

Wildfire Recovery in BC Community Forests

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CONTENTS

l. Introduction	
2. Pre-Wildfire	4
3. Post-Wildfire	6
3.1 Areas with Incomplete Obligations	8
3.2 Immature and/or Non-Merchantable Timber	8
3.3 Economically Viable, Merchantable Timber	9
3.4 Marginally Economically or Merchantable Timber	10
3.5 Wildland Urban Interface	10
3.6 Non-Timber Harvest Landbase (Non-THLB), Constrained Areas and Other	
4. Contacts	12

Cover Photo: After the Harrop Creek Fire, photo by Carly Dow Below: Post-treatment field tour, photo by Louis Bockner



1. INTRODUCTION

The purpose of this document is to provide general guidance and principles for community forests in British Columbia to consider after experiencing a wildfire event. The focus is on the key activities, responsibilities and funding opportunities for wildfire rehabilitation and recovery. Experiencing a wildfire event within your community or community forest can be traumatic from various perspectives. Do not underestimate the importance and benefit of meaningful and proactive conversations and relationships with local First Nations, other Community Forests in the area, BC Wildfire Service (BCWS), Regional and Resource District staff (FOR¹), stakeholders, potential funders, and implementation partners.

This document is not a comprehensive review of BCWS' four pillars of emergency management (Prevention, Preparedness, Response, and Recovery). Each of these pillars include important considerations that will ultimately lend to the success of wildfire rehabilitation and other activities following a wildfire event.

This document is an outcome of the <u>Engagement Agreement between Federation of BC Woodlot</u> <u>Associations (Licensees), BC Community Forest Association (Agreement Holders) and BC Wildfire</u> <u>Service (June, 2019)</u>. The purpose of the engagement agreement is to provide the basis from which BCWS, woodlot licensees and community forest agreement holders can build and/or improve their working relationships around emergency management and wildfire risk mitigation.

DISCLAIMER

Wildfire management and funding opportunities varies by local Resource District – all management activities carried out on a community forest should be in concert with local/regional FOR and BCWS staff.

This document provides a summary of conditions at the time it was developed. Individual funding groups and agencies (e.g., BCWS, FOR) should be consulted directly for up-to-date criteria and application processes, as these change over time. Ensure you are aware of the full requirements and criteria for the organization/funding campaign when developing applications.

¹ BC Ministry of Forests

2. PRE-WILDFIRE

Prevention, Preparedness and Response

Well before any wildfire, community forests should be looking for ways to prepare. Using three of BCWS' pillars of emergency management (Prevention, Preparedness, and Response) can be an effective way to guide this proactive effort. Additional detail can be found on the <u>BCWS website</u>. This structure provides community forest managers with proactive and reactive approaches that can be used to reduce the potential for wildfire related impacts. Some of these actions are related to activities on the ground, e.g., to reduce fuels, and others are more related to communications, relationships, and systems to support the effectiveness of emergency operations. Many of these activities require coordination with and/or the leadership of municipalities and/or FOR Districts and BCWS.

Prevention	 Partner with BCWS on Wildland Urban Interface Wildfire Risk Reduction Plans around communities. Plan and implement additional fuel hazard mitigation treatments, landscape level fuel breaks. Design operational harvest with a lens for wildfire risk, such as opportunities for prescribed or cultural burning, fibre utilization of debris management, block and road layout, harvest techniques, silviculture systems, waste management, etc. Supporting and implementing FireSmart activities within the community, in concert with or under the leadership of the municipalities
Planning & Preparedness	 Relationship building with local BCWS staff (i.e. Zone Officer) Planning and collaboration early in the fire season, including clearly communicating objectives and specific areas of increased importance, to BCWS pre-fire season (proactively, before emergency operations commence) Engage with Emergency Management BC (EMBC) to identify if any existing systems, plans, training, or other programs are in place for your community Identify egress routes and discuss emergency response plans with your community Complete mapping of values (i.e. values for protection, values that may benefit from fire) and resources (i.e. roads) within CFA boundary and share with your community and BCWS Note: Many of these steps may be driven by the local municipality and/or BCWS, and supported by the community forest if needed.
Response	 Much of the response (suppression) responsibility sits with BCWS, who will be determining suppression priorities in concert with EMBC. The proactive engagement and information flow above will support Community Forest-informed decisions. Local organizations getting involved in wildfire response is a concept that has seen recent traction and may develop further in the coming years. It is important for all activities to be communicated and coordinated by BCWS, and so proactive engagement with them regarding this potential is important. Communication and relationship building between CFAs and BCWS pre-fire can streamline operations and assist in mitigating wildfire impacts. Establish formal communications (e.g., via a Liaison Officer) between BCWS Incident Management Team (IMT) during a wildfire response that has the potential to impact your community forest.

