

# 7. Wells Gray Ecological Values Management Strategy

Date: March 31<sup>st</sup>, 2019

Wells Gray Provincial Park and the surrounding area have unique ecological values that may be at risk, both positively and negatively, from wildfire. This ecologically diverse area is home to a multitude of flora and fauna species, including an at risk population of mountain caribou (*Rangifer tarandus caribou*). The management of ecological values for wildfire risk has been identified by the Planning Team for the Wells Gray Wildfire Risk Management Plan as an area that requires specific attention, through the development of management strategies.

## Summary of Values at Risk

- High value caribou habitat
- Biodiversity
- Western toad breeding sites
- Old growth forest

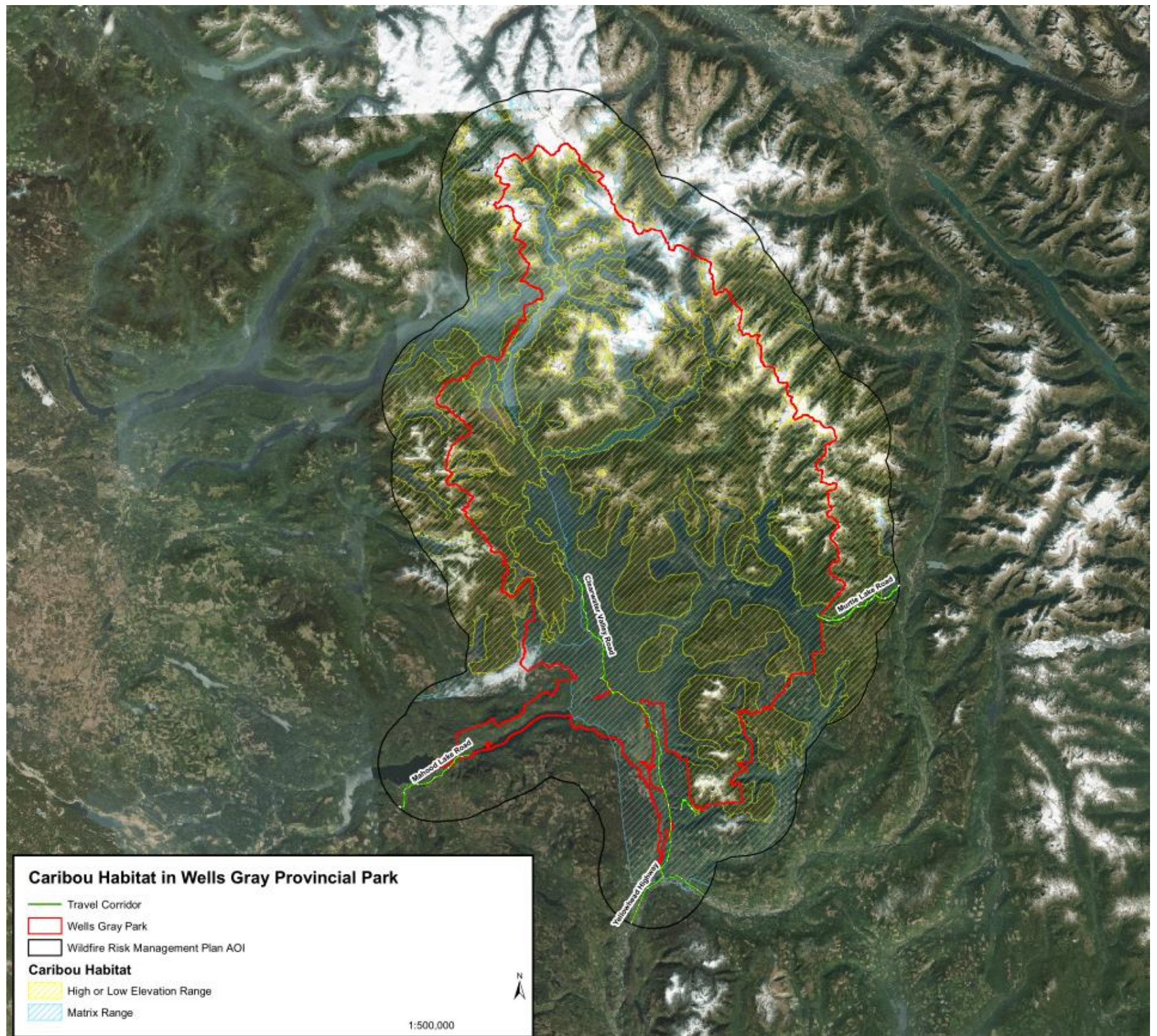


Figure 1: Wells Gray Caribou Habitat

# Management Strategies

## 7.1 PURSUE TERRESTRIAL ECOSYSTEM MAPPING FOR WELLS GRAY PROVINCIAL PARK

**DISCUSSION:** Landscape level inventory data is an integral component of ecosystem and habitat conservation. The older inventory data for Wells Gray Provincial Park may have inaccuracies that affect wildfire risk modelling and management decisions.

