



**BCTS**  
BC Timber Sales

# BC Timber Sales Fire Hazard Assessment Guide

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SUSTAINABLE FORESTRY INITIATIVE

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## INTRODUCTION

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Fire hazard assessments and hazard abatement are key activities in reducing the potential threat of wildfires arising from fuels left on the land base following industrial activities. It is important to ensure that fires do not threaten important values associated with the wildland-urban interface such as communities and buildings, critical infrastructure such as transmission lines, or other significant values. The Fire Hazard Assessment Guide (Guide) provides a generalized methodology for determining the fire hazard created by an industrial or prescribed activity on forest land and whether abatement is required. Fire hazard abatement includes activities carried out to reduce the ignition potential or the potential fire behavior by reducing the fuel hazard after an industrial activity or prescribed activity has taken place.

Assessing fire hazard is the exercise of analyzing the ignition potential and predictable fire behavior based on fuel hazards (i.e. physical characteristics) and site specific and probable weather conditions. It includes a consideration of the values at risk, the risk of a fire starting, the difficulty of controlling the fire and the potential impact on identified values.

This Guide is provided as guidance only. Considering the variability of conditions and circumstances around the province it may not represent the best practices for all locations. Additionally, these are professional assessments where the role of the professional is first and foremost. Forest professionals working within their scope of practice are required to make well informed and objective assessments, and provide documented rationales where subjectivity is a part of these assessments and/or when deviating from the assessment procedure.

## LEGISLATION

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The *Wildfire Act* is the governing legislation in British Columbia created specifically for wildfire protection. The Act stipulates that hazard assessments and abatement must be carried out.

Section 7 of the *Wildfire Act* requires a person conducting an industrial or prescribed activity on forest or grass land or within one kilometer of forest or grass land to conduct fire hazard assessments and abate as needed or prescribed.

Section 11 and Section 12 of the *Wildfire Regulation* sets out the prescribed activities and the circumstances where fire hazards created by an industrial or prescribed activity must be abated. These sections also define the time limits and abatement levels that must be followed for both interface and non-interface areas, because of the higher values at risk.

## KEY STEPS IN THE FIRE HAZARD ASSESSMENT

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Fuel hazards define the potential fire behavior without regard to the state of weather or topography. They are based on the physical fuel characteristics including fuel arrangement, fuel load, condition of vegetation and the presence of ladder fuel.

The following methodology and process describes the BC Timber Sales (BCTS) Fire Hazard Assessment Field Form and reflects the factors that should be considered when assessing fire hazard.

A post-harvest fire hazard assessment includes the following key factors to be considered:

1. **Consequence to values at risk** – potential values to be considered include life and property, critical infrastructure, community watersheds, and critical wildlife (e.g. caribou habitat). Human values at risk are particularly critical within two kilometers of communities.
2. **Fuel load hazard** – requires assessment of all types of post-harvest fuels including debris and vegetation, broadcast and piled fuels.
3. **Potential ignition and fire spread hazard**
  - a. **Potential ignition hazard** – the full range of potential human and natural caused ignitions determined on a site-specific basis including consideration of ecosystem-based vulnerabilities, human activities, usage and access.
  - b. **Fire spread hazard** – influenced by site characteristics including size of the area, aspect, slope and slope position, and the status of adjacent perimeter slash abatement.
4. **Determination if abatement is required** – determine the need for abatement and appropriate treatment based on assessment of the above factors combined.

Based on the factors listed above, there are four key steps to the fuel hazard assessment process including:

**Step 1 – Establish Consequence**

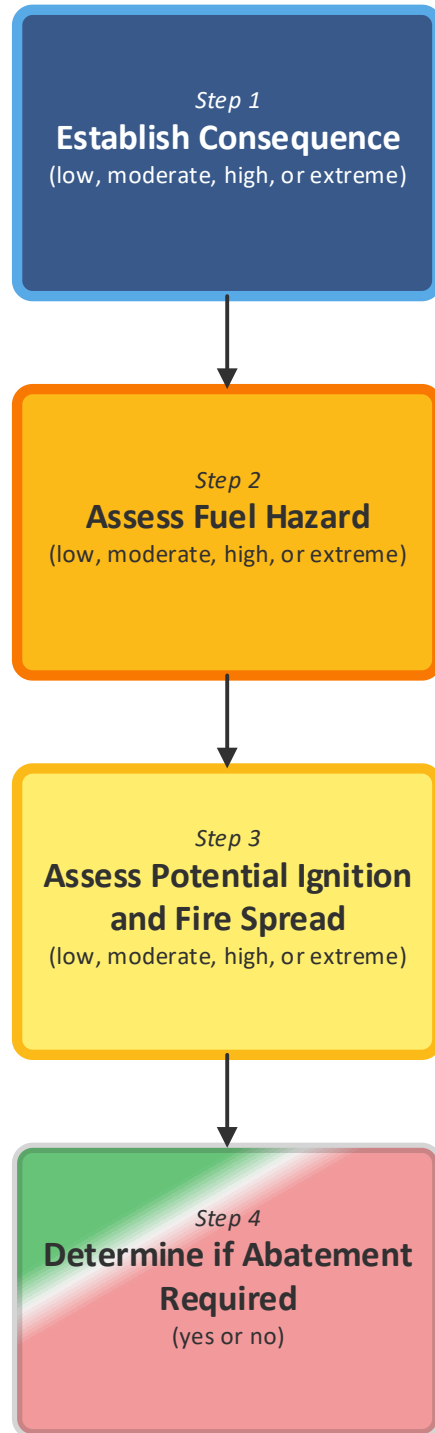
**Step 2 – Assess Fuel Hazard**

**Step 3 – Assess Potential Ignition and Fire Spread**

**Step 4 – Determine if Abatement is Required**

The following schematic summarizes the components outlined above.

**Figure 1. Four key steps of the fire hazard assessment process**



The four steps to completing an overall fire hazard assessment are described in greater detail below and illustrated with extracts from the BCTS Fire Hazard Assessment Field Form (Form). The Form, in its entirety, is included in Appendix C.

## STEP 1 – ESTABLISH CONSEQUENCE (ASSESSMENT OF VALUES AT RISK)

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Over the past twenty years there have been numerous instances where human life, safety and other values at risk have been damaged or impacted by wildfire. Some of these values such as critical infrastructure are important for emergency response during a wildfire and for recovery after a wildfire. Given the liability and the potential impacts to human safety, it is recognized that establishing consequence is a key element of consideration in assessing and carrying out any fuel hazard abatement process that could impact both fire ignition and the potential for fire to spread and impact an identified value.

The first step in a fire hazard assessment is to understand and assess the potential consequence to identified values at risk on the landscape, from a wildfire originating from a cutblock or activity. Values at risk are the human and natural resources that may be impacted by wildfire including human life and property, critical infrastructure, high environmental and cultural values, and other resource values. Such values are often associated with communities. The BCTS Fire Hazard Assessment process defines communities as areas with a structure density of 6 structures or greater per square kilometer (6 structures/km<sup>2</sup>).

A consequence assessment is based on the proximity of values at risk to a specific cutblock. These values at risk include communities (specifically human life and property); critical infrastructure such as transmission lines, community watersheds, and major highway travel corridors; critical wildlife such as caribou habitat; and any unique values as identified. **It is imperative to discuss with the local BCTS field team regarding the values at risk that are in proximity to the cutblock area.** Values at risk in closer proximity to a cutblock are assigned a higher risk rating than values at a distant proximity from the cutblock.

Given the more recent wildfire seasons and the projections for further climate pattern changes, it is imperative that more attention is paid to the proximity of harvest activities to values at risk. Distance classes associated with wildfire impacts to various values at risk were determined based on historic fire size and with considerations of spotting, which can spread embers as far as five kilometers, and recent examples of fire growth under extreme fire conditions. For example, in 2010 the Binta Lake wildfire grew 40,000 hectares in an overnight run. Therefore, distance classes were established based on logical breaks which delineate four proximity classes ranging from close proximity (within 500 meters) to distant proximity (greater than 5 kilometers) as shown in Table 1. This table is an extract from the BCTS Fire Hazard Assessment Form.