Landscape Ecology and Climate Change

In addition to the use of these three pillars as proactive efforts by a community forest, a key component of a strategic approach to wildfire is an understanding of the natural disturbance patterns within which your community forest is situated. These disturbance types, informed by climate-related changes, should be identified, and can be used to plan for harvesting, fuel treatments, and prescribed fire on the landscape. Ecological concepts such as natural disturbance types as well as "time since fire" (TSF) can be used to inform this conversation. In addition, climate change vulnerability should also be used to inform the priorities for treatments across the community forest, in response to wildfire risk.

Fuel Treatments

In addition, fuel management treatments can be used as a key step in reducing wildfire related hazards. Community forests may decide to take this work on through their regular operations, including industrial harvesting operations, or through a series of government funded programs that support this from a community wildfire protection point of view. Refer to the Funding and Resources Update document that has also been provided by the BC Community Forest Association and is available on their <u>website</u>. Specific reference is made to the Community Resiliency Investment (CRI) and Wildfire Risk Reduction (WRR) and Forest Enhancement Society of BC (FESBC) programs.

The BC Wildfire Service has developed several resources on their <u>Tools for Fuel Management website</u> that can provide guidance to community forest seeking to reduce wildfire risk within and adjacent to their tenure. The website provides guidance documents and templates on developing fuel management prescriptions and WUI Wildfire Risk Reduction Plans. It also has <u>Key Contacts</u> for each fire centre that should be consulted with developing WRR project.



Prescribed fire treatment conducted at Creston Community Forest

3. POST-WILDFIRE

Rehabilitation of Fire Guards and Other Suppression Disturbances

Rehabilitation is required on all fire suppression related activities, under the <u>Wildfire Regulations</u> including site rehabilitation measures that minimize any fuel hazards created during fire control operations (e.g., slash piles, log decks, etc.) and maintain natural drainage patterns for all fire control works (e.g., stabilizing and re-vegetating soil disturbed by heavy equipment etc.) This work is coordinated by BCWS and Resource District offices, however community forests should play an integral role in the rehabilitation of these areas where they are within or adjacent to the community forest. Approach your local BCWS Zone Officer for opportunities to be involved in road/fireguard rehabilitation decisions as soon as possible during or immediately following a wildfire.

Forest Rehabilitation

Forest-related rehabilitation is the other key aspect post wildfire and differs from the rehabilitation of fire suppression activities described above (e.g., fire guards and roads). Forest related rehabilitation involves activities such as the removal of fire impacted trees with harvesting equipment and planting a new cohort of trees to regenerate the site. The approach to be taken for forest stand rehabilitation will differ



West Boundary Community Forest rehabilitation post 2015 wildfire. Dan Macmaster photo

depending on the location of the burned area, intensity of the wildfire, economic viability of remaining timber, harvest history, and outstanding obligations. These different 'land classifications' require different approaches to rehabilitation activities, have varying responsibilities by agency, and may have varying alternative funding opportunities.

Following wildfire, the community forest should embark on an assessment as soon as possible to determine the extent and impact of the wildfire within the community forest. There may be opportunity to secure alternative funding to support some aspects of a broad assessment across the burned areas of a community forest, but this will need to be confirmed with your local Resource District office. See also the <u>Funding Opportunities for Landbase Investment</u> for further information on alternative funding opportunities.



- Assess impact of fire consider areas, burn severity, and location and types of impacted values and resources
- Identify sites for treatment consider burn severity, how to optimize the use of fibre, site productivity, WUI and community values
- Review the terms of your FSP and FRPA Section 8 to see if an amendment is required due to a "catastrophic fire event"
- Wildfire Rehabilitation Plan participate in plan development, implement the plan, monitor progress against the plan

Effort should be undertaken by the community forest manager to complete an assessment of the land base and classify it to support rehabilitation. <u>Wildfire perimeters</u> (available from BCWS) and burn severity mapping² (either created by a community forest or later provided by FOR), could be used to support this assessment. In addition, a range of imagery could be used to support the assessment and focus field confirmation efforts.

This planning exercise, generally not eligible for outside funding but the responsibility of the community forest, can build from information that may be available from the province including inventory, burn severity and silviculture obligation (RESULTS) data. A coordinated approach (beyond just the community forest) may also be desired or beneficial to provide a landscape level lens to rehabilitation activities. Coordination with the Resource District, local First Nations and other forest licensees in the areas could be used to support this.

Based on this assessment, there are a number of key types of situations or scenarios that may exist discussed below.



Salvage logging post-wildfire in Cheslatta Community Forest

⁶Burn severity mapping is generally referred to a process where changes in vegetation pre and post fire are compared. Availability of smoke free and cloud free imagery is the only factor limiting the timing of burn severity mapping. Rapid completion of burn severity mapping can be an effective operational tool, but may need to be augmented with an updated burn severity assessment with imagery from a year following the wildfire (generally the optimum time to compare vegetation change and create burn severity mapping).

