AGENDA



### COMMUNITY CONSULTATION

### WARDNER FACE / BRANCH 7

### WILDFIRE / FOREST HEALTH MGMT PLAN

### September 10, 2019

### 6:00 PM INTRODUCTION

**Guidelines of Engagement** 

#### SPEAKERS

Mel Reasoner - Climate Change Consultant, Nelson BC

Russel Semenoff - Kaslo Volunteer Fire Department

#### 6:10 PM **PRESENTATION** Jeff Reyden, RPF, Sabrina Mutterer

### WARDNER FUEL MITIGATION PLANNING

- Geographic Overview
- Guiding Values
- Risk Factors
- Proposed Solutions
  - Unit A Fire Break / Access Corridor
  - Unit B Selection harvest types, crown separation
- 6:55 PM Questions and Answers

#### 7:15 PM PRESENTATION Mel Reasoner

CLIMATE CHANGE IN KASLO AREA: TRENDS AND PROJECTIONS

7:50 PM Questions and Answers



# SEPTEMBER 22-28, 2019

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Canadian Institute of Forestry Institut forestier du Canada Contrast - The

### CANADA'S FORESTS: Diverse Outdoor Classrooms

National Forest Week 2019 explores the endless learning opportunities that Canada's forests provide.

Everyone is connected to the forest. The social, economic, and environmental value of sustainably managed forests helps grow resilient communities. Getting outdoors to learn and explore benefits individual health and expands collective forest education, improving the wellbeing of all Canadians.



**Stay Connected!** >>> #NationalForestWeek >>> cif-ifc.org/national-forest-week



### **Fire Smart Forest Management**

**Purpose:** to provide direction for sustainable forest management in fire maintained ecosystems and for interface forest management which will minimize the risk of wild fire to the community.

### 1. Sustainable forest management in fire dominated ecosystems:

The objective is to utilize management practices which minimize the economic and social impacts of fire while simultaneously maximizing its ecological benefits.

- Fire-smart forest management incorporates knowledge and understanding of the historical significance of fire into all strategic and operational forest management activities at the stand and landscape levels.
- It requires a special assessment of the current fire environment
- Create opportunities to use prescribed fire to maintain ecosystem health, structure and integrity (low intensity burns under shelter woods in ICH dw)

### 2. Fire interface forest management:

The objective is to create in the long term an interface forest that is not vulnerable to spread of wildfire into the community. In some circumstances, the safety of the community may take precedence over other values in the interface.

- A coordinated/cooperative approach shall be used to reduce the fire fuel buildup in the interface between the private and crown lands.
- Efforts shall include education of the public on the consequences of increased fire fuel loading through the last 70 years practice of fire suppression, and what they can do on their own property.
- Management practices shall include conversion, reduction and isolation of forest fuels as a proactive option to reduce the potential rate of spread and intensity of large wild fires.
- Forest managers shall be encouraged to use innovative practices in both harvesting and silviculture to create a wild fire resistant interface forest

Date of Board approval: Feb 11, 2009

### Best Management Practices

BRITISH COLUMBIA



Legislation

≡ Menu

### Policy

- Inventory Standards
- \* Legislation & Regulations
- \* Forest & Range Practices Act

Managing Resource Values

- Government Actions Regulation
- Environmental Protection Regulatory Review

Transfer of Authority

Cooperation & Agreements

*Practices Act* (FRPA). The B.C. government is ensuring the sustainable management of the province's forest and range resources by collecting and communicating the best available natural resource monitoring information for each of these values.

This information is collected through series of data collection protocols that are designed and delivered under the Forest & Range Evaluation Program.

The resource values identified under FRPA are:

- Biodiversity
- Cultural Heritage
- Fish / Riparian
- Forage & Associated Plant Communities
- Recreation
- **Resource Features**

- <u>Timber</u>
  <u>Visual Quality</u>
  <u>Water Quality</u>
  <u>Wildlife</u>
- Wildlife

Soils

Regulation

- Private Managed Forest Land Act
- Species at Risk Act (Federal)

### Forestry Stewardship

B.C. is a world leader in sustainable forest management with leadingedge environmental practices.

 Learn more about how forestry stewardship is accomplished in B.C.

### **Related Links**

- Archaeological Sites on Crown Land
- Forest Stewardship Plans
- Fish Passage
- Land Use Planning for Provincial
  Public Land

To protect these resource values, forest and range licensees' activities are governed by FRPA and its regulations during all stages of planning, road building, logging, reforestation and/or grazing. The Forest Planning and Practices Regulation identifies the objectives set by government for each resource value, specifies the content requirements of forest stewardship plans, and stipulates the practice requirements that regulate forestry activities.

- Forest Planning and Practices Regulation
- Forest Stewardship Plans









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# **CP43** Overview Map





#### **BARK BEETLES**



Figure 2. Area affected by major bark beetles in the southern interior of BC.