Refer to Appendix A for a tool that illustrates the community areas defined by having 6 structures/km<sup>2</sup> or greater. This map may be used to assist with assessing the consequence (i.e. risk rating) for community values at risk.



**Table 1. Consequence assessment based on proximity or distance classes from values at risk**

(extract from BCTS Fire Hazard Assessment Form, Appendix C)

<b>Consequence Assessment</b>					
<b>Consequence</b>	<b>Distance to values at risk and ratings</b>				<b>Points</b>
Distance to communities*	>5000 m <b>1</b>	1000 – 5000 m <b>4</b>	500 – 1000 m <b>8</b>	< 500 m <b>13</b>	
Distance to Hydro transmission lines	>5000 m <b>1</b>	1000 – 5000 m <b>3</b>	500 – 1000 m <b>6</b>	< 500 m <b>9</b>	
Distance to community watersheds	>5000 m <b>1</b>	1000 – 5000 m <b>2</b>	500 – 1000 m <b>4</b>	< 500 m <b>7</b>	
Others identified values at risk (specify below):	>5000 m <b>1</b>	1000 – 5000 m <b>2</b>	500 – 1000 m <b>4</b>	< 500 m <b>7</b>	
<p><b>Values at Risk</b>  <i>Values at risk are to be determined by the professional’s assessment. Examples include WHAs, OGMAs, Provincial Parks, significant recreation sites and trails, major highway corridors, legally established objectives, and/or considerable value in adjacent standing timber (e.g., &gt; 250 ha of timber within 2 km) or silviculture investments (e.g., &gt; 500 ha of regenerating stands within 2 km). Value should be specified and rationalized. Counting multiple values in this section will be a professional decision; the base recommendation is to assign a score the closest value.</i></p>					
<b>Total Consequence Points</b>					
<b>Low 0-6</b>		<b>Moderate 7-15</b>		<b>High 16-22</b>	
				<b>Extreme &gt;22</b>	
*See Appendix A for community delineation and distance ratings					

## STEP 2 – ASSESS FUEL HAZARD

The fuel hazard assessment process consists of two components:

1. Fuel Load Hazard Assessment (Table 2); and
2. Debris Pile Fuel Hazard Assessment (see following page).

If both dispersed fuel load hazard and debris piled hazard are present on the TSL, then the assessor must consider the hazard associated with each of these independently. The final determination of whether abatement is required for broadcast fuels will follow a numerical approach as described in Steps 2 through 4, while the abatement of piled material should follow a modified approach as described in Step 2.

### FUEL LOAD HAZARD

Fuel loading post-harvest includes dispersed or broadcast fuels. The fuel load hazard assessment includes an assessment of fuel depth, fuel size, fuel arrangement (i.e. horizontal and vertical), and the contribution of on-site vegetation to the fuel load. The assessment process is shown below in Table 2, and is part of the BCTS Fire Hazard Assessment Field Form in Appendix C.

**Table 2. Fuel Load Hazard Assessment for Debris, Vegetative, and Broadcast Fuels (excluding piles)**  
(extract from BCTS Fire Hazard Assessment Form, Appendix C)

Fuel Load Hazard	Fuel Characteristics and ratings				Points
	<20cm	20-40cm	40-60cm	>60cm	
Fuel depth (cm) *Average depth of all woody fuels	1	3	5	7	
Horizontal fuel arrangement (% cover of fine fuel <7.1cm)	<15% 1	15-30% 3	31-45% 5	>45% 10	
Horizontal fuel arrangement (% of area – all woody fuels)	<20% 1	20-50% 3	51-80% 5	>80% 7	
Vertical fuel arrangement (fine fuels <7.1cm)	Mixed with soil 1	On ground 3	Partially elevated 5	Mostly elevated 7	
Contributing vegetation (*e.g.) *Green herb / shrub – not counted *Grasses / dead and dried herb / shrub - counted	None 0	Low 1	Moderate 3	High 5	
Fine fuel percentage of volatile species present – Cw & Cy slash component	0% 0	<20% 2	20-40% 4	41-60% 6	>60% 8
<b>Total Fuel Load Points</b>					
<b>Low 0-8</b>		<b>Moderate 9-15</b>		<b>High 16-23</b>	
				<b>Extreme &gt;23</b>	

## **DEBRIS PILE HAZARD**

Debris piles may be one or more piles or windrows<sup>1</sup> as per the definition of Category 2 and 3 Open Fire in Section 1(1) of the Wildfire Regulation. Traditionally, debris pile characteristics that require assessment include the overall density of piles in the cutblock (i.e. number of piles/ha as an indication of overall fuel loading) and site characteristics such as slope and aspect which influence relative humidity and temperature, and subsequently influence fuel moisture in debris piles during the fire season. The fuel hazard of debris piles is rated the highest on steeper south facing slopes due to solar effects, while the fuel hazard of debris piles on north to east aspects with flat to low slopes is rated the lowest.

Debris piles require special consideration with regards to their contribution to overall fire and fuel hazard. Though variable in material and construction, debris piles are concentrated accumulations of seasoned fuel that often present a location for high intensity fire that can cast embers a far distance (i.e., spotting between 200 – 500 m depending on the size and height of the pile), and/or be damaging to the soil and surrounding vegetation. Debris piles can also present a safety hazard to first responders as they can restrict the use of roads or landings as safe zones or anchor points, or their ignition can result in a high intensity fire that cannot be directly actioned. **As a result of this hazard, the hazard abatement recommendation is to have all debris piles abated, unless retained piles are specifically prescribed for in the site plan.** The recommended guidance for removing / retaining piles is:

1. No piles should be retained within 100 m of the road prism, a landing, the cutblock edge, a Riparian Management Area, or any identified values (e.g., WTRA / WTP);
  - a. Roads and landings provide safe access and anchor points for first responders, which can be compromised if piles adjacent to these features are ignited;
  - b. The likelihood of human ignition increases adjacent to roads and landings;
  - c. For cutblocks that are adjacent to forested areas (protected, THLB, and/or with silvicultural investments), ignited piles can spread to or damage these adjacent areas;
  - d. High-intensity burning of piles can be damaging to the soil and surrounding vegetation.
2. Retained piles should not exceed 5 m x 5 m x 2 m (height);
  - a. Potential for high-intensity fire and an increased likelihood of long-range spotting as pile size increases;
3. Retained piles should not be within 30 m of one another;
  - a. If ignited, radiant heat or conduction from one pile can cause adjacent piles to ignite.
4. Retained piles should cumulatively cover no more than 50 m<sup>2</sup>/ha.
  - a. Basic guideline permits up to two piles per hectare (based on maximum size outlined above)

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<sup>1</sup>Windrows consist of slash, logs, or other material piled in a more or less continuous line to clear the intervening ground.

## STEP 3 – ASSESS POTENTIAL IGNITION AND FIRE SPREAD

Potential ignition and fire spread are influenced by a range of site characteristics. The process to assess potential ignition and fire spread is outlined in Table 3 and described below.

### **POTENTIAL IGNITION HAZARD ASSESSMENT**

The majority of naturally caused wildfires in BC are ignited by lightning, causing greater than 60 percent of wildfires in an average year, while accidental or intentional human caused wildfires can be started in several ways and represent an average of 40 percent of wildfires in BC.<sup>2</sup> In a cutblock, the potential for human caused ignitions will be influenced by:

- The bio-geoclimatic (BEC) zones characterizing the site and their vulnerability to ignitions;
- The industry operations present or planned in the near term (i.e., within 5 years) and in proximity to the cutblock (i.e., within 1 km);
- Access present or planned for both recreational and industrial activities and the nature of this access (i.e., 2-wheel drive access will be most accessible to a greater number of road users); and
- The average number of days of Fire Danger Class in moderate (class 3) to extreme (class 5) classes.

