

First Nations Forest Enhancement Society Service Delivery Model Pilot Project

Southeast

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To Forest Enhancement Society
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1. Introduction

a. Problem Statement

First Nations Communities are not effectively engaged in the full range of wildfire protection programs available to them throughout BC. There are 203 First Nations Bands in British Columbia and a significant number of these communities are situated in Wildland Urban Interface (WUI) areas that have a high to extreme risk from wildfires. Many First Nations communities lack the capacity to plan and develop projects that can be delivered through Forest Enhancement Society BC (FES) program funding. Given First Nations involvement, participation and feedback to date regarding Forest Enhancement Program (FEP), there is a need to enhance communications and engagement to identify, plan and apply for project initiatives that are consistent with regional investment plans, FES mandate and project selection criteria, in collaboration with local governments and area based tenure holders. Additionally, many Fire Prevention project initiatives developed and implemented through a variety of Municipal, Provincial and Federal Programs are disjointed and uncoordinated. This results in lost opportunity to leverage funding for a range of multiagency program initiatives, as well as inability to implement effective operational treatments that are planned and designed to minimize risk of wildfires to BC Communities.

b. FN FES Project Opportunities

Working collaboratively with Federal, Regional, and Municipal multiagency teams and First Nations communities:

- i. Identify priorities for implementing First Nations FES project initiatives which are rationalized and harmonized with Regional Investment Plans.
- ii. Promote the development of (and use of existing) partnerships to leverage Municipal, First Nation, Provincial and Federal Government initiatives and associated resources to meet multiple management objectives and safeguard communities through a range of programs (Forest Enhancement Program, FireSmart, Strategic Wildfire Prevention Initiative, Landscape Level Fire Management Planning, Indigenous and Northern Affairs Canada On-Reserve Fuel Treatment Program, Fire Safety Assessment and Kick Start Programs, Columbia Basin Trust , Rural Dividend Program, etc.).
- iii. Reduce pressure on Forest Lands, Natural Resource Operations and Rural Development staff while increasing engagement, education, awareness and capacity building for implementing a range of Fire Prevention Program initiatives with First Nations throughout the Province.

c. Approved Project Scope

FNESS has been approved by FES for developing and implementing pilot projects with First Nations in the following areas:

- i) South East BC (Akisqnuq, ʔaq'am, Tobacco Plains, Shuswap).
- ii) North East BC (Fort Nelson First Nations and Northern Rockies Regional Municipality),
- iii) Coast (N'Quatqua)

The original project proposal was for \$219,000 to develop and implement a Provincial model. FES Board approved \$50,000 to develop and implement the pilots for proof of concept.

d. Measurable Pilot Outputs

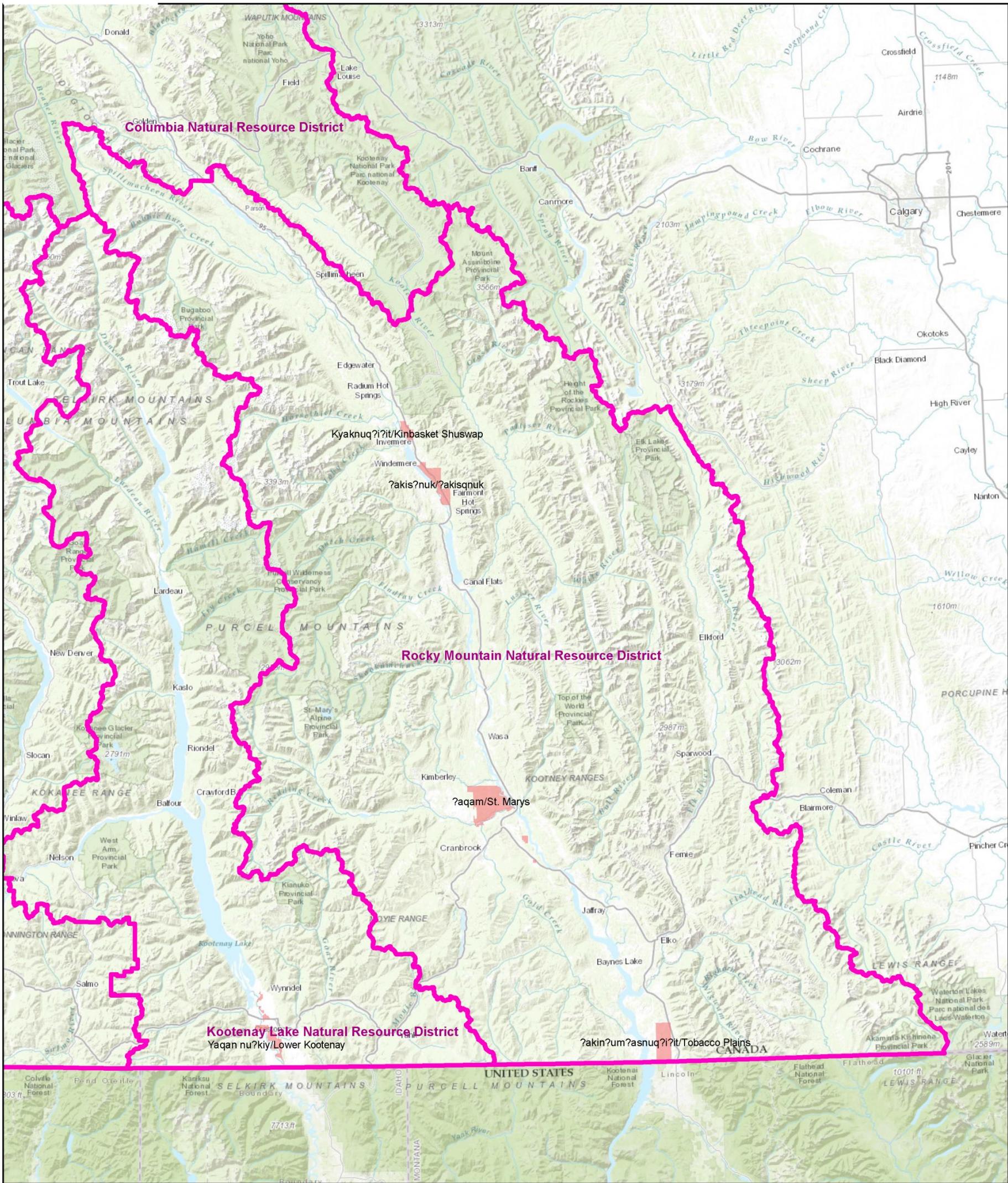
Development of a planning process that can be clearly articulated to project proponents for identifying priority projects which are evaluated against the following FES project opportunities, as well as priority projects that can be funded through SWPI, INAC, Columbia Basin Trust, BC Rural Dividend Program and other funding sources:

- iv) mitigating risk from wildfires to communities and critical infrastructure;
- v) improving damaged or low value forests;
- vi) improving habitat for wildlife;
- vii) supporting the use of fibre from damaged and low value forests; and
- viii) treating forests to improve the management of greenhouse gases.
- ix) Support FN communities with development and submission of FES projects within the pilot project areas and monitor effectiveness by tracking FES, SWPI and INAC project approvals.

NB This report covers only the southeast portion of this contract as outlined in Figure #1, the Rocky Mountain Natural Resource District. A decision support model (refer to Table 1 and 2) was developed that incorporates ecosystem restoration priority, priority wildlife habitat, wildfire mitigation priority (Community Wildfire Protection and Landscape Fire Management Plans), as well as other data required to identify (spatially explicit) areas for FES or other funds project funding opportunities (Appendix 1). This model will enable identification of priority areas that can achieve/support multiple resource management objectives which require similar desired future conditions or allow planners to identify areas of mutually exclusive management objectives (i.e., Old growth management area and fuel mitigation management area).



Forest Enhancement Society First Nations Service Delivery Model Pilot Project



- Forest Districts
- First Nation Reserves



Forest Enhancement
Society of British Columbia

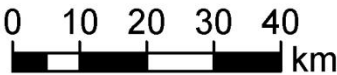


Figure 1 Map showing Rocky Mountain Natural Resource District covered in this report

2. Planning Process

a. Information assembly to support FES and other funding envelopes.

