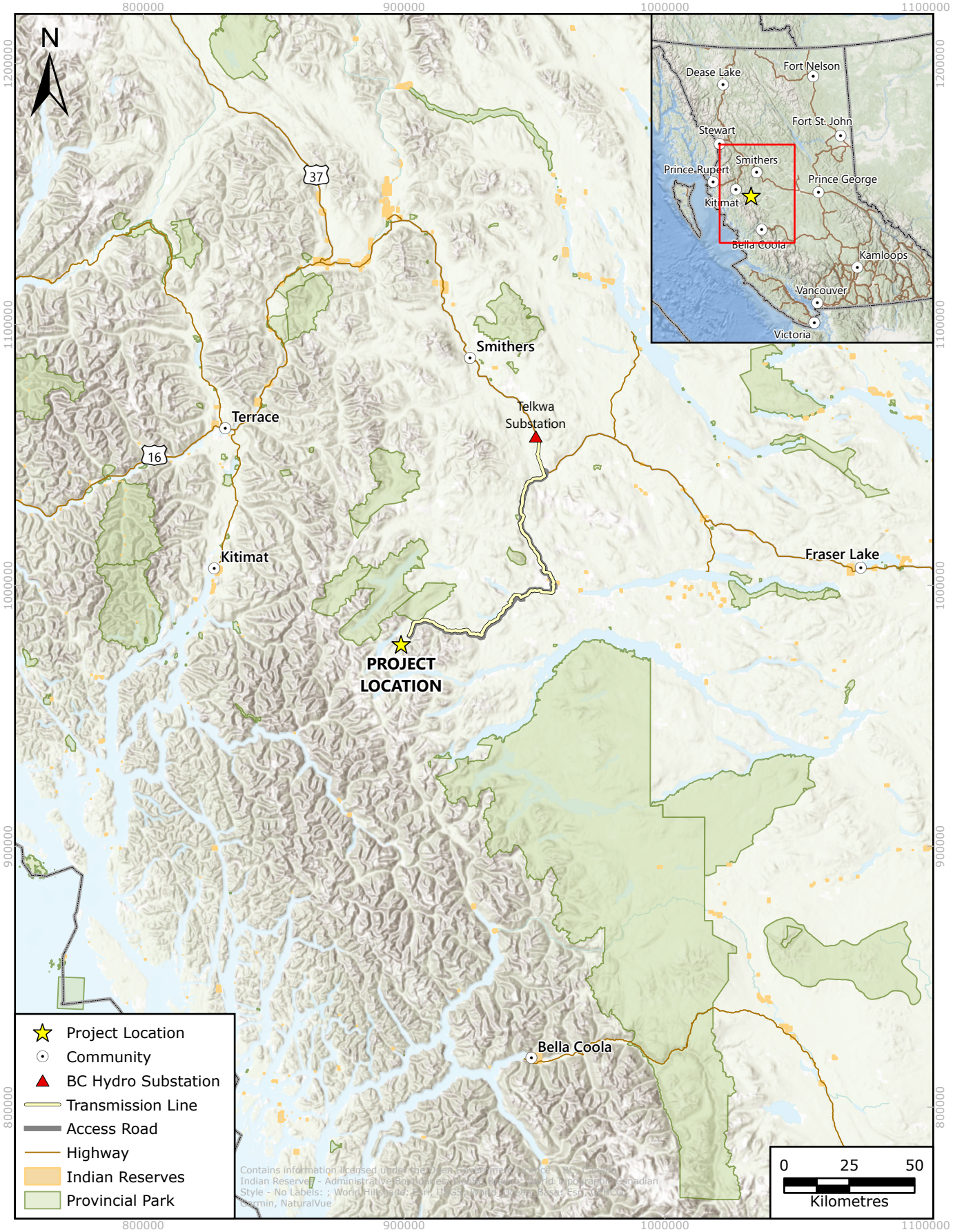
## 1.1 Introduction

Surge Copper Corp. (Surge) is proposing the Berg Copper Project, a new greenfield open-pit copper and molybdenum mine located approximately 80 kilometres (km) southwest of Houston, British Columbia (Figure 1-1). The site is accessed by approximately 116 km of existing forest service roads. The Project is located within the Wet'suwet'en Yintah (traditional lands).

The Project would produce copper, molybdenum, silver, and gold. The federal and provincial governments recognize copper and molybdenum as critical minerals because they are used in technologies such as renewable energy systems and electric vehicles. The Project would contribute to Canada's domestic supply of copper and molybdenum, which are recognized as critical minerals and are used in electricity infrastructure, renewable energy technologies, and electric vehicles.

Over the life of mine, approximately 3.6 billion tonnes of rock would be mined from the open pit. Of this amount, approximately 1.2 billion tonnes would be processed as ore and approximately 2.4 billion tonnes would be managed as waste rock. The average annual material movement would be 118 million tonnes per year. The processing plant would process up to 120,000 tonnes of ore per day to produce copper and molybdenum concentrates for shipment to customers outside the Project Area.

# FIGURE 1-1 LOCATION OF BERG COPPER PROJECT




Contains information licensed under the Open Government Licence – BC, Legend: Indian Reserves - Administrative Boundaries, Style: ESRI Light Gray Canvas World Topographic Canadian Style - No Labels: ; World Hillshade: Esri, USGS, NOAA, Basemap: Esri, HERE, Garmin, NaturalVue

ERM

CLIENT: Surge Copper
GIS NUMBER: BERG-15-014-02

DATE: 31 August 2026

PROJECTION: NAD 1983 BC Environment Albers
SCALE: 1:2,000,000 when printed at 8.5x11

## 1.2 Proponent Information

The Berg Copper Project is proposed by **Surge Copper Corp.**, a Canadian mining company based in Vancouver, British Columbia. Surge owns the Berg Copper Project mineral claims and is advancing copper and molybdenum projects in west-central British Columbia.

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## 1.3 Project Overview

### 1.3.1 Project Needs, Purpose, and Benefits

The Berg Copper Project is proposed to produce copper and molybdenum, two minerals used in technologies such as electricity transmission systems, renewable energy infrastructure, and electric vehicles. The Project would also produce smaller amounts of silver and gold.

Over its planned 28-year operating life, the Project is expected to produce approximately 4.9 billion pounds of copper and 602 million pounds of molybdenum. These materials would be sold to domestic and international markets.

The Project could provide economic benefits through employment, business opportunities, and tax revenues during construction, operation, and closure. At peak operations, the Project is expected to employ approximately 780 workers. Surge is working with First Nations and local communities to identify opportunities for employment, training, and participation in Project-related business activities. Surge is targeting at least 50% local and regional workforce participation, where feasible.

### 1.3.2 Project Location

The Project is located approximately 80 km southwest of Houston, British Columbia, and is accessed by about 116 km of existing forest service roads (Figure 3.2-1). Access is provided through the Morice and Sibola Forest Service Roads, which are currently used by forestry and other industrial activities in the region. A 17 km mine access road, which is being constructed to support advanced exploration, will provide mine site access from the Sibola Forest Service Road.

For this Initial Project Description, the Project Area includes the proposed mine site, processing facilities, tailings and waste management facilities, freshwater supply infrastructure, and a surrounding 100-metre (m) buffer. The Project Area covers approximately 5,009 hectares (ha). Table 3.2-1 provides the coordinates of the Berg deposit.

TABLE 3.2-1 PROJECT COORDINATES

| Project Component | Coordinates (WGS 84) | Coordinates (UTM Zone 9) |
|---|---|---|
| Centre of Berg Property | 53º 47’ 53.02” N; 127º 24’ 51.27” W | 5,962,220 mN; 604,444 mE |
| Centre of Berg Deposit | 53° 48' 15.77"N; 127° 25' 44.76" W | 5,962,920 mN; 603,450 mE |

Surge Copper Corp. owns the mineral rights required for the proposed Project and has secured the mineral tenures needed to support future development.

