

# Wildlife Management Plan

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Cassiar Gold Corp.

Keefeer Ecological Services Ltd.

6/1/2022



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**Mitigation Measures for Exploration Activities:**

See pg. 40 for map of sensitive wildlife zones – following measures are **required** within these zones.

- |   |  |
|---|--|
| ✓ | A stand-down policy is required if wildlife is observed within close proximity to active exploration areas. Do not resume work until 10 minutes after wildlife have left the area.                     |
| ✓ | All encounters (including observations) of wildlife must be reported or recorded in the wildlife sighting log.   |
| ✓ | Noise barriers used, when possible, to muffle sound disturbances.  |
| ✓ | Light barriers used at night to shield unnecessary indirect light from surrounding environment.  |
| ✓ | Conserve and replace disturbed topsoil and create the smallest disturbance to slopes and vegetation as safe and practical.   |
| ✓ | Attractants will not be present on site for prolonged periods. Pack out what was packed in concerning food and associated garbage with nothing left on-site, unless secured in a bear-proof container. |
| ✓ | Minimize disturbance by utilizing existing disturbances wherever possible.   |

For more detail on mitigation measures, consult Section 3.3 (Site-Specific Mitigation Measures) on page 39 and Section 3.4 (Species-specific Mitigation and Management Measures) on page 46.

## Table of Contents

|  |    |
|--|----|
| 1. Purpose/Objectives and Scope .....                                      | 5  |
| 1.1. Authorship .....  | 5  |
| 1.2. Submitted To.....   | 6  |
| 2. Project Description and Environmental Setting.....                      | 6  |
| 2.1. Ecology .....   | 6  |
| 3. Wildlife Management .....   | 9  |
| 3.1. Baseline and Existing Data .....                                      | 9  |
| 3.1.1. Species of Concern .....  | 9  |
| 3.1.2. Wildlife Habitat .....  | 14 |
| 3.1.3. Potential Effects to Wildlife and Wildlife Habitat .....            | 20 |
| 3.1.4. Field Surveys .....   | 21 |
| 3.1.5. Wildlife Monitoring Results .....                                   | 25 |
| 3.2. Best Management Practices (BMPs).....                                 | 38 |
| 3.3. Site-Specific Mitigation Measures .....                               | 39 |
| 3.3.1. First Nation Input and Use of Traditional Ecological Knowledge..... | 41 |
| 3.3.2. Pre-Clearing Surveys .....  | 41 |
| 3.3.3. Using Existing Disturbances .....                                   | 41 |
| 3.3.4. Traffic and Drill Management .....                                  | 41 |
| 3.3.5. Noise Management.....   | 43 |
| 3.3.6. Light Management .....  | 43 |
| 3.3.7. Waste/Attractant Management .....                                   | 43 |
| 3.3.8. No Hunting/Fishing/Shooting Policy .....                            | 44 |
| 3.3.9. Wildlife Sightings and Encounters .....                             | 44 |
| 3.3.10. Firearm Policy.....  | 45 |
| 3.4. Species-specific Mitigation and Management Measures .....             | 46 |
| 3.4.1. Species-Specific Timing Windows .....                               | 46 |
| 3.4.2. Species-Specific Mitigation Measures .....                          | 50 |
| 4. Plan Implementation .....   | 55 |
| 4.1. Roles and Responsibilities.....                                       | 55 |

|        |                                    |    |
|--------|------------------------------------|----|
| 4.1.1. | Mine Manager.....                  | 55 |
| 4.1.2. | Environmental Consultant .....     | 56 |
| 4.1.3. | Qualified Persons (QP).....        | 56 |
| 4.1.4. | Employees and Contractors .....    | 56 |
| 4.2.   | Training .....                     | 57 |
| 4.3.   | Monitoring and Maintenance .....   | 57 |
| 4.3.1. | Monitoring Results.....            | 58 |
| 4.4.   | Trigger Action Response Plan ..... | 58 |
| 4.5.   | Record Keeping .....               | 60 |
| 5.     | Adaptive Management .....          | 60 |
| 6.     | Reporting and Documentation .....  | 60 |
| 7.     | References .....                   | 62 |

## Tables

|              |   |    |
|--------------|---|----|
| Table 3.1-1. | Potential effects of Project activities on wildlife and wildlife habitat. ....                    | 20 |
| Table 3.1-2. | Camera locations with corresponding BEC units and dates deployed. ....                            | 24 |
| Table 3.1-3. | Species sightings per 10 camera days at each camera deployed. ....                                | 26 |
| Table 3.4-1. | Summary of site-specific and species-specific timing windows. ....                                | 46 |
| Table 3.4-2. | Site-specific and species-specific timing windows (BC MFLNRO, 2014).....                          | 49 |
| Table 4.4-1. | Trigger Action Response Plan (TARP) for wildlife management throughout the Project area.<br>..... | 59 |

## Figures



|   |    |
|---|----|
| Figure 2-1 Biogeoclimatic (BEC) zones overlapping the Project. ....   | 8  |
| Figure 3-1. Woodland Caribou herd locations in relation to the Project. ....  | 11 |
| Figure 3-2. Proposed and approved Ungulate Winter Ranges (UWR) in relation to the Project. ....   | 16 |
| Figure 3-3. High-value mountain ungulate habitat in relation to the Project. ....   | 17 |
| Figure 3-4. High-value Moose habitat in relation to the Project. ....   | 18 |
| Figure 3-5. High-value Grizzly Bear habitat in relation to the Project. ....  | 19 |
| Figure 3-6. Locations of wildlife cameras deployed during 2021 field work. ....   | 23 |
| Figure 3-7. Overall mammal occurrences across the Project area during the study period in 2021. Red points are sightings from camera locations and orange points are from incidental sightings (CGC and KES) and sign surveys (KES). .... | 27 |
| Figure 3-8. Moose occurrences across the Project area between June and October 2021. ....   | 29 |
| Figure 3-9. Grizzly Bear occurrences across the Project area between October and June 2021. ....  | 31 |
| Figure 3-10. Wolf occurrences across the Project area between October and June 2021. ....   | 33 |
| Figure 3-11. Lynx occurrences across the Project area between June and October 2021. ....   | 35 |
| Figure 3-12. Caribou occurrences across the Project area between June and October 2021. ....  | 37 |
| Figure 3-13. Sensitive Wildlife Zones: areas of high mammal density buffered by 1 km where extra cautionary measures should be taken during development. ....   | 40 |

## 1. Purpose/Objectives and Scope

The intent of this plan is to ensure that the work conducted by Cassiar Gold Corp. (CGC) is carried out in such a way that it will not cause unnecessary negative impacts to wildlife in the area through the proposed exploration activities associated with the Cassiar Gold Project (the Project). This plan provides strategies and mitigation measures for the ongoing management of wildlife and their habitat in the Project area, including the protection or avoidance of wildlife habitat features and measures to reduce or avoid human-wildlife conflict, and is based on the guiding principles outlined in the *Species at Risk Act*, *Migratory Birds Convention Act*, the *Wildlife Act*, and the *Forest and Range Practices Act* in addition to a number of Best Management Practices (BMPs) for specific species (e.g., amphibians and reptiles, migratory birds).

The plan is designed to fulfill the guidance provided by provincial and federal statutes, BMPs, and the information requirements for the *Mines Act* permits. The plan is designed to provide environmentally responsible, realistic, and operationally feasible guidance for wildlife management.

The performance objectives of the plan are to:

- Reduce impacts to species at risk and other wildlife species and their habitat in the Project area through careful planning of disturbance footprint area, clearing activities, and their overall contribution to cumulative effects, including habitat changes, fragmentation and density of linear features;
- Minimize wildlife encounters by enforcing reduced speed zones across the Project area, and at key wildlife crossing areas as identified in the wildlife baseline studies for the Project, and by implementing a zero-tolerance policy for harassing or disturbing wildlife;
- Minimize wildlife sensory disturbances including noise, attractants and light;
- Minimize the risk of wildlife becoming habituated to humans through proper waste management and deterrents; and,
- Standardize reporting of all wildlife sightings.

### 1.1. Authorship

| Name                | Title                   | Organization                    |
|---------------------|-------------------------|---------------------------------|
| Jessica Lowey, PAg  | Environmental Scientist | Keefer Ecological Services Ltd. |
| Brynlee Thomas, BSc | Wildlife Biologist      | Keefer Ecological Services Ltd. |
| Emma Cooke, BSc     | Environmental Scientist | Keefer Ecological Services Ltd. |
| Steve Ross, PhD     | Wildlife Biologist      | Keefer Ecological Services Ltd. |
| Michael Keefer, PAg | Senior Ecologist        | Keefer Ecological Services Ltd. |

## 1.2.Submitted To

| Name                     | Title           | Organization       |
|--------------------------|-----------------|--------------------|
| Kaesy Gladwin, PGeo      | Mine Manager    | Cassiar Gold Corp. |
| Vernon Shein             | VP Exploration  | Cassiar Gold Corp. |
| Kevin Cymbalisky, P.Eng. | Project Manager | Cassiar Gold Corp. |

## 2. Project Description and Environmental Setting

Details regarding company information, permitting, project location and description, and environmental setting can be found in section 2 and 3 of the Environmental Management System.

### 2.1.Ecology

The Table Mountain and Taurus Mine sites exist predominantly within the SWBun BGC subzone, with the BAFAun subzone above (alpine), and the BWBSdk subzone below (valley bottom). Low-lying valley bottom vegetation consists of black spruce, Labrador tea (*Ledum groenlandicum*), lingonberry (*Vaccinium vitis-idaea*), horsetail species (*Equisetum* spp.) and a well-developed moss layer of step moss (*Hylocomium splendens*), red-stemmed feathermoss (*Pleurozium schreberi*) and sphagnum species (*Sphagnum* spp.). Upland valley bottom vegetation consists of forests dominated by white spruce, black spruce and lodgepole pine with a lush shrub-dominated understory consisting of highbush cranberry (*Viburnum edule*), soopolallie (*Shepherdia canadensis*), Labrador tea and grey-leaved willow (*Salix glauca*), thinning to willow species (grey-leaved willow) and dwarf shrubs (scrub birch, crowberry (*Empetrum nigrum*), lingonberry) intermixed with alpine fescue (*Festuca altaica*) meadows at 1,450 m to 1,500 m.

The BWBS zone is rich in wildlife diversity and serves as important winter range for ungulates. Moose (*Alces alces*), woodland caribou (*Rangifer tarandus*), and mule deer (*Odocoileus hemionus*) are distributed throughout the subzone. Stone's sheep (*Ovis dalli stonei*) and mountain goat (*Oreamnos americanus*) occur sporadically, wherever suitable rugged terrain exists. Large carnivores such as black bear (*Ursus americanus*) and grey wolf (*Canis lupus*) are widespread and abundant, while grizzly bears (*Ursus arctos*) are common in the mountainous regions. The diverse forests are also very productive habitats for birds (including warblers, thrushes, vireos, and flycatchers), and small mammals (including bats).

The climate of the SWB zone has a profound effect on wildlife, especially those that migrate. Moose and caribou are the most abundant and widespread ungulates found in the SWB, particularly in summer. Stone's sheep are found where steep south-facing grasslands associated with rugged terrain occur. Both grizzly bear and black bear are found here, although grizzly bear is more common. Small mammals include marten (*Martes americana*), fisher (*Pekania pennanti*) and wolverine (*Gulo gulo*). No reptiles exist in this zone, while western toad (*Anaxyrus boreas*), wood frogs (*Lithobates sylvaticus*) and Columbia spotted frogs (*Rana luteiventris*) are the only amphibians.

The BAFA zone is typically used exclusively in summer, during which time a variety of wildlife use the alpine for forage, breeding, and to escape predators. Species likely to occur in this zone include woodland caribou, Stone's sheep, mountain goat, grizzly bear, gray wolf, furbearers, other small mammals, amphibians, birds, and bats.



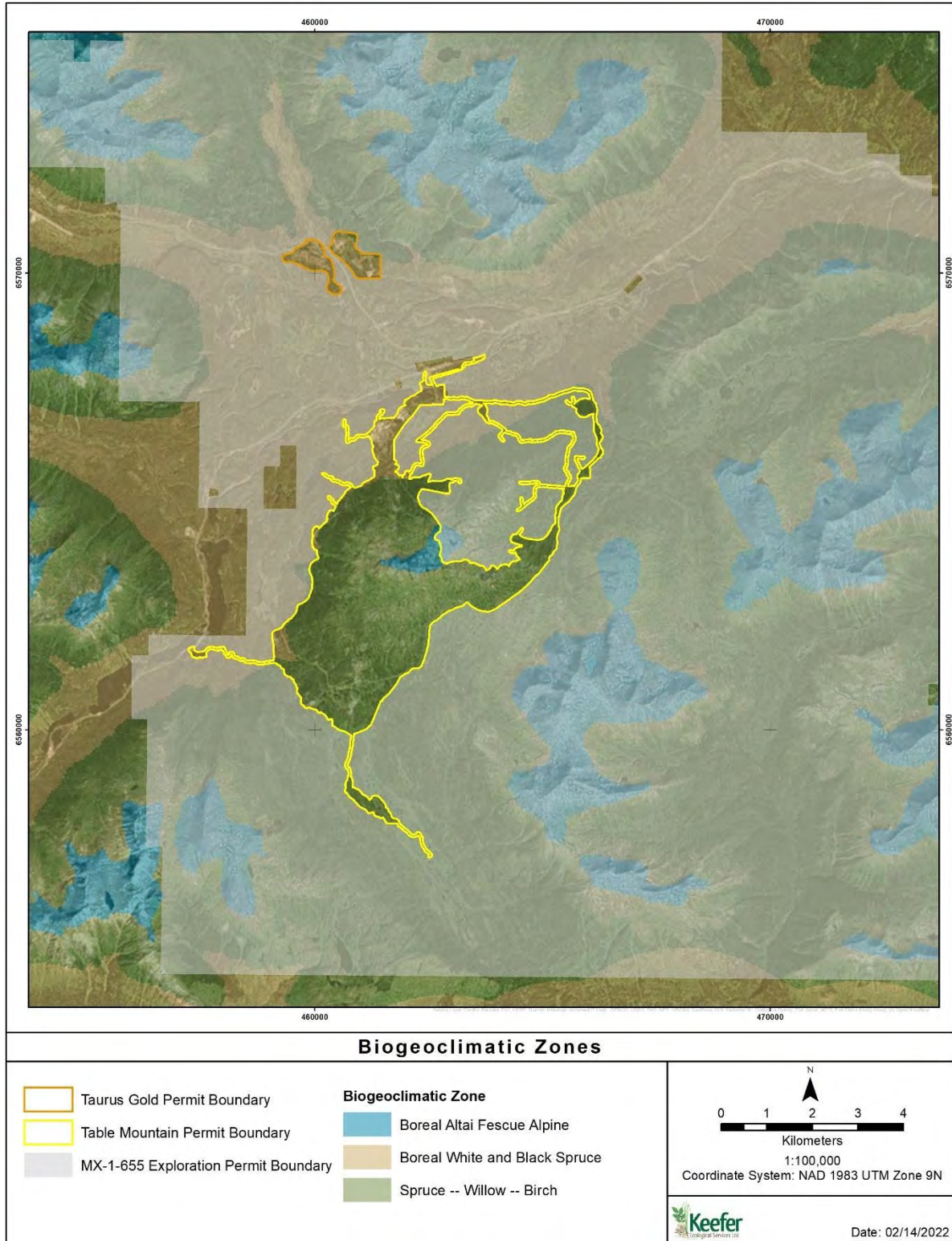


Figure 2-1 Biogeoclimatic (BEC) zones overlapping the Project.

No fish or aquatic habitat surveys have been completed for the Table Mountain Mine site to date; however, fish surveys were completed in 1995 for the Taurus Mine site (M-149). The 1995 surveys found that Dolly Varden (*Salvelinus malma*), burbot (*Lota lota*), mountain whitefish (*Prosopium williamsoni*), Arctic grayling (*Thymallus acticus*) and slimy sculpin (*Cottus cognatus*) inhabited McDame Creek. Nearby watercourses (Troutline Creek and McDame Creek) are known to contain other fish species, including bull trout (*Salvelinus confluentus*), lake trout (*Salvelinus namaycush*) and northern pike (*Esox lucius*; Fresh Water Atlas, BC Data Catalogue). None of the prominent watercourses draining the Table Mountain Mine site (see Section 2.1.4) have publicly available fish data, except for slimy sculpin in Mystery Lake, which Erickson Creek drains into. A fish barrier (beaver dam) exists between Mystery Lake and Erickson Creek, although this type of obstacle to fish passage may not be permanent.

### 3. Wildlife Management

The objective of managing wildlife and their habitats in the Project area is to minimize potential effects associated with the ongoing and proposed exploration activities on MX-1-655, M-127, and M-149 permits. Management priorities will focus on reducing the risk of direct and indirect wildlife mortality, mitigating the potential for human-wildlife conflicts, and minimizing the level of disturbance to wildlife and their habitat as a result of activities and infrastructure related to the Project.

Minimizing disturbance will prioritize staged management measures to reduce the impact to sensitive areas or periods. These measures include avoiding sensitive timing windows, conducting pre-clearing surveys, reducing sensory disturbances and attractants, and/or reducing or limiting on-site activities to include only essential activities. Many of the management measures for achieving protection of wildlife and their habitats focus on the at-risk species and species occurring within the region and Project area.

The management and monitoring of wildlife and their habitats will be adaptive, such that the protocols and results will be reviewed and updated based on site-specific outcomes and on current best management practices and methods.

#### 3.1. Baseline and Existing Data

##### 3.1.1. Species of Concern

A variety of species of concern have the potential to occur in the Project area, many of which are explicitly included in this plan. These species include woodland caribou, Stone's sheep, grizzly bear, wolverine, fisher, migratory birds, gyrfalcon (*Falco rusticolus*), northern myotis (*Myotis lucifugus*), little brown bat (*Myotis lucifugus*), and western toad. Workers will be encouraged to report any incidental observations of these species, although CGC recognizes the potential for misidentification. The Mine Manager, with help from Keefer Ecological Services (KES), will also contribute to the data gathered on these species and their habitat, and the training of workers in the awareness of species at risk.

Assessments for critical habitat for these species will be completed through the ongoing baseline studies for the Project.

#### Woodland Caribou

The Project area is situated within northern mountain woodland caribou habitat. Woodland caribou are a species of Special Concern under the *Species at Risk Act* (SARA; COSEWIC, 2002), and the northern mountain ecotype of woodland caribou are a species of Special Concern (i.e., Blue Listed; S2S3 Provincial Status Summary; BC Conservation Data Center (CDC), 2017a). They are included in the Provincial Identified Wildlife Management Strategy (Chichowski, Kinley & Churchill, 2004). The Project footprint is within the Horseranch subpopulation and in close proximity to the Level-Kawdy and Little Rancheria caribou herds (Figure 3-1). The last census estimate that included the Little Rancheria and Horseranch herds took place in 1999, and estimated 400-800 caribou individuals (Herd, n.d.; BC CDC, 2017). The current population trend is unknown; however, a draft caribou herd plan for Horseranch subpopulation suggests the population may be increasing based on a partially complete survey (COSEWIC, 2014; Herd, n.d.).