Data was assembled to see how many of the objectives of FES or other funding envelopes could be described and prioritised. Discussion by objective:

I. Mitigating risk from wildfires to communities and critical infrastructure:

This data was readily available in the form of the Provincial Strategic Threat Analysis, various Municipal Community Wildfire Protection Plans, First Nations Community Wildfire Protection Plans and the Rocky Mountain Natural Resource District Wildfire Management Plan (2017). This data is discussed in detail in Section 4.

II. Improving damaged or low value forests;

- (1) In discussions with district staff (Lyn Konowalyk and Scott Hicks, Pers. Com. 2017) the emphasis on silviculture investment by the Rocky Mountain Natural Resource District (DRM) was to be on reforestation current and recent wildfires. This was to be completed by district staff under the Forest for Tomorrow process with Forest Licensee input. They saw no need for including this activity in this project.
- (2) Similarly, the reforestation and harvest of fire killed stands is, since May 2018, under a process being devised by a local wildfire rehabilitation team (Pierre Johnstone, 2018 pers comm). This would make considering damaged stands redundant in this report.
- (3) The team did question whether or not dense stands in the dry forest should be thinned. There is evidence that dense stands of Douglas fir and lodgepole pine forests stocked denser than 4000 stems per hectare show repressed growth that might be alleviated by spacing (Greg Greene pers com 2014, Lori Daniels pers. Com. 2014). But his idea is not accepted by climate change staff (Karen Dymond pers com. 2018) so no effort was made to locate these stands.
- (4) Previous Timber Supply Review Analysis (Forsite 2004a, 2004b) has identified problem forest types that meet this criteria; about 38,845 hectares in the Cranbrook Timber Supply Area (TSA) but no hectares were noted in the Invermere TSA report; but it did note similar forest types. In Timber Supply Review Analysis 4 for both TSAs the low value problem forest types (PFT) were to be established as a PFT partition cut and set up as a specific license opportunity (MFLNRO 2016a, 2016b). Given that this will involve a separate prioritisation process, these stands are not included in this project.

III. Improving habitat for wildlife;

There has been a great deal of data to outline and prioritise areas for ecosystem restoration, which among other values covers rare and endangered species, ungulate winter range and bighorn sheep habitat. This information is dealt with in Section 3. There are several other subregional plans for wildlife habitat that create specific projects, but they are difficult to prioritise as they have little in common with Ecosystem Restoration or to each other. These stand alone projects are listed in Appendix 1 but are not rated for Ecosystem Restoration, only for Fuel Management.

IV. Supporting the use of fibre from damaged and low value forests;

The harvest of damaged and low value stands was dealt with in section 2.a.ii But of some interest here is that many problem forest types are found in Ecosystem Restoration, fuel management and wildlife habitat projects. During the normal operations of the Rocky Mountain Trench Ecosystem Restoration Program (RMTERP), which incorporates all three programs, potential project volume is first referred to forest licensees for potential harvest to produce sawlogs, pulp or hogfuel (Harris 2012, Blueprint for Action 2013). To defray the cost of treatment any saleable volume is typically offered for sale in some format as part of the Ecosystem Restoration project

(Blueprint for Action 2013). Although this objective is not explicitly used in this report's products, operationally this issue is dealt with. The potential harvest of a unit is noted in the projects listed in Appendix 1. The RMTERP has several examples of this objective being met in Ecosystem Restoration projects.

V. Treating forests to improve the management of greenhouse gases

The use of thinning to release dry forest stands was discussed with Caren Dymond and it is not yet accepted practice (Dymond, 2018 pers com). It has been suggested that the utilisation of undersized non sawlog material 10 to 17.5 centimetres at breast height can be used as carbon credit (Watson 2017, pers. Com). The logic runs that a lot of ecosystem restoration, wildlife habitat and fuel management projects thin stands from below, leaving large trees and piling and burning the smaller stems. If these smaller trees can be used as forest products, they would supplement the supply to mills and allow other healthier trees to continue to grow, and most importantly this biofuel is not ignited and put into the atmosphere. Similar to 2.a.iv this factor could not be prioritised but the potential for harvesting undersized material is noted in the projects listed in Section 5 of this report. The objective of managing greenhouse gases can be achieved at the operational phase of projects whenever the burning of wood is reduced or eliminated by creating a forest product that either offsets the burning of fossil fuels or has a long life span.

b. Model output expert panel review

The data gathered was then collated into several factors and the Rocky Mountain Natural Resource District (RMD) was subdivided into units for Ecosystem Restoration and Fuel Management purposes (see figure 2). Note that as Ecosystem Restoration had been through this process in 2012, very few changes were made to an existing map and priority list other than to add First Nation reserves as Range units. Existing data on fuel management was assembled and the Ecosystem Restoration subdivision of units was added to cover areas of the district that had no Ecosystem Restoration activity or priority.

A major parameter of this model was to work cross boundary and link activities across land owner groups and not just focus on vacant crown land. Data and maps from each of the four bands in the DRM was added for analysis with each First Nation reserve as a stand-alone Ecosystem Restoration or fuel management units. The Nature Conservancy of Canada added data but given that most of their holdings were small they were rolled into the larger crown units in which they occurred. Likewise, data from BC Parks was added as components of larger units. Data of proposed and completed projects from the Regional District of East Kootenays and all eight communities in the district was added so that the best cross boundary plan could be seen, most of the work was on municipally or band owned land outside the Provincial forest.

Rough values were assigned to potential priority factors and a group of experts were called to review the potential outcomes of this numeric prioritisation exercise. First meeting was on August 2nd, 2017 when the concepts were rolled out to Forest Enhancement Society (Gord Pratt), RMD (Scott Hicks), Rocky Mountain Trench Natural Resources Society (Dan Murphy), wildlife habitat (Allana Oestreich), interface contractors (Geoff Byford) and Wildfire Management Services (Mike Morrow, Andre Chalabi) staff. No specific direction was received but the approach was approved. In this August meeting a map of current conditions was produced by Nupqu Development Corporation and the product was reviewed. The current condition map was immediately used as a planning map by the Cranbrook Fire Base, for

determining where the best fuel breaks could be located should a Rocky Mountain Trench valley bottom wildfire erupt.

The next full review of all data and products was October 18th, 2017, again with RMD (Scott Hicks), Rocky Mountain Trench Natural Resources Society (Dan Murphy), wildlife habitat (Allana Oestreich) and Wildfire Management Services (Mike Morrow, Mike Black) staff. The approach, units and numeric rankings were discussed and agreed to. The only change that was requested was from Wildfire Services who requested that the Provincial Strategic Threat analysis be used to calculate Likelihood.

The same products were reviewed by the Regional Integrated Planning Specialist Julie Castonguay on October 31st, where the approach was approved.

There was a further Email review by WMS on March 7th, when the Provincial Strategic Threat Analysis was calculated. Generally favorable feedback was received from Kelly Osborn March 16, who agreed with this approach.

First Nation reviews were conducted three times. The process was accepted. Dates of meetings were:

- ?Aq'am February 8 and April 11, 2018,
- Tobacco Plains Feb 9th and April 13th, 2018
- Shuswap March 6th 2018
- Akisqnuk March 8, 2018, and April 12th, 2018

c. Decision Support Model

Based on all this input a decision support model (refer to Table 1 and 2) was developed that incorporates ecosystem restoration priority, priority wildlife habitat, wildfire mitigation priority (Community Wildfire Protection and Landscape Fire Management Plans), as well as other data required to identify (spatially explicit) areas for FES project funding opportunities. This will enable identification of priority areas that can achieve/support multiple resource management objectives which require similar desired future conditions or identify areas of mutually exclusive management objectives (i.e. Old growth management area and fuel mitigation management area).

This Model consists of five major products:

1. The first two are priority tables for Ecosystem Restoration (Table 1)
2. and Fuel Management (Table 2)
3. Nupqu Development Corporation developed a map coverage showing all the units referred to in the two tables; it allows these priorities to be overlaid on other values.