The potential for lightning or human caused ignitions is site-specific and can be interpreted from fire history records and local weather patterns; however, certain BEC zones are recognized as being particularly vulnerable to fire igniting and spreading.

For the purpose of informing this assessment, each BCTS Business Area was evaluated through the creation of a lightning and human caused ignition theme. These themes were classified into low, moderate, high and extreme ignition classes for each of the Provincial BCTS Business Areas. Appendix B – Human and Lightning Ignition Risk for BCTS Operating Areas provides fire risk classification tables based on Provincial fire history data provided by BCWS.

The level of access to the area is a component of the human ignition risk. Each level of access used in the guide and form is defined in Table 3a below:

**Table 3a. Level of Access**

No access	A gate prevents vehicle access or the cutblock was helicopter logged without road access.
Poor access	ATV or difficult 4x4 truck access to the harvest area.
Good access	2-wheel drive or easy 4x4 truck access to the harvest area
Ready access	Main public road, close to town, frequently travelled

<sup>2</sup>BC Wildfire Service: Wildfire Season Summaries <https://www2.gov.bc.ca/gov/content/safety/wildfire-status/about-bcws/wildfire-history/wildfire-season-summary>

## **FIRE SPREAD HAZARD ASSESSMENT**

Various site characteristics influence the potential for fire to spread including size of the cutblock, topography, and the status of adjacent perimeter slash abatement, if applicable. Topography is an important component that influences fire behavior and consists of various factors including slope percentage (i.e. steepness), slope position, and aspect. Slope percentage influences the fire’s trajectory and rate of spread by specifically affecting solar radiation intensity and fuel moisture, which subsequently influences flame length and rate of spread of surface fires. For example, the steeper the slope the faster the spread. Slope position relates to the ability of a fire to gain momentum uphill. It affects temperature and relative humidity, such that a site at the bottom of the slope is equivalent to a site on flat ground, while a site on the upper one third of a slope would be impacted by preheating and faster rates of spread. The aspect of an area will influence the potential fire spread hazard and increases if the area faces west or south. The degree to which unabated harvesting slash or standing timber with a high fire hazard exists adjacent to the cutblock will influence fire spread hazard. The greater the percentage of the cutblock perimeter surrounded by these hazards, the greater the potential for a surface fire to spread from the cutblock into the adjacent landscape or from the landscape into the cutblock.

**Table 3. Potential Ignition Hazard and Fire Spread Assessment considering site characteristics and ratings** (extract from BCTS Fire Hazard Assessment Form, Appendix C)

<b>Potential Ignition and Fire Spread Hazard Assessment</b>					
<b>Potential Ignition (I) and Spread Hazards (S)</b>	<b>Site characteristics and ratings</b>				<b>Points</b>
Lightning ignition risk*	Low 1	Moderate 3	High 5	Extreme 7	
Human ignition risk*	Low 0.5	Moderate 1.5	High 2.5	Extreme 3.5	
Level of access to area	No access 0.5	Poor access 1.5	Good access 2.5	Ready access 3.5	
Size of cutblock area	<20 ha 1	20-40 ha 3	41-60 ha 5	>60 ha 7	
Aspect of area	N, NE 1	NW, E 2	W, SE, level, variable 3	S, SW 4	
Slope in steepest third of block or Treatment Unit	<20% 1	20-35% 2	36-45% 3	>45% 4	
Slope position (landscape scale)	Top 1/3 1	Valley bottom 2	Bottom 1/3 3	Middle 1/3 4	
Adjacent unabated slash hazards or hazardous standing timber <sup>3</sup> *Percentage of perimeter	None 0	<15% 2	16-40% 4	>40% 6	
Fine fuel loading (in block) within 30 m of cutblock edges	None (fuel free) 0	Lower than block average 1	Consistent 2	Higher than block average 3	
<b>Potential Ignition Hazard and Fire Spread Points</b>					
<b>Low 6-13</b>		<b>Moderate 14-25</b>		<b>High 26-32</b>	
				<b>Extreme &gt;32</b>	

\*see Appendix B for rating for human and lightning ignition risk

<sup>3</sup> Hazardous standing timber refers to fire hazard as per a professional’s assessment (e.g., accumulated blowdown, high proportion of standing dead trees, accumulations of fine surface fuels [ $< 12.5$  cm diameter]  $> 2.0$  kg/m<sup>2</sup> in an area greater than 0.1 ha)

## STEP 4 – DETERMINE IF ABATEMENT IS REQUIRED

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The hazard assessment is focused on: Step 1 – identification of values and consequence assessment of values at risk, Step 2 – fuel hazard assessment, and Step 3 – fire ignition hazard and fire spread assessment. Steps 2 and 3 assess fire ignition and behavior potential (i.e. fire likelihood), which is then considered in combination with the outcome of Step 1 which identifies values at risk (i.e. consequence). This process is meant to capture the overall risk of fire likelihood and consequence for a given set of fuel and site features of a cutblock, and its proximity to the location of values at risk.

Four decision matrices to be used when determining the risk-based requirement for fire hazard abatement are illustrated below in Table 4. These matrices are based on the consequence of wildfire to identified values at risk, with a different matrix for each scenario of low, moderate, high and extreme consequence.

The first phase of the abatement assessment involves establishing which consequence matrix applies (i.e. low, moderate, high or extreme as shown in Tables 4a to 4d) based on the consequence assessment of values at risk determined in Step 1.

The user then assesses the fuel hazard by applying Table 2 (Fuel Load Hazard). Though no numerical assessment of Debris Pile Hazard is presented in this Guide, the outcomes of Step 1 and Step 3 can help shed light on the required abatement of debris piles. **If both types of fuel hazard are present on the cutblock, the final determination of whether abatement is required will be assessed independently for Fuel Load Hazard and for Debris Pile Hazard.** Once the fuel hazard score of low, moderate, high or extreme has been established, the fire potential ignition score of low, moderate, high or extreme is determined using Table 3. Based on the scored hazard rating for fire potential ignition of low, moderate, high or extreme, the abatement requirement is determined as per the appropriate consequence matrix (Tables 4a to 4d).

**Table 4. Determination of Abatement**

Low Consequence					
		Potential Ignition and Fire Spread			
		Low	Moderate	High	Extreme
Fuel Hazard	Low	No	No	No	No
	Moderate	No	No	No	Abate
	High	No	Abate	Abate	Abate
	Extreme	No	Abate	Abate	Abate

**Table 4a. Low consequence scoring matrix**

Moderate Consequence					
		Potential Ignition and Fire Spread			
		Low	Moderate	High	Extreme
Fuel Hazard	Low	No	No	No	Abate
	Moderate	No	*Rationale Required	Abate	Abate
	High	Abate	Abate	Abate	Abate
	Extreme	Abate	Abate	Abate	Abate

**Table 4b. Moderate consequence scoring matrix**

High Consequence					
		Potential Ignition and Fire Spread			
		Low	Moderate	High	Extreme
Fuel Hazard	Low	No	No	Abate	Abate
	Moderate	No	Abate	Abate	Abate
	High	Abate	Abate	Abate	Abate
	Extreme	Abate	Abate	Abate	Abate

**Table 4c. High consequence scoring matrix**

Extreme Consequence					
		Potential Ignition and Fire Spread			
		Low	Moderate	High	Extreme
Fuel Hazard	Low	No	Abate	Abate	Abate
	Moderate	Abate	Abate	Abate	Abate
	High	Abate	Abate	Abate	Abate
	Extreme	Abate	Abate	Abate	Abate

**Table 4d. Extreme consequence scoring matrix**

The above decision matrices identify the requirement for hazard abatement based on the consequence of wildfire to identified values at risk in combination with fuel hazard and fire potential ignition. The consequence to values at risk determined in Step 1 and the applicable decision matrix range from low (Table 4a), moderate (Table 4b), high (Table 4c) to extreme (Table 4d). If abatement is required, document the abatement strategy that will be implemented on the BCTS Fire Hazard Assessment Form. **The abatement strategy and treatment should result in the block no longer requiring abatement as per these matrices (i.e., the fuel hazard and potential ignition and fire spread after abatement should be in a cell where “No” abatement is required).** Where the abatement strategy will not result in “No” abatement being required, the abatement strategy needs to be designed by a professional with a documented rationale, and the implementation must be to a level that acceptably achieves the results of the abatement strategy.