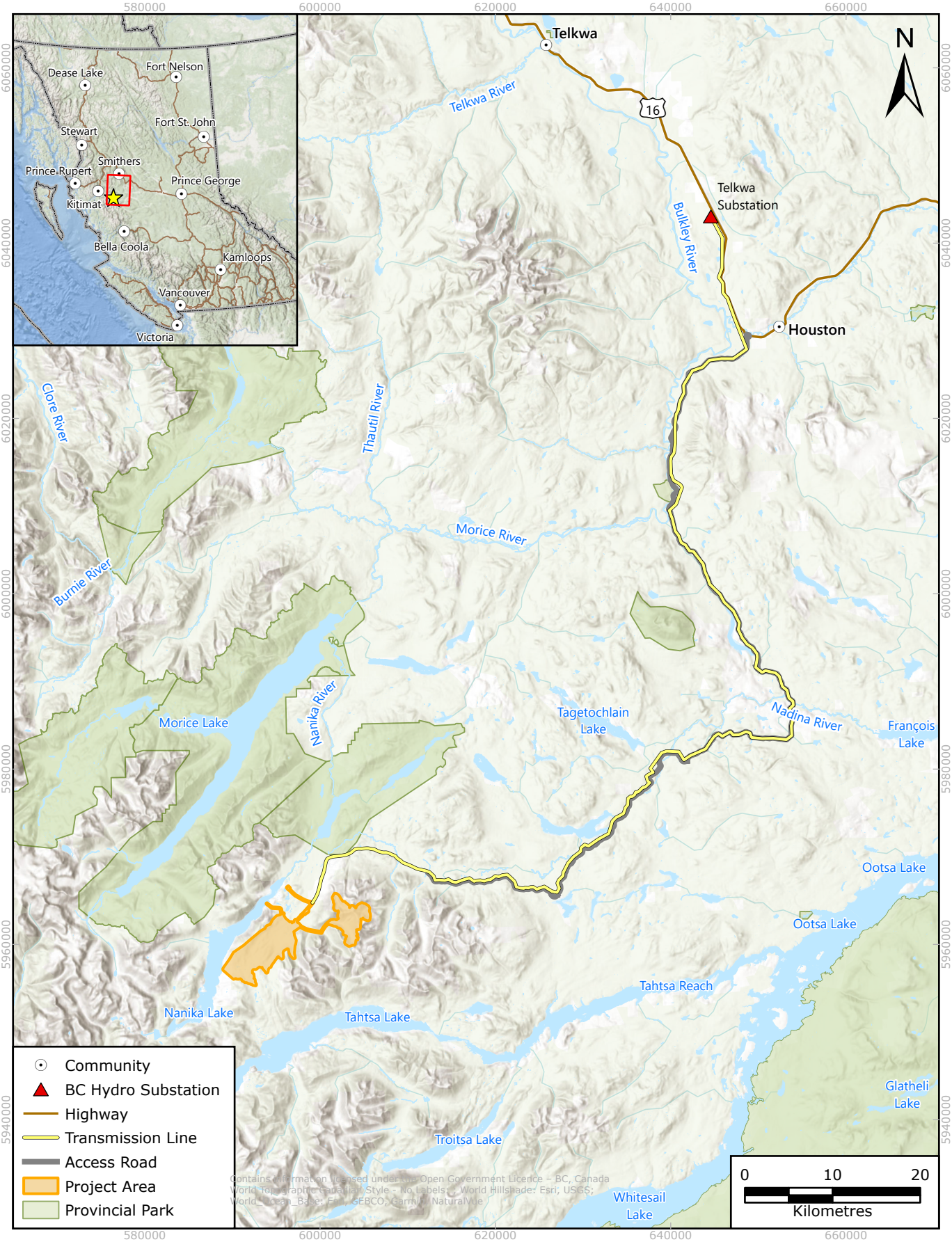
#### *1.3.2.1 Project Location and First Nations Communities*

The Project is located within the Wet’suwet’en Yintah, in the territory of the Thin House (Yextsowiten) of the Gilseyhu Clan, and within the asserted traditional territory of the Cheslatta Carrier Nation.

Several Wet’suwet’en communities are located in the broader region, including Wet’suwet’en First Nation, Witset First Nation, Skin Tyee First Nation, and Nee Tahi Buhn Indian Band. Other First Nations with reserve lands or asserted territories in the region include the Cheslatta Carrier Nation, Haisla Nation, Lax Kw’alaams Band, and Metlakatla First Nation.

The nearest permanently inhabited First Nation communities are located more than 50 km from the Project. Reserve lands associated with several First Nations are located within 100 km of the Project.

## FIGURE 3.2-1 PROJECT AREA AND TRANSMISSION LINE




ERM

CLIENT: Surge Copper
GIS NUMBER: BERG-15-014-08

DATE: 27 August 2026

PROJECTION: NAD 1983 UTM Zone 9N
SCALE: 1:600,000 when printed at 8.5x11

#### *1.3.2.2 Proximity to Parks and Features*

All distances described below are straight-line distances and do not represent driving distances or travel times.

The Project is located near several provincial parks and recreation areas. The nearest provincial parks (point-to-point measurements) are Nenikëkh/Nanika-Kidprice Provincial Park, located about four km from the proposed open pit, and Morice Lake Provincial Park, located about five km from the proposed tailings and waste management facility. A section of the proposed transmission line is expected to run alongside the southeastern boundary of Nenikëkh/Nanika-Kidprice Provincial Park. Atna Provincial Park is located about 21 km northwest of the Project.

Several recreation sites and trails are also located near the Project, including the Nanika Lake Trail, Sibola Rhineridge Cabin, Tahtsa Reach, Sweeney Lake recreation sites, and the Anzac-Newcombe Trail. Some of these recreation areas are located within a few km of the Project, while other sites are located near the transmission line corridor. Surge will consider recreation sites during transmission line routing and seek to avoid or reduce effects on recreation access and use where practicable.

Figure 3.2-4 shows the location of the Project in relation to parks.

### 1.3.3 Project Geology, History, Status, and Existing Infrastructure

#### *1.3.3.1 Project Geology*

The Project is located in the Tahtsa Ranges, a mountainous area within the Hazelton Mountains of west-central British Columbia. This region lies between the Coast Mountains to the west and the Nechako Plateau to the east. The Berg deposit is located on steep mountain slopes and in a high-elevation valley south of Mount Ney.

The deposit area is located above Berg Creek, which flows into Bergeland Creek and the Morice River watershed. Water from this watershed eventually flows through the Skeena River to the Pacific Ocean.

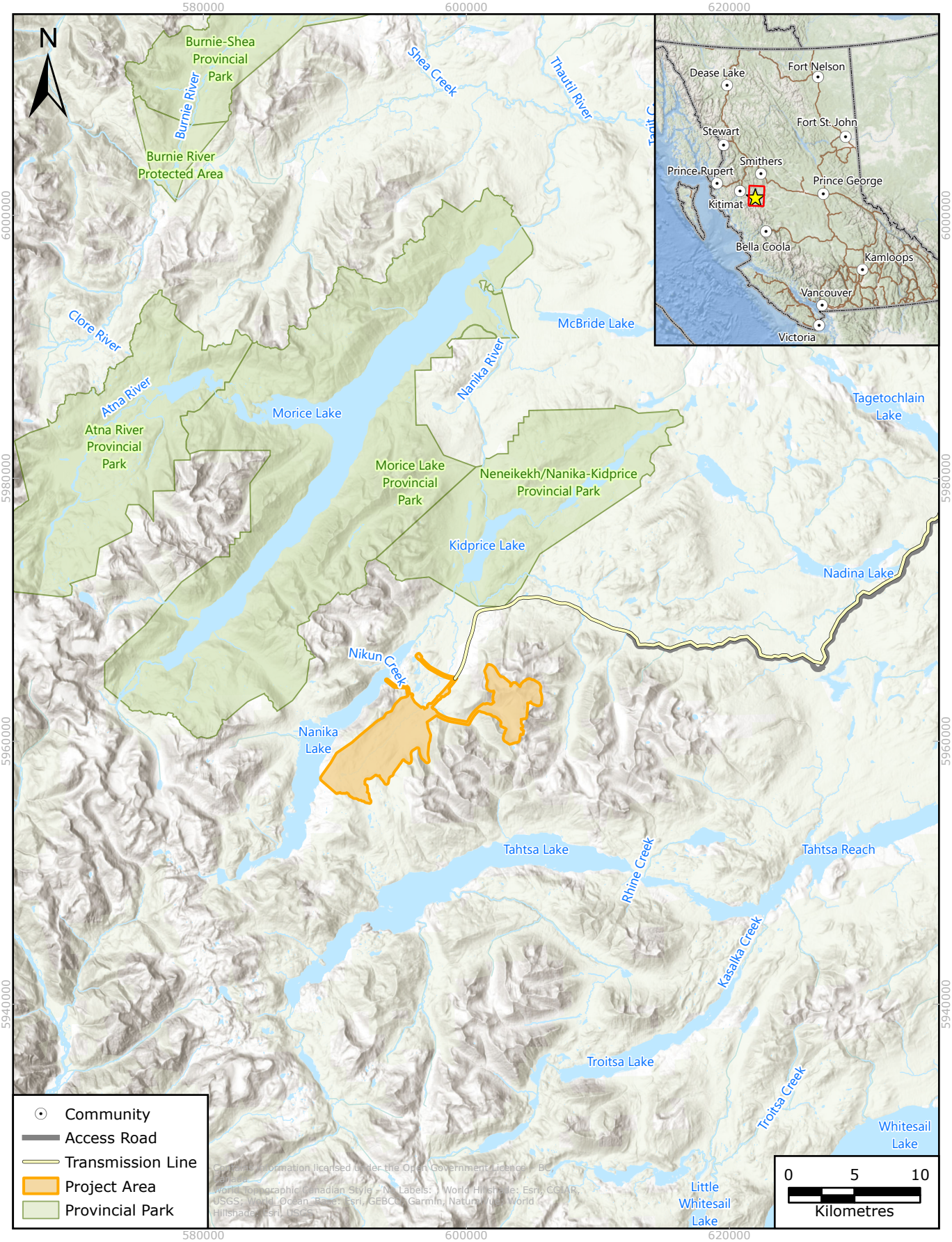
The Berg Copper Project is located on mineral claims and a mining lease owned by Surge Copper Corp.

#### *1.3.3.2 Project History*

Mineral exploration in the Tahtsa Ranges began in the early 1900s. The Berg deposit was first extensively explored in the 1960s, when drilling identified significant copper and molybdenum mineralization. Additional exploration and drilling programs were completed during the 1970s and 1980s, and ownership of the property changed several times over the following decades.

Surge acquired full ownership of the Berg property in 2024. Since then, the company has continued exploration and technical studies to support planning and evaluation of the Project.

# FIGURE 3.2-4 MAP OF PROJECT AND PARKS AND FEATURES




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World Topographic (Canadian Style – No Labels): World Hillshade: Esri, CGIAR, USGS; World Ocean Base: Esri, GEBCO, Garmin, Natural Vue, World Hillshade: Esri, USGS

ERM

CLIENT: Surge Copper
GIS NUMBER: BERG-15-014-06

DATE: 27 August 2026

PROJECTION: NAD 1983 UTM Zone 9N
SCALE: 1:400,000 when printed at 8.5x11

#### *1.3.3.3 Project Status and Existing Infrastructure*

The Berg Copper Project is a proposed new mine and has not previously undergone a provincial environmental assessment or federal impact assessment.