Page 1 (North)

Page 2 (Central)

Page 3 (South)

Figure 2 Key maps showing Ecosystem Restoration Range Units and Logical Burn Units in Rocky Mountain District. See attached maps

4. Nupqu Development Corporation, Mapleleaf Forestry consulting and Forsite Consulting co-operated in developing a current condition map that shows all areas thinned and prescribed burnt by the Ecosystem Restoration program to May 2015. It allows planners to see where past projects have been completed and plan future thinning projects for ER, Wildlife habitat or fuel management to get a larger benefit, either creating a fuel break or movement corridor. The map coverage also shows most of the potential units listed in Appendix 1. It gives better unit mapping definition than Figure 2.

Page 1 (North)

Page 2 (Central)

Page 3 (South)

Figure 3 Range Unit maps with Current Management Conditions (see folder).

5. Nupqu Development Corporation assembled a Desired Future Condition map coverage shows the fuel management units, Community Protection lines, primary and secondary fuel breaks (as defined by the 2017 Rocky Mountain Natural Resources District Wildfire Management Plan) and the desired future stand conditions for Ecosystem Restoration projects. This shows details not shown in figure 2. The coverage allows for overlays on other priority setting or planning projects.

Page 1 (Kinbasket Shuswap)

Page 2 (?akisqnuk)

Page 3 (?aq'am)

Page 4(Tobacco Plains)

Figure 4 Desired Future Condition Maps by First Nation Band showing Wildfire Management Plan features as well.

3. Ecosystem Restoration prioritisation process and table of results

The common definition of Ecosystem Restoration can be found at the Society for Ecological Restoration International website <http://www.ser.org/>

Process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed. Practice of restoring ecosystems (Society for Ecological Restoration International [SERI] 2004).

In the context of the Rocky Mountain Natural Resource district, the ecosystem most in need of restoration is the treed grassland/ savannah that occupied the valley bottom prior to European settlement and the suppression of the historic fire regime. The historic fire regime included a light impact fire that would sweep through most stands in the valley every 2 to 20 years leaving about 170 stems per hectare of large diameter fire resilient trees (Greg Greene, 2017 pers comm, Daniels et al 2006 and 2007). The issue had been recognised by local residents for many years and it was brought to ahead in the 1990s. The consensus of land use across the district arrived at in the 1990s can be found contained in the final draft of the Kootenay Boundary Land Use Plan (KBLUP 1998).

The ideal of improving the valley bottom dry forests is contained the Kootenay Boundary Higher Level Plan Order declared in January 2003 and amended several times since then. It established nine Resource Objectives, one of which is Fire Maintained Ecosystems (which outlines management in the area for Ecosystem Restoration). Note this legislation also establishes a Steering Committee to oversee the Ecosystem Restoration Program and this steering committee oversees and approves the priority matrix referenced here.

To focus operations toward achieving the Ecosystem Restoration goals and to ensure the highest value areas in the Ecosystem Restoration zone were treated, the NDT4 (disturbance regime with frequent stand-maintaining fires) Operations Committee drafted criteria to prioritise all 41 ecosystem restoration related R Units in the Rocky Mountain Trench. From March 2010 to April 2012 a subcommittee of the Ecosystem Restoration Operations Committee met to revisit the prioritisation table developed by the committee in 2006 to 2007. After four meetings and six Geographic Information systems analyses Table 1 was arrived at. The table was approved by the Rocky Mountain Trench Ecosystem Restoration Program at a Steering Committee meeting in May 2012. It should be noted that only the five biologic criteria were used to score each Restoration Unit out of a possible score of 130.

a. Rationale for Ecosystem Restoration Prioritisation values

By column header, these are the sources and rationales for the scoring.

VI. Red and blue listed species

This is a simple count of how many occurrences of any red or blue listed species (animal, plant or invertebrate) exist in each R unit. The number and occurrence were derived by the non masked occurrences recorded in the Conservation Data Centre (CDC) mapping tool in the Land and Resource Data Warehouse (source: SDE:WHSE_TERRESTRIAL_ECOLOGY.BIOT_OCCR_NON_SENS-AREA_SVW) . The aquatic and alpine species (such as pond weed or caribou) were discarded and a few occurrences known to committee members added if they were not in the CDC data base (e.g., giant helleborine in East Columbia)

VII. Elk

This was a measure of how much area of each range unit was in class 1 and 2 elk range condition as determined by the mapping layer provided with the Ungulate Winter Range Orders for Cranbrook and Invermere (Source: http://www.env.gov.bc.ca/wld/frpa/uwr/approved_uwr.html). The areas were expressed as a percentage of the total area proposed for Open Range and Open Forest treatment (Source W:FOR\RSI\DRM\Projects\Ecosystem Restoration\Layers\fmer_v32_drm.lyr) in the FMER (Fire Maintained Ecosystem Restoration) mapping Layer version 3.4. The percentage was multiplied by 10 to get a score out of 10 for elk values.

VIII. Bighorn Sheep

After two efforts at Geographic Information Systems analysis, it was noted that both the existing Ungulate Winter Range map layer and the new proposed Ungulate winter Range map layer did not mathematically reflect the importance of the R units for sheep as well as they had worked for elk. In both GIS analyses the areas in class 1 and 2 condition were minute in comparison to the total areas of the restoration unit, the percentage was too small to rate a good score. In this case Larry Ingham R.P. Bio for the Fish Wildlife Compensation Program (Columbia Basin) and Irene Teske R.P. Bio., both wildlife biologist specialising in bighorn sheep, and both working for the Ministry of Forests, Lands and Natural Resource Operations rated 15 restoration units for relative sheep importance. The scores were close and when they differed the average was set as the score.

IX. Biodiversity

Biodiversity was determined using the Shannon biodiversity index (Shannon and Weaver 1949) and using the site types found in each restoration as a surrogate for all species. Site types are the distinct land units (wet, riparian, rock outcrop, mesic, hygric, etc.) used to classify both Cranbrook and Invermere districts during Predictive Ecosystem mapping.

The Shannon biodiversity index considers how many site series (and related species) are in a restoration unit as well as calculating how rare that site series is across the entire range of site series in the entire FMER area contained in each R Unit. The numbers were calculated by Shawna Larade P. Ag of Rocky Mountain Natural Resource District Range staff. The score came out from 1.03 to 2.19. To simplify the ranking of 30 points it was decided that each Shannon index point was worth 13.64 points in scoring. For the three restoration units with no Shannon scores East Columbia was assumed to be similar to Dutch Findlay in scoring, Wigwam similar to Waldo and Windermere Sinclair to Windermere Fairmont.

$$H' = - \sum_{i=1}^S (p_i \ln p_i)$$

where

n_i Area ha

S number of unique sites

N the total area of Range unit (ha)

p_i is the weighting factor n_i/N

X. Proper Functioning Condition

Proper Functioning Condition is intended to be a measure of the health of the grasslands and how well they will respond to Ecosystem Restoration treatments. The range health data not available so Rocky Mountain Resource District range staff (Shawna LaRade, Ken Walburger and Leanne Colombo) devised an expert layer indicating the relative importance of each range unit for wildlife and cattle forage, how well it should respond to ER treatments (i.e., lots of bunch grasses under forest cover) and decreased scores by invasive plant abundances.

