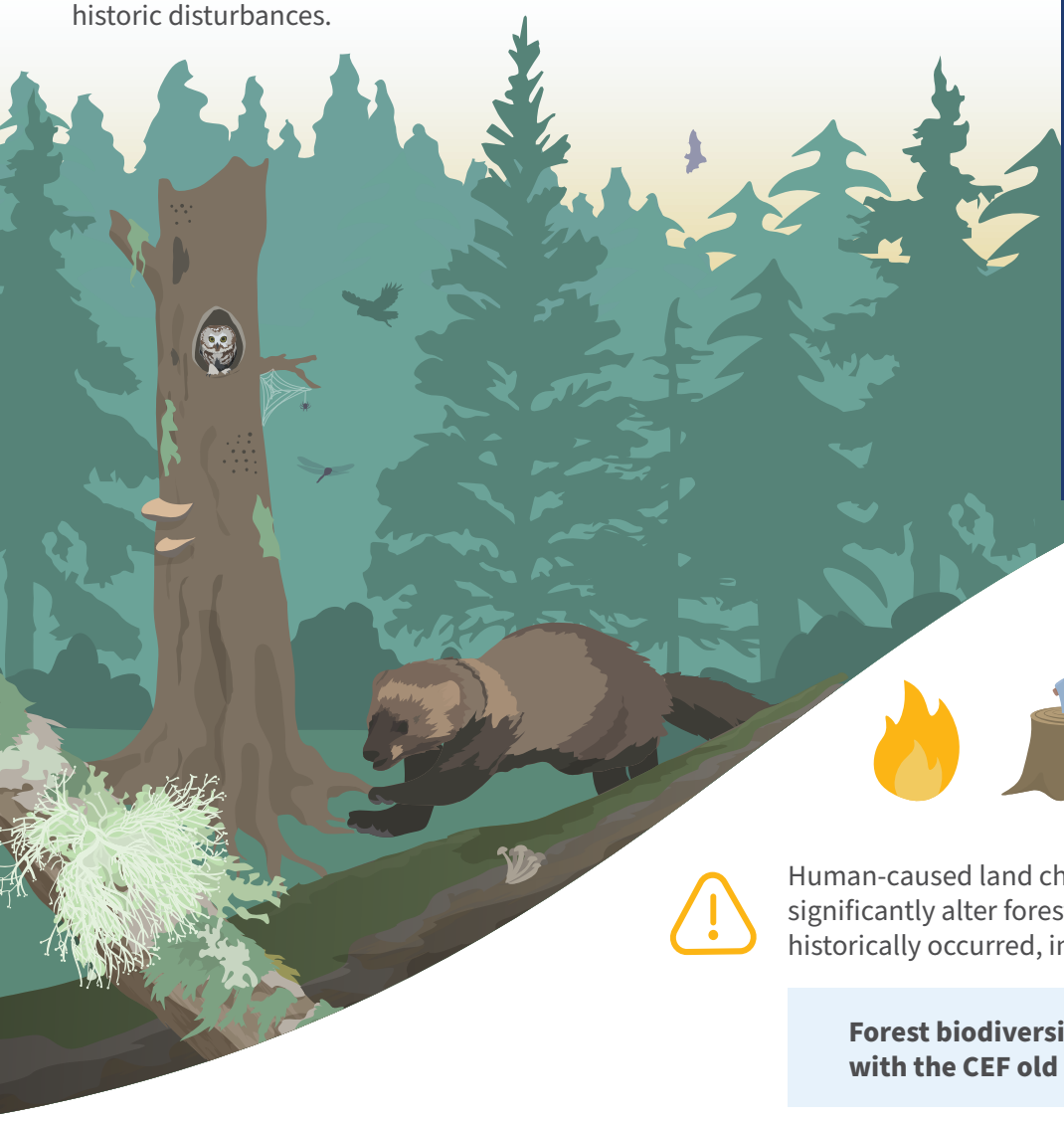
Assessing Cumulative Effects in B.C.