Existing disturbances in the Project Area are primarily related to forestry activities, mineral exploration, and associated road construction. Infrastructure currently present in the Project Area is limited to exploration facilities, including access roads and trails, drill sites, temporary accommodation facilities, monitoring wells, and storage and administration buildings.

There are no known contaminated sites within the Project Area.

The Project Area can be accessed using existing forest service roads that also support forestry operations, the nearby Huckleberry Mine, and other industrial activities in the region, followed by site access on exploration roads. Regional infrastructure includes an existing power transmission line serving the Huckleberry Mine. Copper and molybdenum concentrates produced by the Project would be transported to customers outside the region, both domestic and international. The transportation of concentrate from the mine site to distribution locations (e.g., rail load-out , port facilities) to final customers would be undertaken by third-parties and would not be under the care and control of Surge. Concentrate is expected to be transported by truck to either existing rail load-out facilities along Highway 16 or existing ports. The final distribution method and customer destinations remain subject to future commercial arrangements.

### 1.3.4 Existing Permits and Approvals

The Project is currently in the exploration stage and operates under an exploration permit issued by the Government of British Columbia. The current permit is valid until March 31, 2030, and authorizes activities such as drilling, geophysical surveys, use of exploration camps, and construction or upgrading of exploration access roads.

The permit also includes conditions designed to reduce potential effects on wildlife and the environment.

Additional permits have been issued to support environmental baseline studies, including fish collection and park use permits for aquatic field investigations.

Surge holds the mineral claims and mining lease that contain the Berg deposit and support the proposed development of the Project.

# 2. Part B: Project Information

## 2.1 Project Description

### 2.1.1 Summary of Project Components

The Project Area represents 5,009 ha. The following key components will form part of the Project:

**Mine and Mine Ancillary Facilities:**

- Open pit;
- Non-potentially acid generating Waste Rock Dumps;
- Non-contact water diversion ditches;
- Mine Services Building(s), including a truck shop and associated warehouse, as well as a site office;
- Low-grade stockpile;
- Explosives Plant/Magazine;
- Onsite mine haul roads and access roads for plant and site facilities; and
- Diesel fuel storage tanks and fuel station.

**Process and Process Ancillary Facilities:**

- Primary Crusher for each of ore and waste;
- Conveyor loadout infrastructure;
- Infrastructure for tailings;
- Conveyor routing—Mine to Mill;
- Secondary Crusher;
- Processing facility, including infrastructure for milling and processing 120,000 tpd of ore housed in enclosed buildings and other maintenance and operations facilities;
- Stockpile;
- Pond;
- Water management systems; and
- Warehouse and cold storage.

**Mine Waste and Water Management Facilities:**

- Tailings and Waste Management Facility;
- Tailings distribution pumps and pipelines;
- Tailings Primary Cyclone Building;
- Conveyor Routing—Mine to Tailings and Waste Management Facility via the plant site area, with distances totalling 7.3 km, including a 1.7-km conveyor leg for transport of potentially acid-generating waste rock to the tailings and waste management facility; and
- Return water pipeline for transport between Mill and Tailings and Waste Management Facility.

**General Ancillary Facilities:**

- Utilities, including power supply infrastructure and substation;
- Administration services building(s);
- Personnel accommodation facility and its associated buildings and facilities;
- Water/Sewage Treatment Plant;
- Freshwater distribution, potable water treatment plant, and fire water distribution;
- Helipad for emergency response;
- Medical and emergency response facilities;
- Access point, internal access roads, and Security gate; and
- Core logging area.

**Offsite Infrastructure:**

- Transmission line.

**Temporary Facilities:**

- Various temporary facilities to support construction, including construction laydown areas.

Surge will make use of existing transportation infrastructure, including forest service roads and an access road to the Project Area which would begin near the current terminus of the Sibola Forest Service Road and extend westward around the northern and western flanks of Mount Ney and is being constructed to support advanced exploration.

For the Pre-Feasibility Study, power supply was assumed to come from the BC Hydro grid via a new 230 kV transmission line connecting at the Telkwa substation near Houston. The proposed route generally follows the mine access road and existing Forest Service Roads, enabling an integrated corridor design that supports constructability, renewable energy use, and site efficiency. Concurrently, Surge is working with several First Nations on a trade-off study to evaluate alternative routes and connection points, with outcomes to inform final transmission line routing and scoping of the EA. The results are anticipated prior to finalizing the Detailed Project Description.

### 2.1.2 Project Design or Siting Constraints

The current Project design is based on the 2026 Pre-Feasibility Study. Further studies, engagement with First Nations, government agencies, local communities, and the public, and the environmental assessment process may influence aspects of the final Project design. The Project described in this document is based on the current 2026 Pre-Feasibility Study and should therefore be considered preliminary. Changes to Project components, locations, technologies, or activities may occur as engineering, environmental studies, alternatives assessment, and engagement progress.

Some Project components are fixed because they are determined by the location and characteristics of the Berg deposit. These include the location of the ore body, the use of an open pit mine, the ore processing method, and the use of conveyor systems to transport materials within the Project Area.

Other Project components remain under consideration and may change as planning continues. These include:

- The location and final design of the tailings and waste management facility;
- Closure and reclamation approaches;
- The location and design of the workforce accommodation facility;
- Transmission line routing;
- Water supply and water management approaches;
- Worker transportation arrangements;
- Workforce accommodation and residency options; and
- Work schedules.

Alternatives for these components are being evaluated through technical studies and engagement with First Nations and other interested parties. Factors being considered include environmental effects, social and economic considerations, technical feasibility, costs, First Nation interests, and long-term land use.

### 2.1.3 Project Phases and Activities

The Project will have four distinct phases, beginning with site preparation and ending with the completion of care and maintenance during post-closure (returning land use). The estimated duration of each key Project phase is described in Table 4.3-1.

TABLE 4.3-1 PROJECT PHASES AND DURATIONS

| Phase | Duration (Years) |
|---|---|
| Site Preparation and Construction (Inclusive of Pre-Production Mining) | 3 |
| Operations | 28 |
| Closure | 2 |
| Post-Closure | Continue until conditions in permits are met |

**Site Preparation and Construction:** Prepare the site, build roads and facilities, install water management systems, construct the processing plant and tailings and waste management facility, establish accommodations for workers, and begin pre-production mining.

**Operations:** Mine ore from the open pit, process ore to produce copper and molybdenum concentrates, manage tailings and waste rock, monitor environmental conditions, manage water and waste, and carry out progressive reclamation where practical. Ongoing exploration may change the length of the Operations phase.

**Closure:** Remove or decommission infrastructure, reclaim disturbed areas, recontour and revegetate mine facilities, close roads, manage water quality, and implement measures to support long-term site stability.

**Post-Closure:** Continue environmental monitoring, maintain reclamation works, verify that closure measures are functioning as intended, and support the transition to agreed post-mining land uses.

### 2.1.4 Project Workforce

The Project workforce would vary throughout the life of the mine. During site preparation and construction, the workforce is expected to peak at approximately 1,060 workers, including both mine operations and construction personnel. During operations, the workforce is expected to peak at approximately 783 workers, in Year 5, including hourly and salaried staff for mine operations and plant personnel.

The Project would create employment opportunities across a range of occupations, including equipment operators, tradespeople, environmental specialists, engineers, geologists, administrative staff, and managers. Workforce requirements and training needs will continue to be refined as Project planning progresses.

Surge is working with First Nations, local communities, governments, and educational institutions to better understand workforce availability and training opportunities in the region. The company is targeting at least 50 percent (%) of its workforce to be sourced from local and regional communities, where feasible, to help maximize local employment and economic benefits.

An onsite accommodation facility would be developed to house workers during construction and operations. The facility would be built in stages during construction and would accommodate approximately 550 workers during operations. It would include sleeping quarters, dining facilities, recreation areas, water and wastewater treatment systems, medical and emergency response facilities, offices, utilities, and other services needed to support the workforce.

### 2.1.5 Emissions, Discharges, and Wastes

The Project will generate greenhouse gas emissions, dust and other air emissions, noise and vibration, wastewater, sewage, domestic waste, and hazardous waste. Current estimates are based on the 2026 Pre-Feasibility Study and will be updated as the Project design and supporting studies are refined. Surge is considering measures to reduce emissions, including the use of grid electricity and electrified equipment where technically and economically feasible.

The following emission or waste types are expected from the Project:

- **Greenhouse Gas Emissions:** The Project would generate greenhouse gas emissions primarily from fuel use, blasting, and electricity consumption. Based on the current Project design, total net greenhouse gas emissions during the construction and operations phases are estimated at 5.84 million tonnes of carbon dioxide equivalent ($tCO_2e$), with peak annual emissions of approximately 271,000 $tCO_2e$ in Year 5. These estimates will be updated as Project design and supporting studies are refined. Land-use emissions and emissions associated with closure and decommissioning are not included in the current estimate.
- **Air Emissions:** Air emissions would include dust from construction and mining activities, blasting emissions, and exhaust from vehicles and equipment. Air quality studies will be completed as part of the assessment.
- **Noise and Vibration:** Noise and vibration would be generated by blasting, mining equipment, conveyors, crushers, and the processing plant. Potential effects on wildlife and land use will be assessed.
- **Water Discharges:** Water that comes into contact with mining and processing areas would be collected, treated if required, and reused where practical. Any water released to the environment would be required to meet regulatory standards.
- **Tailings:** Ore processing would generate tailings that would be transported to the tailings and waste management facility for long-term storage.

- **Waste Rock:** Waste rock would be separated based on its potential to generate acid. Potentially acid-generating material would be stored in the tailings and waste management facility, while non-potentially acid-generating material would be stored separately or used for construction.
- **Domestic and Hazardous Waste:** Domestic, industrial, recyclable, and hazardous wastes would be managed in accordance with applicable regulations and industry standards.