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Table 1: Prioritization rating for Ecosystem Restoration Treatments for all Restoration Units in Rocky Mountain Trench

Restoration Unit	ER Score	ER Score	Red and Blue listed Spp.	Elk	Bighorn Sheep	Biodiversity-Shannon Score	Proper Functioning Condition	Provincial Crown (Y/N)
<i>Possible Scores</i>	%	130	25	10	15	30	50	
Tobacco Plains Village and Reserve	85%	110.2	11	9.5	13.5	26.2	50	N
Grasmere	85%	110.2	11	9.5	13.5	26.2	50	Y
Waldo South - Kikomun Highway	77%	100.4	11	9.5	7.5	27.4	45	Y
Premier Ridge	77%	99.8	6	10	15	28.8	40	Y
East Columbia Lake	77%	99.6	7	9	15	28.6	40	Y
Peckhams	74%	96.2	7	9	9	26.2	45	Y
Wigwam	73%	94.3	3	9	15	27.3	40	Y
Akisqnuk	74%	96	15	8.3	12	25.7	35	N
Windermere-Fairmont	72%	94.1	15	8.3	12	23.8	35	Y
Wild Horse-Lewis Ck	72%	94	9	7.8	13.5	28.7	35	Y
Waldo North of Kikomun Highway	71%	92.9	11	9.5	0	27.4	45	Y
Lewis-Wolf/ Wasa	70%	91.6	7	8.4	9	27.2	40	Y
Powerplant	70%	91.3	5	8.1	15	23.2	40	Y
ᑭᓐᓇᓂᓄᓐ	68%	88	13	7.5	0	22.5	45	N
Wycliffe Corridor	68%	88	13	7.5	0	22.5	45	Y
St. Mary's Prairie	68%	88	13	7.5	0	22.5	45	Y
TaTa Skookumchuck	66%	86.1	7	8.2	0	25.9	45	Y
Cranbrook Fort Steele	65%	85.1	6	9.1	0	30	40	Y
Newgate	65%	85.1	7	8.6	0	24.5	45	Y
Cherry Tata	64%	83.2	8	8.7	0	26.5	40	Y
Westside	63%	82.3	11	5.6	0	25.7	40	Y

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Restoration Unit	ER Score	ER Score	Red and Blue listed Spp.	Elk	Bighorn Sheep	Biodiversity-Shannon Score	Proper Functioning Condition	Provincial Crown (Y/N)
Pickering Hills	62%	80.6	6	5.7	6	22.9	40	Y
Dutch-Findlay	60%	78.3	6	6.3	0	26	40	Y
East Findlay Basin	60%	78.1	6	6.1	0	26	40	Y
Colvalli North	59%	77.1	4	9.1	0	19	45	Y
Shuswap Reserve	59%	76.9	5	8	15	23.9	25	N
Windermere-Sinclair	59%	76.9	5	8	15	23.9	25	Y
Tokay Hills	57%	74.1	4	8.9	0	26.2	35	Y
Toby Benches	56%	72.7	5	6.1	0	26.6	35	Y
Sheep Cr North	56%	72.5	5	8.5	3	21	35	Y
Rampart-Mayook	53%	68.9	5	4.5	0	19.4	40	Y
Gold-Plumbob East Newgate Rd	52%	67.7	10	8.2	0	24.5	25	Y
Gold-Plumbob West Newgate Rd	52%	67.7	10	8.2	0	24.5	25	Y
West Findlay Basin	49%	63.6	5	6.1	0	22.5	30	Y
Rocky Chipka	47%	61.2	4	5.7	0	16.5	35	Y
Baker	47%	60.7	4	8.4	0	18.3	30	Y
Rosen lake	46%	60.2	5	2.5	0	22.7	30	Y
Perry (Jim Smith)	45%	58.7	14	4.5	0	20.2	20	Y
Burton Lake	43%	56.4	3	5.4	7.5	20.5	20	Y
Alkali/ Cranbrook Community Forest	40%	51.5	4	7.5	0	15	25	Y
Watson	36%	46.4	1	8.4	3	14	20	Y

4. Fuel Management prioritisation process and table of results

From a fuel management planning process there is a need to draft a prioritisation process for Fuel Management and opportunity wood projects similar to the Ecosystem Restoration process. With limited resources it is obviously best to ensure resources go to the highest priority area and where possible to overlap with projects of similar objectives. Fuel management to reduce fire hazards has recently become an extremely important goal for any field operations (Abbott and Chapman 2018, Filmon 2003). As most of the population of the district is clustered in the valley bottom of the Rocky Mountain Trench, the thinning of stands for ecosystem restoration or wildlife habitat will also serve as hazard reduction treatments. The recent Flood and Wildfire Review (Abbott and Chapman 2018) also points to a need to integrate fuel management with other treatments which is the intent of this model. All local governments in the district have developed Community Wildfire Protection Plans, with funding from the Union of BC Municipalities. The projects propose specific units for thinning and funding can come from the Strategic Wildfire Protection Initiative or other funding sources. The online location of these plans is listed below. Note that four First Nations Bands also have Community Wildfire Protection plans but they do not post them. This process in essence, overlaid four existing fire management planning products and quantified the input from each layer and summarised the results in Table 2.

a. Description of Fuel Management priority weighting criteria and rationale

I. Likelihood and Consequences

Likelihood and consequences are multiplied together to determine the risk of a forest catching on fire and engulfing an urban or rural community.

Likelihood is determined by averaging the stand level values of the flammability scores of the forest within a Range unit as determined by the latest version of the Public Threat layer contained in the Provincial Strategic Threat Analysis (PSTA). The PSTA evaluated multiple data sets such as fire density, headfire intensity, spotting impact, and fuel type to provide a spatial representation of the wildfire threat across BC. The latest version (2017) of this map layer did not include private land. Individual stands in the PSTA are rated qualitatively from very low to extreme flammability as follows:

FIRE BEHAVIOUR THREAT CLASS	DESCRIPTION
0=Very Low	These are lakes and water bodies that do not have any forest or grassland fuels. These areas cannot pose a wildfire threat and are not assessed.
2= Low	This is developed and undeveloped land that will not support significant wildfire spread.
5=Moderate	This is developed and undeveloped land that will support surface fires only. Homes and structures could be threatened.

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8=High	Landscapes or stands that: -are forested with continuous surface fuels that will support regular candling, intermittent crown and/or continuous crown fires; -often include steeper slopes, rough or broken terrain with generally southerly and/or westerly aspects; -can include a high incidence of dead and downed conifers; -are areas where fuel modification does not meet an established standard.
10=Extreme	Consists of forested land with continuous surface fuels that will support intermittent or continuous crown fires. Polygons may also consist of continuous surface and coniferous crown fuels. The area is often one of steep slopes, difficult terrain, and usually a southerly or westerly aspect.

With multiple stands covering a Range unit, the threat rating that had the most representation by area was used as the likelihood score.

Consequence is scored qualitatively 1 to 5, by the experts assembled for the review, based on whether unit is downwind of community or housing, size of community, or if unit is adjacent to community or community defence line¹:

0 = > 5 km from any habitation

1 = >2 km from any habitation downwind or 1 km distance up wind

2 = 1 to 3 km away from habitation

3 = adjacent to or < 2 km upwind of any populations <100 people

4 = adjacent to or < 2 km upwind of populations > 100 people or downwind of <1000 people

5 = adjacent to or < 2 km upwind of populations > 1000 people

II. Community Wildfire Protection Plan

If a unit has proposed treatment units in it from existing Community Wildfire Protection Plans (CWPP) points are awarded based on: One point for each approved CWPP unit up to a maximum of ten points. Sources of data are listed below. Note that Fernie, Elkford, Cranbrook, Kimberley and Sparwood CWPPs were supplemented by shapefiles submitted to this project by interface contractor. Radium had only 4 units submitted to this plan directly by the Radium municipal planning staff. Location of Community Wildfire Protection Plans:

Fernie: <https://fernie.civicweb.net/document/441>

Elkford http://www.elkford.ca/wildfire_fuel_reduction_program

Sparwood <http://www.sparwood.ca/wildfire-management>

Regional District of East Kootenay

<http://www.rdek.bc.ca/departments/emergencyservices/wildfireplans/>

Invermere <https://invermere.civicweb.net/document/28880>

Canal Flats

<https://canalflats.civicweb.net/filepro/documents/293?expanded=3316&preview=1325>

Cranbrook Not Posted, but contractor made maps available

¹ Community defence line is from the District Fire Management Plan updated to 2017 standards. Size of communities were determined from Canada post website
<https://www.canadapost.ca/cpotools/mc/app/tpo/pym/targeting.jsf>

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Kimberley <http://kimberley.ca/services/emergency-services/fire-services/wildfire-protection-plan>

III. Nuisance Fires

An expert layer was added if there was known problem area; high recreation traffic and a history of at least 5 nuisance fires over last 10 years; score up to 5 points. Based on Local knowledge, this layer was only assigned in Cranbrook Community Forest and Grasmere.

IV. District Wildfire Protection Plan

In 2016 the Rocky Mountain Natural Resource District was covered by a new District Fire Management Plan updated to 2016 standards in which community protection lines and primary and secondary fuel breaks were proposed. This factor demonstrates a Landscape Level plan for fuel hazard reduction. Shapefiles were made available from the Wildfire Management Services Geomatics section in Victoria.