## APPENDIX A – COMMUNITY DELINEATION AND DISTANCE RATINGS

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The forest professional completing the hazard assessment will need to determine the proximity to communities as per Table 1 of this Guide and the Assessment form.

The forest professional may consider using the WUI Risk Class Maps (see link below); iMapBC (layer – BC Wildfire – Wildland Urban Interface); Google Earth KML files with its measuring tool; or an alternative information source.

The government fire and fuel management page includes [links](#) to the WUI Risk Class Maps which identify a 2km buffer around communities based in 2 different formats.

Guidance for use of PDF maps from webpage link:

1. The webpage link will take you to an informational page
2. Select 'Access the WUI files' and choose the downloadable provincial KML, or:
3. Search for your location on the Wildland Urban Interface Risk Class Maps
4. Clicking on the 'instructions on viewing the maps' provide directions on how to turn on/off layers in Adobe via Internet Explorer
5. Once the pdf is open, deselect the 'WUI 25 structure plus 2.75 split community' layer
6. You will now see a grey line and light shading which represents a 2 km buffer around structures
7. Use the map to **infer** the proximity to communities as required in Table 1 of this Guide and the Hazard Assessment form.



## APPENDIX B – HUMAN AND LIGHTNING IGNITION RISK FOR BCTS OPERATING AREAS

While the potential for lightning or person-caused ignitions is site-specific and can be interpreted from fire history records and local weather patterns; the following risk classification tables (Table 5 to Table 16) are provided for use in this assessment. These classifications were derived through the creation of a provincial spatial lightning and human caused ignition theme. This theme is classified into low, moderate, high and extreme ignition classes for each of the Provincial BCTS Business Areas.

**Table 5. Babine Timber Sales Business Area human ignition and lightning risk ratings.**

TIMBER SALES OFFICE	OPERATING AREA	Human Ignition Risk Rating	Lightning Ignition Risk Rating
<b>Babine Timber Sales Business Area</b>	Babine R. North	Low	Moderate
	Baboon	Low	Low
	Bulkley	Low	Moderate
	Burns Lake East	Moderate	Low
	Cheslatta	Moderate	Low
	Chisholm	Low	Low
	Copper	Low	Low
	Deep Creek	Moderate	Moderate
	East Gates	Low	Low
	Francois Lake East	Moderate	Low
	Francois Lake West	Moderate	Low
	Francois Lake West	Moderate	Moderate
	Fulton	Low	Moderate
	Gold West	Moderate	Moderate
	Granisle	Low	Moderate
	Lamprey	Low	Moderate
	Tahtsa	Low	Low
	Torkelson	Low	Moderate
	Torkelson	Low	Moderate
	Triangle	Low	Moderate
	Tsichgass	Low	Moderate
Uncha North	Moderate	Low	
Uncha West	Moderate	Moderate	
Upper Nilkitkwa East	Low	Low	
Valley	Moderate	Moderate	

Table 6. Cariboo-Chilcotin Timber Sales Business Area human ignition and lightning risk ratings.

TIMBER SALES OFFICE	OPERATING AREA	Human Ignition Risk Rating	Lightning Ignition Risk Rating
Cariboo - Chilcotin Timber Sales Business Area	Ahbau	Low	Moderate
	Bambrick	Low	Low
	Batnuni	Low	Moderate
	Bells	Moderate	Moderate
	Big Creek	Moderate	Moderate
	Big Valley	Low	Moderate
	Cariboo Lake	Low	High
	Charleson	Low	Moderate
	Clisbako	Low	Low
	Coglistiko	Low	Low
	Dash	Low	Low
	Enterprise	Moderate	Moderate
	Gaspard	Low	Moderate
	Gerimi	Moderate	Moderate
	Halfway Ranch	Low	Low
	Hawks Creek	High	High
	Kluskus	Low	Low
	Landslide	Moderate	Moderate
	Little River	Low	Moderate
	Little Swift	Low	Moderate
	Mackin	Low	Moderate
	Marvin Creek	Low	Moderate
	Maud	Low	Moderate
	McIntosh	Low	Moderate
	Meldrum	High	High
	Milburn	High	Moderate
	Morris	Low	Low
	Mud Creek	Low	Low
	Nazko	Low	Low
	Phillips	Low	Low
	Piltz	Low	Low
	Punky Moore	Low	Low
	Quesnel Lake	Low	Extreme
Ramsey	Low	Moderate	
Sky Ranch	Low	Low	
Tete Angela	Low	Low	
Twan	Moderate	Moderate	

Table 7. Chinook Timber Sales Business Area human ignition and lightning risk ratings.

TIMBER SALES OFFICE	OPERATING AREA	Human Ignition Risk Rating	Lightning Ignition Risk Rating
Chinook Timber Sales Business Area	American Creek	Extreme	Moderate
	Birkenhead River	High	Moderate
	Blackwater Creek	High	Moderate
	Boulder Creek	Low	Moderate
	Bowen Island	High	Moderate
	Brittain East	Low	Moderate
	Brittain West	Low	Low
	Bunster	Moderate	Low
	Cantelon Creek	High	Moderate
	Cascade Creek	Extreme	Moderate
	Chapman	High	Moderate
	Cheekye Creek	High	Moderate
	Conroy Creek	High	Moderate
	Culliton Creek	High	Moderate
	Dodd	Moderate	Low
	Echo Island	Extreme	Moderate
	Elphinstone	High	Moderate
	Granville	Moderate	Moderate
	Green River	High	High
	Haslam	High	Low
	Haylmore Creek	Moderate	Moderate
	Homfray	Low	Low
	Hunter Creek	Extreme	Moderate
	Indian River	Moderate	Moderate
	Kookipi Creek	Moderate	Moderate
	Lillooet River	Moderate	High
	Lois	Moderate	Moderate
	Mamquam River	Moderate	Moderate
	Manning Park	Moderate	High
	Mashiter Creek	High	Moderate
	Maurelle	Moderate	Moderate
	McNab	Moderate	Moderate
	McNair	High	Moderate
	Miller Creek	Moderate	High
	Mount Parkes	Low	Moderate
	Owl Creek	High	High
Phelix Creek	Moderate	Moderate	
Potlatch	Moderate	Moderate	
Rainy	Moderate	Moderate	
Redonda	Moderate	Moderate	
Ring Creek	High	Moderate	
Ruby Creek	Extreme	Moderate	
Sechelt	High	Moderate	

<b>TIMBER SALES OFFICE</b>	<b>OPERATING AREA</b>	<b>Human Ignition Risk Rating</b>	<b>Lightning Ignition Risk Rating</b>
<b>Chinook Timber Sales Business Area</b>	Skookum Creek	Moderate	Moderate
	Sloquet Creek	Low	Moderate
	Soo River	Moderate	High
	Sowaqua/Nicolom	High	Moderate
	Spetch Creek	High	Moderate
	Spuzzum Creek	Moderate	Moderate
	Squamish River	High	Moderate
	Stawamus River	High	Moderate
	Stokke Creek	Moderate	Moderate
	Stoyoma Creek	High	Moderate
	Sumas Mountain	High	Moderate
	Tenquile Creek	Moderate	Moderate
	Texada	Moderate	Low
	Theodosia	Low	Moderate
	TSA 25	Low	Low
	Upper Stave/Winslow	Moderate	Moderate
	Urquhart Creek	High	Moderate
	Vedder Mountain	High	Moderate
	Watts Point	High	Moderate
	Woodfibre Creek	High	Moderate

Table 8. Kamloops Timber Sales Business Area human ignition and lightning risk ratings.