### 2.1.6 Alternatives to the Project

Surge has considered potential alternatives to the Project that are technically and economically feasible, including: (1) not undertaking the Project; (2) changing the timing of the Project; and (3) changing the location of the Project. The 'no Project' alternative would not achieve the Project's purpose and would forego the significant economic, social, and strategic benefits associated with its development. The second alternative, changing the timing of the Project, is expected to result in substantially the same environmental and social effects as the proposed development schedule, just delayed. The third alternative, changing the location of the Project, is not considered feasible. The copper molybdenum porphyry deposit is geologically fixed.

#### *2.1.6.1 Alternative Means of Carrying Out the Project*

Some Project components are fixed because of the location and nature of the ore deposit, including the use of an open pit mine, onsite ore processing, and conveyor systems to transport materials within the Project Area.

Other components are still being evaluated, including:

- Tailings and waste management facility location, design, and closure approach;
- Power supply and transmission line routing;
- Water supply and water management approaches;
- Workforce accommodation and transportation arrangements; and
- Worker schedules and residency options.

The current preferred approach includes onsite ore processing, connection to the BC Hydro electrical grid, use of existing infrastructure where practical, onsite workforce accommodation, and a tailings and waste management facility near the processing plant. These preferences may change as engineering studies, environmental assessments, and engagement with First Nations, communities, regulators, and the public continue.

### 2.1.7 Public and Environmental Safety

The environmental assessment will consider potential accidents and malfunctions that could occur during construction, operation, closure, and post-closure of the Project. Examples include spills of fuel or other hazardous materials, releases of water containing contaminants, failures of water management structures, slope instability, transportation incidents, fires, blasting-related incidents, and power outages.

Emergency preparedness and response plans will be developed before construction begins and updated throughout the life of the Project. These plans will be developed in consultation with First Nations, regulators, and local communities, and will include procedures for preventing, responding to, and communicating about emergencies.

## 2.2 Regulatory and Policy Framework

The Berg Copper Project requires both a provincial environmental assessment in accordance with the BC *Environmental Assessment Act* (2018). and a federal impact assessment in accordance with the federal *Impact Assessment Act* (2019). The Project meets the applicable thresholds for assessment because it is a proposed new mineral mine and processing facility with a planned ore processing capacity of up to 120,000 tonnes per day. Under the federal Physical Activities Regulations, new metal mines and metal mills with a capacity of 5,000 tonnes per day or more are designated projects. Under BC's Reviewable Projects Regulation, a new mineral mine with a production capacity of 75,000 tonnes per year or more is reviewable.

The Project is not expected to use federal land or receive federal funding.

In addition to environmental assessment approvals, the Project would require several provincial and federal permits, licences, and authorizations before construction and operation could begin.

The Project is not expected to directly affect First Nation reserve lands or interprovincial or international interests.

The Project is within the area covered by the Morice Land and Resource Management Plan, which provides direction for managing environmental, cultural, social, and economic values in the region.

The federal Strategic Assessment of Climate Change also applies to the Project and informs the assessment of greenhouse gas emissions and climate change.

### 2.2.1 Proposed Regulatory Timing and Schedule

The Project is currently in the early planning and environmental assessment stage. Environmental baseline studies, engineering studies, alternatives assessment, and engagement with First Nations, government agencies, local governments, stakeholders, and the public are ongoing.

The environmental assessment process will provide opportunities for participants to review the Project, identify issues and information needs, and provide input on potential effects and mitigation. Information collected through this process will be used to refine the Project and support preparation of the detailed assessment documentation and subsequent permitting.

The Project will require several provincial permits and authorizations before construction and operation can begin. These are expected to include approvals related to mining activities, water use, air emissions, waste management, road access, land use, archaeological resources, wildlife, and worker accommodations.

In addition to environmental assessment approvals, the Project may require several federal permits and authorizations related to fish and fish habitat, migratory birds, species at risk, explosives storage and use, transportation of dangerous goods, navigation, and other activities regulated by federal legislation. The specific permits and approvals required will be confirmed through the environmental assessment process and ongoing consultation with federal regulators.

Surge intends to advance provincial and federal permitting concurrently with the EA, to reduce the overall timeline, where supported by regulators and where sufficient technical information is available.

# 3. Part C: First Nation, Federal, and Provincial Engagement

## 3.1 First Nations

The Project is located within the Wet'suwet'en *Yintah* . Surge is actively engaging with the Wet'suwet'en Hereditary Chiefs and Houses, through the Office of the Wet'suwet'en (OW), and other potentially impacted First Nation groups in the region, including the Witset First Nation (Witset), Wet'suwet'en First Nation (WFN), Nee Tahi Buhn Indian Band, Skin Tyee First Nation, and Cheslatta Carrier Nation (CCN). An overview of these Nations is provided in Table 6.3-1. Surge believes that responsible advancement of the Project depends on working respectfully and collaboratively with First Nations whose rights and interests are connected to the Project Area. Surge's approach to engagement is grounded in transparency, relationship building, meaningful participation, and understanding and addressing First Nations' rights, interests, concerns, and priorities.

Traditional Knowledge and information shared through engagement to date have informed the understanding of First Nation interests, traditional land and resource use, environmental values, and potential Project interactions presented in this Initial Project Description. Information will continue to be incorporated in accordance with the direction and protocols of the First Nations.

### 3.1.1 Potential Effects of the Project on First Nation Interests

Surge recognizes that the First Nations and communities will have diverse scopes of engagement and consultation. Surge recognizes that meaningful participation in Project planning and assessment, including opportunities to understand, discuss, and address potential effects, is important to advancing the Project.

As part of the engagement process, Surge intends to work with interested parties to understand, define, and address potential adverse impacts of the Project as an essential function of the assessment process.

Based on engagement completed to date and available information, First Nations may have rights, interests, concerns, or potential effects associated with:

- Existing and cumulative effects on First Nation rights, cultural values, and the exercise of those rights;
- First Nation health and well-being;
- First Nation governance and decision-making;
- First Nation title to the lands, waters, and resources within their territories, including economic interests in those lands, waters, and resources;

- First Nation rights related to the use of terrestrial, fresh water, heritage, visual, and other resources within these territories, which may include harvesting activities, such as fishing, hunting, trapping and gathering, and other traditional and cultural activities (e.g., travel routes, cultural expression, and spiritual practices);
- Changes in usage of traditional territories and desired future use in the Project Area;
- Incorporation of Traditional Knowledge and Cultural Land Use Data with respect to lands and resources across their traditional lands;
- Understanding of and participation in the potential positive effects that may come from the Project; and
- Understanding of potential negative effects of the Project and participation in the design and implementation of the appropriate measures to avoid or mitigate identified adverse effects.

### 3.1.2 Key Interests and Concerns Raised during Engagement Completed to Date

Surge has been engaging with First Nations in the region for many years through exploration activities and Project planning. Existing agreements include communications, engagement, collaboration, and capacity-funding agreements with several Nations and organizations, including the OW, WFN, and CCN.

Engagement activities have included:

- Meetings with elected and hereditary leadership;
- Community information sessions;
- Site visits;
- Review of Project information and technical studies;
- Discussion of environmental baseline programs;
- Participation in environmental field studies;
- Discussion of employment, training, and procurement opportunities; and
- Capacity funding to support First Nation participation in Project assessment activities.

Although interests vary among Nations and communities, common themes have emerged. Key issues, and how Surge is actively considering those issues is presented in Table 3-1.

TABLE 3-1 KEY INTERESTS AND HOW THEY ARE BEING CONSIDERED

| Key Interest or Concern | How It Is Being Considered |
|---|---|
| Water Quality, Fish Habitat, and Watershed Health | Water quality, fish, groundwater, and water management studies are underway. These studies will inform Project design, mitigation, monitoring, and water management planning. |
| Wildlife and Traditional Harvesting | Wildlife studies and engagement are being used to understand habitat, movement, harvesting interests, and potential Project interactions. |
| First Nation Rights, Title, and Cultural Values | Surge will continue to work with First Nations to understand Nation-specific rights, interests, cultural values, and potential Project effects. |
| Traditional Land Use and First Nation Traditional Knowledge | Traditional Knowledge and traditional land-use information will be considered in Project planning, environmental studies, effects assessment, mitigation, and closure planning, consistent with First Nation-specific protocols and preferences. |
| Participation in Environmental Studies and Monitoring | First Nations have identified opportunities to participate in baseline studies, field programs, monitoring, and review of technical information. |
| Power Supply and Transmission Line | Surge is working with First Nations and other parties to evaluate power supply and transmission-line options and routing. These discussions will continue as the Project advances toward a preferred option. |
| Employment, Training, Procurement, and Economic Participation | Surge is continuing discussions regarding local and First Nation employment, training, contracting, procurement, and other economic opportunities. |
| Capacity to Participate in the Assessment | Capacity funding and other forms of support are being discussed with participating Nations to support meaningful participation in Project planning and assessment. |

The interests and concerns summarized below reflect engagement completed to date and are not intended to represent the views of all First Nations, communities, or rights holders. Engagement will continue throughout Early Engagement and the environmental assessment process.

### 3.1.3 Planned First Nation Engagement

Surge is committed to ongoing engagement with First Nations and communities that may be affected by the Project. Engagement is intended to support meaningful participation in the environmental assessment process and to help identify, understand, and address potential Project effects.

Engagement activities may include meetings, workshops, community open houses, site visits, technical presentations, review of Project documents, and capacity funding to support participation. Project information will be provided in accessible formats to support understanding and feedback.