#### Douglas-fir Beetle, Dendroctonus pseudotsugae

Douglas-fir beetle remained widespread across many areas of southern B.C., especially in the Cariboo Region, where 85% of the affected areas were mapped. Increased activity was also seen in the Boundary, Kootenay Lake, Invermere, and Cranbrook TSAs, while infested area declined in most areas of the Kamloops, Lillooet, Merritt and Okanagan TSAs. Although the total number of infestations declined, to 1,844 patches and 5,578 spots, the total affected area remained nearly unchanged from 2017 levels, at 78,471 hectares.

Douglas-fir beetle infestations in the Kootenay Boundary TSA continued to expand, from 2,825 hectares in 2017, to 3,670 hectares in 2018. The number of small spot infestations also increased, from 351 to 728. Most of the expanded attack was in the Fruitvale, Edgewood, Fauquier, Whatshan Lake, Burton, Slocan Valley, West Arm, Creston, and Greenwood areas.

### **Root Diseases**

Root disease, especially *Armillaria ostoyae*, causes significant growth reduction or mortality of plantation trees, affecting most biogeoclimatic zones in the southern interior of B.C. In undisturbed mature stands, the incidence of diseased trees can range from 10% to 80%. In the Interior Cedar-Hemlock Zone (ICH), Armillaria inoculum is universally present in all but the driest and wettest sites. Research to date suggests that the belowground incidence of diseased trees often reaches 30-35% by age 20, resulting in low stocking levels in juvenile stands, and predicting that additional mortality and growth loss on trees that sustain non-lethal infections will likely occur throughout a rotation. Ultimately, these losses may lower the level of sustainable harvest.

#### David Rusch, Forest Pathologist, Thompson Okanagan and Cariboo Regions

The occurrence of laminated root disease (DRL) and Armillaria root disease (DRA) is shown in Figure 1. Overall, Armillaria was detected at 80% of the sites and laminated root disease at 30%. All sites with laminated root disease also had Armillaria root disease. None of the sites over 1100 m elevation (seven sites) had signs of laminated root disease. The occurrence of laminated root disease was lower in the YSM plots than in the CMI plots (Figure 1). This may reflect the fact that larger laminated root disease centres are often excluded from harvesting due to low timber value. The mean incidence of root disease in CMI plots, as a proportion of all conifers, was 11.1% for Armillaria and 2.7% for laminated root disease. In YSM plots, the mean incidence was 6.2% for Armillaria and 0.1% for laminated root disease.

Douglas-fir is one of the most susceptible species to root disease, and represented 35% percent of the trees with signs or symptoms. However, on one of the sites, most of the Armillaria was found on dead western hemlock and two of the sites had a number of live western red cedar with basal scars caused by Armillaria. One site where Armillaria was relatively common on live cedar also had a number of dead lodgepole pine with evidence of the disease. The majority of lodgepole pine in this stand were killed by mountain pine beetle.





Figure 1. Percent of sites with Armillaria (DRA) and laminated (DRL) root disease in CMI and YSM plots.

Figure 2. Mean incidence of Armillaria (DRA) and laminated (DRL) root disease in CMI and YSM plots based on the total number of Douglas-fir (Fd) and total number of conifers on site.



Figure 3. Severity of distribution of Armillaria (DRA) in the ICH and IDF.











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### CP 43 Visual Impact Assessmant June 2019

## Viewpoint 1: Kaslo

UTM: x: 506990, y: 5528854, z: 538m



**Proposed Alteration** 





Computer Simulation 1000m above viewpoint



Computer Simulation at viewpoint

# Scenario 2





### CP 43 Visual Impact Assessmant June 2019

## Viewpoint 1: Kaslo

UTM: x: 506990, y: 5528854, z: 538m



Proposed Alteration





Computer Simulation 1000m above viewpoint



Computer Simulation at viewpoint

# Scenario 1



### Wardner to Branch 7 Wildfire / Forest Health Management Project <u>Financial Projection</u>

	MGMT	Revenue	Cost*
Block 1	GB WUI Mgmt	\$70,000	\$94,000
Block 2	GB WUI Mgmt	\$150,000	\$185,000
Block 3	GB WUI Mgmt	\$125,000	\$105,000
Block 4	GB WUI Mgmt	\$139,000	\$100,000
Block 5			
>Unit A	GB Fuel Break/Access/FH	\$170,000	\$205,000
>Unit B	GB/CA WUI Mgmt/FH	\$190,000	\$215,000

Blocks 3, 4, 5	total projected	\$624,000	\$625 <i>,</i> 000
All Blocks	total projected	\$844,000	\$904,000

\* Cost includes: Harvest, Hauling, Stumpage, Road building,

Silviculture (\$/m3)  $\rightarrow$  Clean up