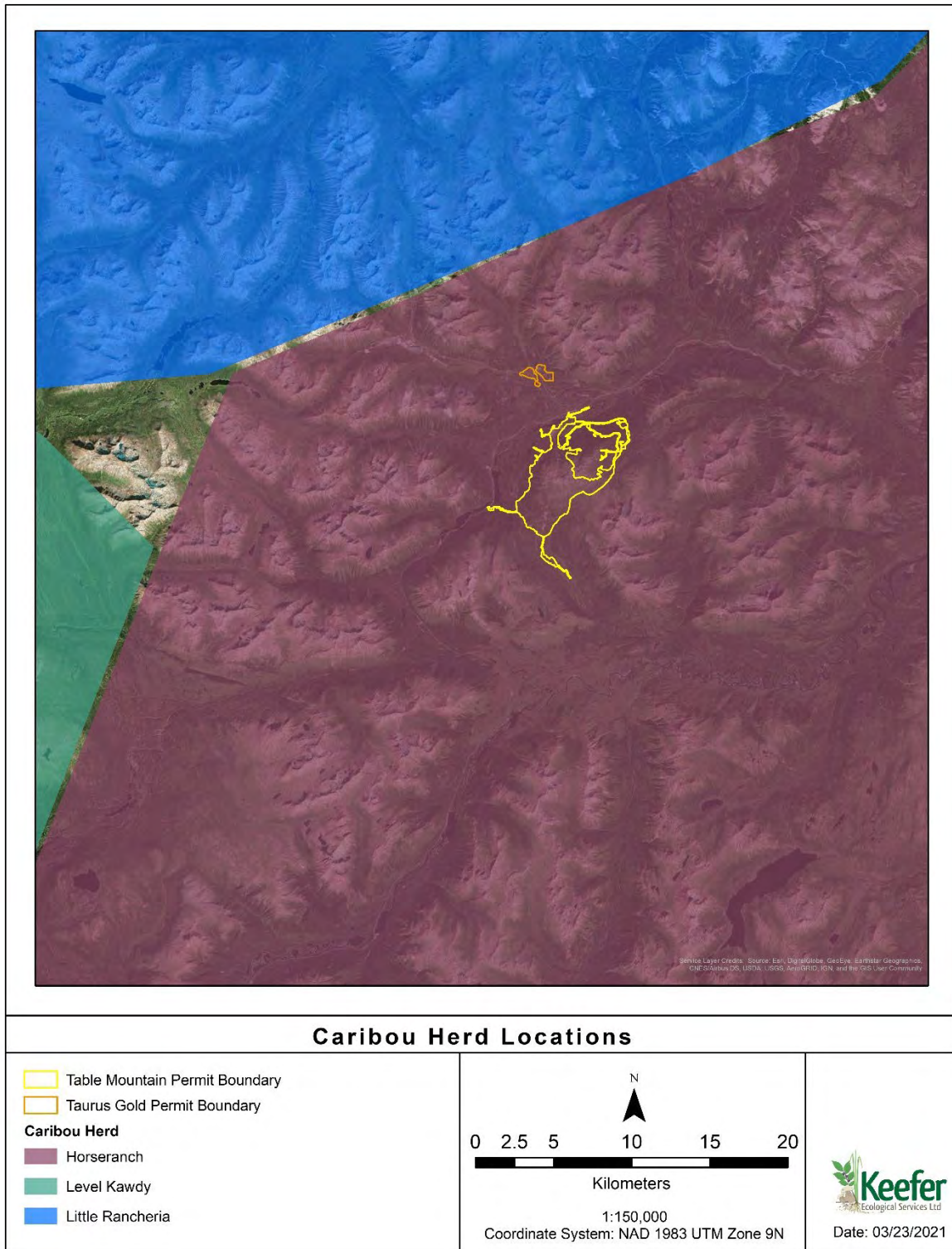


Figure 3-1. Woodland Caribou herd locations in relation to the Project.

### Stone's Sheep

Stone's sheep, a subspecies of thornhorn sheep (*Ovis dalli*), are vulnerable to extirpation or extinction in BC (i.e., Blue-listed; Provincial Conservation Status: S3; BC Conservation Data Centre, 2017b). Threats to Stone's sheep include climate change impacts to icing and heavy snowfall events, fire suppression leading to forest encroachment and reduced forage availability, and disease transmission from domestic goats and sheep (BC CDC, 2017b).

### Mountain Goat

Mountain goats are species of Special Concern in BC; possessing characteristics that make them particularly vulnerable to human activities and natural events (i.e., Blue-Listed; Provincial Conservation Status: S3; BC CDC, 2015a). Mountain goats are species of concern largely due to past population declines and continued habitat loss (particularly winter range), and degradation as a result of land conversion, overgrazing, invasive plant species, and forest encroachment (BC CDC, 2015a).

### Grizzly Bear

The grizzly bear is a species of Special Concern under the *Species at Risk Act* (COSEWIC, 2012a; Government of Canada, 2018; SARA; 2002), and vulnerable to extirpation or extinction in BC (i.e., Blue-listed; Provincial Conservation Status: S3; BC CDC, 2005). As a species of Special Concern, grizzly bears have the potential to become threatened or endangered because of a combination of biological characteristics and identified external threats (Environment Canada, 2007). Factors contributing to grizzly bear vulnerability include small population sizes, habitat loss and degradation, direct mortality (e.g., road mortality, illegal hunting) and indirect mortality (i.e., population fragmentation, loss of gene flow; BC CDC, 2005, COSEWIC, 2012a; Government of Canada, 2018). Grizzly bears are an apex omnivore and are important to ecosystem function (Lamb et al., 2016; Peek et al., 2003). As grizzly bears require large tracts of habitat to maintain population viability, the species is a good indicator of biodiversity and their protection can benefit numerous other species such as wolverine and Canada lynx (Peek et al., 2003). Grizzly bears are protected under the *Forest and Range Practices Act* (FRPA, 2002), which on Crown land enables the designation of Wildlife Habitat Areas (WHAs) and associated management practices (General Wildlife Measures) to protect important grizzly bear habitats as specified in the Accounts and Measures for Managing Identified Wildlife (BC Ministry of Environment, 2019).

### Wolverine

The wolverine is a species of Special Concern under the *Species at Risk Act* (COSEWIC, 2014b; SARA, 2018) and vulnerable to extirpation or extinction in BC (i.e., Blue-listed; Provincial Conservation Status: S3; BC Conservation Data Centre, 2019). The species is of Special Concern due to small population sizes, habitat loss and degradation, road mortality, and persecution (i.e., illegal killing; COSEWIC, 2014b). Wolverine habitat has become increasingly fragmented due to industrial activity (especially in the southern portion of their range), increased motorized access and resulting increases in harvest pressure and loss of ungulate prey (COSEWIC, 2014b). The species is sensitive to human disturbance and requires large areas to maintain viable populations (COSEWIC, 2014b). Wolverines are considered a good indicator species of ecosystem health, due to their dependence on large, connected, and intact

ecosystems (Carroll et al., 2001; COSEWIC, 2014). There is existing concern for wolverine populations in BC due to range contractions, habitat loss (including loss of prey) and fragmentation, loss of connectivity, and historical overharvest (Weir & Lofroth, 2004; Mowat et al., 2020; Ruggiero et al., 2007). Wolverines are included as Identified Wildlife under the *FRPA* (2002).

### Fisher

Fishers are widespread across BC (i.e., Yellow-listed, Provincial Conservation Status: S3; BC CDC, 2015a). However, the species population is small and vulnerable to habitat loss (e.g., logging, hydro-electric development), and trapping in compromised habitat (BC CDC, 2015b). Fishers are included as Identified Wildlife under the *FRPA* (2002).

### Birds

Migratory birds are federally protected under the *Migratory Birds Convention Act* (1994) and the *Wildlife Act* (1996). These regulations provide protection from harm, disturbance, or destruction to the majority of migratory native birds, including nests, eggs and young. Migratory birds are ecologically and economically valuable as they help regulate pest insect and rodent populations affecting agriculture and forestry; act as pollinators in both seed dispersion and flower pollination; contribute to socio-economic activities (i.e., hunting and birdwatching); and contribute to the overall health and biodiversity of aquatic and terrestrial ecosystems (United Nations Environment Programme, 2012).

Raptors are also protected in BC under the *Wildlife Act* (1996). Of the various raptors present in the Skeena region, gyrfalcons are provincially vulnerable to extirpation or extinction in BC (i.e., Blue-listed; Provincial Conservation Status: S3S4B; BC CDC, 1998). Gyrfalcon are identified in the Dease-Liard Sustainable Resource Management Plan (DLSRMP) and provided management direction (MSRM, 2004).

### Bats

At-risk bat species are protected under the *Species at Risk Act* (SARA; Government of Canada, 2002), and protected under the BC *Wildlife Act* from being killed or harassed (Government of BC, 2019). Bat hibernaculum and bat nursery roosts are considered wildlife habitat features (*FRPA*, 2002). Hibernacula often occur in caves, rocks, cliff crevices, or abandoned mines, however only natural occurring bat hibernacula are considered wildlife habitat features (Government of BC, 2018).

The little brown myotis is Endangered under the *Species at Risk Act* (COSEWIC, 2014); however, they are provincially considered secure as they are widespread and abundant in BC (i.e., Yellow-listed; Provincial Conservation Status: S4; BC CDC, 2015b). Across Canada, the survival of little brown myotis is imminently threatened by an invasive fungus (*Pseudogymnoascus destructans*) that causes White-nose Syndrome (WNS; Environment Canada, 2014). With the current rate of expansion of WNS in little brown myotis, it is estimated that the entire Canadian population will be affected within the decade (COSEWIC, 2013).

The northern myotis is also Endangered under the *Species at Risk Act* (COSEWIC, 2014) and a species of Special Concern in BC (i.e., Blue-listed; Provincial Conservation Status: S3S4; BC CDC, 2015c). The

greatest threat to northern myotis populations includes White-nose Syndrome and the loss of mature to old wildlife trees from forest harvesting and pine beetle kills, reducing nursery colonies and day roosts (BC CDC, 2015c; COSEWIC, 2013).

### Western Toad

Western toads are a species of Special Concern under Schedule 1 of the *Species at Risk Act* (2002; COSEWIC, 2012b), and provincially widespread, abundant, and secure in BC (i.e., Yellow-Listed; Provincial Conservation Status: S4; BC CDC, 2016). Western toads are relatively intolerant of habitat fragmentation from resource extraction and road networks (COSEWIC, 2012b).

### 3.1.2. Wildlife Habitat

Wildlife habitat conservation in BC occurs through numerous legislative acts including the *Wildlife Act*, *Park Act*, *Protected Areas of British Columbia Act*, *Ecological Reserve Act*, *Environment and Land Use Act*, *Land Act*, *Forest and Range Practices Act*, and the *Oil and Gas Activities Act* (BC MFLRNORD, 2014). Wildlife Management Areas (WMAs) are areas designated to benefit fish and wildlife species and habitat, in particular habitat for species of species concern, habitat critical for life-cycle phases (e.g., calving, denning, nesting), migration and movement corridors, and habitat required for high species richness (BC MFLRNORD, 2014). There are currently no designated wildlife management areas within the Project area.

The BC *Wildlife Act* (1996) is the primary legislation that is used by government to protect vertebrate animals (excluding fish) from direct harm, except as allowed by regulation (e.g., hunting or trapping). Under the *Wildlife Act*, habitats for endangered or threatened wildlife can be protected as Critical Wildlife Habitats in WMAs. The *Wildlife Act* allows the government to manage access within sensitive ecosystems or areas of high wildlife habitat value for the purpose of wildlife protection and/or management. It also allows the government to authorize management of human activities (e.g., recreational vehicle closures) where it is required to meet species recovery strategies and objectives.

**Wildlife Habitat Features:** Under the *Forest & Range Practices Act* (FRPA), the Government Actions Regulation (GAR) supports decisions that trigger practice requirements for protections of wildlife and wildlife habitat features. Identified wildlife habitat features must not be damaged or rendered ineffective by the persons carrying out the activity. Under the *Wildlife Act*, relevant wildlife habitat features may include:

- A significant mineral lick or wallow
- A nest of:
  - A bald eagle
  - An osprey
  - A great blue heron
  - A category of species at risk that is limited to birds;
- Any other localized feature that the Minister considers to be a wildlife habitat feature.

The **Dease-Liard Sustainable Resource Management Plan (DLSRMP; 2004)** provides resource management direction within the Dease-Liard landscape unit. The Table Mountain and Taurus Mine sites overlap with the DLSRMP. There is currently no land and resource management plan for the DLSRMP area. The DLSRMP provides sustainable resource management direction on a range of resource values, including wildlife and biodiversity (MSRM, 2004). This plan identifies high-value habitat for species that may occur near or within the Project area.

- 1) **Ungulate Winter Ranges (UWRs)** are areas that contain habitat necessary to meet the winter habitat requirements of ungulate species. UWRs are authorized under the GAR and FRPA. The Table Mountain and Taurus Mine sites overlap with both proposed and approved UWRs (Figure 3-2).
- 2) **High-value mountain ungulate winter habitat** includes critical habitat for thinhorn sheep and mountain goats. Portions of the Table Mountain Mine site are within high value thinhorn sheep habitat as identified in the Dease-Liard SRMP (**Figure 3.1-3**). Mountain goats may also occur within the Project areas.
- 3) **High-value moose habitat** is identified in the DLSRMP. Neither the Table Mountain nor Taurus Mine sites overlap with high value moose habitat as identified in the DLSRMP (Figure 3-4). However, both sites are in close proximity to high-value moose habitat. Furthermore, moose have been identified throughout the Project areas on numerous occasions.
- 4) **High-value caribou habitat** is identified in the DLSRMP. The Projects are situated within woodland caribou (*Rangifer tarandus*) habitat. The Project footprints are within the Horseranch subpopulation and near the Level-Kawdy and Little Rancheria caribou herds (Figure 3-1). Neither site occurs within core caribou winter range, extended caribou winter range, or migration corridors as identified in the DLSRMP.
- 5) **High-value grizzly bear habitat** is identified in the DLSRMP and overlaps with both the Table Mountain and Taurus Mine sites (Figure 3-5). The BC Grizzly Bear Conservation Strategy (BC Ministry of Environment, 1995) provides guidance to maintain viable grizzly bear populations throughout the province. As part of the strategy, grizzly bear distribution throughout the province was divided into 56 Grizzly Bear Population Units (GBPUs) that delineate individual populations. The delineation of GBPUs was based on physical features that act as boundaries to grizzly bear movement on the landscape. Both mine sites are located within the Cassiar GBPU, which includes the Wildlife Management Units (WMUs) 6-23, 6-24 and 6-25. Currently, the conservation concern rank for the Cassiar BGPU is considered very low, and the most recent (2018) population estimate is 611 individuals, with a density estimate of 17.1 bears/ 1,000 km<sup>2</sup> (MFLNRORD, 2020).



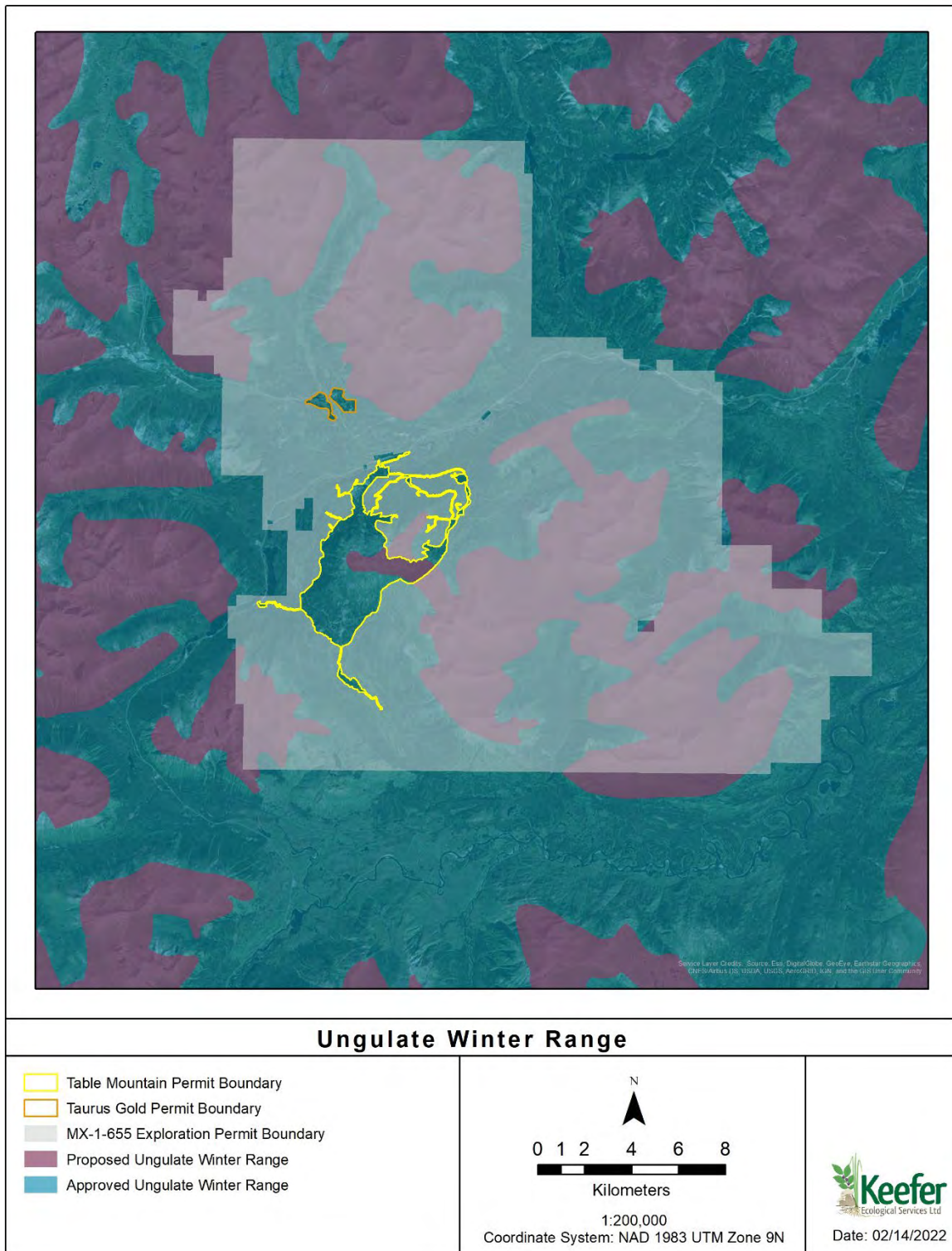


Figure 3-2. Proposed and approved Ungulate Winter Ranges (UWR) in relation to the Project.