Through engagement, Surge will work with First Nations to understand Traditional Knowledge, cultural values, traditional land use, and community perspectives relevant to the Project. This information will be considered in Project planning, environmental studies, effects assessment, mitigation development, and closure planning, consistent with the protocols and preferences of participating Nations.

Surge will continue to document engagement activities, feedback, questions, concerns, and commitments throughout the environmental assessment process.

## 3.2 Local Governments, Government Agencies, Stakeholders, and the Public

Surge's engagement approach is based on building respectful, transparent, and collaborative relationships with First Nations, local communities, governments, regulatory agencies, stakeholders, and the public throughout the Project lifecycle. Engagement began during the early exploration stages and has continued through Project planning and development. Through long-standing relationships with Wet'suwet'en and CCN, as well as ongoing engagement with local governments, provincial and federal agencies, community organizations, land users, and other interested parties, Surge has developed a broad understanding of the social, cultural, environmental, and economic interests associated with the Project.

Surge views engagement as an ongoing process that supports meaningful participation and informed decision-making. The approach emphasizes early involvement, open communication, respect for First Nation rights and cultural values, and consideration of community and stakeholder feedback in Project planning and development. Information about Project activities, engagement opportunities, and key milestones will be shared in a timely and consistent manner using communication methods appropriate to different audiences. The Engagement Plan will be reviewed and updated as the Project advances, new information becomes available, feedback is received, or additional participants are identified. Updates to the Engagement Plan will be communicated through established engagement channels to keep participants informed and support continued involvement throughout the environmental assessment process.

### 3.2.1 Local Governments

The Project is located within the Regional District of Bulkley-Nechako and is expected to have connections to nearby communities, including Houston, Burns Lake, Smithers, Telkwa, and Fraser Lake. These communities may provide workers, services, supplies, and infrastructure that support the Project.

Engagement with local governments has focused on topics such as:

- Employment, training, and workforce needs;
- Local business and procurement opportunities;
- Transportation and Project infrastructure;
- Emergency preparedness and wildfire response;
- Housing, community services, and infrastructure capacity;
- Recreation and tourism values; and
- Potential cumulative effects of regional development.

Surge plans to continue engaging with local governments through meetings, community open houses, presentations, newsletters, and ongoing information sharing. Feedback received will help inform Project planning, environmental studies, mitigation measures, and assessment of potential community effects.

Relevant regional and municipal plans will also be considered during the environmental assessment to better understand local land-use objectives, economic development priorities, community values, and infrastructure planning considerations.

### 3.2.2 Provincial and Federal Government Agencies

Numerous federal and provincial government agencies will participate in the environmental assessment process, including reviewing the Environmental Assessment Certificate / Impact Statement Application, or being regulatory or permitting agencies of the Project. Table 7.2-1 provides a list of the agencies that will be engaged with for the Project. The agencies listed below may participate in the environmental assessment by reviewing assessment information, providing technical expertise, or issuing permits and authorizations relevant to the Project.

TABLE 7.2-1 FEDERAL AND PROVINCIAL GOVERNMENT AGENCIES POTENTIALLY INVOLVED IN THE ENVIRONMENTAL ASSESSMENT PROCESS

| Federal Government Agencies | Provincial Government Agencies |
|---|---|
| • Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)<br>• Department of Women and Gender Equality (WAGE)<br>• Employment and Social Development Canada (ESDC)<br>• Environment and Climate Change Canada (ECCC)<br>• Fisheries and Oceans Canada (DFO) Health Canada (HC)<br>• Impact Assessment Agency of Canada (IAAC)<br>• Indigenous Services Canada (ISC)<br>• Innovation, Science and Economic Development Canada (ISED)<br>• Natural Resources Canada (NRCan)<br>• Transport Canada (TC) | • BC Environmental Assessment Office (EAO)<br>• Ministry of Mining and Critical Minerals (MCM)<br>• Ministry of Energy and Climate Solutions (MECS)<br>• Ministry of Environment and Parks (ENV)<br>• Ministry of Forests (MoF)<br>• Ministry of Indigenous Relations and Reconciliation (MIRR)<br>• Ministry of Jobs and Economic Growth<br>• Ministry of Transportation and Transit (MOTI)<br>• Ministry of Water, Land, and Resource Stewardship (WLRS)<br>• Northern Health (NH) |

Surge has been meeting regularly with the BC Environmental Assessment Office, the Impact Assessment Agency of Canada, Environment and Climate Change Canada, and Fisheries and Oceans Canada to discuss Project planning, environmental studies, First Nation engagement, and assessment requirements. Engagement with government agencies will continue throughout the environmental assessment process.

### 3.2.3 Stakeholders and the Public

Surge is also committed to engaging local communities, stakeholders, land users, tenure holders, and the public. Public engagement is intended to provide clear and accessible information about the Project, identify community interests and concerns, and allow feedback to be considered in Project planning and assessment.

Engagement activities may include community open houses, public information sessions, meetings, newsletters, online engagement opportunities, site tours, Project presentations, and distribution of Project information materials. Surge will also engage directly with potentially affected landowners, tenure holders, and other interested parties.

Feedback received from government agencies, stakeholders, and the public will be documented and considered as the Project advances through the environmental assessment process.

# 4. Part D: Existing Environment and Potential Effects

## 4.1 Existing Biophysical Environment

The Project is located in a remote, mountainous area that includes alpine and subalpine ecosystems, streams, lakes, wetlands, forests, and wildlife habitat. Baseline information has been collected since 2007, with updated and expanded studies underway to confirm current conditions and address information gaps. These studies cover climate, water, fish and fish habitat, groundwater, geochemistry, vegetation, wildlife, soils, terrain, air quality, noise, and visual conditions. The information summarized below is preliminary and will be updated as additional studies are completed.

### 4.1.1 Climate and Hydrology

The Project Area has long, cold winters and short, cool summers. The region receives substantial rain and snow, with snowmelt contributing to higher streamflows during spring and early summer.

Water from the Project Area drains through Berg Creek, Bergeland Creek, and the Ney River to the Nanika, Morice, Bulkley, and Skeena rivers before reaching the Pacific Ocean. Streamflow monitoring began in 2007 and was re-established in 2024. Additional monitoring is needed to understand current conditions and support Project water management planning.

### 4.1.2 Surface Water and Groundwater

Surface waters in the Project Area are well oxygenated and have a near-neutral pH. Some streams near the Berg deposit naturally contain elevated concentrations of metals because they flow through mineralized rock. Water quality improves downstream as these waters mix with other tributaries.

Groundwater occurs in soil, glacial deposits, weathered rock, and fractured bedrock. It is expected to flow from higher elevations toward valley-bottom streams and wetlands. Groundwater and surface water are connected in parts of the Project Area. Additional monitoring wells and studies are planned to better understand groundwater flow, quality, mine inflows, and potential seepage.

### 4.1.3 Fish and Fish Habitat

The Project is in the upper Nanika River watershed. Streams, lakes, wetlands, and groundwater-fed tributaries provide aquatic habitat, although steep slopes, waterfalls, intermittent flows, and other natural barriers limit fish movement into some headwater areas.

Dolly Varden are the main fish species recorded in accessible parts of the Bergeland Creek watershed. Rainbow Trout and other fish species have also been recorded in connected lakes and lower-gradient waters. Lower-gradient streams and groundwater-fed tributaries provide the most suitable habitat for spawning, rearing, movement, and overwintering.

No federally or provincially listed aquatic species at risk have been documented in the Project Area to date. Fisheries studies continue to confirm fish distribution, identify sensitive habitat, and support the development of mitigation and habitat offsetting measures, if required.

### 4.1.4 Geochemistry

The Berg deposit contains naturally occurring sulphide minerals. As a result, some rock and surface drainage in the Project Area are naturally acidic or contain elevated concentrations of metals.

Studies have identified rock that could generate acidic drainage if exposed to air and water, as well as rock that is not expected to generate acid. Additional testing is underway to better understand the characteristics of waste rock, tailings, overburden, and construction materials. The results will inform mine waste management, water treatment, effects assessment, and closure planning.

### 4.1.5 Vegetation and Ecosystems

The Project Area includes alpine tundra, subalpine forest, wetlands, riparian areas, and mountain hemlock forests. Vegetation varies with elevation and includes grasses, sedges, lichens, shrubs, spruce, fir, pine, and hemlock.

Some plant and lichen species of conservation concern could occur in the area, although their presence must be confirmed through field studies. Surveys are underway to map ecosystems and identify wetlands, old-growth forests, rare plants, invasive plants, and culturally important plants. This information will be used to avoid or reduce effects where practical and support reclamation planning.

### 4.1.6 Wildlife and Wildlife Habitat

The Project Area provides habitat for wildlife such as grizzly bear, black bear, caribou, moose, mountain goat, wolverine, marmot, birds, bats, and amphibians. Several species of conservation concern have the potential to occur in the area.

The Project overlaps the western edge of the Tweedsmuir caribou herd range, and part of the proposed open pit overlaps designated mountain goat winter range. Wildlife studies include remote cameras, sound recorders, aerial surveys, winter tracking, habitat modelling, and targeted surveys for caribou, mountain goats, birds, amphibians, marmots, and pikas. These studies will help identify important habitats and measures to avoid or reduce potential effects.

### 4.1.7 Terrain and Soils

The Project is situated in steep, mountainous terrain shaped by past glaciation. Soil and terrain studies will identify soil characteristics, unstable terrain, geohazards, and suitable materials for reclamation.

### 4.1.8 Noise and Visual Conditions

Existing noise, artificial light, and visual disturbance are limited because the Project Area is remote and undeveloped. Current disturbance is associated with forestry, recreation, roads, and mineral exploration. Baseline noise and visual studies are planned to support the assessment of potential effects from blasting, equipment, roads, buildings, and lighting.