**ACTIONS:**

1. Conduct Terrestrial Ecosystem Mapping (TEM) for Wells Gray Provincial Park to create accurate inventory database.

**RESPONSIBILITY:** BC Parks

**PARTNERS:** License Plate Funding program/federal funding initiatives

**RISK RESPONSE GOALS:** Reduce risk through improved information availability and more informed decision-making.

## 7.2 USE IMPROVED ECOSYSTEM MAPPING TO STRATEGICALLY PRIORITIZE CARIBOU HABITAT

**DISCUSSION:** Mountain caribou population have complex altitudinal migration patterns that encompass a large portion of Wells Gray Provincial Park. Caribou are sensitive species that are highly subject to mortality from habitat changes that reduce old growth forest and lichen foraging opportunities. Landscape levels changes including impacts from wildfires are compounded with changes in forest structure due to logging adjacent to the Park and from insect infestations such as the pine and spruce beetle. There is a high probability of lightning caused fires in this forest fuel type, which may result in landscape level fires that could be highly detrimental to caribou at the local level. Strategically prioritizing caribou range by habitat suitability may improve decision making capability for wildfire suppression to limit the damage from landscape level fires.

**ACTIONS:**

1. Use improved TEM data to prioritize Mountain Caribou habitat within Wells Gray Provincial Park. Subject to TEM data acquisition.
2. Use this critical habitat prioritization to guide wildfire management decisions.

**RESPONSIBILITY:** BC Parks /Caribou Recovery Team/MFLNRORD

**PARTNERS:** BCWS /License Plate Funding Program/Federal funding initiatives

**RISK RESPONSE GOALS:** Inform risk through improved information availability.

## 7.3 PROVIDE DECISION MAKING TOOL TO BCWS TO IDENTIFY HIGH VALUE CARIBOU HABITAT

**DISCUSSION:** BCWS crews are often required to respond to multiple small fire targets after lightning storms. These small fires (or Initial Attack targets) require prioritization based on values at risk. When these fires occur primarily in high value Caribou habitat, it may be required of BCWS crews to prioritize habitat from a helicopter to determine which IA targets will be actioned. By providing a guidance document, complete with aerial photographs, to BCWS crews working in caribou habitat, wildfire response decisions can be prioritized based on ecological value in addition to other factors.

**ACTIONS:**

1. Create a decision making tool (guidance document) for BCWS crews to identify caribou habitat values. This may include:
  - Aerial photographs of high value habitat
  - Additional guidance on fire suppression in caribou habitat
    - i. List of key habitat attributes (leading species forest cover, aspect, slope, characteristics)
    - ii. Habitat mapping (subject to TEM acquisition)

**RESPONSIBILITY:** BC Parks / Caribou Recovery Team

**PARTNERS:** BCWS

**RISK RESPONSE GOALS:** Inform risk response through improved information availability.

## 7.4 DETERMINE RISK OF FIRE TO OTHER SPECIES WITHIN WELLS GRAY PARK

**DISCUSSION:** There is limited spatial information regarding flora and fauna species in Wells Gray Park. Many of these records exist in paper records and park use permits, but are rarely accessible from a centralized digital location. By improving these records and referencing updated ecosystem mapping, the effects and risk of fire to other species in Wells Gray Park can be clearly understood by land managers.

**ACTIONS:**

1. Create consolidated ecological information that is readily accessible for Wells Gray Park.
2. Use improved ecosystem mapping to inform habitat suitability information.

**RESPONSIBILITY:** BC Parks

**PARTNERS:** BCWS

**RISK RESPONSE GOALS:** Inform risk through improved information availability.

## 7.5 INTEGRATE WELLS GRAY FIRE MANAGEMENT PLANNING WITH THE MOUNTAIN CARIBOU RECOVERY TEAM

**DISCUSSION:** The management of mountain caribou is complex, and will require the input and efforts of provincial expertise. The Mountain Caribou Recovery Team is a regional group based out of Williams Lake dedicated to the management of caribou in the region including Wells Gray Provincial Park herd north. The scientific expertise of groups such as this recovery team are key to reasonable and ecologically appropriate decision making for wildfire management.

**ACTIONS:**

1. Integrate wildfire planning efforts, in particular the Wells Gray Fire Management Plan, with the Mountain Caribou Recovery Group to ensure that proposed activities are ecologically appropriate.

**RESPONSIBILITY:** BC Parks/Mountain Caribou Recovery Team

**PARTNERS:** BCWS

**RISK RESPONSE GOALS:** Inform risk through increased communication and consultation with working groups.

## 7.6 DETERMINE OPERATIONAL GUIDANCE FOR POST FIRE RECOVERY WITH MOUNTAIN CARIBOU RECOVERY TEAM

**DISCUSSION:** Effective guidelines for fire management within caribou zones may help to mitigate the impact of fire on the Wells Gray herd. By creating this framework prior to fire occurrence, fire management decisions regarding operational guidance can be efficient and timely.

**ACTIONS:**

1. BCWS and BC Parks Engage with Caribou Recovery team to establish operational guidelines for post-fire recovery in critical caribou habitat. Consider the following factors:
  - Fireguard locations and rehabilitation principles
  - Back-burn and fire use principles
  - Fire retardant guidance

2. Integrate recommendations into the new Wells Gray Fire Management Plan (**Management Strategy 6.1**).

**RESPONSIBILITY:** BC Parks /Mountain Caribou Recovery Team

**PARTNERS:** BCWS

**RISK RESPONSE GOALS:** Reduce risk to caribou population through improved operation guidance.