# CEF Cumulative Effects Framework

# SUMMARY March 2022

# Summary of the Current Condition Report for Grizzly Bear in the Omineca Region | 2019 Analysis

Grizzly bears have ecological, economic, and cultural importance in B.C., they reflect the overall health of the landscape they live in. Many First Nations in B.C. include grizzly bears in their cultural and spiritual traditions, histories, and philosophies. Ecotourism and bear viewing contribute to the provincial economy.

The purpose of this summary is to:

- Share highlights from the Current Condition Report for Grizzly Bear in the Omineca Region | 2019 Analysis; and,
- Inform collaborative discussions among government, natural resource industries, First Nations, and other community stakeholders in support of healthy grizzly bear populations.

**Grizzly Bear Population Units (GBPUs):** Across most of B.C., grizzly bears form one large population. For management purposes, B.C. has been divided into GBPUs based on bear biology, ecological boundaries, and management needs.



Conservation rankings are calculated using Nature Serve's Element Rank Calculator, and are consistent with international standards (BC Conservation Data Centre, NatureServe, IUCN).

#### Indicators used to describe and assess the status of grizzly bear populations and their habitat

Bear Density: estimated number of bears / 1,000 km<sup>2</sup>.

Hunter Day Density: number of days per year in the area's wildlife management units.

**Core Security:** secure habitat larger than 10 km<sup>2</sup> found at least 500 m from people and human infrastructures.

**Front Country:** urban and rural landscapes with high densities of people and bear attractants (e.g. human food, garbage, livestock, fruit trees, crops). Includes roads.

**Quality Habitat Protected:** the amount of high capability grizzly bear habitat protected in conservation areas and wildlife habitat areas.

Bear Mortality: percent female mortality.

**Road Density:** total length of roads divided by the size of the area (km/km<sup>2</sup>).

**BEC Mid-Seral Dense Conifer:** amount of mid-seral dense conifer forest associated with low food supply.

**Quality Food:** estimate of the amount of quality food sources available (e.g. forbs, berries, some grasses and sedges) and salmon biomass.



# **Regional Summary**

Bear densities within the Omineca Region are variable, resulting from human disturbance, topography, terrain and habitat types across the region as it changes from pine-dominated plateaus to mountainous terrain. The highest grizzly bear densities occur in portions of the region where core security areas can be found. Impacts to grizzly bears are driven by human activities, with increasing backcountry access created by forestry activities moving northward through the region. Areas around Prince George, Vanderhoof, Fort St. James, and Mackenzie have the highest potential impacts. The highest road densities occur in the Nation, Nulki, Omineca, Robson, and Parsnip GBPUs. The region has one grizzly bear Wildlife Habitat Area, which is located in the Nation GBPU.

#### **Grizzly Bear Population Unit Descriptions**

# Finlay-Ospika – Very Low Conservation Concern (M5)

This GBPU has high bear density and high connectivity of core security areas. Most of this GBPU has low road densities, negligeable hunter day density, and low mortality risk.

#### Parsnip – Very Low Conservation Concern (M5)

This GBPU has high bear density and high connectivity of core security areas. Most of this GBPU has low road densities, moderate hunter day density, and low mortality risk. Current forestry operations will impact habitat indicators at lower elevation as dense conifer plantations develop closed canopies that impact berry and forage production. This GBPU has moderate habitat protection comprised of high elevation Ungulate Winter Range (UWR) for Caribou.

#### Robson – Moderate Conservation Concern (M3)

This GBPU has high bear density and high connectivity of core security areas. Most of this GBPU has low road densities, although highway 16 and a major rail corridor are present. This GBPU has high mortality risk caused by moderate hunter day density, high front country access and several communities. Current forestry operations will impact habitat indicators as dense conifer plantations develop closed canopies that impact berry and forage production. This GBPU has moderate habitat protection largely comprised of high elevation UWR for Caribou and 3 Provincial Parks.

#### Omineca – Very Low Conservation Concern (M5)

This GBPU has moderate bear density and moderate connectivity of core security areas. Half of this GBPU has high road densities, low hunter day density, and moderate mortality risk influenced by communities. Current forestry operations in the southern half of the GBPU will impact habitat indicators as dense conifer plantations develop closed canopies that impact berry and forage production.

#### Nation – M3 - Moderate Conservation Concern (M3)

This GBPU has low bear density, habitat is becoming increasingly isolated, has very high road densities, and lacks core security habitat. It also has abundant front country and the highest level of hunter day density. This GBPU is a high human conflict zone in the southern half and has low levels of habitat protection. Current and past forestry operations will impact habitat indicators as dense conifer plantations develop closed canopies that impact berry and forage production.

#### Nulki – High Conservation Concern (M2)

This GBPU has very low bear density naturally. It is becoming increasingly isolated, has very high road densities, and lacks core secure habitat. It also has abundant front country and the highest level of hunter day density. This GBPU is a high human conflict zone with Prince George, Vanderhoof, and numerous smaller settlements, and has low levels of habitat protection. Current and past forestry operations will impact habitat indicators as dense conifer plantations develop closed canopies that impact berry and forage production.

#### Moberly 7A – High Conservation Concern (M2)

This GBPU has very low bear density. Habitat is becoming increasingly isolated, has very high road densities, and lacks core secure habitat. It also has abundant front country and a high level of hunter day density. This GBPU is a high human conflict zone centered around Mackenzie and has low levels of habitat protection. Current and past forestry operations will impact habitat indicators as dense conifer plantations develop closed canopies that impact berry and forage production.

## **Opportunities**

- Habitat protection may be beneficial in locations where grizzly bear habitat capability is high, but there are pressures from the combined effects of high road density, high hunter day density, and low core security areas.
- Deactivating and/or restricting access on roads and corridors in high priority grizzly bear habitat could support populations, particularly where forage capability is high.
- Adjusting forest planning practices in priority grizzly bear habitat to conserve or enhance the long-term availability of seasonal foraging habitats (e.g., berry production).

## Conclusion

Grizzly bear habitat is currently managed under other values that benefit grizzly bears such as ungulate winter ranges, wildlife habitat areas (for other species), old growth and biodiversity management, and habitat restoration and road removal. Past and current logging will create closed-canopy plantations. Continued industrial and urban expansion will further reduce viable habitat and increase human-bear conflicts. The effects of climate change on grizzly bears are uncertain.