If the Range unit or LBU falls within or straddles a Community Defence line score = 8,

If the Range unit or LBU falls within or straddles a primary fuel break score = 4,

If the Range unit or LBU falls within or straddles a secondary fuel break score =2

Landscape Level Fuel Breaks (LLFBs) are treated areas, such as commercial timber harvests, ecosystem restoration projects, and fuel reduction projects. Since LLFBs should provide quick, safer access to defensive positions, they should be linked with road systems. Preferably, LLFBs are located along ridge tops to reduce fire intensity at the end of an uphill run. LLFBs without an associated road system, such as those located along strategic ridgelines, are still useful in fire suppression. When in proximity to critical infrastructure, they can also be effective when established at the base of slopes. Mid-slope LLFBs are least desirable, but under certain circumstances and with improvements can be effective (Bennet et al, 2010). LLFBs will not stop fires on their own, but they will improve the chance that suppression efforts can contain a wildfire.

Community Defence lines are considered the highest priority as they are the last line of defence to prevent an approaching wildfire from entering a community. A Primary Fuel Break is a naturally or already developed fuel break located in an ideal location to fight wildfires from. These include power lines, pipelines, highways, Forest Service Roads, major rivers, etc (Rocky Mountain Resource District, 2016). Fuel breaks are most efficient when they are continuous (Moriarty, Okeson, & Pellant, 2015). In order to create continuous fuel breaks, Primary Fuel Breaks are linked up with Landscape Level Fuel Breaks (LLFBs). A Secondary fuel break is further away from a community. They are tied into core grassland areas, burned areas, Ecosystem Restoration harvests and are intended to be dynamic over space and time.

V. First Nation Wildfire Plans

During the development of certain First Nation CWPPs, fuel management zones were designed. Areas with similar fuel management objectives have been identified and grouped into zones by members of the local bands, FNESS, and Nupqu Development Corporation. These zones are grouped based on their distance from values at risk and wildfire behaviour (fuel, weather, and

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topography) using satellite imagery, local knowledge, and field based reconnaissance. Each zone has been given a set of management objectives and targets to be referenced during the prescription development of treatment units within each zone. The shapefiles are available from the First Nations Emergency Services Society. Our team used the following scoring.

If the unit falls within or straddles:

- Fuel Management Zone 1 (closest proximity to habitation and highest priority for intensive management) score =4.
- Fuel Management Zone 2 (within approximately 100 to 300 metres of habitation, a managed forest with other objectives like UWR in mind) score = 2
- Fuel Management Zone 3 (on average 300 metres from habitation, allows for commercial forestry and habitat restoration) score = 0,

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Table 2 Priority matrix for units showing Fuel Management priority ratings and scores, sorted by Interface Percent Score.

Interface Unit	Interface Percent Score	Total Interface Score	Fire Interface			CWPP Unit	District Wildfire Management Plan Values			Frequent Nuisance Fires	First Nation Wildfire Plans			Prov. Crown Area (Y/N)
			PSTA ¹	Cons. ²	Total LC score ³		Commun. Prot. Line	1° Fire Break	2° Fire break		Inside 1° zone	Inside 2° zone	Inside 3° zone	
<i>Maximum possible</i>	100%	85	10	5	50	10	8	4	2	5	4	2	0	
<i>ᑭᓐᓇᓐᓄᓐ</i>	91%	79	10	5	50	10	8			5	4	2		N
<i>Alkali/ Cranbrook Community Forest</i>	76%	67	8	5	40	10	8	4		5			0	Y
<i>Cranbrook Fort Steele</i>	73%	64	10	4	40	8	8	4	2			2	0	Y
<i>Akisqnuq</i>	72%	63	8	5	40	9	8				4	2		N
<i>Fernie</i>	71%	60	8	5	40	10	8		2				0	Y
<i>Radium</i>	66%	58	8	5	40	10	8						0	Y
<i>Fairmont</i>	62%	55	8	5	40	3	8				4			Y
<i>Peavine Ck, Gold Ck, Joseph Ck, South Cranbrook</i>	62%	55	8	5	40	3	8	4					0	Y
<i>Windermere</i>	61%	54	8	5	40	2	8				4			Y
<i>Windermere-Fairmont</i>	61%	54	8	5	40	4	8					2		Y
<i>Waldo South - Kikomun Highway</i>	59%	52.5	6.5	5	32.5	10	8		2					Y
<i>Perry (Jim Smith)</i>	59%	52	8	5	40	0	8	4					0	Y
<i>St. Mary's Prairie</i>	59%	52	9	4	36	2	8				4	2		Y
<i>Kimberley West St, Mary's R</i>	59%	52	8	5	40	6		4					0	Y

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<i>Interface Unit</i>	<i>Interface Percent Score</i>	<i>Total Interface Score</i>	<i>Fire Interface</i>			<i>CWPP Unit</i>	<i>District Wildfire Management Plan Values</i>			<i>Frequent Nuisance Fires</i>	<i>First Nation Wildfire Plans</i>			<i>Prov. Crown Area (Y/N)</i>
			<i>PSTA¹</i>	<i>Cons.²</i>	<i>Total LC score³</i>		<i>Commun. Prot. Line</i>	<i>1° Fire Break</i>	<i>2° Fire break</i>		<i>Inside 1° zone</i>	<i>Inside 2° zone</i>	<i>Inside 3° zone</i>	
<i>Grasmere/ Tobacco Plains Village</i>	58%	49	8	4	32	5	8				4			N
<i>Wycliffe Corridor</i>	56%	48	8	5	40		8						0	Y
<i>Toby Benches</i>	55%	47	5	5	25	10	8	4					0	Y
<i>Shuswap Band</i>	55%	47	5	5	25	10	8				4			N
<i>Cherry Tata</i>	54%	46	8	4	32	4	8		2				0	Y
<i>Grasmere</i>	52%	44	8	4	32	10						2		Y
<i>Invermere</i>	51%	43	5	5	25	10	8							Y
<i>Kimberley (Nature Park)</i>	51%	43	5	5	25	10	8						0	Y
<i>Sparwood</i>	51%	43	5	5	25	10	8						0	Y
<i>Windermere-Sinclair</i>	51%	43	5	5	25	6	8				4			Y
<i>Moyie-Yahk</i>	49%	42	8	4	32	6		4					0	Y
<i>TaTa Skookumchuck</i>	48%	41	8	4	32	3		4	2				0	Y
<i>Peckhams</i>	45%	38	8	3	24	10		4					0	Y
<i>Canal Flats</i>	45%	38	5	4	20	10	8						0	Y
<i>Elkford</i>	45%	38	5	4	20	10	8						0	Y
<i>Lewis-Wolf/ Wasa</i>	41%	35	8	4	32	3							0	Y
<i>Burton Lake</i>	40%	34	8	4	32	2							0	Y
<i>Waldo North of Kikomun Highway</i>	39%	33	8	3	24	7						2		Y
<i>Watson</i>	38%	32	8	4	32									Y

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Interface Unit	Interface Percent Score	Total Interface Score	Fire Interface			CWPP Unit	District Wildfire Management Plan Values			Frequent Nuisance Fires	First Nation Wildfire Plans			Prov. Crown Area (Y/N)
			PSTA ¹	Cons. ²	Total LC score ³		Commun. Prot. Line	1° Fire Break	2° Fire break		Inside 1° zone	Inside 2° zone	Inside 3° zone	
Westside	38%	32	8	4	32								0	Y
Dutch-Findlay	38%	32	5	5	25	5			2				0	Y
Edgewater	38%	32	5	4	20	0	8	4					0	Y
Rampart-Mayook	36%	31	8	3	24	1		4	2				0	Y
Brisco	35%	30	5	3	15	3	8	4					0	Y
East Findlay Basin	34%	29	5	5	25	2			2				0	Y
Baker	33%	28	8	3	24			4						Y
Sheep Cr North	33%	28	8	3	24	2			2				0	Y
Premier Ridge	32%	27	8	3	24	3							0	Y
Gold-Plumbob East Newgate Road	32%	27	8	3	24	1			2				0	Y
Wild Horse-Lewis Cr	32%	27	8	3	24	3							0	Y
E. Columbia Lake	32%	27	5	3	15	4	8						0	Y
Spillimacheen	31%	26	5	3	15	3	8						0	Y
Frances Creek	29%	25	5	3	15	4		4	2				0	Y
Newgate	29%	25	8	3	24	1					0			Y
Rosen lake	29%	25	5	3	15	2	8						0	Y
Colvalli north	28%	24	8	3	24								0	Y
Pickering Hills	29%	25	5	3	15		8						0	Y
Gold-Plumbob West Newgate Rd	25%	21	8	2	16	3			2				0	Y