TIMBER SALES OFFICE	OPERATING AREA	Human Ignition Risk Rating	Lightning Ignition Risk Rating
<b>Kamloops Timber Sales Business Area</b>	Adolph	Low	High
	Arrastra Creek	Moderate	High
	Avola	Moderate	High
	Barriere Ridge	Moderate	High
	Barriere Ridge West	Moderate	High
	Black Pines	High	High
	Boas Creek	Moderate	High
	Bonaparte	Moderate	Moderate
	Cadwallader	Moderate	Moderate
	Camp Lake	Low	High
	Canim Band	Low	High
	Canim Lake	Moderate	High
	Canim Red	Moderate	Moderate
	Cayenne	Low	High
	Champion Creek	Moderate	High
	Chasm	Moderate	Moderate
	Chataway	Moderate	Moderate
	Clemina	Moderate	High
	Coal Creek	Moderate	Moderate
	Copper Creek	Moderate	High
	Demers	Moderate	High
	Dominion Albreda	Low	High
	Dunn Lake	Moderate	High
	Eakin Creek	Moderate	Moderate
	ELUSIVE	Moderate	Moderate
	Fadear Mountain	Moderate	High
	Finney Chipuin	High	Moderate
	Fisher Creek	Low	High
	Foghorn 1	High	High
	Foghorn 2	High	High
	Foghorn 3	High	High
	French Bar	Low	Low
	Georges	High	High
	Glossy	High	High
	Gollen Creek	Moderate	High
	Gotchen	Low	High
	Hellroar	Low	High
	Highland Valley	High	Moderate
	Hog	Moderate	Moderate
	Hurley	Low	Moderate
Jameson Lake	High	High	
Jim Creek	Moderate	Moderate	
July Creek	Moderate	Moderate	

<b>TIMBER SALES OFFICE</b>	<b>OPERATING AREA</b>	<b>Human Ignition Risk Rating</b>	<b>Lightning Ignition Risk Rating</b>
<b>Kamloops Timber Sales Business Area</b>	Ketchan Lake	Moderate	High
	Lac LeJeune	High	High
	Lang Lake	Moderate	High
	Lightning Lake	Moderate	Moderate
	Liza	Moderate	Low
	Loon Lake	Moderate	High
	Lost Valley	Moderate	Moderate
	Lundbom Lake	High	High
	Mackenzie	Moderate	High
	Mahood East	Low	High
	Mahood West	Low	Moderate
	Maka Creek	High	Moderate
	Manning Creek	High	Moderate
	Mathew	High	High
	McGillivray	Moderate	Moderate
	McGillivray Lake 1	High	High
	McGillivray Lake 2	High	High
	McGillivray Lake 3	High	High
	McQueen Lake	Extreme	High
	Michael Lake	Moderate	Moderate
	Midday Creek	High	High
	Mine Creek	Moderate	Moderate
	Moose Valley 1	High	High
	Moose Valley 2	Moderate	Moderate
	Mow Creek	Moderate	Moderate
	Mud	Low	High
	Mud Lake	Moderate	Extreme
	Mud Noaxe	Low	Low
	Murray	High	High
	Nehalliston	Moderate	Moderate
	North Thompson	Low	High
	Oliver	Low	High
	Paradise	Low	Low
	Pasayten River	Low	Moderate
	Pattinson Lake	Moderate	Moderate
	Pearson	High	Low
	Peddie	Moderate	Extreme
	Pennask Lake	Moderate	Moderate
	Peridotite	Moderate	Low
	Peter Hope	Moderate	High
Peterson Creek	Moderate	High	
Peterson Creek 2	High	High	
Pimainus Lake	High	Moderate	

<b>TIMBER SALES OFFICE</b>	<b>OPERATING AREA</b>	<b>Human Ignition Risk Rating</b>	<b>Lightning Ignition Risk Rating</b>
<b>Kamloops Timber Sales Business Area</b>	Quilchena Creek	Moderate	Moderate
	Rabbitt Mountain	Moderate	High
	Railroad Creek	Moderate	Moderate
	Range Creek	Moderate	High
	Rayfield	Moderate	Moderate
	Roberts Creek	Moderate	High
	Robertson	High	Moderate
	Roche Lake	High	High
	Sabiston Eagle Hills	High	High
	Saskum	Moderate	High
	Scottie	Moderate	Moderate
	Scuitto Lake	Extreme	High
	Shea Lake	High	High
	South Harbor 1	Low	High
	South Harbor 2	Low	High
	Spanish	Low	High
	Spius Creek	High	Moderate
	Swakum	Extreme	High
	Sylvester Creek	High	High
	Taweel	Moderate	High
	Taylor	Moderate	Low
	Thynne Creek	Moderate	High
	Tom Cole	High	Moderate
	Tommy	Moderate	Moderate
	Tracy Creek	Low	High
	Tranquille Lake	Moderate	High
	Tshinakin Creek	Moderate	High
	Tyner Lake	High	High
	Upper Clearwater	Moderate	High
	Upper Clearwater 2	Moderate	Moderate
	Wallace Creek	Extreme	High
	Ware Lake	High	Moderate
Whipsaw Creek	High	High	
Wilkens	Moderate	Extreme	
Wolfe Belgie	Moderate	High	
Yalakom	High	Moderate	
Yellowhead	Low	High	

Table 9. Kootenay Timber Sales Business Area human ignition and lightning risk ratings.

TIMBER SALES OFFICE	OPERATING AREA	Human Ignition Risk Rating	Lightning Ignition Risk Rating
<b>Kootenay Timber Sales Business Area</b>	AkiminaKishinena	Low	Low
	Anchor	Moderate	High
	Baribeau Redding	Moderate	High
	Barnes	Low	High
	Beaton	Low	Extreme
	Big Sheep	Moderate	High
	Brule Elkfords	Moderate	Moderate
	Bugaboo	Low	Moderate
	Bulldog	Moderate	High
	Burton	Low	High
	Cai	Extreme	Extreme
	Cedrus	Low	Moderate
	Cochrane	Low	Moderate
	College	Extreme	Extreme
	Colvalli	High	High
	Couldrey	Low	Moderate
	Cranbrook	Extreme	High
	Crawford/Houghton	Moderate	High
	Cross	Low	Moderate
	Crossing	Moderate	Moderate
	Duncan Westside	Low	Extreme
	Dutch	Moderate	High
	Eagle	Low	High
	Gable/Granby	Moderate	High
	Gerard	Low	Extreme
	Glacier	Low	High
	Gloucester	Low	High
	Gloucester Amendment	Low	High
	Goatskin	Low	Moderate
	Gold	High	High
	Grassy	High	Extreme
	Hall Bohan	Moderate	High
	Hawkins	Moderate	Moderate
	Hills	Low	High
	Hope	Low	Extreme
	Kaslo	Moderate	High
	Kettle	Moderate	High
	Kindersley	Moderate	Moderate
	Kuskanax	Moderate	Extreme
	Lamb	Moderate	High
Lavington	Moderate	High	
Lemon	Moderate	High	



<b>TIMBER SALES OFFICE</b>	<b>OPERATING AREA</b>	<b>Human Ignition Risk Rating</b>	<b>Lightning Ignition Risk Rating</b>
<b>Kootenay Timber Sales Business Area</b>	Lewis Wolf	High	High
	Limpid	High	High
	Lost Dog	High	High
	Lower Granby	Moderate	High
	Mark	High	High
	Mary Anne/Kootenay East\Moscow	Moderate	High
	Meadow Mtn.	Moderate	Extreme
	Moyie	Moderate	High
	Mud Lake	Moderate	High
	Never Touch	Low	Moderate
	Newgate/Grasmere/Galtons	High	High
	Nicolson	High	Extreme
	Payne	Low	Extreme
	Perry	High	High
	Perry Ridge	Moderate	High
	Perry Ridge/TFL 3	Moderate	High
	Premier Diorite	High	High
	Robson Ridge	High	High
	Rock/Rice	Moderate	High
	Rocky	High	High
	Rossland	High	High
	Sentinel	Extreme	Extreme
	Slocan Park	High	High
	Smallwood	High	High
	Snowshoe	Moderate	High
	Stagleap	Moderate	High
	Stewart	Moderate	High
	Swansea	Extreme	High
	Toby	Moderate	Moderate
	Trout Lake	Low	Extreme
	WADF/Sitkum	Moderate	High
	West Christina	High	High
	West Kettle	Moderate	High
Westfall	Low	High	
Whatshan Lake	Moderate	Extreme	
White	Low	Moderate	
Wragge	Low	High	
Ymir	Moderate	High	

Table 10. Okanagan - Columbia Timber Sales Business Area human ignition and lightning risk ratings.