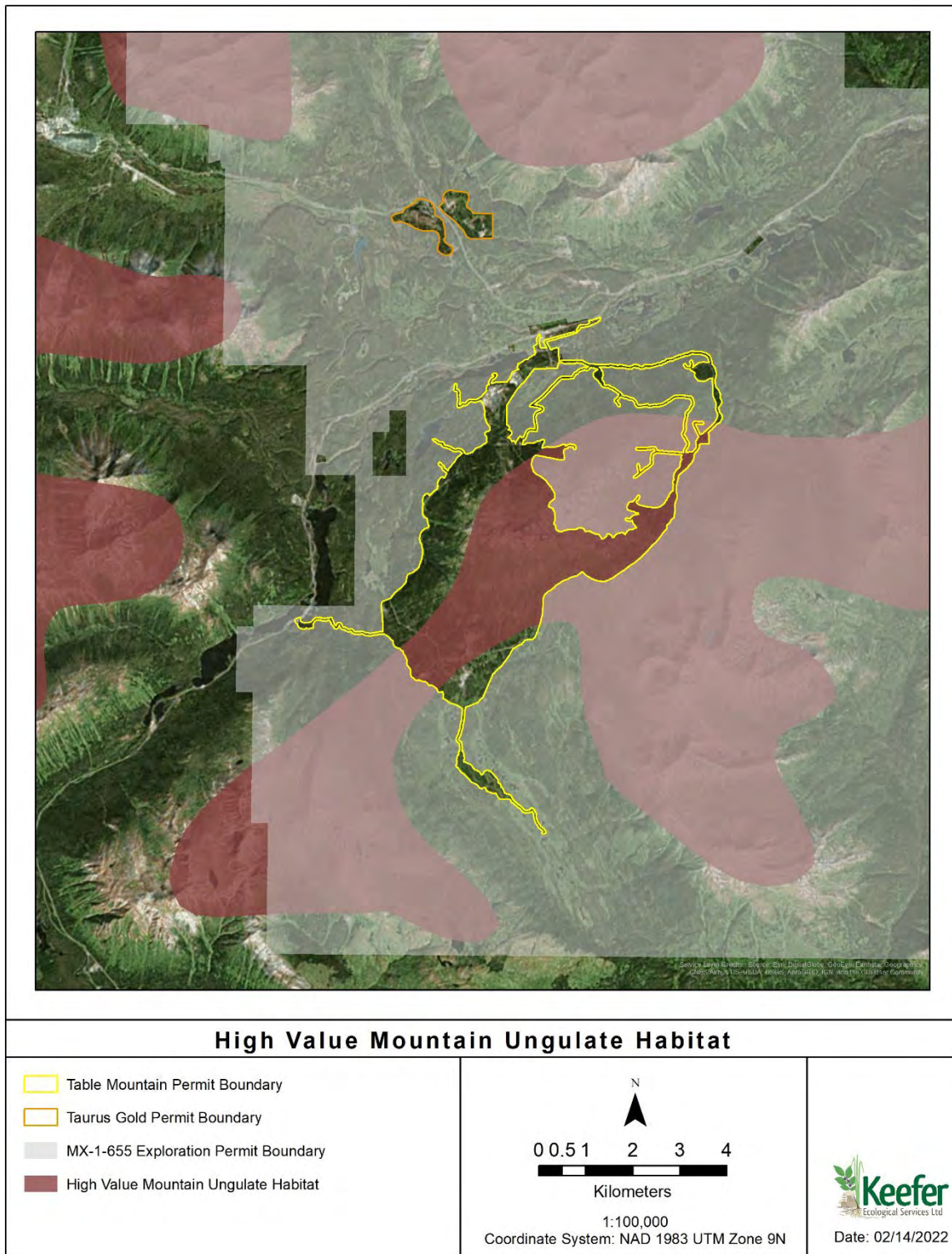


Figure 3-3. High-value mountain ungulate habitat in relation to the Project.

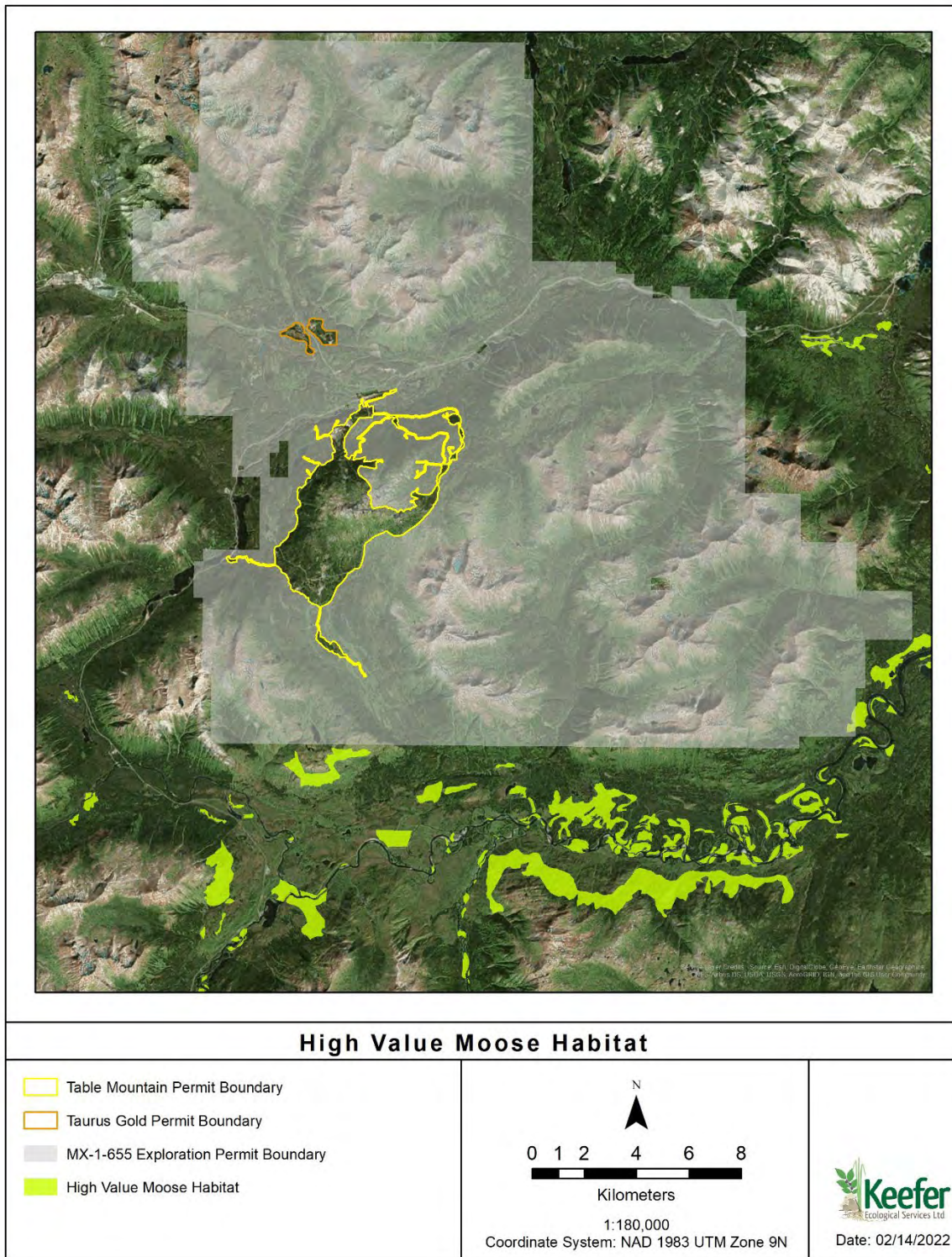


Figure 3-4. High-value Moose habitat in relation to the Project.

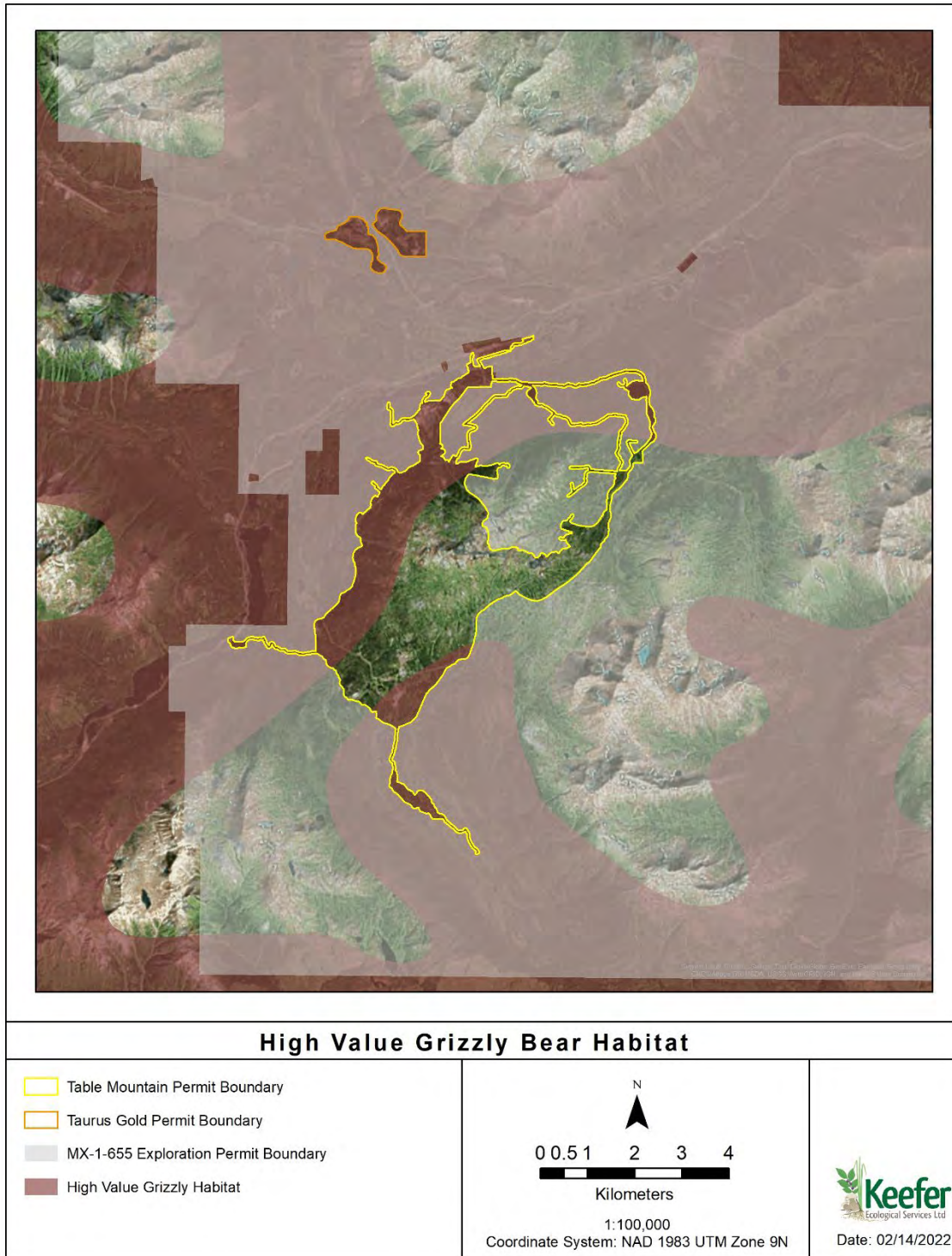


Figure 3-5. High-value Grizzly Bear habitat in relation to the Project.

### 3.1.3. Potential Effects to Wildlife and Wildlife Habitat

Potential effects on wildlife occurrence, population abundance, distribution and connectivity may be associated with Project activities. Given the hierarchical nature of biological systems, potential effects on wildlife are discussed with respect to changes at both the individual level (i.e., behaviour, physiological condition, survival) and the population level (i.e., population size, distribution, mortality rate). Since potential effects at the population level are of greater importance than at the individual level, the assessment primarily focuses on the effects to local populations.

Table 3.1-1. Potential effects of Project activities on wildlife and wildlife habitat.

| Potential Effect             | Impact to Wildlife and Wildlife Habitat   |
|------------------------------|---|
| Habitat Loss and Degradation | <p>Project components and activities have the potential to cause habitat loss and degradation for wildlife. This may include the complete loss or reduction in value of a particular set of resources that the specific habitat provides, such as forage, security, thermal, reproduction or movement. Physical disturbances including ground disturbance and vegetation clearing can cause direct loss of ecosystems and the corresponding resources they provide, although temporary in nature. Wildlife may respond to habitat alteration by reducing their use of areas, avoiding habitats for a period of time (i.e., displacement) or abandoning portions of their current range. The potential effects of habitat alteration may be particularly high when Project activities and components are within or adjacent to seasonally limiting habitats including winter ranges and breeding areas.</p> <p>The ongoing and proposed exploration work within the Project area boundaries is proposed to utilize, to the maximum extent possible, all existing historical disturbances (e.g., roads, drill pads, laydown areas), thus reducing the potential for impacts to wildlife and their habitat through loss and degradation.</p> |
| Sensory Disturbance          | <p>Project components and activities may cause sensory disturbance for wildlife. Sensory disturbance includes behavioural responses by wildlife to Project-related noise, light, dust and human presence. Sensory disturbances can lead to disruptions in animal behaviour, causing individuals to lose time and energy normally allocated to foraging, hunting, denning, ruminating, breeding and/or avoiding predators. Wildlife may also respond to sensory disturbances by reducing their use of habitats near the source of disturbance, avoiding habitats for a period of time (i.e., displacement) or abandoning portions of their current range. Such behavioural responses by wildlife may result in a functional loss of habitat.</p> <p>The ongoing and proposed exploration work within the Project area boundaries is proposed to occur 24-hours a day. Mitigations for noise and dust impacts will be provided through the implementation of appropriate controls and BMPs.</p>   |
| Disruption of Movement       | <p>Project components and activities have the potential to create physical and/or sensory barriers that prevent or impede wildlife movements between daily or seasonal habitats. Disruption to movement may be particularly high when project activities and components are within restricted terrain features.</p> <p>The ongoing and proposed exploration work within the Project area boundaries is proposed to utilize, to the maximum extent possible, all existing historical disturbances (e.g., roads, drill pads, laydown areas), thus reducing the potential for impacts to wildlife and their habitat through disruption of movement.</p>  |

| Potential Effect   | Impact to Wildlife and Wildlife Habitat   |
|--------------------|---|
| Direct Mortality   | <p>Project components and activities have the potential to cause the direct mortality of wildlife. Direct mortality may occur from collisions with Project-related traffic, ingestion of toxic products from materials (e.g., fuel and lubricants) stored on site (see section 3.3.8), and from increased personnel on the landscape.</p> <p>Mitigations for these potential impacts will be provided through the implementation of appropriate controls and BMPs.</p>  |
| Indirect Mortality | <p>Project components and activities have the potential to cause the indirect mortality of wildlife. Indirect mortality may occur from increased maintained road access and linear features leading to increased predation pressure, and/ or reduced body condition resulting from habitat loss and degradation, sensory disturbance or disruption to movement.</p> <p>Mitigations for these potential impacts will be provided through the implementation of appropriate controls and BMPs. The seasonal nature of the operation (i.e., June to October) and the effectiveness of controlled access throughout the Project area boundaries is expected to contribute to reducing indirect mortality. Mine permit access roads are gated and locked at all times.</p> |
| Attractants        | <p>Wildlife may be attracted to the Project area, especially if food and waste are not responsibly managed. Wildlife habituation and subsequent human-wildlife conflict may lead to relocation or destruction of animals if they become a risk to workers in the Project area.</p> <p>Mitigations for these potential impacts will be provided through the implementation of appropriate controls and BMPs.</p>   |
| Chemical Hazards   | <p>Chemical hazards (e.g., ingestion of toxic products) from materials stored on-site during exploration may reduce wildlife survival and reproduction.</p> <p>Mitigations for these potential impacts will be provided through the implementation of appropriate controls and BMPs.</p>  |

### 3.1.4. Field Surveys

To further improve the baseline information for the Project and to minimize Project impacts on wildlife, field surveys were conducted by QPs to identify impacts to wildlife species and their habitats. Two staff members from KES conducted field surveys in June 2021. These field surveys also supplemented data collected in 2020 (bat acoustic data) used to inform the Portal Closure Plan of the Updated Reclamation and Closure Plan for the Table Mountain Mine and Taurus Mine sites. Future baseline monitoring should be conducted by QPs to note areas of wildlife trees to determine if setback distances are required.

#### *Bat Monitoring*

KES conducted a second year of bat monitoring data collection associated with the closure of five portals at Table Mountain and one at Taurus. This included the installation of six bat acoustic recording devices (SM4 BAT FS and SM MINIBAT [Wildlife Acoustics, Inc.]) at the entrance to each of the portals to gain a comprehensive understanding of the bat activity between the underground mine workings and the environment. The detectors were positioned a minimum of 4 m above the ground perpendicular to the

entrance of the portal to 'capture' any bats entering or exiting the site. The portal entrances were cleared of vegetation or other clutter that could impact the ability of the microphone to record sound, to the extent possible. The bat detectors were deployed for the duration of the KES 2021 field work (June 14 – June 28).

All acoustic data was subjected to automatic identification (auto ID) followed by manual vetting. First, large noise files (i.e., no indication of a bat-caused high frequency pulse) were filtered out within Kaleidoscope Pro (vs. 4.5.4; Wildlife Acoustics Inc.) and removed from further analysis. Following this, files were run through automatic identification using strict diagnostic filters built for the North American Bat Monitoring Network (that utilizes annual long-term acoustic monitoring of bats across North America). Once the auto ID was completed, all files were manually vetted to confirm species ID. Results are included in the Bat Appendix of the Portal Closure Plan.

#### *Amphibian Monitoring*

Amphibian surveys were not within the scope of field surveys that KES conducted in 2021. However, as a future baseline survey recommendation, constructed standing water features during spring and summer (e.g., by roads, drill pads) should be examined by a QP who will look for the presence of egg masses or tadpoles. However, amphibians often use more than one habitat type during their life cycle, thus visits should be staggered and repeated during multiple seasons to ensure maximum detectability (BC MFLRNO, 2014). In the case of such a discovery, these sites must be left until the tadpoles have matured or the tadpoles must be translocated following strict federal and/or provincial protocols. In the event of translocation, a specific plan will be developed by a QP (e.g., RPBio) and the work supervised.

#### *Wildlife Monitoring*

Remote wildlife cameras were used to identify wildlife species occurrence within the Project area. Remote cameras (Browning Trail Cameras, model BTC-5HDP) were deployed for varying durations over the course of the KES 2021 field work in 13 different locations (Figure 3-6). Camera locations were reflective of the different BEC zones throughout the areas of proposed Project disturbance (Table 3.1-2). These locations were also determined using the CGC and KES team's knowledge of wildlife use of the Project area. Non-baited remote wildlife cameras were deployed in areas that maximized wildlife detections, including wildlife trails, rub trees, ridge lines and wetlands.

Additionally, while conducting other field work activities (e.g., terrestrial ecosystem mapping), KES staff collected information pertinent to wildlife habitat features (e.g., dens, nests, mineral licks) and evidence of species occurrence (e.g., scat, tracks). Incidental sightings were also included in the dataset, with CGC staff wildlife sighting logs supplementing wildlife occurrence data, especially in active work zones.