3.1 Areas with Incomplete Obligations

INCLUDES	Areas that have not reached free growing status or legacy obligations established prior to Community Forest Agreement designation. These obligations could remain the responsibility of the community forest or other licensee.
CONTEXT	Subject to reforestation obligations after a wildfire unless exemption granted by land manager (i.e., Resource District).
LEGISLATION	Updates to FRPA Section 108 outlines how government may fund extra expense or grant relief from an obligation "because of an event causing damage in an area, the obligation cannot be met in the area without significant extra expense that would have been the case if the damage had not occurred and if i) the person did not cause or contribute to the cause of the damage; ii) the person exercised due diligence in relation to the cause of the damage; iii) the person did not contribute to the cause of the damage but only as a result of an officially induced error". The updates also identify that the minister may designate an area of land as an area of catastrophic damage (such as wildfire) along with follow up actions that they may take to remedy the situation.
FUNDING	"Section 108" funding can be applied for in accordance with the updated regulation if the person has an obligation or an operational plan to establish a free growing stand in an area of catastrophic damage.

3.2 Immature and/or Non-Merchantable Timber

INCLUDES	Areas with no outstanding silviculture obligations and either immature or not sufficiently merchantable to be considered for harvest.
CONTEXT	Opportunity to bring area into future timber supply (if site conditions warrant).
LEGISLATION	No specific legislative requirement for treatment. General expectation for area- based tenure holder (including Community Forest) to manage this landbase.
FUNDING	<u>Forest Investment Program</u> (FIP) funding may be available for forest rehabilitation following a wildfire based on identified criteria. FIP investments are administered through the Forest Investment and Reporting Branch (FIRB). Review the Forest Investment Program Funding Criteria or connect with regional representatives from FIRB to determine what activities are currently available for funding.

FUNDING	In addition, there is a federal cost sharing program to replant in wildfire effected areas called the 2BT Program (<u>2 Billion Trees</u>) that will fund projects to plant trees to regenerate forests that have temporarily lost their tree cover due to natural disturbance (e.g., wildland fire) or commercial disturbance (e.g., forest roads and landings) where there is no legal requirement to plant trees. Organizations that plant between 50,000 and 499,999 trees per year are eligible for the Small-Scale Planting Stream, while those that plant 500,000 trees per year or more are eligible for Mass Planting Stream. Applicants should explain how they provide human well-being and environmental co-benefits.
	FESBC - The Forest Enhancement Society of BC (FESBC) has also provided funding for the utilization of uneconomic fibre that would otherwise be piled and burned on site. This funding allows more biomass to be delivered to secondary facilities like bio-energy plants and pulp mills. More detailed funding opportunities to utilize marginal fibre can be found on the <u>FESBC website</u> .

3.3 Economically Viable, Merchantable Timber

INCLUDES	Areas that remain economically viable and/or with merchantable timber (timber with value enough to cover off reforestation and other costs) are addressed through operational timber development/cutting permits through the community forest tenure.
CONTEXT	Check local Resource Districts for guidelines developed in conjunction with local First Nations to determine best salvage practices. Guidelines often focus on retention of green timber where practicable, an objective critical to community forests as this represents future timber supply. Communication and relationship building with local First Nations is strongly recommended before any wildfire event, in anticipation of the need to complete expedited salvage harvesting to maximize the value that can be generated.The Chief Forester has provided <u>Post-Natural Disaster Retention Guidance</u> when implementing salvage opportunities.
LEGISLATION	No specific legislative requirement for treatment. General expectation for area- based tenure holder (including the community forest) to manage this land base. The Chief Forester has however, provided some professional guidance to follow when implementing salvage operations in wildfire areas to support value recover as well as addressing the need to protect other values.
FUNDING	No alternate funding is available to support what is generally considered a part of the regular operations of the community forest.

3.4 Marginally Economical or Merchantable Timber

INCLUDES	Areas marginally economic prior to wildfire, or those that are now non-economic due to wildfire damage.
CONTEXT	Depending on the stand type, it may be in the community forest's best interest to harvest and plant these areas through operational timber development and cutting permits, where long-term timber supply or other objectives warrant treatment when the economics of the activity are marginal.
LEGISLATION	No specific legislative requirement for treatment. General expectation for area- based tenure holder (including community forest) to manage this land base. The Chief Forester has however, provided some professional guidance to follow when implementing salvage operations in wildfire areas to support value recover as well as addressing the need to protect other values.
	BC Timber Sales - There is potential in some parts of the province to align with local BCTS Innovative <u>Timber Sale License</u> (ITSL) program and/or decked wood sales, which potentially funds development and the auctioning of low-quality stands to support forest rehabilitation. Contact your local BCTS office to discuss further.
FUNDING	FESBC - The Forest Enhancement Society of BC (FESBC) has provided funding for the utilization of uneconomic fibre that would otherwise be piled and burned on site. This funding allows more biomass to be delivered to secondary facilities like bio-energy plants and pulp mills. More detailed funding opportunities to utilize marginal fibre can be found on the <u>FESBC website</u> . It is important to note that FESBC will fund projects related to fibre utilization. If the stand is not economic, an application can be made to the Forest Investment Program to support reforestation investments.