TIMBER SALES OFFICE	OPERATING AREA	Human Ignition Risk Rating	Lightning Ignition Risk Rating
Okanagan - Columbia Timber Sales Business Area	Adelphi	High	High
	Anstey	Low	Extreme
	Banting	Low	High
	Barton	Moderate	Moderate
	Big White	Moderate	High
	Bigmouth	Low	High
	Blackwater Ridge	Low	High
	Blais	Low	Extreme
	Bluewater	Low	Moderate
	BMX-Big Fish	Low	Extreme
	Bolean	High	High
	Branchflower	High	High
	Cascadia	Low	Extreme
	Celista	Low	Extreme
	Chase Harper	High	High
	Chum	High	High
	Coldstream	Extreme	High
	Cooke	Moderate	Extreme
	Crazy	Moderate	Extreme
	Currie	Moderate	Extreme
	Drimmie Creek	Moderate	Extreme
	Eagle River	Moderate	Extreme
	Echo	High	High
	Esplanade	Low	High
	Frisby Ridge	Moderate	Extreme
	Glen Lake	High	High
	Goodfellow	Low	Moderate
	Goosegrass	Low	High
	Graystokes	Low	Moderate
	Harris	Moderate	High
	Hlina	High	High
	Hudson Bay	Moderate	Moderate
	Hunter Blurton	High	Extreme
	Ice River	Low	Moderate
	Ireland	Moderate	Extreme
	Jackpine	Extreme	High
Jumping Creek	Low	Moderate	
Kal Slopes	Extreme	High	
Kettle	Low	High	
Kwikoit	Moderate	High	
Lamberton	Moderate	Extreme	
Long Ridge	Low	Extreme	

<b>TIMBER SALES OFFICE</b>	<b>OPERATING AREA</b>	<b>Human Ignition Risk Rating</b>	<b>Lightning Ignition Risk Rating</b>
<b>Okanagan - Columbia Timber Sales Business Area</b>	Mara-Sicamous	High	Extreme
	Mellin Windy	Moderate	Moderate
	Mission	Moderate	Moderate
	Mt. Ida	High	High
	Mt. Rev. Prov. Park	Moderate	Extreme
	Mt. Seven	Moderate	Moderate
	Mugford	High	High
	Nagle Creek	Low	High
	Naramata	Extreme	Extreme
	Old Dave	Moderate	Moderate
	Paxton	High	High
	Priest Creek	Extreme	High
	Ratchford	Low	Extreme
	Red Rock Harbour	Low	Extreme
	Rose-Swanson	High	High
	Ross	High	Extreme
	Sicamous North	High	Extreme
	Skaha	High	High
	Skimikin	High	High
	Smokeyhouse	Low	Extreme
	Stitt-Normanwood	Low	High
	Stuart Terrace	Moderate	High
	Swan	Low	High
	TFL 56	Low	High
	Wall Creek	High	High
	Wetask Lake	Moderate	Extreme
	White Lake	High	Extreme
	Whitehead	Moderate	Moderate
	Yard Creek	Moderate	Extreme
	Yellow Creek	Low	Extreme

Table 11. Peace - Liard Timber Sales Business Area human ignition and lightning risk ratings.

TIMBER SALES OFFICE	OPERATING AREA	Human Ignition Risk Rating	Lightning Ignition Risk Rating
Peace - Liard Timber Sales Business Area	Blunt Creek	Low	Low
	Bullmoose	Low	Low
	Cabin	Low	Moderate
	Callazon Creek	Low	Moderate
	Capotblanc	Low	Low
	Coal River	Low	Low
	Dunedin	Low	Low
	Eleven Mile Creek	Low	Low
	Fisher Creek	Low	Moderate
	Groundbirch	Moderate	Low
	Hasler	Moderate	Moderate
	Hook Lake	Low	Low
	Hudson's Hope	Moderate	Low
	Hulcross	Moderate	Moderate
	Kinuseo	Low	Low
	Kiwigana	Low	Low
	Klua	Low	Low
	Liard	Low	Low
	Little Boulder	Low	Moderate
	Mclean Creek	Low	Moderate
	Milo	Low	Low
	Odayin	Low	Low
	Oetata	Low	Low
	Poplar Hills	Low	Low
	Redwillow	Low	Low
	Septimus Creek	Moderate	Low
	Sierra Yoyo	Low	Moderate
Stewart Lake	Moderate	Low	

Table 12. Prince George Timber Sales Business Area human ignition and lightning risk ratings.

TIMBER SALES OFFICE	OPERATING AREA	Human Ignition Risk Rating	Lightning Ignition Risk Rating
<b>Prince George Timber Sales Business Area</b>	Akie	Low	Low
	Angusmac	Low	High
	Beaverly	High	Moderate
	Bednesti	Moderate	Moderate
	Blackwater	Low	Moderate
	Buckhorn	High	Moderate
	Chief Lake	Moderate	Moderate
	Chilako	Moderate	Moderate
	Chuchinka	Low	Moderate
	Clearwater	Low	Low
	Colbourne	Low	Moderate
	Dome	Low	Extreme
	Eaglet	Moderate	High
	East Sylvester	Low	Low
	Eskers	Moderate	Moderate
	Finger Lake	Low	Low
	Firth	Low	Moderate
	Gaffney	Low	Low
	Gillis	Low	Low
	Greg	Moderate	Moderate
	Holman	Low	Moderate
	Hominka	Low	Moderate
	Kwali River	Low	Low
	McGregor A	Low	Moderate
	McGregor B	Low	Moderate
	McGregor C	Low	Moderate
	McGregor D	Low	Moderate
	McGregor E	Low	Moderate
	McLeod	Low	Moderate
	Missinka	Low	Low
	Mooney	Moderate	Moderate
	Moosmoos	Low	Low
	Munroe Creek	Low	Low
	Munroe Lake	Low	Low
Nation Elbow	Low	Low	
North Nechako	High	Moderate	
Pardonet	Low	Low	
Parnsnip	Low	Moderate	
Parnsnip West	Low	Low	
Penny	Low	Extreme	
Porcupine	Low	Low	

TIMBER SALES OFFICE	OPERATING AREA	Human Ignition Risk Rating	Lightning Ignition Risk Rating
<b>Prince George Timber Sales Business Area</b>	Punchaw	Low	Moderate
	Renolds	Low	Moderate
	RV	Low	Moderate
	Saxton	Moderate	Moderate
	Selwyn	Low	Low
	South German	Low	Low
	Stoney Lake	Low	Moderate
	Summit Lake	Moderate	Moderate
	Sylvester	Low	Low
	Walker	Low	High
	Wansa	Moderate	Moderate
	Wansa H	Low	Moderate
	Wansa I	Low	Moderate
	Wansa J	Low	Moderate
	Wendle	Low	Moderate
	West Lake	Moderate	Moderate
	Woodpecker	Moderate	Moderate
	Zelkwas	Moderate	Moderate

Table 13. Seaward/tiasta Timber Sales Business Area human ignition and lightning risk ratings.