### 4.1.9 Continuing Baseline Studies

Historical data will be supplemented with current field studies where needed. The results will be used to:

- Describe existing environmental conditions;
- Identify sensitive species, habitats, and water features;
- Assess potential Project effects;
- Develop mitigation and monitoring measures;
- Inform water, waste, and closure planning; and
- Support environmental assessment and permit applications.

## 4.2 Existing Human Environment

The Project is located within the Regional District of Bulkley-Nechako. Houston is the closest municipality, while Burns Lake, Telkwa, Smithers, Fraser Lake, Vanderhoof, and Prince George may also provide workers, supplies, transportation, and specialized services.

### 4.2.1 Land and Resource Use

The Project is within the area covered by the Morice Land and Resource Management Plan, which supports the balanced management of environmental, cultural, social, and economic values.

The Project Area is remote and has relatively limited non- First Nation use. Existing activities include hunting, fishing, trapping, camping, hiking, skiing, snowmobiling, off-road vehicle use, forestry, mineral exploration, and commercial recreation. Nearby features include the Nanika-Kidprice canoe route and a Burns Lake Snowmobile Club cabin.

The proposed transmission line corridor may cross private properties and existing land and resource tenures, including forestry, agriculture, recreation, traplines, utilities, water licences, and transportation rights-of-way. The final route will be refined through further studies and engagement with potentially affected landowners and tenure holders.

Several parks and recreation areas are located near the Project, including Nenikëkh/Nanika-Kidprice, Morice Lake, and Atna provincial parks. Potential effects on recreation, access, tourism, and protected areas will be considered during the environmental assessment.

### 4.2.2 Economy and Workforce

The regional economy is supported by forestry, mining, agriculture, transportation, public services, tourism, and outdoor recreation. Recent challenges in the forestry sector have increased regional interest in economic diversification and new employment opportunities.

The Project could create employment, training, contracting, procurement, and business opportunities for nearby communities and First Nations. Further studies will examine the regional labour supply, workforce needs, and potential effects on local businesses and labour markets. Surge is targeting at least 50% local and regional workforce participation, where feasible.

### 4.2.3 Health and Community Well-Being

Houston and Smithers are expected to be the main service centres for the Project. Houston provides local health, emergency, education, and recreation services, while Smithers provides additional hospital, professional, government, transportation, and specialized services.

The environmental assessment will consider effects on housing, infrastructure, emergency response, health and social services, community safety, mental health, cultural continuity, and access to traditional activities. It will also examine whether effects and benefits may differ for First Nation communities, women, youth, Elders, and other population groups.

A human health risk assessment will evaluate potential exposure of people to Project-related contaminants through air, water, and traditional foods. Measures will be identified to avoid or reduce potential health effects.

### 4.2.4 Heritage Resources

An obsidian arrowhead was found within the Berg property during exploration in 2016. The location was left undisturbed.

Further archaeological studies will be completed in collaboration with First Nations. These studies will help identify and protect archaeological, cultural, and heritage resources that could be affected by the Project.

## 4.3 Potential Effects of the Project

The potential effects of the Project on environmental, economic, social, heritage, and human health components will be assessed through the environmental assessment. The assessment will focus on specific Valued Components (VCs) identified through collaboration with the OW, Witset, WFN, CCN, Skin Tyee Nation, Nee Tahi Buhn Indian Band, the EAO, the IAAC, government agencies, and the public during and following the Early Engagement phase.

The assessment of potential effects will include consideration of mitigation measures and plans to avoid, reduce, rehabilitate, or offset adverse impacts; residual and cumulative effects; and reasonably foreseeable developments. The selection and scoping of VCs will be finalized through the environmental assessment process in consultation with First Nations and government agencies.

A preliminary simplified list of potential Project effects organized by environment component is presented in Table 10-1 below. This table reflects the early-stage nature of the Project design and is intended as a starting point for scoping discussions during Early Engagement. It does not represent the final list of VCs or an assessment of significance.

The preliminary effects list is based on information currently available for the Project and will be refined through Early Engagement, Traditional Knowledge and engagement, ongoing technical studies, engineering refinement, and the environmental assessment process. Key issues identified at this stage include potential effects on water quality and quantity, fish and fish habitat, wildlife and habitat, First Nation rights and interests, land and resource use, human health and community well-being, and cumulative effects.

### 4.3.1 Effects of the Environment on the Project

The environmental assessment will also consider how natural hazards and changing environmental conditions could affect Project infrastructure and operations. These include earthquakes, flooding, severe weather, snow and avalanche hazards, terrain instability, and climate change. Changes in temperature, precipitation, snowpack, and other climate conditions will also be considered in Project design and long-term planning. Engagement may reveal additional potential effects of the environment on the Project.

TABLE 10-1 PRELIMINARY POTENTIAL PROJECT EFFECTS BY COMPONENT

| Component | Potential Effects | Example Management Approach |
|---|---|---|
| **Physical Environment** | | |
| Air Quality | • Fugitive dust emissions, affecting human health, wildlife, and vegetation.<br>• Combustion affecting ambient air quality.<br>• Blasting byproducts in adverse weather conditions emissions may concentrate in valley bottoms near the Project and along haul corridors.<br>• Dust deposition on soils and vegetation can alter soil chemistry, potentially increasing metal uptake in plants consumed by wildlife and humans.<br>• Greenhouse gas (GHG) emissions will contribute to provincial and national GHG inventories, with diesel haul trucks as the primary source pending electrification of the mining fleet.<br>• Dust from the mine site may be transported to Nanika Lake (proposed freshwater supply), nearby provincial parks (Morice Lake, Nenikëkh/Nanika-Kidprice), and First Nations traditional use areas during high-wind events. | • Reduce land clearing and disturbed areas where possible.<br>• Control dust and air emissions during construction and operation.<br>• Improve energy efficiency and reduce greenhouse gas emissions.<br>• Use electricity from BC Hydro instead of fossil fuels where practical.<br>• Restore disturbed areas as work progresses.<br>• Use transportation methods that help reduce emissions.<br>• Monitor and manage air quality throughout the life of the Project. |
| Noise and Vibration | • Increased noise and vibration from mining, processing, blasting, and transportation activities.<br>• Potential disturbance to wildlife, including changes in movement and habitat use.<br>• Potential effects on First Nation and recreational users through increased noise in remote areas.<br>• Increased noise along Project access and transportation corridors. | • Use quieter equipment and technologies where practical.<br>• Install noise controls such as mufflers, enclosures, and noise barriers.<br>• Regularly maintain equipment to reduce noise and vibration.<br>• Locate noisy equipment inside buildings or behind berms where practical.<br>• Consider vibration during facility design and assess potential vibration effects.<br>• Use blasting practices that reduce noise and vibration, especially near fish habitat.<br>• Develop and implement a Noise and Vibration Management Plan to monitor and manage Project-related noise and vibration-related noise and vibration. |

| Component | Potential Effects | Example Management Approach |
|---|---|---|
| **Physical Environment *(cont'd)*** | | |
| Geology, Soils, and Terrain | **Changes to Soil Quantity:**<br>• Vegetation removal, topsoil stripping, overburden excavation, and waste rock placement will result in permanent loss and alteration of soils.<br>**Changes to Soil Quality:**<br>• Long-term soil stockpiles may lose some of their ability to support plant growth if not managed properly.<br>• Roads, work areas, and camps may compact soils, increase runoff, and contribute to erosion.<br>• Some waste rock and tailings will require long-term management to help prevent potential effects on soil and water quality.<br>**Changes to Terrain and Terrain Stability:**<br>• The open pit will alter topography and terrain permanently.<br>• Terrain in the Project Area includes steep mountain slopes, alpine meadows, and valley bottoms subject to snow avalanche, debris flow, and rock fall hazards. | • Implement soil salvage, stockpiling, and placement procedures to conserve soil resources and maintain soil quality for reclamation.<br>• Develop and implement an Erosion and Sediment Control Plan to reduce soil loss, erosion, and sediment transport during all Project phases.<br>• Develop and implement a Soil Management Plan and Reclamation and Closure Plan that incorporates soil salvage strategies, soil handling requirements, progressive reclamation measures, and targeted end land-use objectives. |

| Component | Potential Effects | Example Management Approach |
|---|---|---|
| **Physical Environment *(cont'd)*** | | |
| Groundwater | • Open pit dewatering may lower groundwater levels and affect nearby wetlands, streams, springs, and other groundwater-dependent features.<br>• Mining and mine waste facilities could affect groundwater quality if not properly managed.<br>• Seepage from the tailings and water management facility could affect groundwater quality over the long term.<br>• Project activities may change groundwater flow patterns and water quality in some areas.<br>• Long-term management will be required to ensure mine waste is stored safely and does not affect groundwater quality.<br>• Groundwater monitoring will be conducted during operations and after closure to identify and address any potential changes in water quality.<br>• Project water withdrawals will be assessed to understand potential effects on local water resources and other water users. | • Monitor groundwater conditions throughout the life of the Project and adjust management measures as needed.<br>• Use measures to control seepage and protect groundwater quality.<br>• Implement erosion and sediment control measures.<br>• Recycle and reuse water where practical to reduce freshwater withdrawals.<br>• Safely store and handle fuels, chemicals, and hazardous materials to help prevent spills and releases.<br>• Develop and implement a Reclamation and Closure Plan to protect land and water resources after mining.<br>• Continue long-term monitoring after closure to confirm groundwater and surface water remain protected. |