3.5 Wildland Urban Interface (WUI)

INCLUDES	Within the 2 km buffer of developed areas or communities. BCWS has created <u>WUI risk class maps</u> to determine if portion of a community forest is designated WUI area.
CONTEXT	These areas may warrant alternate management considerations due to their influence on human life and safety. The WUI may be a priority area for rehabilitation due to changing soil and water conditions that may impact infrastructure and private property. Other rehabilitation priorities may include fire guards and other suppression tactical components due to impacts on natural drainage patterns all of which would likely be statutory requirement. Contact local BCWS office for locations of built fire guards within or adjacent to your community forest.

	FRPA Changes - Recent introduction of WUI related legislation and what this will mean for operations within the WUI is still developing. These requirements will need to be considered when planning treatments within the WUI, whether before or after a wildfire. The <u>current status</u> guiding legislative requirements in the WUI should be monitored to inform your activities.
LEGISLATION	Stocking Standards – Although not legislated, alternative fire management stocking standards (j.e., reduced stocking, alternative species selection) should be considered that have an additional public safety and wildfire behavior reduction objective. This may require an amendment to your FSP or a one-off approval for modified (reduced) stocking standards that are an absolving of the reforestation obligation. To determine eligibility, contact the local Resource District office.
	BC Timber Sales - There is potential in some parts of the province to align with local BCTS Innovative <u>Timber Sale License</u> (ITSL) program and/or decked wood sales, which potentially funds development and the auctioning of low-quality stands to support forest rehabilitation. Contact your local BCTS office to discuss further.
FUNDING	FESBC - The Forest Enhancement Society of BC (FESBC) has provided funding for the utilization of uneconomic fibre that would otherwise be piled and burned on site. This funding allows more biomass to be delivered to secondary facilities like bio-energy plants and pulp mills. More detailed funding opportunities to utilize marginal fibre can be found on the <u>FESBC website</u> . It is important to note that FESBC will fund projects related to fibre utilization. If the stand is not economic, an application can be made to the Forest Investment Program to support reforestation investments.

3.6 Non-Timber Harvesting landbase (non-THLB), Constrained Areas and Other

INCLUDES	Riparian reserves, old growth management areas (OGMA), wildlife habitats (i.e., mule deer winter range), and areas with other legal objectives that result in the area being outside of the THLB.
CONTEXT	There may be areas within the community forest that contribute to multiple government and social/cultural objectives other than timber productivity, including wildlife, cultural values, carbon sequestration, etc.
LEGISLATION	No specific requirement by the community forest to restore these areas. General expectation for area-based tenure holder to manage this land base overall.

³Wildfire stocking standards have been drafted and are currently being worked on by the province.

	Habitat Restoration - Habitat Conservation Trust Fund (HCTF) may be a source for funds to restore wildlife habitat and/or ecologically sensitive areas. Coordination with FOR would be required. Forest Carbon Initiative funds distributed through the District, could also be applied to revegetation and reforestation efforts that will result in increased carbon sequestration. The federal government also has a 2 Billion Trees Program that will fund reforestation of wildlife habitat.
FUNDING	Wildland Urban Interface - Forest rehabilitation within these areas may also fall within the WUI and the WUI funding options may be applicable. If the burnt area is assessed as high risk (e.g., partially burned heavy dead wood or near to be dead wood component then the communities CRI and/or Wildfire Risk Reduction funding may apply. Engage with your local Resource District to understand this applicability.

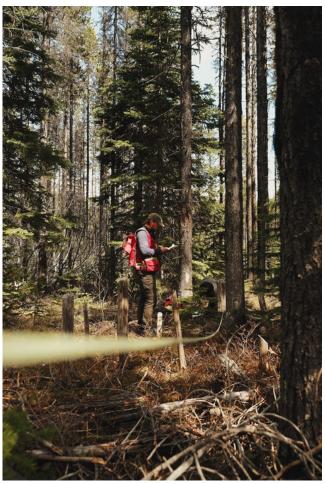
4. CONTACTS

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www.bccfa.ca





Fuel treatment survey in Wetzin'kwa Community Forest