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<i>Interface Unit</i>	<i>Interface Percent Score</i>	<i>Total Interface Score</i>	<i>Fire Interface</i>			<i>CWPP Unit</i>	<i>District Wildfire Management Plan Values</i>			<i>Frequent Nuisance Fires</i>	<i>First Nation Wildfire Plans</i>			<i>Prov. Crown Area (Y/N)</i>
			<i>PSTA¹</i>	<i>Cons.²</i>	<i>Total LC score³</i>		<i>Commun. Prot. Line</i>	<i>1° Fire Break</i>	<i>2° Fire break</i>		<i>Inside 1° zone</i>	<i>Inside 2° zone</i>	<i>Inside 3° zone</i>	
<i>Rocky Chipka</i>	25%	21	5	4	20	1								Y
<i>HaHa Creek</i>	19%	16	8	2	16								0	Y
<i>Torrent</i>	19%	16	5	2	10			4	2				0	Y
<i>Tokay Hills</i>	18%	15	5	3	15								0	Y
<i>Powerplant</i>	12%	10	5	2	10									Y
<i>West Findlay Basin</i>	12%	10	5	2	10								0	Y
<i>Wigwam</i>	8%	7	5	1	5				2				0	Y

¹ Likelihood score based on the Provincial Strategic Threat Analysis rating

² Consequence Score

³ Total Likelihood Consequence Score

5. Identification of priority projects

The units prioritized are likely still at too large a scale to be operationally treated under one funded project. It is expected that projects that are put forward to funding applications will only make up part of a unit. The highest scoring projects will need further development in the project application phase, where a locally appropriate prescription can be created. As this project progressed projects proposed by various agencies were compiled and rated by these two priority tables, the results are in the Appendix 1 tables. The Ecosystem Restoration program had 82 proposed projects with prescriptions in various states of completion, but with no action taken to date. In July 2018, the Rocky Mountain Trench Ecosystem Restoration program requested that one of the authors of this report create a five year plan for Ecosystem Restoration, Fuel management and Wildlife Habitat Projects. The two tables created for this report were included in this plan and the 147 possible projects included in the five year plan are included in Appendix 1 of this report, which is more exhaustive than the list created for the earlier version of this report. This Appendix 1 list of projects includes all projects proposed by Wildlife Habitat staff, the Ecosystem Restoration Program and Wildlife Management Services staff for the next five years. It also contains all fuel management projects proposed by four First Nation Bands and nine local governments.

Note also, that in April 2018, Columbia Basin Trust awarded \$400,00 to the ?Aq'am band, based partly on this priority tool and partly on the current condition map created as part of this project; the map showed the value of adding to existing projects. The two successful ?Aq'am projects are listed in the Appendix 1 table.

Some comments on the columns in the Appendix 1 tables:

- Ownership, as this priority tables covers nine local governments, the Nature Trust of Canada and four native reserves it is necessary to show the land ownership of the projects.
- Mapsheet and Opening key proponents into searching files at the Rocky Mountain Natural Resource District office for more details on the project.
- Estimated projects costs are shown, where noted, in details provided to the report writers.
- Funding source is an effort to fit the project to funding envelopes that best fit the ownership and project type.
- CWPP unit refers to the name of units contained in Community Wildfire Protection Plans. It allows the five year plan and priority tool to be related back to CWPPs.
- Capture low value stand is a qualitative estimate if the project can assist in meeting the Forest Enhancement Society of BC's program goals of utilising low value stands, damaged stands or in utilising unmerchantable trees to help in carbon management.
- As funding occasionally becomes available for Rare and Endangered species, known populations of various species are listed if relevant to these projects.
- Status of prescription refers to how close to shelf ready the prescriptions for each project are. A blank means no field work as of yet.

6. Recommendations

- a. The desired future condition and current condition maps produced by Nupqu as part of this project should be maintained and updated annually by a local group. The Rocky Mountain Trench Ecosystem Restoration program has expressed interest in doing so and this will be confirmed on the October 10th 2018 Steering committee meeting.
- b. The maps and map coverages referred to in 6.a) should be made available in more public places; perhaps the First Nation Emergency Services Society or Trench-er.com websites.

- c. At the request of a local biologist values in the Ecosystem Restoration priority ratings should be rerun, (as part of a future project):
 - i. New Shannon biodiversity index values should be determined for Wigwam, East Columbia, Windermere-Sinclair R-Units
 - ii. Attain a better count of rare endangered species by using a better data base than the Conservation Data Centre database
 - iii. Consider Mule deer rankings alongside elk rankings on Ungulate Winter Range as part of Elk ranking.
- d. The priority tool is already part of the Integrated Ecosystem Restoration, Wildlife Habitat and Fuel management Five Year Plan for the Rocky Mountain Natural Resource district, Updates should be carried out under that document.
- e. As part of this project the shapefiles used in the mapping projects in this project have been linked to an Ecosystem Restoration data base to allow better updating of projects and maps. Separate map layers have been created for crown, BC Parks, the Nature Conservancy of Canada and all four first Nations Bands as part of this project. It facilitates updating and cross boundary planning and co-operation.
- f. The Nature Trust of BC should be added to this mapping planning initiative at a future date.

7. Conclusion

The area of interest was compartmentalized using existing Range units and First Nation reserves, a scoring table was developed using available data and local values that align with the FES BC goals, and relative weighting was applied to each criteria in order to prioritize potential project areas. Now the highest ranking project areas from Table 1 and 2 should be applied for treatment funding. This report will demonstrate to project evaluators that an integrated, landscape level approach to project selection was used. This will strengthen the priority application's case in a competitive funding environment. This planning process serves as a pilot project that could be applied to other Natural Resource districts. In places of the province where Range units are not spatially available, other units can be used - such as firesheds, watersheds, operating areas or another fine-scale planning cell. Other regions will have to accumulate their own data relative to their area of interest that align with the goals of the FES BC. In the end, creating their own treatment priority tables that will enhance the forests around their own communities.

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9. Appendix 1 List of Possible projects that could be funded