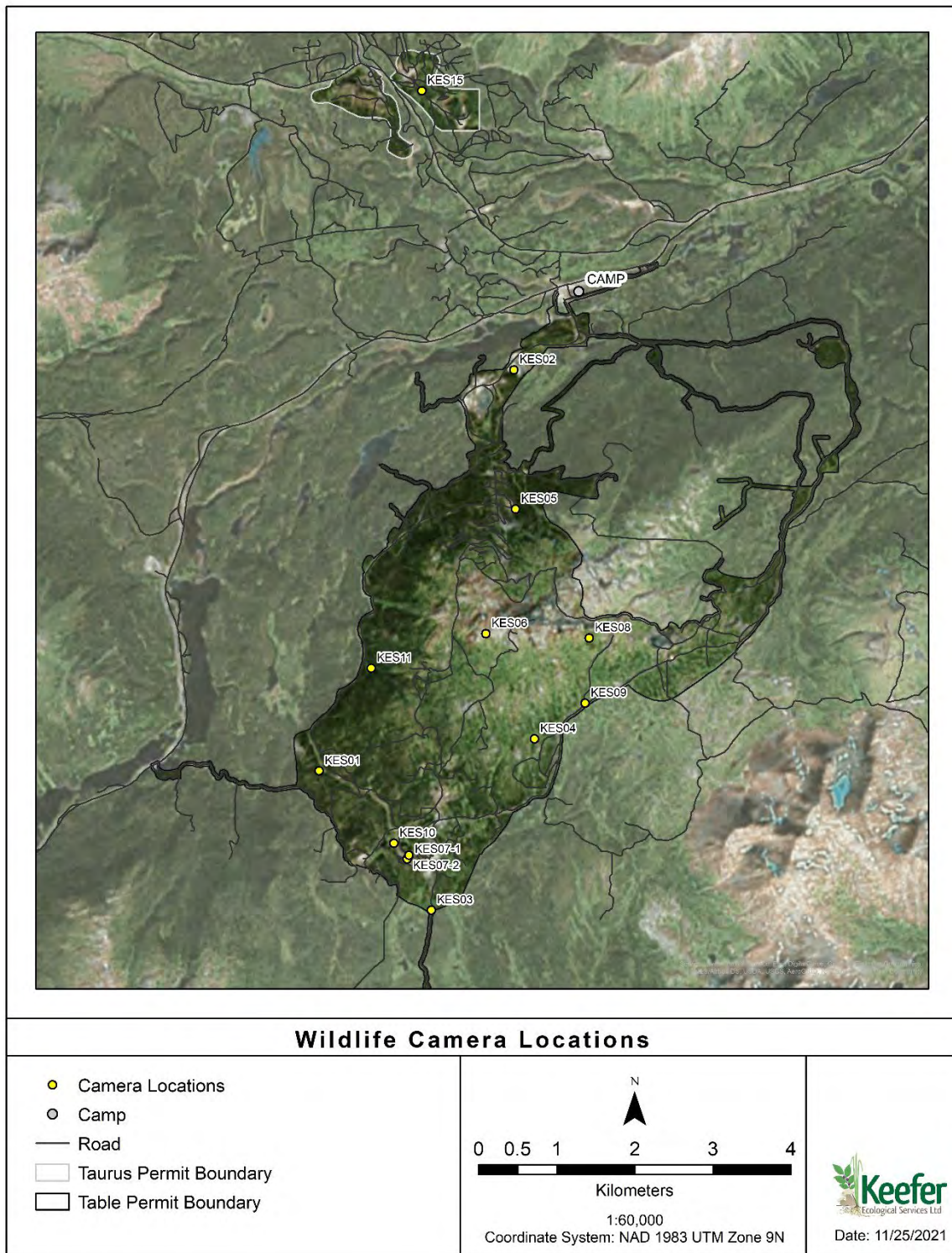


Figure 3-6. Locations of wildlife cameras deployed during 2021 field work.



Table 3.1-2. Camera locations with corresponding BEC units and dates deployed.

| Camera  | Easting   | Northing   | BEC Unit | Time Deployed     | Location Description                                  |
|---------|-----------|------------|----------|-------------------|---|
| KES01   | 459389.31 | 6561690.78 | BWBSdk   | Jun. 16 – Oct. 3  | Forested area, 100 m from the nearest road.           |
| KES02   | 461884.46 | 6566822.73 | BWBSdk   | Jun. 20 – Aug. 4  | Edge of Table Mountain TSF2.                          |
| KES03   | 460826.82 | 6559908.53 | SWBun    | Jun. 15 – Oct. 3  | Forested edge, facing out onto a fen with open water. |
| KES04   | 462147.72 | 6562101.37 | SWBun    | Jun. 16 – Oct. 3  | Higher elevation, open water/wetland.                 |
| KES05   | 461904.13 | 6565042.52 | SWBun    | Jun. 17 – Oct. 4  | Drainage path, nearby Portal 21.                      |
| KES06   | 461526.49 | 6563446.94 | SWBuns   | Jun. 19 – Jun. 25 | High elevation grassland.                             |
| KES07-1 | 460539.54 | 6560611.96 | SWBun    | Jun. 15 – Jun. 25 | Along road by Bane Portal.                            |
| KES07-2 | 460516.93 | 6560564.20 | SWBun    | Jun. 25 – Oct. 3  | Along upper (less trafficked) road by Bane Portal.    |
| KES08   | 462849.38 | 6563391.38 | SWBuns   | Jun. 24. – Oct. 3 | High elevation gully, rocky terrain in the distance.  |
| KES09   | 462794.70 | 6562557.70 | SWBun    | Sept. 24 – Oct. 3 | Table Mountain Road, south end.                       |
| KES10   | 460297.81 | 6556024.70 | SWBun    | Jun. 19 – Oct. 3  | Game trail along wetland edge.                        |
| KES15   | 460703.66 | 6570394.24 | BWBSdk   | Jun. 25 – Sept. 3 | Gated road within Taurus permit boundary.             |

### 3.1.5. Wildlife Monitoring Results

Of the 13 cameras deployed, 11 had captured photos of wildlife. Photos from KES11 were lost and camera KES01 did not capture any photos from the duration of the study period. Across the Project area, a total of nine mammal species were captured in photos, including moose, grizzly bear, black bear, wolf, lynx, porcupine, fox, marmot, and caribou. The camera with the most sightings was KES15 with a combined total of 4.64 mammal sightings per 10 camera days. The camera with the least number of sightings was KES01 which didn't capture any photos of wildlife between June to October. Roads, both active and decommissioned, were abundantly used by wildlife across the Project area.

Photos that captured mammals were retained and considered independent occurrences if they were captured 30 minutes or more apart. These occurrences were organized by species and date and compiled into an excel database. Animals travelling with offspring were also categorized separately, as this is often an indicator of higher habitat quality. A sum of sightings for each species was then divided by the number of days the camera was deployed for and then multiplied by 10 to give an index of species occurrence (sightings per 10 camera days; Table 3.1-3). Due to the nature of incidental sightings and fewer surveys being completed in high elevation, mountainous terrain, overall mammal occurrences were concentrated along the perimeter of the Project boundaries and throughout areas more heavily travelled by CGC staff and contractors (Figure 3-7). The relative occurrence of different species across the Project area will inform updated mitigation measures and adaptive management, as well as providing valuable visualization of how different wildlife species are utilizing the landscape within the Project boundaries.

Table 3.1-3. Species sightings per 10 camera days at each camera deployed.

|                       | KES01 | KES02 | KES03 | KES04 | KES05 | KES06 | KES07-1 | KES07-2 | KES08 | KES09 | KES10 | KES15 |
|-----------------------|-------|-------|-------|-------|-------|-------|---------|---------|-------|-------|-------|-------|
| <b>Moose</b>          | 0     | 0     | 0.901 | 0     | 0.091 | 0     | 0       | 0.198   | 0     | 0     | 0.374 | 1.690 |
| <b>Moose calf</b>     | 0     | 0     | 0.090 | 0     | 0.091 | 0     | 0       | 0       | 0     | 0     | 0     | 1.127 |
| <b>Grizzly bear</b>   | 0     | 0     | 0     | 0.091 | 0     | 0     | 3.636   | 0.099   | 0     | 1     | 0     | 0.423 |
| <b>Grizzly cub</b>    | 0     | 0     | 0     | 0     | 0     | 0     | 0       | 0       | 0     | 0     | 0     | 0.282 |
| <b>Black bear</b>     | 0     | 0     | 0     | 0     | 0     | 0     | 0       | 0       | 0     | 0     | 0     | 0.563 |
| <b>Black bear cub</b> | 0     | 0     | 0     | 0     | 0     | 0     | 0       | 0       | 0     | 0     | 0     | 0     |
| <b>Wolf</b>           | 0     | 0.435 | 0     | 0     | 0     | 0     | 0       | 0       | 0     | 3     | 0     | 0.282 |
| <b>Lynx</b>           | 0     | 0     | 0     | 0     | 0     | 0     | 0       | 0       | 0     | 0     | 0     | 0.282 |
| <b>Porcupine</b>      | 0     | 0     | 0     | 0     | 0.091 | 0     | 0       | 0       | 0     | 0     | 0     | 0     |
| <b>Fox</b>            | 0     | 0     | 0     | 0     | 0     | 0     | 0       | 0       | 0.196 | 0     | 0     | 0     |
| <b>Caribou</b>        | 0     | 0     | 0.090 | 0     | 0     | 0     | 0       | 0       | 0     | 0     | 0     | 0     |
| <b>Marmot</b>         | 0     | 0     | 0     | 0     | 0     | 1.429 | 0       | 0       | 0     | 0     | 0     | 0     |

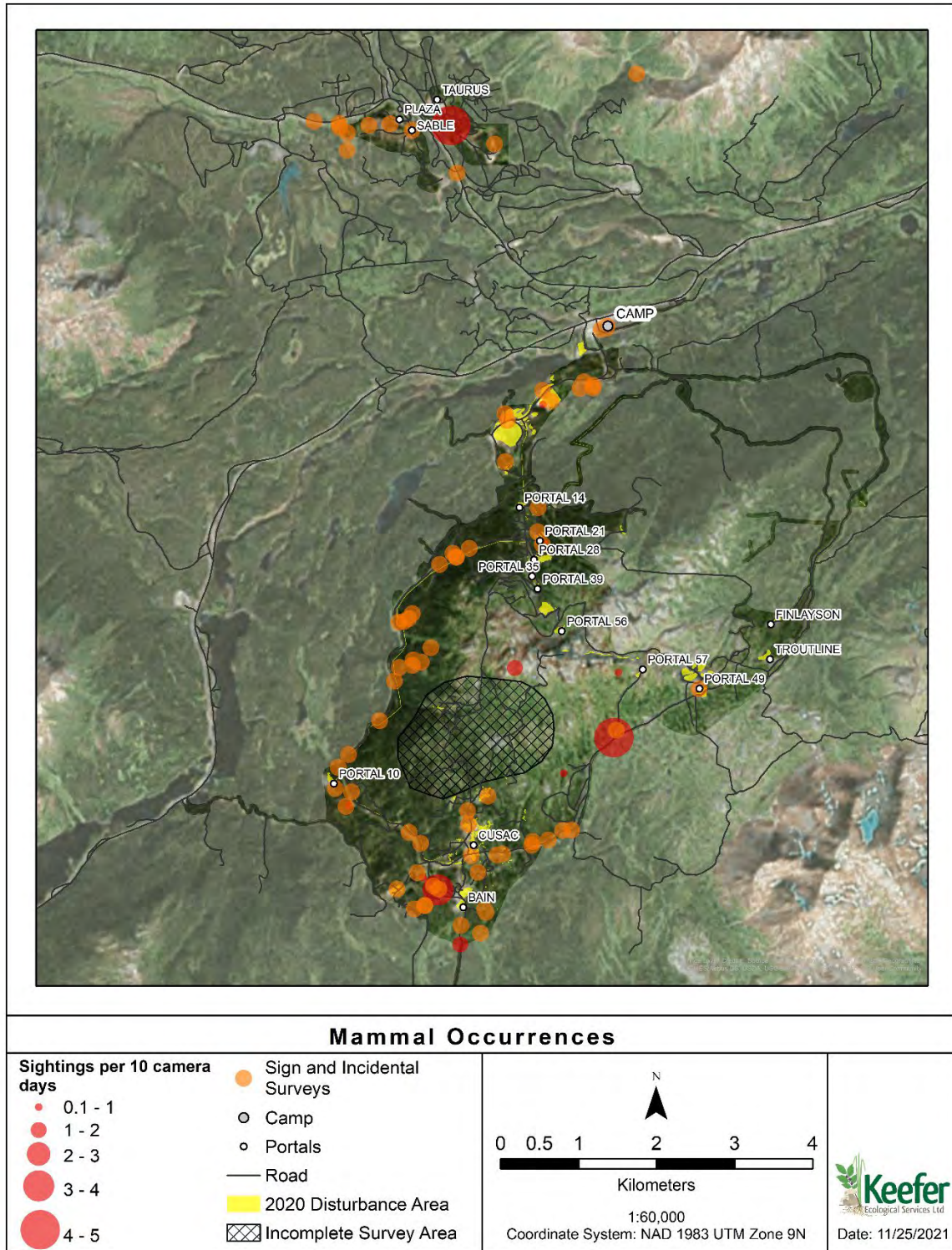


Figure 3-7. Overall mammal occurrences across the Project area during the study period in 2021. Red points are sightings from camera locations and orange points are from incidental sightings (CGC and KES) and sign surveys (KES).

*Moose*

Moose sightings and signs were found extensively across the Project area and were the second to most common mammal captured on the wildlife cameras (Figure 3.1-8). Five out of the twelve cameras captured photos of moose (KES03, KES05, KES07-2, KES10, KES15), with three of them additionally capturing a moose calf (KES03, KES05, KES15; Table 3.1-3). In total across these cameras, the total sightings per 10 camera days was 3.25 for moose and 1.31 for moose calves. The camera with the most sightings of both moose and moose calves was KES15 (1.69 sightings of moose and 1.13 sightings of moose calf per 10 camera days; Table 3.1-3). This camera was located along a road leading to the tailings storage facilities within the Taurus Mine permit boundary. This road is gated by CGC, and therefore sees minimal vehicle traffic. However, the trail camera did capture several photos of dirt bikers travelling on the road. The other two cameras that captured moose with their offspring were located within the Erickson Creek drainage, adjacent Portal 21, and the fen and open water wetland south of the Bane portal. Moose were observed on cameras in both the SWB and BWBS BEC zones.

There were six incidental sightings of moose recorded by CGC staff on the wildlife log. These sightings were generally observed in active work zones or while travelling to and from site (e.g., along Table Mountain Road, near the office, core shack, and across the wetland near the core shack). Extensive signs of moose across the Project area were additionally found by KES staff during field work. Signs included moose droppings, tracks, highly browsed vegetation, and rub trees.

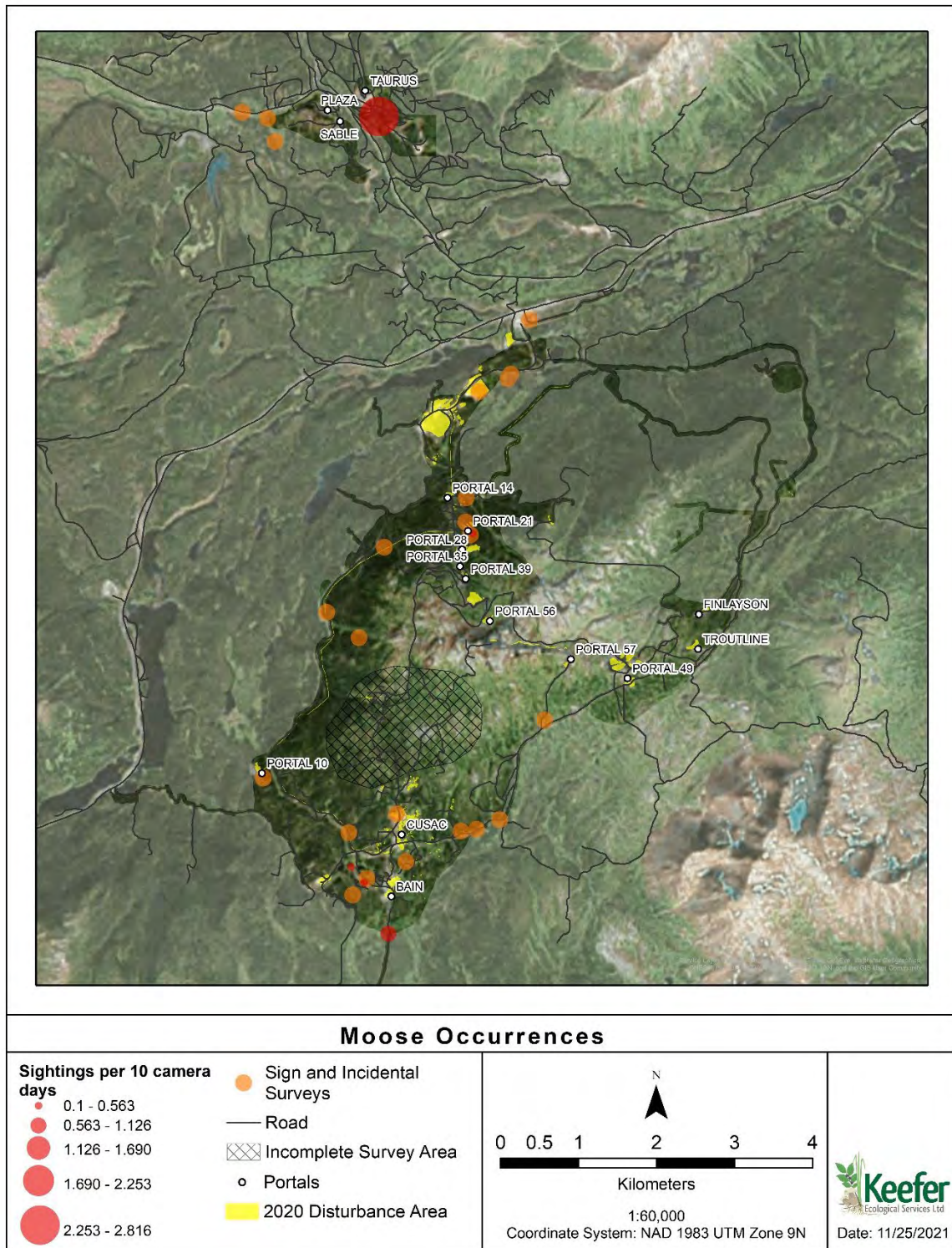


Figure 3-8. Moose occurrences across the Project area between June and October 2021.

*Grizzly Bear and Black Bear*

Of all species, grizzly bears were captured the most on the wildlife cameras. They were observed for a total of 5.53 times per 10 camera days across cameras KES04, KES07-1, KES07-2, KES09, and KES15 (Table 3.1-3). Additionally, a cub was captured at KES15. The camera with the highest number of sightings per 10 camera days was KES07-1 (3.64 sightings/10 camera days; Table 3.1-3). This camera was located along an active road near Bane portal. A grizzly was seen travelling back and forth on the road multiple times. Camera KES15 captured a grizzly and a cub, again along an active road. All camera sightings of grizzly bears were located along roads except for one sighting of a single grizzly bear at KES04 in a higher elevation wetland. Grizzly bears were observed in both SWB and BWBS BEC zones.