TIMBER SALES OFFICE	OPERATING AREA	Human Ignition Risk Rating	Lightning Ignition Risk Rating
<b>Seaward/tiasta Timber Sales Business Area</b>	Adeane Point	Low	Low
	Alison Sound	Low	Low
	Alison Sound Heli	Low	Low
	Anchorage Cove	Low	Low
	Baker Island	Low	Moderate
	Balaklava Island	Low	Low
	Beaver Cove	Moderate	Low
	Belleisle Snd\Tribune Ch	Low	Low
	Bond Sound	Low	Low
	Bonwick Island	Low	Moderate
	Boydell Lake	Low	Low
	Broughton Island	Low	Moderate
	Burnt Island Harbour	Low	Low
	Caviar Cove	Low	Moderate
	Coal Harbour Hwy	Moderate	Low
	Doc Creek	Low	Low
	Driftwood Lake	Low	Low
	East Cracroft	Low	Low
	Ellen Cove	Low	Moderate
	Frederick Bay	Low	Low
	Gilford Island	Low	Moderate
	Gilford Island East	Low	Low
	Greaves Island	Low	Low
	Harbledown	Low	Low
	Holberg	Low	Low
	Huaskin Lake	Low	Low
	Kaikash Creek	Low	Low
	King Island (cb East)	Low	Low
	Kinnaird Island	Low	Moderate
	Knight Inlet	Low	Low
	Knight Inlet (a)	Low	Low
	Knight Inlet (c)	Low	Low
	Knight Inlet (d)	Low	Low
	Knight Inlet (e)	Low	Low
Knight Inlet (f)	Low	Low	
Lull Creek	Low	Low	
Mahatta Creek	Low	Low	
Matsiu Creek	Low	Low	
Mereworth Sound	Low	Low	

<b>TIMBER SALES OFFICE</b>	<b>OPERATING AREA</b>	<b>Human Ignition Risk Rating</b>	<b>Lightning Ignition Risk Rating</b>
<b>Seaward/tlasta Timber Sales Business Area</b>	Minstrel Island	Low	Low
	Naysash Inlet	Low	Low
	Nigei Island	Low	Low
	Nugent Snd\SchwartzenbergLgn	Low	Low
	Nygaard Point	Low	Low
	O-Brien Bay	Low	Moderate
	Pack Lake\Strachan Bay	Low	Low
	Pierce Bay	Low	Low
	Port Hardy	Moderate	Low
	Sargeaunt Passage	Low	Low
	Stone Point\Rivers Inlet	Low	Low
	Turnour Island	Low	Moderate
	Ursie Creek	Low	Low
	Vernon Lake	Low	Moderate
	Vernon Lake (ok)	Low	Moderate
	Village Island	Low	Moderate
	Viscount Island	Low	Low
	Wahkash Creek	Low	Low
	Wakeman Head	Low	Low
	Wakeman\Catto Creek	Low	Low
	Watson Island	Low	Moderate
	West Cracroft	Low	Low
	Yeo Island	Low	Low



Table 14. Skeena Timber Sales Business Area human ignition and lightning risk ratings.

TIMBER SALES OFFICE	OPERATING AREA	Human Ignition Risk Rating	Lightning Ignition Risk Rating
<b>Skeena Timber Sales Business Area</b>	ARISTAZABAL ISLAND	Low	Low
	BANKS	Low	Low
	BIG CEDAR	Low	Low
	BILL LAKE	Low	Low
	BONNEY	Low	Moderate
	BROWNBEAR VANDYKE	Low	Moderate
	CHEENIS	Low	Low
	CROW	Low	Low
	CUTHBERT	Low	Low
	DAK - ILLIANCE	Low	Low
	DASQUE	Low	Low
	DATE CREEK	Moderate	Moderate
	DEADHORSE	Low	Moderate
	DEHORSEY	Low	Low
	GAIL	Low	Moderate
	GOAT HARBOUR	Low	Low
	HELEN LAKE	Low	Moderate
	JUNIPER	Moderate	Moderate
	KHYEX	Low	Low
	KINSKUCH	Low	Low
	KITNAYAKWA	Low	Low
	KITSAULT	Low	Low
	KITWANCOOL	Low	Moderate
	LIMONITE	Low	Low
	LUNO SOUTH	Moderate	Moderate
	MCKAY REACH	Low	Low
	MONKEY BEACH	Low	Low
	MULDOE	Moderate	Moderate
	NANGEESE	Low	Low
	NASH Y	Moderate	Moderate
	NATLAN	Low	Low
	NE GRIBBELL	Low	Low
	NEWCOMBE INLET	Low	Low
	NOGOLD	Low	Low
NORTH HIRSCH	Low	Low	
NORTH PITT ISLAND	Low	Low	
PAYNE COVE	Low	Low	
PORCHER	Low	Low	
RED BLUFF	Low	Low	
RIX ISLAND	Low	Low	
S GRIBBELL	Low	Low	
SALMON RUN	Low	Moderate	
SICINTINE	Low	Low	

<b>TIMBER SALES OFFICE</b>	<b>OPERATING AREA</b>	<b>Human Ignition Risk Rating</b>	<b>Lightning Ignition Risk Rating</b>
<b>Skeena Timber Sales Business Area</b>	SIMPSON LAKE	Low	Low
	SKEENA WEST	Moderate	Moderate
	SOMERVILLE	Low	Low
	SOUTH HIRSCH	Moderate	Low
	STEAMER PASSAGE	Low	Low
	SUSKWA	Moderate	Moderate
	TAG CREEK	Low	Low
	TAYLOR - KOTSINTA	Low	Low
	TFL 41 OFFSHORE	Low	Low
	TFL 41 OFFSHORE CARIBOU	Low	Low
	TFL 41 OFFSHORE DANUBE	Low	Low
	THOMLINSON	Low	Low
	THUNDERBIRD	High	Moderate
	TUWARTZ LAKE	Low	Low
	VERNEY PASSAGE	Low	Low
	WELDA	Low	Low
	WEST ILTZUL	Moderate	Moderate
	WEST NASS	Low	Moderate
	WHITE - PAW	Low	Moderate
	WILMAN POINT	Low	Low

Table 15. Strait of Georgia Timber Sales Business Area human ignition and lightning risk ratings.

TIMBER SALES OFFICE	OPERATING AREA	Human Ignition Risk Rating	Lightning Ignition Risk Rating
Strait of Georgia Timber Sales Business Area	Amai	Low	Low
	Artlish/Fair	Low	Moderate
	Burman	Low	Low
	Call	Low	Low
	Campbell	High	Low
	Chemainus	Extreme	Moderate
	Clayoquat	Low	Low
	Clayoquot SMZ	Low	Low
	Cowichan	High	Moderate
	Effingham	Low	Low
	Estero	Low	Low
	Eve River	Low	Moderate
	Heber	Low	Moderate
	Hesquiat	Low	Low
	Jacklah	Low	Low
	Koksilah	Extreme	Moderate
	Loss	Moderate	Low
	Mohun	Moderate	Low
	Mohun	Moderate	Low
	Nitnat	Low	Low
	Poison	Low	Low
	Port Neville	Low	Low
	Pye	Moderate	Low
	Rugged Point	Low	Low
	San Juan	Moderate	Moderate
	Sarita	Low	Low
	Sonora	Moderate	Moderate
	Sproat Nahmint Cous	Moderate	Moderate
	Thurlow	Low	Moderate
	Toquart	Low	Low
	Towry Head	Low	Low
Tzartus	Low	Low	
Union Island	Low	Low	
White	Low	Low	

Table 16. Stuart - Nechako Timber Sales Business Area human ignition and lightning risk ratings.

