BRITISH COLUMBIA FireSmart

Factsheet: Prescribed Fire

- Fire is a normal and natural process in many of B.C.'s ecosystems. Many species of plants, birds, insects and other animals depend on fire for its regenerative properties. Fire helps control insects and the spread of disease in forests. A forest with trees of various ages and species helps create biodiversity.
- In B.C., wildfire seasons have been starting earlier and lasting longer as a result of pronounced droughts, climate change and increased forest fuel accumulation due to fire suppression activities.
- As seen during the 2017 wildfire season, mega-fires can result in tremendous social, ecological and economic impacts. To help reduce wildfire severity and related threats to communities, the BC Wildfire Service (BCWS), along with land managers, undertake fuel management activities, including the use of prescribed fire.
- Prescribed fire is an effective tool for reducing fire hazards, by decreasing the amount of fuel loads (combustible material such as underbrush and dead wood) on the landscape.
- A prescribed fire is an intentionally ignited fire that is planned and managed by a certified "Burn Boss". The Burn Boss is responsible for ensuring that the initial burn conditions are favourable and that the fire is extinguished once the prescribed burn is completed.
- Prescribed fires help reduce the intensity of wildfires by removing understory vegetation.
- Prescribed fires help achieve land management objectives (as described in fire management plans). These objectives may include:
    - **Fuel management** (to reduce the buildup of forest fuels)
    - **Pest management** (such as the mountain pine beetle infestation)
    - **Ecological restoration** (promoting the growth of a variety of tree species and other vegetation after a prescribed fire has occurred)
    - **Wildlife habitat enhancement** (improving forage and habitat for large mammals, such as ungulates, bears and wolves)
    - **First Nations traditional use**
    - **Agriculture** (land and crop management)
- When preparing a fire prescription, the Burn Boss takes into account: vegetation type; terrain; fire behaviour; temperature; humidity; wind conditions; and the venting index.
- The size and intensity of prescribed burns are carefully planned and controlled to meet land management objectives. Prescribed fires are only ignited when weather conditions are favourable and when the fire will not create excessive smoke.
- All prescribed fires must comply with the *Environmental Management Act* and the Open Burning Smoke Control Regulation. This helps minimize the amount of smoke generated.

- A prescribed fire is ignited and continuously monitored by trained firefighters to ensure that the fire does not get out of control. These burns are often conducted during the winter and spring months, when fires burn at lower intensities and produce less smoke than unplanned wildfires occurring during the summer.

BACKGROUND INFORMATION / KEY FACTS:

- Mega-fires are characterized by extensive size, high intensity and long duration — typically challenging all efforts at conventional control and suppression. These fires often result from multiple spot fires that merge into a single large fire.
- A recent example of a mega-fire was the Plateau Fire in 2017. This fire burned over 500,000 hectares of forests and rangeland in the Chilcotin region.
- An interface area (or wildland-urban interface) is where urban development borders on a rural area.
- In ecology, "resilience" is the capacity of an ecosystem to respond to a disturbance (such as a wildfire) by resisting damage and recovering quickly. Increasing the biodiversity of a forest (via prescribed fire) can have a positive effect on the forest's resilience capacity and productivity, including carbon storage.
- Fuel loads consist of combustible materials such as underbrush, dead wood and accumulations of tree needles.