There were no definitive records of grizzly bear sightings on the CGC staff wildlife logs. However, KES staff recorded five sightings of grizzlies throughout areas they were working and were informed of two additional grizzlies seen along Table Mountain Road by a drill crew. Signs of bears (e.g., scat, tracks) were also recorded (species, if possible, and location) if encountered during other field work.

Black bears were observed for a total of 0.56 times per 10 camera days at the KES15 camera only. None of the black bears sighted had cubs present. CGC staff wildlife logs had recorded sightings of a black bear at both 88 Hill Trench (E459610 N6570400) and south of Wing's Canyon turnoff on Cassiar Road (E460780 N6569810).

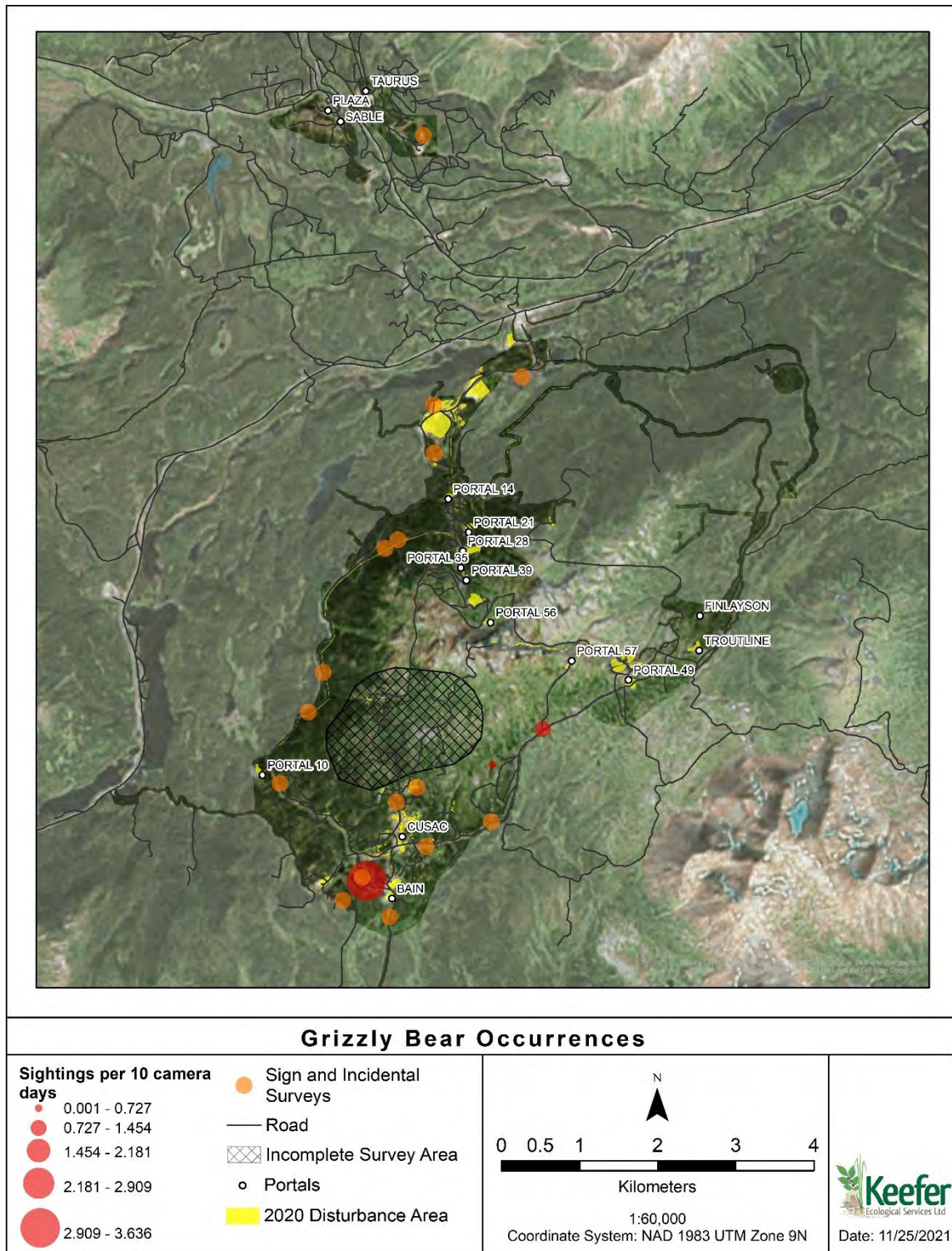


Figure 3-9. Grizzly Bear occurrences across the Project area between October and June 2021.



*Wolf*

Photos captured of wolves were observed at three of the camera locations (KES02, KES09, and KES15). Of these locations, camera KES09 had the most sightings per 10 camera days (4 sightings/10 camera days; Table 3.1-3). In total between the three cameras, there were 4.72 sightings of wolves per 10 camera days. Two of these locations were along roads (Table Mountain Road and Taurus Mine road to TSF), and the other location was on Table Mountain TSF-2. Most sightings captured a single wolf except for photos at KES09 which captured two wolves together in multiple photos. KES09 was also the camera that had the most sightings per 10 camera days of the three cameras that captured wolves (3 sightings/10 camera days; Table 3.1-3). Wolf occurrences were observed in both SWB and BWBS BEC units.

One wolf sighting was recorded by CGC staff at Moose Lake on October 21, 2021. Additionally, canine tracks that were believed to be wolf were found by KES staff near a drill site within the Taurus Mine permit boundary.

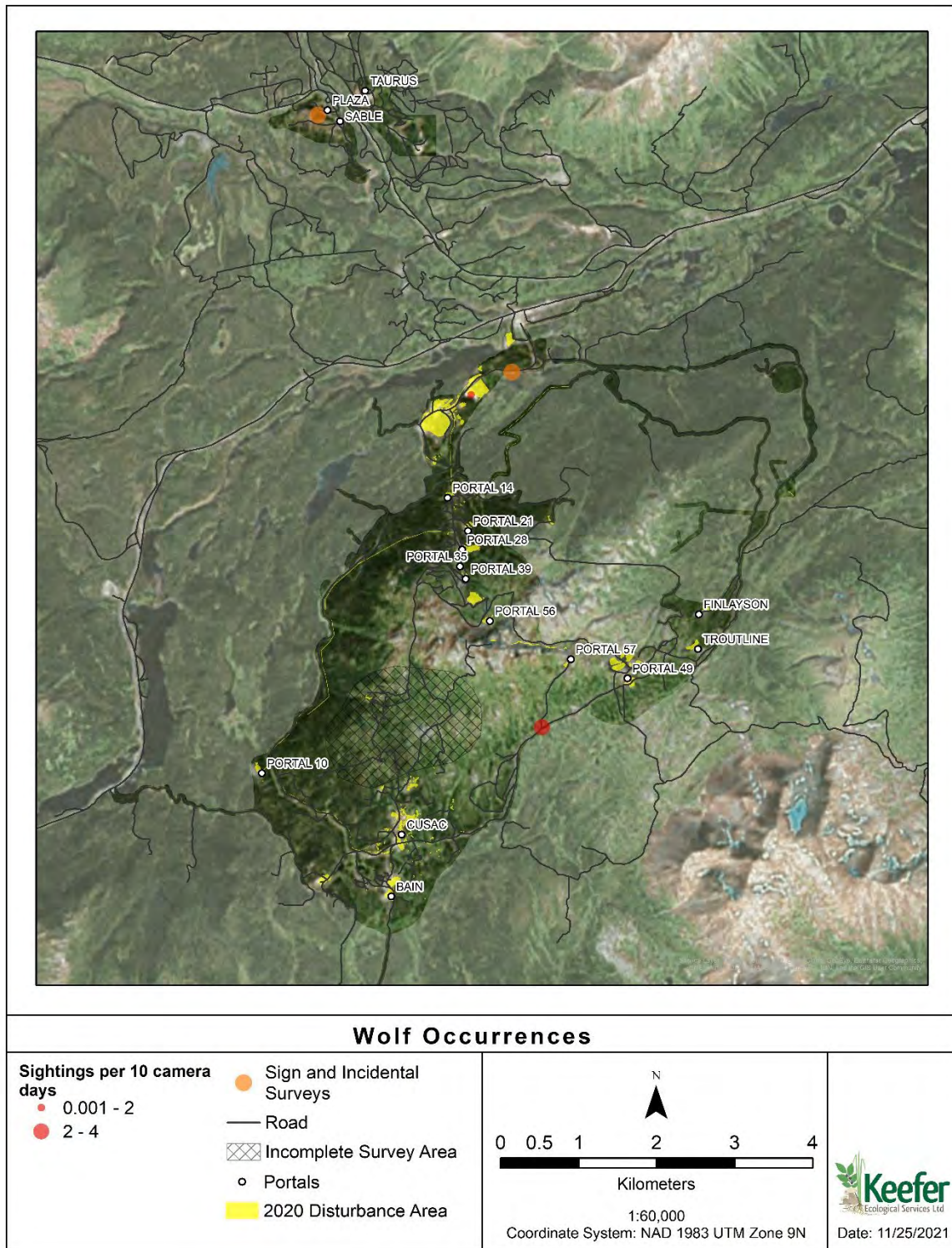


Figure 3-10. Wolf occurrences across the Project area between October and June 2021.

*Lynx*

Photos of lynx were only captured on one camera in the study area (KES15). There were two independent sightings at this location, resulting in a value of 0.282 sightings per 10 camera days (Table 3.1-3). In both photos the lynx is travelling on or across the Taurus Mine TSF road. Additionally, there was one lynx sighting recorded on the CGC staff wildlife logs. This sighting occurred along Table Mountain Road at the exit for Portal 21. These sightings occurred across both SWB and BWBS BEC zones.

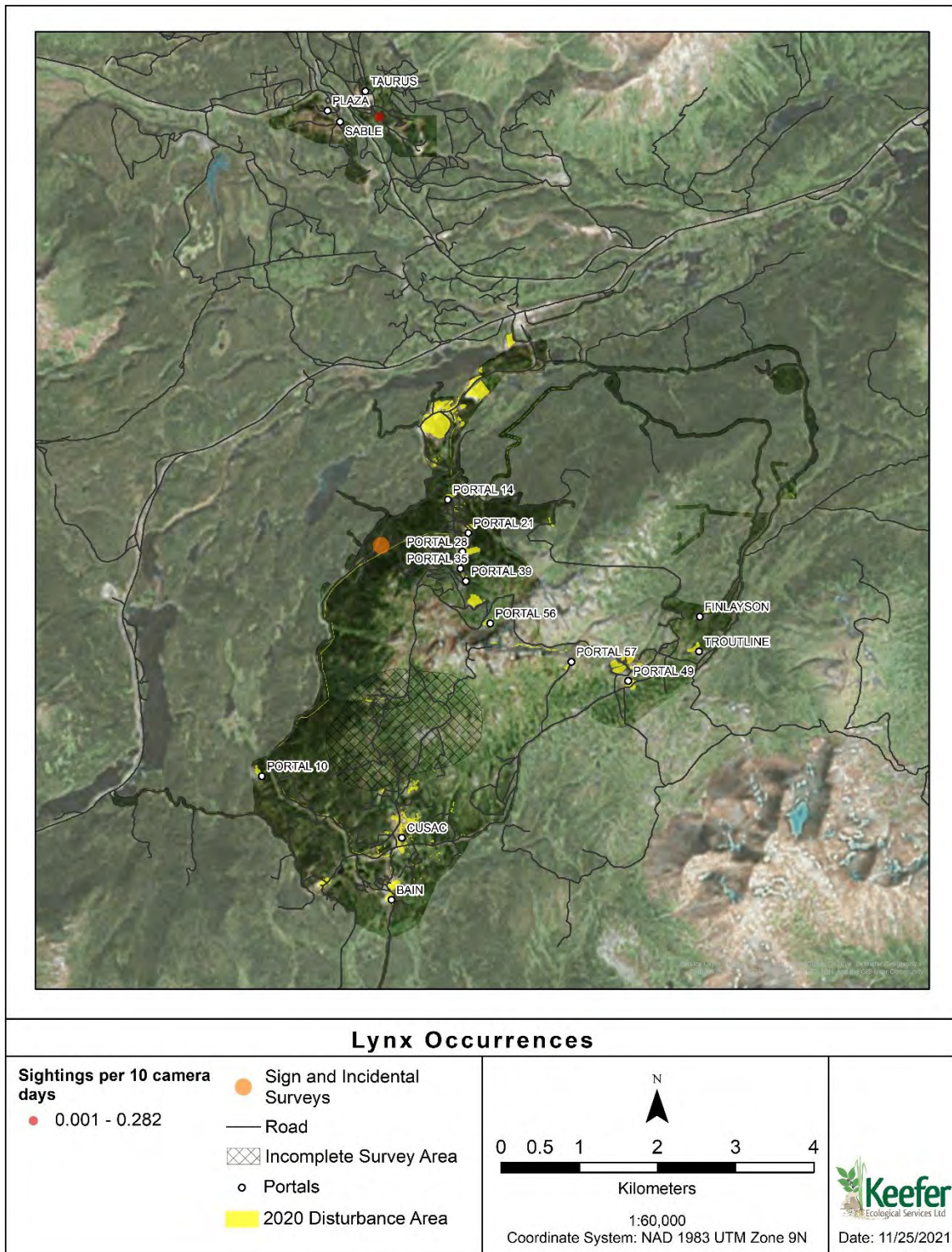


Figure 3-11. Lynx occurrences across the Project area between June and October 2021.

*Caribou*

Between all cameras deployed, there was only one sighting of a caribou. Two photos were captured of a single individual at camera KES03, at the edge of a fen/open water wetland on August 13, 2021. This resulted in a value of 0.09 sightings per 10 camera days at this location. There was also a sighting recorded by CGC staff of two more caribou up on Snow Mountain (near the Taurus Mine boundary) on September 9, 2021. These sightings both occurred at the edge or outside of the Project boundary.

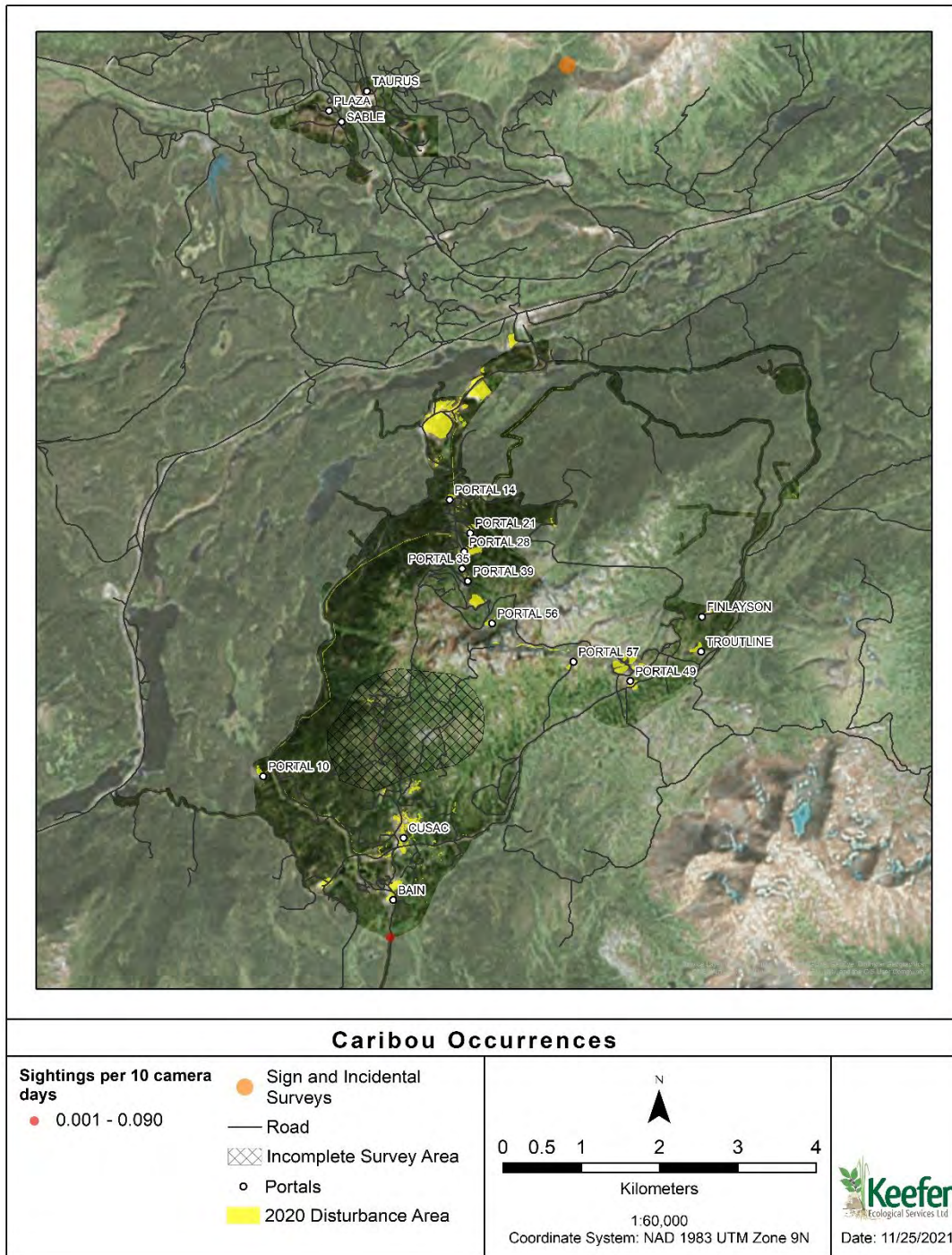


Figure 3-12. Caribou occurrences across the Project area between June and October 2021.