| Component | Potential Effects | Example Management Approach |
|---|---|---|
| **Physical Environment *(cont'd)*** | | |
| Hydrology and Surface Water Quality | • Project activities may affect water quality in nearby streams and waterbodies.<br>• Changes to drainage patterns and water use may affect stream flows and aquatic habitat.<br>• Mine waste and tailings could affect water quality if not properly managed.<br>• Water diversion and management structures will be used to protect natural watercourses.<br>• Accidental spills of fuel, chemicals, or other materials could affect nearby waterbodies if not properly prevented and managed. | • Manage water throughout the life of the Project to protect water quality and aquatic habitats.<br>• Design the Project to reduce contact water and support long-term water management after closure.<br>• Use water diversion, collection, treatment, and storage systems to manage site water.<br>• Safely manage mine waste and tailings to help protect surface water and groundwater quality.<br>• Test and monitor mine materials to help identify and manage potential water quality risks.<br>• Safely store and handle fuels, chemicals, and other hazardous materials to help prevent spills.<br>• Monitor surface water and groundwater throughout the life of the Project and after closure.<br>• Develop and implement Closure and Reclamation Plans to support long-term protection of water resources.<br>• Update management measures as needed based on monitoring results and new information. |

| Component | Potential Effects | Example Management Approach |
|---|---|---|
| **Biological Environment** | | |
| Fish and Fish Habitat / Aquatic Resources | • Project activities may affect fish habitat in nearby streams and watercourses.<br>• Changes to water quality or stream flows could affect fish, aquatic insects, and other aquatic species.<br>• Construction activities may increase sediment in streams if not properly managed.<br>• Project activities could affect species of conservation concern and fish populations that are important to First Nations.<br>• Changes to aquatic habitat may affect fish spawning, rearing, feeding, and movement.<br>• Potential effects on aquatic ecosystems will be assessed throughout the watershed. | • Design the Project to avoid or reduce effects on fish habitat where possible.<br>• Minimize disturbance to streams, wetlands, and other aquatic habitats.<br>• Use fish-friendly stream crossings, water intakes, and erosion control measures.<br>• Manage water quality to help protect fish and aquatic ecosystems.<br>• Work with First Nations to develop habitat restoration, enhancement, and offsetting measures where needed.<br>• Monitor fish, fish habitat, and water quality to evaluate the effectiveness of mitigation measures.<br>• Update management and mitigation measures as needed based on monitoring results. |
| Vegetation and Ecosystems | **Changes to Vegetation and Ecosystems:**<br>• Loss of vegetation and ecosystems from land clearing, infrastructure development, and waste storage will result in permanent and temporary disturbance of the Project footprint.<br>• Loss and fragmentation of wetlands and riparian vegetation.<br>• Disturbance of whitebark pine.<br>**Changes to Vegetation Quality:**<br>• Dust deposition from mine operations onto vegetation.<br>• Introduction of invasive plant species via construction, disturbance, and soil movement.<br>• Changes in vegetation cover may alter habitat connectivity and create edge effects. | • Avoid or reduce impacts on sensitive ecosystems and plant species where possible.<br>• Minimize vegetation clearing and disturbed areas during construction and operations.<br>• Protect wetlands, riparian areas, and other important habitats.<br>• Manage and prevent the spread of invasive plant species.<br>• Restore disturbed areas as work progresses where practical.<br>• Preserve and reuse soils to support successful reclamation.<br>• Work with First Nations on habitat restoration and stewardship initiatives.<br>• Develop and implement Reclamation and Closure Plans to support long-term ecosystem recovery.<br>• Manage dust and runoff to help protect vegetation and ecosystems.<br>• Monitor vegetation and ecosystem conditions and adjust management measures as needed. |

| Component | Potential Effects | Example Management Approach |
|---|---|---|
| **Biological Environment *(cont'd)*** | | |
| Wildlife and Wildlife Habitat | • Project activities may remove or alter wildlife habitat within the Project footprint.<br>• Roads, transmission lines, noise, lighting, and other Project activities may affect wildlife movement and habitat use.<br>• Species of conservation concern, including caribou, grizzly bear, wolverine, bats, amphibians, and some bird species, may be affected by Project activities.<br>• Project activities may affect wildlife that are important to First Nations, including caribou, moose, grizzly bear, marten, and lynx.<br>• Increased road traffic may increase the risk of wildlife-vehicle collisions.<br>• New or improved access routes may increase human access to previously remote areas, which could affect wildlife.<br>• Dust, water quality changes, and other Project emissions may affect wildlife health and habitat quality.<br>• Wildlife and wildlife habitat will be monitored throughout the life of the Project and after closure. | • Minimize habitat loss and disturbance by using existing disturbed areas where practical.<br>• Restore disturbed areas during operations and after closure to support wildlife habitat recovery.<br>• Work with First Nations to develop wildlife management and habitat stewardship initiatives.<br>• Reduce the risk of wildlife interactions through waste management, worker awareness programs, and site access controls.<br>• Reduce wildlife-vehicle collisions through traffic management measures.<br>• Use lighting and other design measures to reduce disturbance to wildlife.<br>• Schedule activities to avoid sensitive periods such as nesting, breeding, and denning seasons where practical.<br>• Monitor wildlife and wildlife habitat throughout the life of the Project and adjust management measures as needed.<br>• Develop and implement Reclamation and Closure Plans that support long-term wildlife habitat recovery. |

| Component | Potential Effects | Example Management Approach |
|---|---|---|
| **Social, Health, and Economic Environment** | | |
| Community Infrastructure and Services / Community Well-Being | • Project activities may increase demand for housing, health care, community services, and local infrastructure.<br>• The Project may create both positive and negative social effects in nearby communities and First Nations.<br>• Changes in population and workforce levels may affect community well-being and local services.<br>• The Project may provide employment, training, business, and economic development opportunities in the region.<br>• The Project may support economic diversification in communities affected by recent forestry sector declines.<br>• Changes to traditional territories may affect cultural continuity, community connections to the land, and quality of life for First Nations.<br>• Increased demand may affect emergency response and public services in nearby communities.<br>• Potential effects on communities, health, and well-being will be assessed throughout the environmental assessment process. | • Work with First Nations, communities, and local organizations to help manage potential effects on community well-being and public services.<br>• Work with local service providers and emergency responders to plan for increased demand during construction and operations.<br>• Consider how Project effects and benefits may be experienced differently by different groups of people.<br>• Provide workforce training that promotes safety, respect, and positive community relationships.<br>• Implement measures to help reduce the risk of gender-based violence and other adverse social effects.<br>• Support local and First Nation employment, training, and business opportunities.<br>• Provide employee health, wellness, and support programs.<br>• Work with First Nations and communities on closure and reclamation planning.<br>• Develop plans to support workers and communities during mine closure.<br>• Implement traffic management measures to support community safety.<br>• Monitor community effects and adjust management measures as needed. |

| Component | Potential Effects | Example Management Approach |
|---|---|---|
| **Social, Health, and Economic Environment *(cont'd)*** | | |
| Human Health | • Dust, noise, traffic, and other Project activities may affect the health and well-being.<br>• Changes to air quality, water quality, and traditional foods may affect human health if not properly managed.<br>• Increased traffic may increase the risk of vehicle accidents on local and regional roads.<br>• Workforce activities and population changes may affect community well-being and quality of life.<br>• Changes to traditional lands and resources may affect physical, cultural, mental, and social well-being for First Nations.<br>• Worker health and safety risks will be managed through Project health and safety programs. | • Manage dust and air emissions to help protect the health of workers, communities, and the environment.<br>• Manage runoff and site water to help protect downstream water quality.<br>• Implement traffic management measures to support worker and public safety.<br>• Monitor worker exposure to dust and other airborne contaminants.<br>• Use equipment, work practices, and protective measures to reduce potential health risks.<br>• Monitor and manage potential health effects throughout the life of the Project. |
| Employment and Economy | • The Project will create jobs and business opportunities in the region.<br>• Local and First Nation businesses may benefit from Project spending.<br>• The Project may support economic growth and provide tax revenues.<br>• Changes to the environment and access to the land may affect traditional activities such as hunting, fishing, and gathering.<br>• Communities may be affected when mining ends and jobs decline.<br>• The Project supports Canada's supply of critical minerals needed for a lower-carbon economy. | • Work with First Nations and communities to support local employment, training, and business opportunities.<br>• Support local and First Nation businesses through Project procurement and contracting opportunities.<br>• Provide training and workforce development programs to help build long-term skills and employment opportunities.<br>• Develop plans to support workers and communities when mining ends.<br>• Work with First Nations and communities to develop a Reclamation and Closure Plan that reflects future land-use goals. |

| Component | Potential Effects | Example Management Approach |
|---|---|---|
| **Social, Health, and Economic Environment *(cont'd)*** | | |
| Land Use | • Project activities may affect how people use the land and access natural resources.<br>• Increased traffic and Project-related activities may affect access for First Nations, recreation users, trappers, and other land users.<br>• Changes to the environment may affect traditional activities such as hunting, fishing, trapping, and gathering.<br>• The Project may affect traplines and other existing land uses within the Project Area.<br>• Changes in access or environmental conditions may affect First Nation harvesting and other traditional activities.<br>• The Project may affect First Nation cultural landscapes and traditional land stewardship activities.<br>• Water use by the Project may affect other water users if not properly managed.<br>• Recreational activities and facilities in the area may be affected by Project development. | • Work with First Nations, land users, and communities to understand concerns and support continued access to lands and resources.<br>• Work with First Nations to reduce potential effects on traditional land use and cultural practices.<br>• Consider Traditional Knowledge and traditional land use information in Project planning and environmental management.<br>• Maintain ongoing engagement with First Nations throughout the life of the Project.<br>• Implement measures to reduce potential effects on access, noise, dust, traffic, and water quality.<br>• Support First Nation participation in environmental monitoring, stewardship, employment, training, and business opportunities.<br>• Develop and implement a Reclamation and Closure Plan that reflect future land-use goals.<br>• Support First Nation-led stewardship, monitoring, and land management initiatives. |
| Visual Resources | • Changes to the appearance of the landscape from Project facilities and infrastructure.<br>• Increased nighttime lighting in a currently undeveloped area.<br>• Potential effects on First Nation cultural values, recreation, and scenic views.<br>• Long-term visual changes that may remain after closure despite reclamation efforts. and scenic views. | • Work with First Nations and communities to develop a Reclamation and Closure Plan that reflects future land-use goals. Restore disturbed areas during operations and after closure to support recovery of the landscape.<br>• Design reclamation activities to support long-term ecosystem recovery and future land uses.<br>• Use energy-efficient and wildlife-friendly lighting to reduce light pollution and disturbance. |