Forest Biodiversity

CEF Cumulative Effects Framework

BRITISH COLUMBIA

Almost two-thirds of British Columbia (B.C.) is covered by forests. The variety of life within these forests, known as forest biodiversity, is necessary for the well-being of ecosystems and people in B.C. **Historically, natural disturbances including wildfire, insects and wind, and Indigenous cultural burning have played an important role in shaping B.C.'s forest ecosystems.** Wildlife and plant species have evolved and adapted to these historic disturbances.



Cumulative effects result from the combined impacts of human activities and natural processes on the land over time. Together, these impacts may affect environmental, social, and economic values. The Province of B.C. has developed a Cumulative Effects Framework (CEF) to assess the condition of values, identify emerging risks and help manage cumulative effects. To learn more about the CEF, read the **CEF Infographic**

Human-caused land changes and natural disturbances can significantly alter forests from the conditions that would have historically occurred, impacting all levels of forest biodiversity.

Forest biodiversity is closely intertwined with the CEF old growth forest value.

Forest biodiversity is one of the five environmental values currently assessed by the B.C. CEF.

Aquatic Ecosystems | Grizzly Bear | Moose | Forest Biodiversity | Old Growth Forest

The purpose of this assessment is to identify landscape change that will potentially affect forest biodiversity. The assessment evaluates the extent of landscape change relative to conditions that would be expected under historic natural disturbance cycles and **includes three categories:**

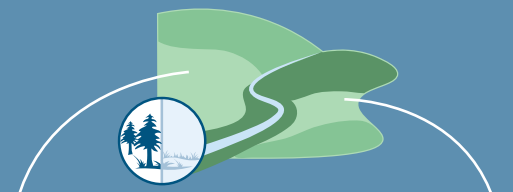
Habitat change (loss, alteration, and degradation)

Habitat connectivity (sub-division and isolation)

Species disturbance (changes in behavior, biology, and interactions)

Using standardized methods and datasets, each category uses several indicators to evaluate factors that affect forest biodiversity. These factors include the "state" of forest habitat condition and the amount and severity of natural disturbance and human-caused land changes that "modify" forest habitats, **with a particular focus on how they compare with what would be expected historically.**

Core indicators:



Amount of old, mature and young (early seral) forests

Includes how much young forest has been created...

Naturally

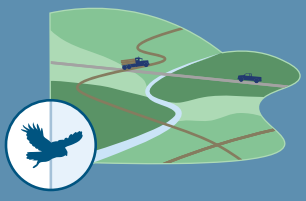
By humans

Configuration of mature and old forested patches

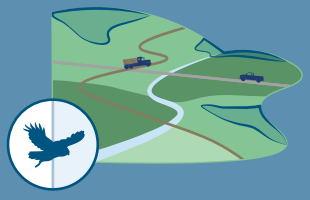
Based on forest patch...

Size

Distribution



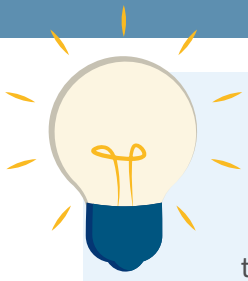
Forest area affected by roads



Amount of intact interior forest habitat

Hazard ratings

Ratings are applied to each category to estimate the likelihood that a harmful effect to forest biodiversity will occur. Harmful effects are more likely to occur when current conditions are outside the range of habitat conditions that would be expected to occur historically.



Findings from the assessment can be used to inform resource management decisions including setting objectives to better manage the value into the future. However, **they do not make decisions or set limits for development.**

All CEF assessments and data are publicly available through the CEF **website**. While the CEF assessments are created by the Province of B.C. and use provincial datasets, the program is working towards collaborative assessments with First Nations.

Access the full Forest Biodiversity Protocol **here**.

Learn more about the B.C. CEF's other priority environmental values here: **Grizzly Bear, Old Growth Forest, Moose and Aquatic Ecosystems.**