### 3.2. Best Management Practices (BMPs)

The effects of the Project on wildlife and their habitats will be minimized through the actions listed in the following standard provincial best management practices:

- A Compendium of Wildlife Guidelines for Industrial Development Projects in the North Area, BC – Interim Guidance (2014)
- A Handbook for Mineral and Coal Exploration in British Columbia (2009)
- Best Management Practices for Amphibian and Reptile Salvages in BC (2016);
- Best Management Practices for Bats in BC (2016);
- Guidelines for Raptor Conservation during Urban and Rural Land Development in BC (2013);
- Best Management Practices for Raptor Conservation during Urban and Rural Land Development in British Columbia (2005);
- Guidelines for Amphibian and Reptile Conservation During Urban and Rural Development in BC (2014);
- Guidelines for Amphibian and Reptile Conservation During Road Building and Management Activities in BC (2014)
- Environmental Best Management Practices for Urban and Rural Land Development: Special Wildlife and Species at Risk (2004)

In addition, several federal and provincial legislation, management plans and recovery strategies are applicable to the management of wildlife and wildlife habitat. These include but are not limited to:

- *Species at Risk Act (2002)*
- *BC Wildlife Act (1996)*
- *Migratory Birds Convention Act (1994)*
- *Migratory Birds Regulation*
- *Canadian Environmental Assessment Act (2012)*
- *BC Forest and Range Practices Act (2002)*
- *BC Environment Management Act (2003)*
- Dease-Liard Sustainable Resource Management Plan (2004)
- Migratory Birds Environmental Assessment Guideline (1998)
- British Columbia Grizzly Bear Conservation Strategy (1995)
- Provincial Caribou Recovery Program (2020)
- Management Plan for the Northern Mountain Population of Woodland Caribou (*Rangifer tarandus caribou*) in Canada (2012)
- Management Plan for the Mountain Goat (*Oreamnos americanus*) in British Columbia (2010)
- Recovery Strategy for Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), and Tri-colored Bat (*Perimyotis subflavus*) in Canada (2015)
- Management Plan for the Western Toad (*Anaxyrus boreas*) in Canada (2016)
- Management Plan for the Western Toad (*Anaxyrus boreas*) in British Columbia (2014)

The **Environmental Mitigation Policy (EMP)** is a decision-support tool that was developed to support proponents and provincial staff when there is an identified need for mitigation under existing legislation, or when a proponent voluntarily assumes responsibility for mitigations. The intention of the EMP is to

improve the quality, transparency, and consistency of information to support decision-making processes for mitigating impacts on environmental values. EMP defines a four-tiered mitigation hierarchy, where projects should look to avoid, minimize and restore on-site and offset project impacts to identified environmental values. The recommended approaches and guidance for implementing the EMP are contained in **Procedures for Mitigating Impacts on Environmental Values** (Ministry of Environment, 2014).

### 3.3. Site-Specific Mitigation Measures

The site-specific mitigation measures for the Project area are detailed below and relate directly to the Trigger Action Response Plan (TARP; **Section 4.4**). In general, the following site-specific mitigation measures will be implemented:

- Avoid and/or reduce human-caused disturbance in sensitive habitat areas;
- Minimize the loss of high-quality habitat and disruption to movement;
- Maintain known and potential mineral licks;
- Avoid the destruction of active dens, roosts or nests; and,
- Avoid and/or minimize mortality of wildlife.

The potential effects of impacts to wildlife and their habitats associated with the exploration work may vary year to year depending on the proposed exploration activities. In general, these impacts may include:

- Changes to habitat connectivity and movement patterns as a result of forest clearing and the development of linear features (e.g., roads);
- Changes to habitat availability, including mating, denning, rearing, foraging and hibernating habitats through forest clearing and the development of linear features (e.g., roads);
- Changes in sensory disturbance as a result of construction and 24-hour exploration activities;
- Direct and indirect mortality;
- Attraction to the Project area due to attractants such as garbage, if stored or disposed of inappropriately; and,
- Other health effects (e.g., as a result of access to chemicals stored on site).

Preliminary field data collected in June 2021 highlighted areas of high mammal density, which were then given a 1 km radius buffer to indicate areas of special concern for development (Figure 3-13). When development/exploration is unavoidable in these areas, extra precautionary measures must be taken to mitigate disturbance to wildlife. The following actions are **required** when working within the buffered area around sensitive wildlife zones:

- Adherence to all site policies, including speed limits, stand down policies, and elimination of wildlife attractants.
- Use of sound barriers (e.g., sound dampening casing for generators).



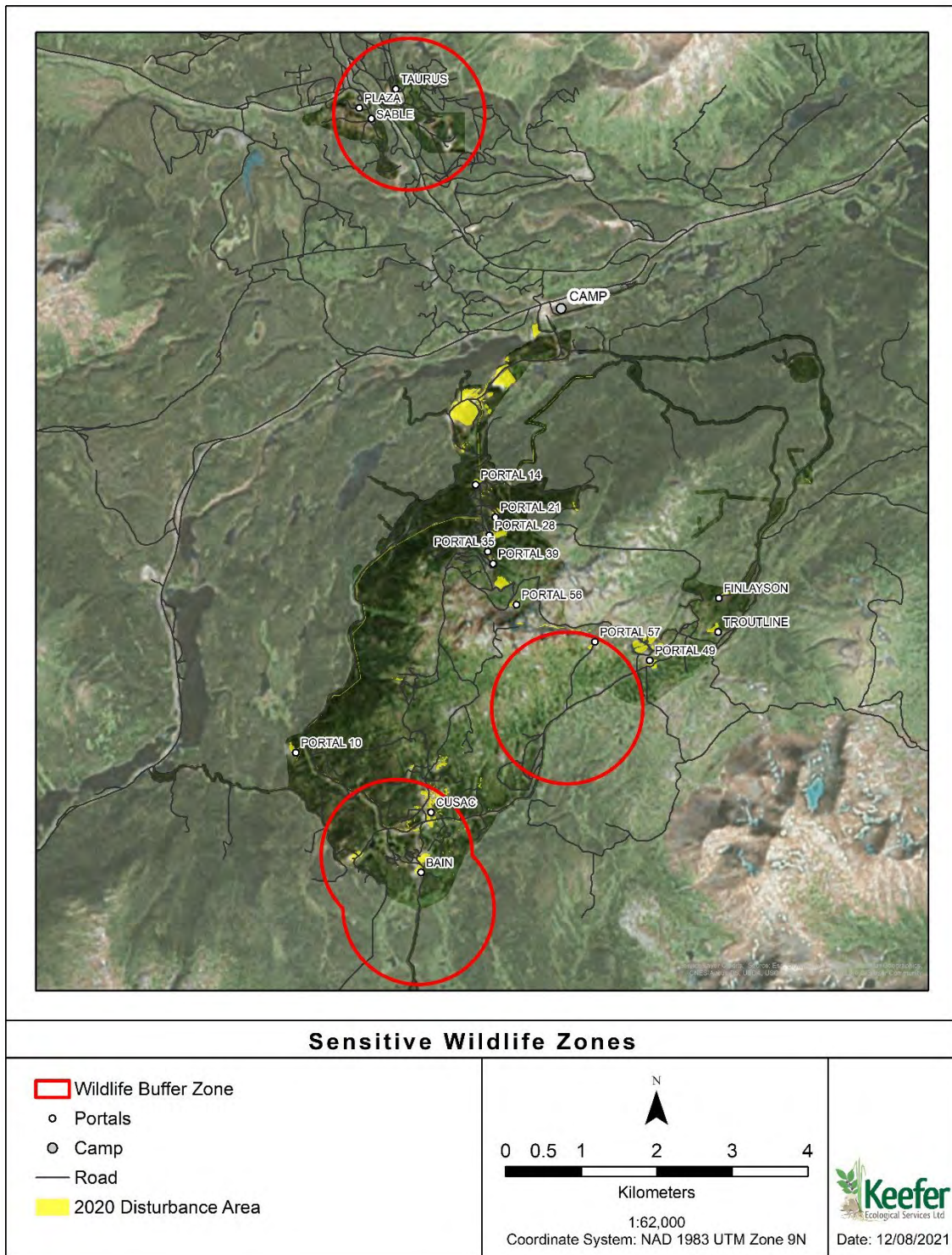


Figure 3-13. Sensitive Wildlife Zones: areas of high mammal density buffered by 1 km where extra cautionary measures should be taken during development.

### 3.3.1. First Nation Input and Use of Traditional Ecological Knowledge

CGC is actively seeking First Nation input on this plan. To date, the plan has been developed using publicly available data and field collected data. CGC would like to include traditional ecological knowledge in establishing species of concern for the Project, identifying important habitat, and maintaining access to hunting grounds. This plan will be updated to incorporate any shared traditional ecological knowledge as it becomes available.

### 3.3.2. Pre-Clearing Surveys

Pre-clearing surveys will be conducted by a qualified person (QP) to identify and recommend mitigation measures for any previously unidentified habitat features or important habitat types, including but not limited to dens, nests or hibernacula.

Important habitats and features will be avoided, and the activity must not damage or render ineffective the wildlife habitat feature. If or when identified, a significant habitat feature (e.g., mineral lick, wallow, at-risk bird nest) will be documented (e.g., GPS location and photo), and impacts will be mitigated for minimizing disturbance to the site.

**Wildlife trees** are standing live or dead trees that provide valuable habitat for wildlife species. Wildlife trees must be protected as per the BC *Wildlife Act*. Wildlife trees within riparian setbacks must not be removed (MoE, 2009). If a wildlife tree is considered hazardous, a wildlife tree hazard assessment must be completed to determine the habitat value of a tree prior to removal (MoE, 2009). If given a low wildlife value, the tree may be felled; however, if in a setback area should be left as coarse woody debris (CWD). High wildlife value trees (e.g., nests of at-risk bird), must be marked and left in place (MoE, 2009). A no-work zone must be established around the tree, typically one or two tree lengths depending on the wildlife tree size (MoE, 2009). CGC will strive to adhere to these policies whenever possible.

### 3.3.3. Using Existing Disturbances

To minimize loss of wildlife habitat and associated potential impacts, existing disturbances will be used to the maximum extent possible across the Project area.

### 3.3.4. Traffic and Drill Management

The objectives of traffic management as it applies to wildlife, are to avoid vehicle/wildlife interactions and minimize disturbance to wildlife. The following protocols will be implemented to achieve these goals.

**Traffic Management:**

- Wildlife will be given the right-of-way along access roads.
- Speed limits will be posted and enforced. Road signs will be posted along access roads to alert drivers of speed limits and of sensitive wildlife areas, such as crossings. Workers will be informed about potential wildlife travel corridors along access roads and applicable mitigation.
  - Based on updated field data, extra signage indicating speed limits and wildlife crossing zones will be established along the road to Taurus TSF, at the beginning of Table Mountain Road at the Core Shack, and at 2km intervals along Table Mountain Road.
- Collisions between CGC or contractors' vehicles and wildlife will be documented and will include information on the location of the collision. All information on wildlife collisions and carcasses spotted along all private roads will be shared with the Mine Manager who will notify relevant government agencies (e.g., Ministry of Transportation and Infrastructure). Locations where wildlife collisions take place will be prioritized for adaptive management. Wildlife collisions on private roads should be reported to the mine manager who will contact local road maintenance contractor(s) to remove the carcass. Road maintenance contractor contact information can be found on this website [here](#). Highway maintenance contractors identify and record the species and location of each animal killed on BC roads so they can be added to the Wildlife Accident Reporting System.
- Any encounters with wildlife (including observations) will be reported and recorded. Reports should be made over the radio to alert other site personnel, particularly for encounters of note, such as large carnivores, aggressive behaviour, animals with young, groups/herds, or sick or injured wildlife. These records will be used to identify locations of considerable risk to wildlife and for developing appropriate mitigation strategies.
- Ditches and culverts along the length of the access road will be designed and maintained to minimize the pooling of water.
- Vegetation management along access roads will be done in such a manner that reduces attractiveness and increases visibility of wildlife to drivers.
- Gates and signs will be maintained to ensure continued effectiveness in limiting access to authorized vehicles only.
- Dust production from vehicles travelling along the road will be managed through speed limits and the use of dust suppressants, preferably water (others will be considered if water is unsuccessful, with a priority of ensuring wildlife sensitives and attractants) throughout the summer when there has been little precipitation.

If repeated wildlife conflicts or observations are found in particular areas along the access road, this plan will be reviewed and adapted as necessary. Additional mitigation measures could include increasing signage, improving the line-of-sight, altering speed limits, adjusting vegetation and/or dust management practices.

**Drill Management:**

- A stand-down policy must exist if wildlife are observed in close proximity (within 500m) to active exploration areas. Activities may resume 10 minutes after the wildlife have left the area;

- Any encounters with wildlife (including observations) will be reported and recorded. Reports should be made over the radio to alert other site personnel. Records will be used to identify locations of considerable risk to wildlife and for developing appropriate mitigation strategies;
- Problem wildlife must be reported to the site manager and to local wildlife authorities;
- Avoid disturbing wildlife at critical times of the year (see also noise management and light management);
- To conserve wildlife habitat, conserve and replace disturbed topsoil and create the smallest disturbance to slopes and vegetation as safe and practical;
- If drilling has the potential to affect water quality, drill operators should take appropriate measures to contain drill cuttings and reuse and ultimately dispose of drilling fluids (MoE, 2009); and,
- Removal and proper disposal of potential wildlife attractants and chemicals off-site.

### 3.3.5. Noise Management

The following protocols will be implemented to minimize potential effects of noise disturbance on wildlife:

- The impact of noise will be managed and minimized on the environment wherever possible;
- Noise pathways will be controlled through the use of barriers (e.g., noise reducing enclosure for generator) wherever possible;
- Equipment will be regularly maintained to reduce noise (e.g., lubrication, replacement of worn parts);
- Equipment will be turned off when not in use to avoid unnecessary noise; and
- Sound-muffling additions will be added to equipment where possible to reduce noise.

### 3.3.6. Light Management

The following protocols will be implemented to minimize potential effects of light disturbance on wildlife while ensuring safe working conditions:

- Light operational areas at the minimum level of illumination it requires to safely operate;
- Use direct lighting when possible, shielding it to illuminate only the work area;
- Timer lighting systems will be used, when possible, to limit light disturbance; and
- Illumination should use light-emitting diode (LED) to limit heat given off and therefore reduce insect activity that may attract bats.

Lighting requirements are expected to be minimal at the start of the exploration program given the number of daylight hours in northern BC in the spring (e.g., sunrise at 4:30am, sunset at 10:30pm).

### 3.3.7. Waste/Attractant Management

Attractants should not be present on site for prolonged periods. Workers are to pack out what was packed in concerning food and associated garbage with no garbage to be left on site, unless secured in a bear-proof container. Workers are to immediately report any nuisance wildlife sightings to the Mine Manager. The Mine Manager will contact the BC Conservation Officer Service as required to deal with nuisance wildlife.

Project related chemical attractants (e.g., lubricants, fuels), should be securely stored, transported and handled as to avoid environmental contamination and wildlife ingestion. Any fuel or lubricant leaks should be captured and contained immediately (MoE, 2009). Machinery surfaces should be kept free of grease and oil. Fuels and lubricants must be stored at a greater distance than 30m from a stream, lake or wetland and with proper WHMIS labels (MoE, 2009). Secondary containment must be provided for large containers (greater than 454 liters; MoE, 2009). A spill-response plan should be established and at least one kit capable of containing and absorbing fuel spills should be available on site (MoE, 2009). All containers must be removed at the end of the field season unless otherwise authorized by an inspector.

All workers will be educated on waste management policies that are intended to limit human-wildlife interactions and will assist in keeping the risk of encounters to a minimum. For each case where misdirected waste is observed, the location, date, and time of the observation as well as the type and amount of waste will be recorded. If wildlife is observed interacting with waste, the species observed, number of individuals, behaviour and condition of the animal(s) will be recorded.

When monitoring identifies situations where wildlife are accessing waste, a management response will be triggered. The response will assess the situation and determine the cause of the problem. Adaptive management will be developed on a case-by-case basis when waste misdirection is identified. Problem wildlife must be reported to local wildlife authorities. Additional measures should include:

- Dispose of refuse/garbage in accordance with the Waste Management Plan;
- Manage roadway vegetation to allow for increased visibility and re-vegetating roadsides with suitable species mixes to limit attracting wildlife;
- Remove carrion from Project roads; and
- Avoid creation of roadside pools attractive for amphibians.

### 3.3.8. No Hunting/Fishing/Shooting Policy

CGC will implement and monitor compliance with a no hunting and shooting policy for the permitted mine areas. Furthermore, CGC will implement a no hunting policy for all employees and contractors while on company business or while commuting to and from the mine site. Signage will be posted on site and all site personnel will receive training (Section 4.2) that includes an overview of this policy.

### 3.3.9. Wildlife Sightings and Encounters

Sightings of wildlife will be recorded by all employees and contractors on site using a standard wildlife reporting template developed for CGC. All problem/unusual interactions (e.g., nuisance, habituated or injured wildlife) with wildlife should be reported immediately to the Conservation Officer Service. The intention of this “observe, record and report” policy is to:

- Identify species presence and abundance on and near the Project;
- Identify locations where species most often interact with the Project;
- Highlight areas of potential risk to wildlife and employees;
- Highlight possible waste management issues;

- Identify locations of animal-vehicle near misses and mortality (if applicable);
- Over time, provide an indication of possible Project-related avoidance effects.

### 3.3.10. Firearm Policy

CGC's firearm policy allows employees and contractors to carry firearms when working in remote conditions, if necessary. However, only those trained, certified, and authorized are permitted to handle firearms. Authorization, transportation, use of firearms will abide by the *Firearms Act, 1995*. Firearms will be used in a safe manner and will only be used for personal defense when other deterrence methods have been exhausted (e.g., bear spray).

Employees and contractors will be approved and signed off by the mine manager to carry and use firearms once they:

- Successfully complete an approved firearms training program and have a valid certificate of training (issued through the Ministry of Attorney General - Police Services Branch, Justice Institute of B.C., or a private training agency proficient in firearms training)
- Have a valid Firearms Possession and Acquisition Licence
- Have received the wildlife training orientation for site and are familiar with the no hunting policy while within the permitted mine area

### Use and Storage

Three Mossberg 590S, pump action 12-gauge shotguns will be stored at the Jade City camp. Authorization to access firearms will be under the control of the site manager or in their absence, their designated replacement. Storage of firearms will abide to the following requirements at all times:

- Firearms will be stored in a locking metal gun cabinet (Stack On eight firearm unit or similar) when not being used.
  - Ammunition will be stored in a separate locked ammunition container.
- Firearms will be stored in the cabinet unloaded and rendered inoperable by a combination cable lock through the action and with chamber flags inserted into their chambers which will visibly confirm their SAFE, unloaded status.
- There will be a prohibition on loaded firearms in the camp unless an emergency situation arises that requires a loaded firearm. Firearms returning to camp from the field will be unloaded and rendered inoperable by a combination cable lock through the action before entering camp.
- Firearms transported to work field sites will be transported in the company vehicles unloaded and rendered inoperable by a combination cable lock through the action.
- Firearms will be carried in the field with their chambers empty (i.e., unloaded), their magazines loaded with slugs, and their muzzles covered by tape to prevent debris from entering.
- All firearm trained personnel will undertake firearm practice at site at a safe and legal location, yet to be determined, to maintain their skills annually.

Inventory of firearms and ammunition will occur monthly, and records will be maintained. Any discharge of firearms will be reported within 24 hours to the mine manager.

### 3.4. Species-specific Mitigation and Management Measures

#### 3.4.1. Species-Specific Timing Windows

There are timeframes during which wildlife are particularly sensitive to disturbance and habitat alteration. Where possible, Project activities will avoid disturbing wildlife during species-specific sensitive periods, particularly during construction (e.g., vegetation clearing). If avoidance is not possible, pre-construction surveys will be conducted to identify sensitive wildlife features and implement appropriate procedures to minimize potential adverse effects to these areas.

The Project footprint overlaps with species at risk occurrences and areas of critical habitat. Table 3.4-1 and Table 3.4-2 outline the species that are most likely to be encountered on site and their species-specific least risk timing windows.