TIMBER SALES OFFICE	OPERATING AREA	Human Ignition Risk Rating	Lightning Ignition Risk Rating
<b>Stuart - Nechako Timber Sales Business Area</b>	Academus	Low	Low
	Airline	Low	Low
	All Nations Cunningham	Moderate	Moderate
	Baptiste	Low	Low
	Barlow/Pitka	Moderate	Moderate
	Blue	Low	Moderate
	Chuchi	Low	Low
	Clukulz/Cobb	Moderate	Moderate
	Crystal	Low	Moderate
	Cunningham	Moderate	Moderate
	Finger East	Low	Moderate
	Gold	Low	Moderate
	Hwy 27 East	Moderate	Moderate
	Kuzkwa	Moderate	Moderate
	Leo Creek	Low	Low
	Marie Lake	Low	Moderate
	Murray Ridge	Moderate	Moderate
	Nahounli	Moderate	Moderate
	Necoslie	Low	Moderate
	O'cock	Low	Moderate
	Pinchie	Moderate	Moderate
	Rainbow	Low	Moderate
	Salmon	Low	Moderate
	Sawtooth	Low	Low
	Sutherland North	Low	Moderate
	Sutherland South	Low	Moderate
Ta-Da-Chun	Low	Low	
Tchentlo	Low	Low	
Teardrop	Low	Low	

# APPENDIX C –BCTS FIRE HAZARD ASSESSMENT FORM



## Fire Hazard Assessment Form

REFERENCE	LICENCE	LICENSEE				
	BLOCK	LOCATION	SURVEY DATE (mm/dd/yyyy)			
	SURVEYED BY		PROFESSIONAL DESIGNATION			
1. CONSEQUENCE	Distance to communities <sup>(1)</sup>	> 5 km 1	1 – 5 km 4	0.5 – 1 km 8	< 0.5 km 13	
	Distance to Hydro transmission lines	> 5 km 1	1 – 5 km 3	0.5 – 1 km 6	< 0.5 km 9	
	Distance to community watersheds	> 5 km 1	1 – 5 km 2	0.5 – 1 km 4	< 0.5 km 7	
	Other values at risk (specify):	> 5 km 1	1 – 5 km 2	0.5 – 1 km 4	< 0.5 km 7	
	Total Consequence Points	Low: 0-6 Moderate: 7-15	High: 16-22 Extreme: >22	Consequence Rating		
2. FUEL LOAD HAZARD	Fuel depth, average depth of all woody fuels	< 20 cm 1	20 - 40 cm 3	40 - 60 cm 5	> 60 cm 7	
	Horizontal fuel arrangement, % cover for fine fuels < 7.1 cm	< 15% 1	15 - 30% 3	31 - 45% 5	> 45% 10	
	Horizontal fuel arrangement, % cover for all woody fuels	< 20% 1	20 - 50% 3	51 - 80% 5	> 80% 7	
	Vertical fuel arrangement, fine fuels < 7.1 cm	Mixed with soil 1	On ground 3	Partially elevated 5	Mostly elevated 7	
	Contributing vegetation (e.g., include grasses, dead & dried herbs/ shrubs, exclude green herbs/ shrubs)	None 0	Low 1	Moderate 3	High 5	
	Fine fuel percentage of volatile species, cedar slash component	0% 0	< 20% 2	20 - 40% 4	41 - 60% 6	> 60% 8
	Total Fuel Load Points	Low: 0-8 Moderate: 9-15	High: 16-23 Extreme: >23	Fuel Load Hazard		
3. IGNITION/ FIRE SPREAD	Lightning ignition risk <sup>(2)</sup>	Low 1	Moderate 3	High 5	Extreme 7	
	Human ignition risk <sup>(2)</sup>	Low 0.5	Moderate 1.5	High 2.5	Extreme 3.5	
	Level of access to area	No access 0.5	Poor access 1.5	Good access 2.5	Ready access 3.5	
	Size of cutblock area	< 20 ha 1	20 - 40 ha 3	41 - 60 ha 5	> 60 ha 7	
	Aspect of area	N, NE 1	NW, E 2	W, SE, level, variable 3	S, SW 4	
	Slope in steepest third of block or Treatment Unit	< 20 % 1	20 - 35% 2	36 - 45% 3	> 45% 4	
	Slope position (landscape scale)	Top third 1	Valley Bottom 2	Bottom third 3	Middle third 4	
	Adjacent unabated slash hazards or hazardous standing timber <sup>3</sup> , as percentage of perimeter	None 0	< 15% 2	16 - 40% 4	> 40% 6	
	Fine fuel loading (in-block) within 30 m of cutblock edges	None, fuel free 0	Lower than block average 1	Consistent 2	Higher than block average 3	
	Total Ignition/ Fire Spread Points	Low: 6-13 Moderate: 14-25	High: 26-32 Extreme: >32	Ignition/ Spread Hazard		

**References:**

- <sup>(1)</sup> [Wildland Urban Interface Risk Class Maps \[ link \]](#)
- <sup>(2)</sup> [BCTS Fire Hazard Assessment Guide, Appendix B \[ link \]](#)
- <sup>(3)</sup> hazardous standing timber based on professional judgment (e.g., accumulated blowdown, high proportion of standing dead trees, accumulations of fine surface fuels > 2.0 kg/m<sup>2</sup> in an area greater than 0.1 ha)

**Instructions:**

For guidance on how to complete a fire hazard assessment, please refer to [BCTS Fire Hazard Assessment Guide](https://www2.gov.bc.ca/gov/content/industry/forestry/bc-timber-sales/forest-certification/ems-sfm)  
<https://www2.gov.bc.ca/gov/content/industry/forestry/bc-timber-sales/forest-certification/ems-sfm>

**RATIONALE** (Comments to support abatement decision, abatement strategy. Attach pages as needed.)

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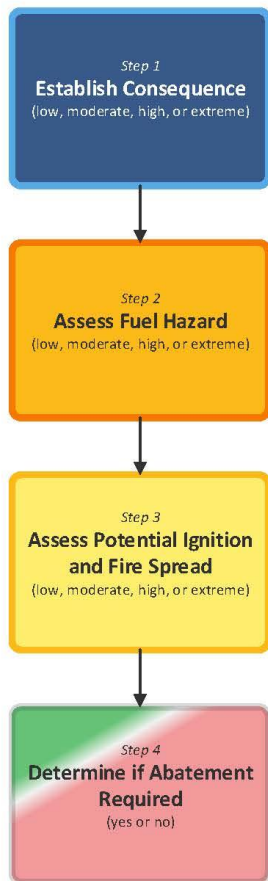
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**Fire Hazard Abatement Decision:**

**KEY STEPS TO FIRE HAZARD ASSESSMENT**



**SUGGESTED ABATEMENT DECISION**

Low Consequence					
		Ignition Hazard and Fire Spread			
		Low	Moderate	High	Extreme
Fuel Hazard	Low	No	No	No	No
	Moderate	No	No	No	Abate
	High	No	Abate	Abate	Abate
	Extreme	No	Abate	Abate	Abate

Table 4a. Low consequence scoring matrix

Moderate Consequence					
		Ignition Hazard and Fire Spread			
		Low	Moderate	High	Extreme
Fuel Hazard	Low	No	No	No	Abate
	Moderate	No	*Rationale Required	Abate	Abate
	High	Abate	Abate	Abate	Abate
	Extreme	Abate	Abate	Abate	Abate

Table 4b. Moderate consequence scoring matrix

High Consequence					
		Ignition Hazard and Fire Spread			
		Low	Moderate	High	Extreme
Fuel Hazard	Low	No	No	Abate	Abate
	Moderate	No	Abate	Abate	Abate
	High	Abate	Abate	Abate	Abate
	Extreme	Abate	Abate	Abate	Abate

Table 4c. High consequence scoring matrix

Extreme Consequence					
		Ignition Hazard and Fire Spread			
		Low	Moderate	High	Extreme
Fuel Hazard	Low	No	Abate	Abate	Abate
	Moderate	Abate	Abate	Abate	Abate
	High	Abate	Abate	Abate	Abate
	Extreme	Abate	Abate	Abate	Abate

Table 4d. Extreme consequence scoring matrix