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Land Owner	R Unit	LBU	Map sheet	Opening	Area to treat (ha)	Treatment Type	Projected Cost	Funding Source	ER Score	Interface Score	CWPP Unit	Capture Low value stand	Silviculture?	Year Proposed	Species at risk	Prescription Status	Comments
Aqam	?aq'am	Unit 1 North			450	Commercial Harvest/ slashing	200000	CBT	88	77		Yes		2020		Planned	As per CBT application, already approved
Aqam	?aq'am	Unit 2 South			838	Commercial Harvest/ slashing	200000	CBT	88	77		Yes		2020		Planned	As per CBT application, already approved
Akisqnu k	Akisqnu k	North east				Mechanical	300000	CBT	96	61		Yes		2019	Bighorn sheep	Planned	As per CBT application
Crown	Bull River	Iron Creek Burn			85.45	Prescription Preparation/ Prescribed Burn		FWCP	NA			possible		2019-2020			Fish and Wildlife Compensation Program
Crown	Bull River	Sulphur Creek Burns			260.23	Treatment - Prescribed Fire		FWCP	NA			Inoperable		2018-2020	Fall		Fish and Wildlife Compensation Program
Crown	Bull River	Sulphur Creek Harvest			186.12	Existing Harvest - Galloway Lumber.		FWCP	NA			harvested		Timed with Galloway Lumber Harvest 2018-2020			Fish and Wildlife Compensation Program Revise Stocking Standards to promote forage values for Wildlife
crown	Burton Lake	Caithness			188.1	logged-interface			56.4	34	Elk 2	already logged		Nov 2015-2019			Add as new LBU, Caithness, not current priority
crown	Burton Lake	Caithness			199.2	Thinning-Interface			56.4	34	ELK1	Possible harvest by Galloway		2019			
crown	Burton Lake	Galloway	82G024		195	Interface-Logged			56.4	34	GA1, GA2	already logged		2017-2018			Use shapefiles Galloway CP155-Blk3314, CP 167 2271, 3372, 3373. 3374, 3375, 3378
crown	Burton Lake	Mack Creek			150	Slashing, invasive prescribed burn		FWCP	NA	34		Inoperable		2018, burn 2019			spaced 2017
<u>TNT</u>	Cherry Tata	Cherry Creek Ranch			5	Wetland Creation		TNT	83.2	44				2017-18			
crown	Cherry Tata	Miller Road	82G072	9	167.5	Prescribed Burn	25000	IBI	83.2	44		Harvested 2009		2019	Badger	Under prescription	Reduce fuel on recent slashing, kill germinants
crown	Cherry Tata	Beacon East	82G072	92	398	Post harvest spacing	179100	FES	83.2	44		Needs thinning for sawlog Pulp	Yes	2023	Badger	Draft Prescription	Inside CORE Grasslands; high priority interface
crown	Cherry Tata	Beacon West	82G071	121	523	Post harvest spacing	235350	SWPI	83.2	44	TAT4	Needs thinning for sawlog Pulp 239 hectares harvested 2007	Yes		Badger	Draft Prescription	just outside CORE Grasslands; high priority interface

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Land Owner	R Unit	LBU	Map sheet	Opening	Area to treat (ha)	Treatment Type	Projected Cost	Funding Source	ER Score	Inter face Score	CWPP Unit	Capture Low value stand	Silviculture?	Year Proposed	Species at risk	Prescription Status	Comments
crown	Cherry Tata	Highway North	82G071	123	170	Pre Commercial thin	442000	FES	83.2	44		Thin pulp hogfuel		2020	Badger WHA	Draft Prescription	pipeline, highway
crown	Cherry Tata	Highway South	82G071	122	100	Post harvest spacing	260000	FES	83.2	44	mea3	Currently being harvested		2021	Badger WHA	Draft Prescription	Powerline pipeline
crown	Cherry Tata	Kimberley Airport	82G072	91	797.6	Prescribed Burn	25000	LBI	83.2	44		Harvested 2009		2019	Badger	Under prescription	Reduce fuel on recent slashing, kill germinants
crown	Cherry Tata	Lost Springs	82G072	93	500	Prescribed Burn	25000	LBI	83.2	44		Harvested 2009		2019	Badger	Under prescription	Reduce fuel on recent slashing, kill germinants
crown	Cranbrook Community Forest	Baker Mtn Road	82G052	NA	170	Commercial Harvest/ slashing	150000	FES	51.5	65	Gold5	BCTS will harvest XX hectares 2018		2018	Badger	Under development	BCTS will harvest GOLD5 2018, has FES funding to treat unit
crown	Cranbrook Community Forest	Sylvan Lakes TU 10	82G052	42	62.1	Masticate	124200	FES	51.5	65		BCTS will harvest 95 hectares		2019	Badger	Under prescription	BCTS wants to harvest TU 14, 8, 9 part of 10 in 2019, masticate remainder
crown	Cranbrook Community Forest	Sylvan Lakes TU 8, 9, part 10, 14	82G052	42	95.2	Masticate	42840	FES	51.5	65		Post harvest slashing		2019	Badger	Under prescription	BCTS wants to harvest TU 14, 8, 9 part of 10 in 2019, masticate remainder
crown	Cranbrook Fort Steele	Eager Hill	82G052	41	420	Thin/ Hand space	150000	FES	85.1	62		About 100 hectares potential		2020		Draft Prescription	partly thinned 2006, needs boundary to LBU
crown	Cranbrook Fort Steele	MM20	82G052		250	Thin/ Mostly Hand space pile burn	300000	FES	85.1	62		About 20 hectares potential		2022		Draft Prescription	Treat area in Block D Nupqu Map not A, needs boundary to LBU, evacuation route for Cranbrook
crown	Cranbrook Fort Steele	Overpass TU 7	82G052	40	67.3	Follow up after commercial harvest	80760	FES	85.1	62		BCTS promised harvest since 2008		2025		Draft Prescription	All 7 other TUS already thinned, BCTS has draft prescription since 2008
crown	Cranbrook Fort Steele	standard Hill TU L2-2, L4, L5, L7	82G052	43	122.9	Thinning mastication	307250	FES	85.1	62				2020	possible badger	Under prescription	Cranbrook Community Forest; almost complete LBU-completed by Aqam
City	Cranbrook	South (Pyat)			?	Harvest		SWPI	NA	65		Yes		2018		Under prescription	Due in fall
City	Cranbrook	Gold Creek			?	Slash and pile burn		SWPI	NA	65		No		2019		Under prescription	Due in fall
City	Cranbrook	Shadow Mtn			?	Prescribed burn		SWPI	NA	65		No		2018		Under prescription	Fall prescribed Burn
crown	Dutch Findlay	4 Amigos	82J021	36	120	Prescribed Burn	25000	LBI	78.3	32		None, open Range riparian		2021	Lewis Woodpecker, Elk	Under prescription	Burn conjunction with NCC

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Land Owner	R Unit	LBU	Map sheet	Opening	Area to treat (ha)	Treatment Type	Projected Cost	Funding Source	ER Score	Interface Score	CWPP Unit	Capture Low value stand	Silviculture?	Year Proposed	Species at risk	Prescription Status	Comments
crown	Dutch Findlay	Fair4			42.9	Thinning-Interface	120000	SWPI	78.3	32	Fair4	Possible pulp hogfuel		2019			
Nature Conservancy of Canada	Dutch Findlay	Marion Creek North			21.37	Prescribed Fire		NCC	78.3	32		Possible pulp hogfuel		2018	Spring/Fall		Nature Conservancy of Canada
Nature Conservancy of Canada	Dutch Findlay	Marion Creek South			17.89	Prescribed Fire		NCC	78.3	32		Possible pulp hogfuel		2018	Spring/Fall		Nature Conservancy of Canada
crown	Dutch Findlay	Spur Flat	82J021	34	556.3	Thinning	170000	LBI	78.3	32	Col3 COL2, 1	Likely		2023	likely badger		Create larger unit, RDEK proposing, connect Marion creek
crown	Dutch Findlay	Thunder Bob	82J011	142	523.2	Prescribed Burn	35000	LBI	78.3	32		None, open Range riparian		2022	Lewis Woodpecker, Elk	Under prescription	Burn conjunction post JOP
Crown	East Columbia	Mid			87.82	slashing, broadcast burn		FWCP	99.6	25		No roads allowed		2018-2019	spring-fall		Fish and Wildlife Compensation Program
crown	East Columbia Lake	North Upland	NA		246.9	Hand space/pile burn	250000	hctf/CBT	99.6	53	Fair1, 2, 3	No roads allowed		2019	Bighorn sheep		Lot of Juniper, fuel break for Fairmont hotspots, work base of cliffs
crown	East Columbia Lake	WPP CF block 5	82J021	39	200	Hand space/pile burn	300000	HCTF	99.6	25	CF-block 5	Rock cliffs, harvest unlikely		2021	Bighorn sheep, protect eco reserve	Under prescription	Canal Flats CWPP block, already laid out with prescription near complete-Greg Duboise
crown	East Findlay Basin	Fir Mtn	82J011	146	305	Thinning	170000	FES	78.1	29		Likely			Badger, elk	Under prescription	Ribboned for JOP never treated
<u>TNT</u>	Elk Valley	Big Ranch Conservation Property			4	ER for Aspen/Wetland creation		TNT	na	25				2017			
<u>Municipal</u>	Elk Valley	Sparwood block 1			16	Thinning interface		SWPI	na	25	Sparwood	Possible		2019		Under prescription	started 2018
<u>Municipal</u>	Elk Valley	Sparwood block 2			16	Thinning interface		SWPI	na	25	Sparwood	Possible		2019		Under prescription	started 2018
Crown	Flathead	Inverted Range	A		8829	Prescribed Burn/ Thinning	35000	FWCP	NA	4		Commercial		2020		Bighorn sheep	
Crown	Flathead	Middlepass	A		19188	Prescribed Burn/ Thinning	35000	HCTF	NA	4		Commercial		2021		Grizzly	
Crown	Flathead	Ram	A		2094	Prescribed Burn/ Thinning	35000	FWCP	NA	4		Commercial		2022		Grizzly	
Crown	Frances Creek	Elliot			82.00	Slash/ Tin		SWPI	33.7	25	Unit 4 Radium	Possible		2020			kmz file from Radium