Table 3.4-1. Summary of site-specific and species-specific timing windows.

| Species                 | Risk Timing Windows  | Risk Timing Window Dates <sup>1</sup>   |
|-------------------------|--|---|
| <b>Moose, Mule Deer</b> | The calving or fawning period (including late parturition, birth and post-parturition) from mid-May to mid-July for moose and deer has been identified as critical. The winter rut and late winter period when forage species are sparse have been identified as a cautionary period (BC MFLNRO, 2014).  | <b>Moose:</b><br>Low risk <sup>2</sup> : July 16 – November 15<br>Caution <sup>3</sup> : November 16 – May 14<br>Critical <sup>4</sup> : May 15 – July 15<br><b>Deer:</b><br>Low risk: July 16 – November 14<br>Caution: November 15 – May 14<br>Critical: May 15 – July 15 |
| <b>Caribou</b>          | Caribou are most sensitive to disturbance during late winter and pre-calving season (late-stage pregnancy cows), and calving and rearing period from mid-January to mid-July for woodland caribou has been identified as critical. The winter/rut period between mid-September to mid-January has been identified as a cautionary timing window (BC MFLNRO, 2014). | Low risk: July 16 - September 14<br>Caution: September 15 – January 14<br>Critical: January 15 - July 15<br>Critical: Migration period in north-central BC April 1 – May 20, December 1- January 1  |
| <b>Stone's Sheep</b>    | The late winter and birthing period occurring from mid-January to mid-July has been identified as critical for Stone's sheep. The winter/rut period from mid-November to mid-January has been  | Low risk: July 16 – November 14<br>Caution: November 15 – January 14<br>Critical: January 15 – July 15  |

<sup>1</sup> Species-specific timing windows taken directly from The Compendium of Wildlife Guidelines for Industrial Development Projects in the North Area, BC (BC MFLNRO, 2014).

<sup>2</sup> **Low risk:** Restrictions would not normally apply. Development should be planned within these timeframes, best management practices and strategies apply (BC MFLNRO, 2014).

<sup>3</sup> **Caution:** Operators should avoid development activities during these timeframes. In the event that working within a cautionary window is unavoidable, proponents must contact an appropriate QP to discuss alternatives, along with potential mitigation and monitoring plans. A referral to work in this window must be accompanied by a rationale, mitigation and monitoring plan (BC MFLNRO, 2014).

<sup>4</sup> **Critical:** Development activities are not appropriate during this timeframe. In the event that working within a critical window is unavoidable, proponents must contact an appropriate QP to discuss alternatives, along with potential mitigation and monitoring plans. A referral to work in this window must be accompanied by a rationale, mitigation and monitoring plan (BC MFLNRO, 2014).

| Species                        | Risk Timing Windows  | Risk Timing Window Dates <sup>1</sup>  |
|--------------------------------|--|--|
|                                | identified as a cautionary timing window (BC MFLNRO, 2014).  |  |
| <b>Mountain Goats</b>          | The late winter and birthing period, from mid-January to mid-July is identified as a critical timing window. The winter rut period occurring from the beginning of November to mid-January is identified as a cautionary timing window (BC MFLNRO, 2014).  | <b>Low risk:</b> July 16 – October 31<br><b>Caution:</b> November 1 – January 14<br><b>Critical:</b> January 15 – July 15  |
| <b>Grizzly and Black Bears</b> | January through March for birthing as well as the winter denning period (October through March to May) in well-drained, high-elevation slopes are considered critical periods for grizzly bear. Cautionary periods apply from April through until October for to feeding activities and are specific to habitat features in which bears congregate or which form important local food sources (BC MFLNRO, 2014).   | There are no low-risk timing periods<br><b>Caution:</b> April until October<br><b>Critical:</b> October until March  |
| <b>Furbearers</b>              | The critical period for wolverine spans the natal, early rearing and late winter periods, generally occurring between February and the end of June. Wolverine are sensitive to disturbance, particularly from roads and recreational activities. Suspected or known denning sites and suitable habitat (e.g., classes 1-3 coarse woody debris or rocky colluvium) should be maintained wherever practicable. Wolverine are more sensitive to human disturbance between March and June (Weir, 2004). The cautionary period occurs from the end of June to the beginning of August.<br><br>Fisher critical periods include the natal and early rearing, or late winter period. Parturition may occur starting in mid-March, and dens may be established prior to this. Kits may remain in natal dens until June (BC MFLNRO, 2014). | <b>Wolverine:</b><br><b>Low risk:</b> August 2 – January 31<br><b>Caution:</b> June 30 – August 1<br><b>Critical:</b> February 1 – June 29<br><br><b>Fisher</b><br><b>Low risk:</b> August 2 – March 14<br><b>Caution:</b> June 30 – August 1<br><b>Critical:</b> March 15 – June 30 |
| <b>Migratory Birds</b>         | To avoid contravention of both the <i>Wildlife Act</i> and the <i>Migratory Birds Convention Act</i> , vegetation clearing will be conducted as described in this section. The nesting window for breeding migratory birds in the northern Rockies spans approximately from April 21 through August 13 (Zone A4). The critical timing window that encompasses the nesting period for Trumpeter swan occurs from the beginning of April to the end of August.   | <b>Trumpeter swan:</b><br><b>Critical:</b> April 1 to August 31<br><br><b>All other species:</b><br><b>Critical:</b> May 1 – July 31   |
| <b>Raptors</b>                 | Critical periods include the nesting period, including courtship, nest initiation, egg laying and young-in-nest periods (BC MFLNRO, 2014). Critical periods vary based on the region and raptor species (BC MFLNRO, 2014).   | <b>Gyrfalcon</b><br><b>Critical:</b> March 1- July 18  |



| Species  | Risk Timing Windows  | Risk Timing Window Dates <sup>1</sup>  |
|--|--|--|
| <b>Bats</b>  | Critical timing windows exist where winter hibernation and summer birthing sites exist. Clearing activities will be scheduled outside the sensitive hibernaculum (October to May; if identified) and maternity roosting (mid-May to end of September) windows, whenever possible. If clearing activities are not able to be scheduled around these times, pre-clearing surveys will be conducted to identify bat habitat features within the proposed footprint (BC MFLNRO, 2014). | <b>Critical:</b> Maternity roost sites, May 15 – September 30; Hibernaculum sites, October 1 to May 31 |
| <b>Amphibians<br/>(Western Toad,<br/>Wood and<br/>Spotted Frogs)</b> | For western toads, caution should be taken throughout the summer around known and potential breeding lakes/ponds. In winter, vegetation clearing and ground disturbance around the breeding lakes/ponds should be restricted to protect unknown overwintering locations. The spring breeding season has been identified as a critical period (BC MFLNRO, 2014).  | <b>Western Toad</b><br><b>Caution:</b> Summer<br><b>Critical:</b> Winter and spring                    |

Table 3.4-2. Site-specific and species-specific timing windows (BC MFLNRO, 2014)<sup>5</sup>.

| Species                 | January | February | March  | April  | May    | June   | July   | August | September | October | November | December |
|-------------------------|---------|----------|--------|--------|--------|--------|--------|--------|-----------|---------|----------|----------|
| Moose, Mule Deer        | Yellow  | Yellow   | Yellow | Yellow | Yellow | Yellow | Red    | Green  | Green     | Green   | Green    | Yellow   |
| Caribou <sup>6</sup>    | Yellow  | Red      | Red    | Red    | Red    | Red    | Red    | Green  | Green     | Green   | Yellow   | Yellow   |
| Stone's Sheep           | Yellow  | Red      | Red    | Red    | Red    | Red    | Red    | Green  | Green     | Green   | Green    | Yellow   |
| Mountain Goats          | Yellow  | Red      | Red    | Red    | Red    | Red    | Red    | Green  | Green     | Green   | Yellow   | Yellow   |
| Grizzly and Black Bears | Red     | Red      | Red    | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow    | Yellow  | Red      | Red      |
| Wolverine               | Green   | Green    | Red    | Red    | Red    | Red    | Red    | Yellow | Green     | Green   | Green    | Green    |
| Fisher                  | Green   | Green    | Green  | Red    | Red    | Red    | Red    | Yellow | Green     | Green   | Green    | Green    |
| Migratory Birds         | Grey    | Grey     | Grey   | Grey   | Red    | Red    | Red    | Red    | Grey      | Grey    | Grey     | Grey     |
| Trumpeter Swan          | Grey    | Grey     | Grey   | Red    | Red    | Red    | Red    | Red    | Grey      | Grey    | Grey     | Grey     |
| Gyrfalcon               | Grey    | Grey     | Red    | Red    | Red    | Red    | Red    | Grey   | Grey      | Grey    | Grey     | Grey     |
| Bats                    | Grey    | Grey     | Grey   | Grey   | Red    | Red    | Red    | Red    | Red       | Red     | Grey     | Grey     |
| Western Toad            | Red     | Red      | Red    | Red    | Red    | Red    | Yellow | Yellow | Yellow    | Yellow  | Yellow   | Red      |

<sup>5</sup> Species-specific timing windows taken directly from The Compendium of Wildlife Guidelines for Industrial Development Projects in the North Area, BC (BC MFLNRO, 2014).

<sup>6</sup> Caribou migration period is also critical in north-central BC from April 1 to May 20, and December 1 to January 1.

### 3.4.2. Species-Specific Mitigation Measures

Photos collected from cameras placed along roads across the Project area resulted in the highest diversity of photos and species observed. Roads provide travel corridors for many species, especially large predators like wolves. However, this facilitation of movement can also be the cause of decline for species like caribou. Habitat fragmentation can directly impact wildlife (e.g., mortality from road collisions), or indirectly by increasing predation, impeding movement, and altering ecological relationships (Gayton, 2007). For a summary table of wildlife mitigation measures and actions see Appendix 1. General mitigation measures include:

- Obey speed limits and respect wildlife crossing signs – give wildlife the right-of-way.
- Do not leave attractants (e.g., food, garbage) unattended unless in a bear-proof container.
- Wait until an animal has cleared the area to resume work or travel.
- Record any wildlife sightings or incidents on the wildlife sighting log.

#### Ungulates (Moose and Mule Deer)

Where possible, roads and Project activities should occur outside of moose winter and calving ranges (MSRM, 2004). Both mine sites are within close proximity to high value moose habitat (MSRM, 2004). CGC employees and contractors have observed extensive moose activity within and adjacent the Project boundaries. The following mitigations and actions will be followed:

- Wildlife crossing signs and speed limit signs will be placed where appropriate along the site access roads. Workers are to obey the speed limit and respect the wildlife crossing signs.
- Where ungulates are encountered on Project roads, workers will give wildlife the right of way and wait until the wildlife has cleared the road before proceeding.
- Workers are not to feed ungulates and are to pack out what was packed in concerning food and associated garbage, with no garbage to be left on site, unless secured in a bear-proof container.
- Ungulates are to be respected and given space. Workers should stay at distances sufficient to prevent changes of behaviour to animals (greater than 500 m line-of-sight is recommendation; MoE, 2006).
- Young fawns and calves are not to be disturbed, and mother and young are to be given a wide berth.
- Avoid ungulates during rutting season as they can become very aggressive and charge. Be aware of the animals' body language. A threatened animal may lower its head and flatten its ears before it charges. If these behaviours are observed, find an escape route.
- Workers are to report any ungulate sightings to the Mine Manager through the submission of shift reports, adjusted to include a wildlife log.

The road and surrounding area leading to Taurus TSF has been identified as highly used moose habitat. Additionally, in many independent occurrences there have been offspring observed as well, indicating high quality habitat in this area. This road is gated by CGC; however, vehicle traffic was still observed throughout the study period. It is recommended that speed limits are established with visible signage along this road to prevent any direct mortality as well as to limit disturbances from sound and dust. Additional mitigation measures for moose include:

- Avoiding development in highly used moose habitat (including identified mineral licks), when possible,
- Minimizing access for predators by avoiding creation of new roads when possible and limiting sightlines on current roads,

- Reclaiming any roads that are decommissioned.

### Woodland Caribou

The Project area overlaps with the Horseranch caribou herd, but does not overlap with core caribou winter range, extended caribou winter range or migration corridors (MSRP, 2004). However, caribou have been proven to occur within the Project boundaries, therefore measures must be followed to mitigate potential impacts to caribou or caribou habitat. The following mitigations and actions will be followed:

- Pre-clearing surveys will be completed for caribou habitat and mineral licks.
- Wildlife crossing signs and speed limit signs will be placed where appropriate along the site access roads. Workers are to obey the speed limit and respect the wildlife crossing signs.
- Where caribou are encountered on Project roads, workers will give wildlife the right of way and wait until the wildlife has cleared the road before proceeding.
- A stand-down policy will be required if caribou are observed within a minimum of 500 m (MoE, 2006) to active exploration work areas. All work will stop immediately and only allowed to commence again at least 10 minutes after the caribou have left the area.
- Workers are not to feed caribou and are to pack out what was packed in concerning food and associated garbage with no garbage to be left on site, unless secured in a bear-proof container.
- Project related noise should be reduced as this may displace caribou (see stand-down policy).
- Caribou are to be respected and given space.
- Calves are not to be disturbed, and mother and young are to be given a wide berth.
- Avoid caribou during rutting season as they can become aggressive and charge. Be aware of the animals' body language. A threatened animal may lower its head and flatten its ears before it charges. If these behaviours are observed, find an escape route.
- Workers are to report any caribou sightings to the Mine Manager.

In addition, an inventory (remote and field data) of stand-level habitat features important for caribou will be recorded by QPs familiar with caribou ecology across the development area and affected landscape (BC MFLNRO, 2014). For example, mineral licks will be documented by KES during field work and maps will be updated with any important habitat features on an ongoing basis. Known and potential caribou features should be maintained, and ensure caribou have access to them during high-use seasons (April to October, BC MFLNRO, 2014). This may include:

- Avoiding developments within 250 m of mineral-lick sites and wildlife trails connecting to mineral licks;
- Where roads or linear corridors, facilities or other developments cannot be avoided near mineral licks, ensure that connectivity to adjacent forested areas is maintained;
- For existing roads or other linear features near wildlife habitat features, minimize use and disturbance during critical-use periods; and,
- Avoid disruptions to drainage and groundwater near mineral licks and wildlife habitat features (BC MFLNRO, 2014).

From updated 2021 field data, a caribou occurrence observed on the wildlife camera (KES03) highlighted caribou habitat use of the fen/open water wetland area near Bane portal. This area has been designated as a “sensitive wildlife zone” (Figure 3-13) and extra precaution should be taken when working in this area. Winter range for northern caribou is often associated with black spruce, sedge wetlands that provide caribou with arboreal lichen and mineral overflow (MSRM, 2004). Therefore, wetlands across the Project area should be given careful consideration during any new development, especially the network of wetlands adjacent to Bane portal (see Figure 3-13). Additionally, caribou require large patches of unfragmented habitat to avoid predators. In multiple cameras, wolves were observed travelling along roads in the Project area. Therefore, avoiding and minimizing the creation of new roads is crucial for reducing predator access into caribou habitat. Whenever feasible, development and exploration should be avoided in mature, lichen rich forests and in areas surrounding wetlands.

### Stone’s Sheep and Mountain Goats

Stone’s sheep and mountain goats have been identified adjacent the Table Mountain and Taurus Mine sites. Portions of the Table Mountain Mine site overlap with high value Stone’s sheep habitat and are near mountain goat habitat (east of the Project areas in the mountain ranges surrounding Horseranch Peak and Deadwood Lake; MSRM, 2004). Both species are found in alpine areas of the region and access is considered the main cause of disturbance (MSRM, 2004). As mountain ungulate range is limited, even small habitat alterations within winter habitat can have large effects on the mountain ungulate populations (MSRM, 2004). Goals for mountain ungulate management from the DLSRMP include:

- Maintain the structural and functional attributes of mountain ungulate winter range;
- Avoid disturbance of mountain ungulates during vulnerable periods; and,
- Minimize mortality risk, outside of legal hunting activity (MSRM, 2004).

The following mitigations and actions will be followed on site:

- Workers are advised to be vigilant of the potential for Stone’s sheep and mountain goats to cross roadways and work areas. Wildlife crossing signs and speed limit signs will be placed where appropriate along the site access roads. Workers are to obey the speed limit and respect the wildlife crossing signs.
- Where sheep or goats are encountered on Project roads, workers will give wildlife the right of way and wait until the wildlife has cleared the road before proceeding.
- Workers are not to feed mountain ungulates and are to pack out what was packed in concerning food and associated garbage with no garbage to be left on site, unless secured in a bear-proof container.
- Road use should be minimized near natal/ early rearing areas during kidding/ lambing times (April 15 – June 15), and temporary roads should be deactivated after use (MSRM, 2004).
  - Early rearing periods are typically near winter ranges and close to escape terrain (e.g., steep slopes and cliffs; Demarchi & Hartwig, 2004; Ministry of Environment (MoE), 2010). During early spring, mountain ungulates typically inhabit lower elevations with early green-up, and follow new vegetation up to high elevations as summer progresses (Demarchi & Hartwig, 2004; MoE, 2010).
- Mountain ungulates are to be respected and given space. Young lambs and kids are not to be disturbed, and mother and young are to be given a wide berth.

- Avoid mountain ungulates during rutting season as they can become very aggressive and charge. Be aware of the animals' body language. A threatened animal may lower its head and flatten its ears before it charges. If these behaviours are observed, find an escape route.
- Workers are to report any mountain ungulate sightings to the Mine Manager.

### Grizzly and Black Bears

The following is not intended to replace bear awareness training, which is a key component of the safety protocol for this site and is required for all site personnel. The following mitigations and actions will be followed:

- Workers are required to carry bear spray when working away from equipment and vehicles and workers must be trained on its proper use.
- Sufficient distance (minimum 100 m in open areas) must be maintained from bears as to not disturb their activities.
- If an occupied winter bear den is found, a stop work order will be issued and activities will not disturb the denning bear (minimum of 60 m) for the duration of occupancy (BC FLRNORD, 2014).
- Workers should be vigilant, watching for bear signs, such as scat, tracks, signs of grazing, overturned logs, and claw marks. Workers should be particularly vigilant when working alongside running water, in thick bush, or if a strong wind is blowing as this reduces a bears' ability to hear and smell, increasing the possibility of a surprise encounter.
- Workers are to pack out what was packed in concerning food and associated garbage with no garbage to be left on site, unless secured in a bear-proof container. Bear attractants should not be present on site for prolonged periods.
- All machine maintenance sites should be seen as potential bear attraction sites (e.g., lubricants).
- Workers are to immediately report any bear sightings to the Mine Manager. Problem bears (and other problem wildlife) should be reported to local wildlife authorities.

### Furbearers

In addition to bears, other furbearers may use the site such as cougar (*Puma concolor*), Canada lynx (*Lynx canadensis*), American marten, fisher, wolverine, weasel species (*Mustela spp.*), wolves, and coyote (*Canis latrans*). The following mitigations and actions will be followed:

- If clearing is required during the critical periods, pre-clearing surveys will be completed to determine if any denning features are in the area.
- Buffer zones will be established around identified denning features. Scent reduction is critical to avoid habituation and indirect or direct mortality. Attractants should not be present on site for prolonged periods.
- Workers are to pack out what was packed in concerning food and associated garbage with no garbage to be left on site, unless secured in a bear-proof container.
- Workers are to immediately report any furbearer sightings to the Mine Manager.