| Component | Potential Effects | Example Management Approach |
|---|---|---|
| **Social, Health, and Economic Environment *(cont'd)*** | | |
| Physical and Cultural Heritage | • Ground disturbance may affect archaeological sites, culturally modified trees, and traditional cultural landscapes not yet documented.<br>• The obsidian arrowhead discovered in 2016 at approximately 1,800 m elevation indicates First Nation occupation and movement in the high-elevation Project Area.<br>• First Nations cultural landscapes may be affected by the physical and perceptual transformation of the Project Area.<br>• Changes in accessibility to preferred traditional locations.<br>• Increased industrial access may damage undocumented archaeological finds.<br>• The ability to transfer and practice Traditional Knowledge and cultural protocols may be meaningfully diminished. | • Conduct an Archaeological Impact Assessment.<br>• Develop and implement a Chance Find Procedure.<br>• Develop and implement a Heritage Resources Management Plan.<br>• Engage with First Nations to incorporate Traditional Knowledge, cultural values, and heritage priorities into heritage resource management, mitigation, and monitoring programs. |

| Component | Potential Effects | Example Management Approach |
|---|---|---|
| **Components of the Environment Within the Legislative Authority of the Federal Government** | | |
| Fish and Fish Habitat (*Fisheries Act*) | • Potential effects on fish habitat and aquatic ecosystems.<br>• Changes to water quality and stream flows that may affect fish.<br>• Potential effects on fish species important to First Nations.<br>• Changes to fish movement, spawning, and rearing habitat.<br>• Fish and aquatic habitat monitoring throughout the life of the Project and after closure. | • Design the Project to avoid or reduce impacts on fish habitat where possible.<br>• Minimize disturbance to streams, wetlands, and other aquatic habitats.<br>• Use fish-friendly stream crossings and water management measures.<br>• Manage water quality to help protect fish and aquatic ecosystems.<br>• Work with First Nations on fish habitat restoration and stewardship initiatives.<br>• Monitor fish, fish habitat, and water quality throughout the life of the Project.<br>• Update mitigation and management measures as needed based on monitoring results. mitigation and management measures as needed based on monitoring results. |
| Aquatic Species at Risk (SARA) | • Species of conservation concern, including White Sturgeon, Bull Trout, and some salmon populations, may be affected by Project activities.<br>• Changes to water quality, stream flows, and aquatic habitat that may affect aquatic species.<br>• Potential effects on fish movement, spawning, feeding and rearing habitat. | • Design the Project to avoid or reduce impacts on fish habitat where possible.<br>• Minimize disturbance to streams and other aquatic habitats.<br>• Use fish-friendly stream crossings, water intakes, and erosion control measures.<br>• Manage water quality to help protect fish and aquatic ecosystems.<br>• Work with First Nations on fish habitat protection, restoration, and stewardship initiatives.<br>• Monitor fish, fish habitat, and water quality throughout the life of the Project.<br>• Update management measures as needed based on monitoring results. of the Project. management measures as needed based on monitoring results. |

| Component | Potential Effects | Example Management Approach |
|---|---|---|
| **Components of the Environment Within the Legislative Authority of the Federal Government *(cont'd)*** | | |
| Migratory Birds (*Migratory Birds Convention Act*) | • Project activities may affect migratory birds and their habitat.<br>• Vegetation clearing may disturb active nests if work occurs during the nesting season.<br>• Loss or alteration of habitat may affect migratory birds and other bird species.<br>• Water management facilities may attract waterfowl and other birds.<br>• Bird surveys will be completed to identify sensitive habitats and inform mitigation measures.<br>• Migratory birds and their habitat will be protected in accordance with applicable regulations. | • Reduce habitat disturbance by using existing disturbed areas where practical.<br>• Avoid vegetation clearing during the bird nesting season where possible.<br>• Conduct bird surveys before clearing if work must occur during the nesting season.<br>• Protect active nests through buffers, timing restrictions, or other mitigation measures.<br>• Restore disturbed areas to help re-establish bird habitat.<br>• Monitor migratory birds and their habitat and adjust management measures as needed. |
| **Components of the Environment Within the Legislative Authority of the Federal Government** | | |
| Aeronautical and Marine Navigation | • Potential impact on aeronautical navigation from communication towers, lighting structures, or utility poles and wires associated with the transmission line and mine site infrastructure.<br>• Proposed stream crossings (bridges or culverts) on the Morice Forest Service Road and within the mine access road may affect navigable waters under the *Canadian Navigable Waters Act*; approval from Transport Canada may be required for works in, on, over, under, through, or across navigable waters. | • Install appropriate lighting, markings, and signage to support safe aircraft and transportation operations.<br>• Design Project infrastructure to reduce potential effects on aviation and waterway use.<br>• Work with regulatory agencies and other users to support safe operations.<br>• Obtain required permits and approvals and comply with associated conditions.<br>• Implement procedures to communicate hazards, manage access, and maintain safety during construction and operations. |

| Component | Potential Effects | Example Management Approach |
|---|---|---|
| **Potential Changes Outside of British Columbia and Canada** | | |
| Potential Changes Outside BC Within Canada | • No material adverse effects are anticipated in other Canadian provinces or territories.<br>• GHG emissions from Project operations contribute to national GHG inventories. | • N/A |
| Potential Changes on Federal Lands | • No federal lands are anticipated to be directly affected by the Project footprint. Effects on fish and fish habitat downstream of the Project in federally managed waterways (*Fisheries Act* jurisdiction) are addressed under the federal components section above. | • N/A |
| Potential Changes Outside Canada | • No potential effects are anticipated outside Canada.<br>• The Morice-Skeena salmon system supports Pacific Salmon Treaty, transboundary implications will be considered in the cumulative effects assessment. | • N/A |

### 4.3.2 Potential Changes to the Environment Outside of British Columbia and Canada

The Project is not expected to cause environmental effects outside British Columbia or Canada. Copper and molybdenum concentrates produced at the mine would be transported from the mine site by a third-party to a rail load-out facility and/or port facility, likely for export and further processing outside Canada.

The Project is located within the Skeena River watershed, which supports salmon populations that are managed under the Pacific Salmon Treaty between Canada and the United States. Potential effects on fish and fish habitat will be assessed during the environmental assessment, and mitigation measures will be developed to avoid or reduce effects; however, at this early stage of the Project, effects on salmon populations of transboundary importance are not anticipated.

### 4.3.3 Potential Cumulative Effects

The environmental assessment will include a cumulative effects assessment that considers how the Project may interact with other past, existing, and reasonably foreseeable developments and activities in the region. These may include forestry, transportation and utility corridors, mining projects, regional infrastructure, wildlife recovery initiatives, and climate change.

The cumulative effects assessment will consider potential combined effects on water, fish and aquatic habitat, wildlife and habitat, land and resource use, First Nation interests, communities, health, and regional economic conditions. The assessment will identify appropriate mitigation and management measures where required.

Examples of developments and activities that may be considered include the Coastal GasLink Pipeline, BC Hydro linear infrastructure, the Huckleberry Mine, the Blackwater Gold Mine, and other mineral exploration and development activities.

# 5. Closing

This Summary provides an accessible overview of the Berg Copper Project based on the information available in the Initial Project Description. The Project design, environmental baseline information, potential effects, mitigation measures, and engagement activities will continue to be refined as the Project advances.

The Initial Project Description and this Summary are intended to support Early Engagement with First Nations, government agencies, local governments, stakeholders, and the public. During Early Engagement, participants will have opportunities to review the Project, identify interests and concerns, provide information, and identify issues and information needs that should be considered during the environmental assessment.

Feedback received through Early Engagement, together with ongoing engineering, environmental studies, Traditional Knowledge and engagement, will inform further Project design and the environmental assessment. The information gathered will also inform preparation of subsequent assessment documentation and the more detailed Project description and assessment materials that will be submitted as the Project advances.

Surge is committed to continuing engagement throughout the environmental assessment process and to considering feedback received through engagement in Project planning, effects assessment, mitigation, monitoring, and closure planning.

# 6. References

## Legislation

*Canadian Navigable Waters Act*, RSC 1985, c N-22.

*Environmental Assessment Act*, SBC 2018, c 51.

*Fisheries Act,* RSC 1985, c F-14.

*Impact Assessment Act*, SC 2019, c 28, s 1.

*Migratory Birds Convention Act*, SC 1994, c 22.

Information and Management of Time Limits Regulations, SOR/2019-283.

Physical Activities Regulations, SOR/2019-285.

Reviewable Projects Regulation, BC Reg 237/2025.

## Other Sources

Environment and Climate Change Canada (ECCC). 2020. *Strategic Assessment of Climate Change*. Accessed August 2026. https://www.canada.ca/en/services/environment/conservation/assessments/strategic-assessments/climate-change.html?gad_source=1.

Impact Assessment Agency of Canada (IAAC). 2026. *Guide to preparing project descriptions*. Accessed August 2026. https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/guide-preparing-project-description-detailed-project-description.html.