### Nesting Migratory Birds

Active migratory bird nests may occur within or near potential development or operational activity areas. Rescheduling activities to minimize risks to migratory birds and their habitats is recommended. Nesting surveys should be conducted by a QP to determine potential nesting activity within the ongoing

and proposed exploration areas if tree removal or vegetation clearing is required. A detailed protocol has been developed for a QP to follow to conduct pre-clearing nesting surveys on site. If active nests are observed, a suitable avoidance buffer or restrictive construction timelines will be imposed during relevant development phases, where applicable.

As per the provincial *Wildlife Act* (section 34), considerations in planning are necessary to maintain sustainable populations of migratory birds. These include protecting key habitat, scheduling activities to avoid breeding season, conducting pre-clearing surveys for migratory bird use, and identifying priority species. While determining the presence of nests using active search techniques is generally not recommended, it may be appropriate when conducted by skilled and experienced observers and using appropriate methodology, especially when clearing outside of the nesting window is not possible on a site (e.g., due to site seasonality and access limitations). Surveys will be completed by QP or an appropriately trained CGC employee throughout the nesting window for the region, from late-April until mid-August. Training and professional expertise will be made available to the employee through the Environmental Consultant. Once a nest sweep survey has been completed, the site must be cleared within 3 days. If an area is not cleared within this timeframe, a second nest sweep survey must be completed. Where appropriate, buffer zones and setback distances may be recommended based on guidance from Environment and Climate Change Canada.

### Raptors

Active raptor nests may occur within or near potential development or operational activity areas. Raptors and nest sites (active, inactive, alternate) presence must be noted during baseline monitoring. Nest sites, even if inactive, must not be removed or destroyed. Development activities that may disrupt raptor activities must be avoided during sensitive periods. Mitigation measures should follow the above guidelines for nesting migratory birds.

### Bats

Mining activities can have a large potential impact on the quality of bat habitat and on bat populations. Closing or re-opening inactive mines can degrade bat habitat and result in direct mortality for bats. On the other hand, correctly managed mines can maintain suitable bat habitat and effectively support bat conservation and recovery objectives. Mines can serve as important roost habitat for bats and can also be used for hibernation or (rarely) as nursery roosts (Holroyd & Craig, 2016). Altering the mine site or surrounding habitat during activation or closing activities can destroy or degrade winter and summer roosting habitat, in addition to foraging habitat. Active maternity roosts or hibernacula may occur within or near potential development or operational activity areas. Pre-clearing surveys will be conducted by an appropriately trained CGC employee to identify potential species present and their roosting habitats within and adjacent to the ongoing or proposed exploration areas. Training and professional expertise will be made available to the employee through the Environmental Consultant. If a significant roost is identified, proponents are encouraged to plan activities to limit impacts on bats and their habitat. Buffer zones should be established around any habitat feature identified as a hibernacula or roost. The most effective methods of minimizing potential negative effects to bats are to 1) avoid damaging habitat and

2) conduct activities when bats are not present. If there is an identified loss of bat habitat due to operations or development, an offset of roosting structures must be implemented.

Details of the ongoing baseline studies for bat use of the historical mine workings in the Project area are included in the Updated Reclamation and Closure Plan for Table Mountain (KES, 2019 or as updated from time to time) and have been used to develop the Portal Closure Plan for the site.

### Amphibians

The key identified risk to amphibians is the creation of breeding habitat along roads and drill pads, which are later altered in the spring as the tadpoles are maturing. To minimize the creation of such habitat, roads and landings should be constructed in a manner that does not encourage ponding of water. Understanding the use of the Project area by amphibians should be conducted in future baseline studies. In the spring and summer prior to disturbance, standing water features that may be disturbed through the exploration work should be examined by an appropriately trained CGC employee, who will look for the presence of egg masses or tadpoles. In the case of such a discovery, these sites must be left until the tadpoles have matured (e.g., mid-June for western toad) or the tadpoles must be translocated following strict federal and/or provincial protocols. In the event of translocation, a specific plan will be developed, and the work supervised, by a QP (e.g., RPBio). In addition, amphibian road mortality hotspots should be identified, and mitigation measures applied. These may include creating amphibian underpasses and fencing to avoid direct mortality. Any observations of amphibians that exist in ponded water on site must be reported to the Mine Manager. CGC performs “During and After” inspections of every drill site and will require that employees or contractors completing these surveys include any wildlife observations.

A summary of mitigation measures discussed herein has been provided in Appendix 1.

## 4. Plan Implementation

### 4.1. Roles and Responsibilities

#### 4.1.1. Mine Manager

The Mine Manager (or delegate) bears overall responsibility for the mining work and responsibility for on site environmental monitoring and compliance relating to mining activities. The Mine Manager (or delegate) will coordinate with the appropriate staff to ensure that objectives are being met. The CGC Mine Manager delegate will be the most senior member of the exploration team and will be registered with the Mines Inspector for instances where the Mine Manager is not available on site.

The Mine Manager will also fulfill or delegate the roles of site supervisor and environmental monitor. The responsibilities of the environmental monitor will be supported by the Environmental Consultant, KES.

The Mine Manager (or delegate) will:

- Ensure adequate resources are available to enable implementation of this plan;



- Be accountable for the overall environmental performance of the site, including the outcomes of this plan;
- Act as a resource to site personnel by providing guidance relating to permit conditions, commitments, regulation, acts and interpretation of legislation;
- Be responsible for obtaining copies of the required environmental permits to be stored on site.
- Be responsible for the implementation of management plans;
- Be the liaison for government agencies for permitting and non-compliance incidents; and
- Be the liaison for First Nations, through their designated representatives, for permitting as well as erosion and sediment control concerns/actions;
- Be responsible for monitoring the implementation of management plans.

#### 4.1.2. Environmental Consultant

The Environmental Consultant is responsible for supporting the monitoring of compliance with environmental programs, the implementation of management plans, and relevant permits. The Environmental Consultant reports to the Mine Manager. The Environmental Consultant will:

- Act as a resource to the mining team by providing guidance relating to permit conditions, commitments, regulation, acts and interpretation of legislation;
- Be responsible for supporting and conducting monitoring of environmental program, management plans and making recommendations; and
- Assist the Mine Manager in liaising with government agencies or First Nations on the aspects of this plan.

#### 4.1.3. Qualified Persons (QP)

A QP is one who possesses the specified knowledge, skills, training, experience and other requirements to perform a specified type of work as set out in legislation, set out in government policy or required by an organization satisfactory to government that has the responsibility for specifying requirements. The requirements include holding an accreditation bestowed by government, a professional association constituted by an Act or other organization satisfactory to the government.

The qualifications required to perform a certain type of work may include registration with a professional association and CGC will require that all QPs signing off on work for the site are professionals registered with a relevant legislated self-regulating association in BC.

#### 4.1.4. Employees and Contractors

A safety and environmental orientation will be developed for site personnel and contractors and will include the wildlife management actions specific to mining activities. A key component of this orientation is a clear explanation of each individual's role and responsibility in the management of wildlife and their habitats. A current map of all important nearby wildlife habitat will be provided to all site employees and contractors at the kick-off meeting or before new employees or contractors access the site periodically throughout the year (e.g., Figure 3-13).

## 4.2. Training

Training will be provided to all employees and contractors that will be performing work on site. Training will focus on the following aspects:

- Current wildlife management concerns within the Project area;
- Areas of high wildlife occurrences and buffers established for these zones;
- Bear awareness;
- Prohibition of hunting and shooting policy for the permitted mine areas;
- No fishing policy for all employees and contractors while on company time;
- Zero tolerance policy for employees, contractors and suppliers feeding or harassing wildlife;
- Waste disposal procedures;
- Reporting requirements;
- Wildlife identification and;
- General roles and responsibilities under this plan.

Training will be provided upon arriving on site each year. Training schedules will be flexible to allow for changes in site personnel throughout the year, if and when applicable. Wildlife training will be a part of site orientation for all new staff and included in annual refresher training for returning employees. While not all site personnel will be involved directly in the implementation of the plan, all site personnel will be aware that the plan exists and the appropriate person to contact if they observe a potential wildlife management concern during their regular site activities. CGC will provide all site employees or contractors with updated maps indicating areas of concern with respect to wildlife management and booklets for wildlife identification (e.g., species-specific areas of occurrence, areas to avoid disturbing). Wildlife sighting logs will be posted throughout site buildings and a sign off sheet will be utilized to ensure staff and contractors that have read and understood training documents.

## 4.3. Monitoring and Maintenance

The aim of the monitoring program is to evaluate the plan, to ensure that effects of mining activities are mitigated in a timely manner. The objective of monitoring, and reaction to findings, is to successfully minimize impacts to wildlife and their habitats. The following monitoring and maintenance procedures will be in place:

- Pre-clearing surveys will be completed prior to ground disturbance at the site to identify any wildlife habitat features that may be disturbed (e.g., dens, roosts, nests);
- Clearing activities will be supervised to ensure no accidental losses of wildlife;
- A standardized reporting template for all wildlife sightings and encounters;
- A periodic review of all reported wildlife sightings and encounters to ensure an efficient adaptive management response;
- A standardized reporting template for all non-compliances related to waste management/storage;
- A periodic review of all reported waste concerns and associated remedial actions to ensure an efficient adaptive management response.

This plan will be reviewed and updated at least annually.

#### 4.3.1. Monitoring Results

The results of the monitoring program will be used to measure the success of the management strategies and to identify where corrective action and/or additional mitigation is necessary. The monitoring data will also be used to provide feedback to modify any management and monitoring procedures implemented at the site, as required. CGC will keep records pertaining to wildlife observations and the preservation of wildlife habitat features in each year of the ongoing and proposed exploration activities (e.g., permits, site inspection results, documentation of remedial actions taken, if required). Data will be entered in a format and program that allows for comparison between years.

Key performance indicators for this plan include:

- Minimized disturbance associated with the exploration activities through careful planning of necessary construction works.
- Reduced wildlife encounters through the implementation of reduced speed zones and a zero-tolerance policy regarding wildlife harassment and feeding.
- Reduced risk of habituation of wildlife through proper waste management.
- Maintenance of wildlife sighting records.

#### 4.4. Trigger Action Response Plan

The Trigger Action Response Plan (TARP) outlines specific triggers, actions to be taken, and reporting protocols relative to the requirements of this plan (Table 4.4-1). If ineffective wildlife management practices are identified through the monitoring and maintenance of this plan, the Mine Manager or the designee will be notified. The Mine Manager, in consultation with a QP, will determine if a response is necessary. If the proposed mitigation measures are not practicable (e.g., realigning trail or drill pad locations) then the Mine Manager, the Environmental Consultant and relevant QPs selected by the Mine Manager will collaboratively determine when it may be appropriate to consider other means of mitigation. This will be determined on an as-needed, site-specific basis. An example of the TARP framework to be implemented as a part of this plan is provided below.

Table 4.4-1. Trigger Action Response Plan (TARP) for wildlife management throughout the Project area.

| Level of Risk | Trigger   | Action/Response   |
|---------------|---|---|
| Normal        | Vegetation clearing and construction activities     | <ul style="list-style-type: none"> <li>• Avoidance of sensitive windows, when possible</li> <li>• Pre-clearing surveys to be completed by QP</li> <li>• Documentation of critical habitat features identified, track walked, decision to allow or redirect clearing activities</li> </ul> |
| Level 1       | Wildlife observation/sighting                       | <ul style="list-style-type: none"> <li>• Report observation/sighting to the Mine Manager</li> <li>• Record observations on the wildlife sighting log</li> <li>• Monitor reports to apply adaptive management (e.g., signage)</li> </ul>   |
| Level 2       | Wildlife encounters due to misdirected waste        | <ul style="list-style-type: none"> <li>• Report issue to the Mine Manager</li> <li>• Monitor reports to apply adaptive management (e.g., improved operational controls)</li> </ul>  |
| Level 3       | Wildlife mortality or other human-wildlife conflict | <ul style="list-style-type: none"> <li>• Report issue to the Mine Manager</li> <li>• Report issue to appropriate government agency</li> <li>• Remove/ dispose of carrion/ carcass appropriately</li> </ul>  |
|               | Habituated wildlife                                 |   |

#### 4.5. Record Keeping

Records, including formal reports, field notes and other communications (e.g., recommendations and relevant onsite communications, worker reports of wildlife sightings), will be maintained by the Mine Manager with the help of the Environmental Consultant, KES.

### 5. Adaptive Management

The Wildlife Management Plan is an adaptive document that will evolve in response to wildlife monitoring results, additional field work, changes in site development, conditions or plans, and discussions with various stakeholders, including indigenous groups. This plan will be reviewed annually by CGC to determine if the plan is being correctly implemented and to identify any improvements that can be made to ensure effective management of wildlife and their habitats in the Project area. These improvements will also be made to reflect any changes to best management practices or relevant regulations. The plan may be revised if reviews, inspections or monitoring data indicate that wildlife management practices do not meet objectives or regulatory requirements. Other potential updates to the plan may reflect any changes that result from unforeseen circumstances or the implementation of alternative mitigation measures.

CGC will work towards continual improvement of wildlife management at the site. The Environmental Consultant will investigate improvements in any trend and assess whether the practices responsible for the improvements can be applied to other areas of the site. Deteriorating trends will be studied to determine the root cause. When the cause is identified, the Environmental Consultant will propose a suitable corrective action to the Mine Manager. Corrective actions may include:

- Increased signage, improved line-of-sight, reduction of attractants in problematic areas;
- Additional training of employees and contractors;
- Enhancement of maintenance or monitoring measures;
- More frequent reviews of the plan and ongoing reporting; and/or
- Additional supervisory oversight.

Data presented in this plan is preliminary and, although provides valuable information regarding wildlife and wildlife habitat use, is not intended to be a final summary of wildlife in the area. Ongoing monitoring and data collection will only help to broaden our knowledge of wildlife and increase efficacy of mitigation measures.

### 6. Reporting and Documentation

Reporting by CGC will ensure consistent implementation of this plan. Summary reports of monitoring activities and results will be compiled and reviewed annually. Compliance reporting will be subject to *Mines Act* permit conditions, as required. Additional reporting to the appropriate government authorities will occur as necessary. Wildlife sightings, interactions, and incidents will all be documented

and included in the annual summary report. Summaries of pre-construction surveys and any mitigation measures implemented (including dates, photos, plans) will be documented as well.

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## Appendix 1

### Summary Mitigation Table

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| <b>Site-specific Mitigation Measures</b>  |
|---|
| Vegetation management along access roads will be done in such a manner that reduces attractiveness and increases visibility of wildlife to drivers.   |
| Gates and signs will be maintained to ensure continued effectiveness in limiting access to authorized vehicles only.  |
| To conserve wildlife habitat, conserve and replace disturbed topsoil and create the smallest disturbance to slopes and vegetation as safe and practical.  |
| If drilling has the potential to affect water quality, drill operators should take appropriate measures to contain drill cuttings and reuse and ultimately dispose of drilling fluids (MoE, 2009).  |
| The impact of noise will be managed and minimized on the environment wherever possible (e.g., regular maintenance, sound-muffling additions, etc.)  |
| Minimize potential effects of light disturbance on wildlife while ensuring safe working conditions (e.g., use direct lighting, timer lighting systems, and LED lights, when possible).  |
| <b>General Wildlife Mitigation Measures/Actions</b>   |
| Pre-clearing surveys will be completed for habitat features (e.g., mineral licks, denning features, hibernacula/roosts, nests). Buffer zones will be established around identified habitat features. <ul style="list-style-type: none"> <li>• Summaries of pre-construction surveys and any mitigation measures implemented (including dates, photos, plans) will be documented.</li> </ul> |
| Obey speed limits and respect wildlife crossing signs.  |
| Give wildlife the right-of-way and wait until wildlife has cleared the road before proceeding.  |
| A stand-down policy will be required if wildlife are observed within a minimum of 500 m (MoE, 2006) to active exploration work areas. All work will stop immediately and only allowed to commence again at least 10 minutes after the wildlife have left the area.  |
| Do not feed wildlife.   |
| Pack out what was packed in concerning food and garbage, with no attractants left on site, unless secured in a bear-proof container.  |
| Wildlife are to be respected and given space. Workers should stay at distances sufficient to prevent changes of behaviour to animals (greater than 500 m line-of-sight is recommendation; MoE, 2006).   |
| Report any wildlife sightings to the Mine Manager through the submission of shift reports or wildlife reporting logs.   |
| Reclaim any roads that are decommissioned.  |
| Minimize access for predators by avoiding creation of new roads when possible and limiting sightlines on current roads.   |
| Project related noise should be reduced when possible.  |
| Problem bears (and other problem wildlife) should be reported to local wildlife authorities.  |
| To minimize loss of wildlife habitat and associated potential impacts, existing disturbances will be used to the maximum extent possible across the Project area.   |
| Collisions between CGC or contractors' vehicles and wildlife will be documented and will include information on the location of the collision. All information on wildlife collisions and carcasses spotted along all private roads will be shared with the Mine Manager who will notify relevant government agencies.  |
| <b>Species-specific Mitigation Measures/Actions</b>   |
| <b>Ungulates</b>  |

|  |
|--|
| Avoid ungulates during rutting season as they can become very aggressive and charge. Be aware of the animals' body language. A threatened animal may lower its head and flatten its ears before it charges. If these behaviours are observed, find an escape route.  |
| Avoid developments within 250 m of mineral-lick sites and wildlife trails connecting to mineral licks.   |
| Where roads or linear corridors, facilities or other developments cannot be avoided near mineral licks, ensure that connectivity to adjacent forested areas is maintained.   |
| For existing roads or other linear features near wildlife habitat features, minimize use and disturbance during critical-use periods.  |
| Avoid disruptions to drainage and groundwater near mineral licks and wildlife habitat features (BC MFLNRO, 2014).  |
| Road use should be minimized near <b>Stone's Sheep</b> and <b>mountain goat</b> natal/early rearing areas during kidding/lambing times (April 15 – June 15), and temporary roads should be deactivated after use (MSRM, 2004).   |
| <b>Bears</b>   |
| Workers are required to carry bear spray when working away from equipment and vehicles and workers must be trained on its proper use.  |
| Sufficient distance (minimum 100 m in open areas) must be maintained from bears as to not disturb their activities.  |
| If an occupied winter bear den is found, a stop work order will be issued and activities will not disturb the denning bear (minimum of 60 m) for the duration of occupancy (BC FLRNORD, 2014).   |
| Workers should be vigilant, watching for bear signs, such as scat, tracks, signs of grazing, overturned logs, and claw marks. Workers should be particularly vigilant when working alongside running water, in thick bush, or if a strong wind is blowing as this reduces a bears' ability to hear and smell, increasing the possibility of a surprise encounter.  |
| All machine maintenance sites should be seen as potential bear attraction sites (e.g., lubricants).  |
| <b>Amphibians</b>  |
| Roads and landings should be constructed in a manner that does not encourage ponding of water.   |
| Prior to disturbance, standing water features that may be disturbed through the exploration work should be examined by an appropriately trained CGC employee, who will look for the presence of egg masses or tadpoles. In the case of such a discovery, these sites must be left until the tadpoles have matured (e.g., mid-June for western toad) or the tadpoles must be translocated following strict federal and/or provincial protocols. |