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Land Owner	R Unit	LBU	Map sheet	Opening	Area to treat (ha)	Treatment Type	Projected Cost	Funding Source	ER Score	Inter face Score	CWPP Unit	Capture Low value stand	Silviculture?	Year Proposed	Species at risk	Prescription Status	Comments
Crown	Galton Range	Maguire			1367.8	Prescription Preparation/ prescribed burn	250000	FWCP	NA	46		Inoperable		2018-2020	spring-fall		HCTF habitat enhancement
Crown	Galton Range	Red Canyon			392.68	Prescription Preparation/ Prescribed Burn	250000	FWCP	NA	46		Inoperable		2019-2020			Fish and Wildlife Compensation Program
Crown	Gold-Plumbob	Buck Lake	82G024	132	412.1	Hand slashing/ Prescribed Burn	500000	LBI	67.7	21	Lak1	Harvested and Open Range		2022	Elk	Very Old prescription	area already spaced needs clean up burn
Crown	Gold-Plumbob	Hansen East			145	mastication, thinning	120000	FWCP	67.7	21				2017-18			
<u>TNT</u>	Gold-Plumbob	Strauss Road			20	mastication, thinning		TNT	67.7	21				2017-18			
Crown	Grasmere	Loon Lake	82G015	na	250	Precommercial thin	15000	FES	110.2	44	Gra2, GRA3, TPIB block 5 and 6	250 ha		2021	Spaulding's Campion		Areas thinned by Tobacco Plains block 5 and BCTS harvest, create an LBU
Crown	Grasmere	TPIB Blk1	82G015	na	32.1	Thin	64200	FES	110.2	44	TPIB block 1	thin pulp-hogfuel		2021	Spaulding's Campion	Under prescription	
Tobacco Plains	Grasmere	TPIB Blk15	82G015	na	29.6	Thin	59200		110.2	44	TPIB block 15	thin pulp-hogfuel		2020	Spaulding's Campion	Under prescription	Maybe put up
<u>TNT</u>	Invermere	Block 8			47	Possible Burn within village		SWPI	NA	41	Block 8	Already thinned		2017			completed 2017?
<u>City</u>	Kimberley Nature Park	Levirs			14	Prescribed Burn		SWPI	NA	41		already thinned		2018			city portion only fall
Crown	Kimberley Nature Park	Richardson			28	Piling and Burning		SWPI	NA	41				2018			prescription complete 2018
Crown	Kimberley Nature Park	Nordic Trails			28	Piling and Burning		SWPI	NA	41				2018			Section 52 pending
<u>City</u>	Kimberley Nature Park	Forest Crowne			28	Piling and Burning		SWPI	NA	41				2018			half complete
Crown	Lewis-Wolf	Big Burn	82G082	144	422.2	Thin pulpwood hogfuel	250000	FES	91.6	35	WAS2	all area		2022		Draft Prescription	Possible ATV issues, vacant range unit, needs reconfigured block into three LBUs
Crown	Lewis-Wolf	CTP	82G072	88	745	Thin pulpwood hogfuel	250000	FES	91.6	35	WAS3	all area		2023		Draft Prescription	Possible ATV issues, vacant range unit, reconfigure into two LBUs
Crown	Lewis-Wolf	Leask	82G072	157	379	Thin pulpwood hogfuel	250000	FES	91.6	35	WAS1	all area		2021	badger WHAS	Draft Prescription	Possible ATV issues, vacant range unit
NCC	Rocky Mtn	Luxor Linkage Mountain	82K080		80.00	Thinning		NCC	NA	28		Possible		2020	Fall		Movement corridor
Crown	Luxor-Kindersley	Kindersley Mtn			223.06	prescribed burn	25000	HCTF	NA	28		Inoperable		2019	Fall		HCTF habitat enhancement

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Crown	Moyie	Units from RDEK	NA	NA	287	Harvest and slash		SWPI	N/A	42	GRE 2, 3, 4, MOY 1, 3 MOY 2	Potential		2022			Munroe Lake block Proposed BCTS unlikely; green bay possible, Moyie possible MOY2 (Munroe Lake) proposed by RDEK 31.9ha
Crown	Moyie	Moyie Lake West			31.2	Thinning-Interface		SWPI	NA	42	Moy2	possible harvest by BCTS		2019			
Crown	Newgate	Earl's Ranch	82G004	148	43.6	Hand slashing/ Prescribed Burn	500000	HCTF	85.1	25	New1	Possible		2018	Elk	Very Old prescription	Conservation Property, local citizens prompting interface projects
crown	Newgate	Earl's Ranch	B		23.3	Wetland Restoration	50000	HCTF	85.1	25		None, riparian		2018	Painted Turtle	Under prescription	There is an existing LBU
Crown	North Waldo Pilot	Colvalli Waldo	82G034	35	28	Hand slashing/ Prescribed Burn	14000	LBI	92.9	33		Possible		2018	Elk	Very Old prescription	
Crown	North Waldo Pilot	Munson Slough	82G034	39	28	Hand slashing/ Prescribed Burn	14000	LBI	92.9	33		Possible		2018	Elk	Very Old prescription	
Crown	Peavine	Westview1			51	Slashing and Pile Burning (possibly mastication)		SWPI	46.4	53	Westview 5	logged by BCTS		2017-18			
Crown	Peckham's Lake	Hatchery Ridge	82G043	111	120	Thinning		hctf	96.2	38	Bull River	All area, pulp hogfuel		2020	Bighorn Sheep	Draft Prescription	Lambing area
Crown	Peckham's Lake	Hotfoot	82G053	5	289	Thinning		FES	96.2	38		All area, sawlog pulp hogfuel		2021	elk	Draft Prescription	Three units harvested or cleared. Create LBU
Crown	Peckham's Lake	Kiek	82G043	112	266.9	Thinning		FES	96.2	38		All area, pulp hogfuel			Bighorn Sheep	Draft Prescription	Lambing area
Crown	Peckham's Lake	Wallcam	82G053	70	83	Thinning		FES	96.2	38		All area, pulp hogfuel				Draft Prescription	Old CTP, access to River
Crown	Pickering Hills	Sand Lake Harvest			72.72	harvest		FWCP	80.6	38		harvested		2018-2020			Existing Harvest - Galloway Lumber. Revise Stocking Standards to promote forage values for Wildlife
Crown	Pickering Hills	Bronze Lake	82G043	1	687	Prescribed burn	35000	LBI	80.6	21		Needs reharvest		2022	elk	Very Old prescription	area already spaced needs clean up burn
Crown	Power Plant	Bull Mtn	82G054		800.00	slashing, seeding, fertilizing, Prescribed burn	30000	FLNRO	91.3	10		Inoperable		2018-2020	bighorn sheep	Very Old prescription	HCTF habitat enhancement Needs maintenance burn, add North Fontaine? Low elevation lots of invasive

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Crown	Premier Ridge	North Premier			581.12	Prescription development and implementation: ER and Prescribed Fire Training Site, mechanical thinning treatment, prescribed fire treatment. Potential for research trials		WMS	99.8	27		Possible sawlog, pulpwood		2018-2028	bighorn sheep, elk		BC Wildfire Service
Crown	Premier Ridge	New Gina	82G082	158	120.9	Prescribed burn	34000	LBI	99.8	27		0		2020	Bighorn sheep	Under prescription	Complete work on two LBUs, trees returning after treatment
Crown	Premier Ridge	Quartz	82G082	173	290.7	Prescribed burn	34000	LBI	99.8	27		0		2020	Bighorn sheep	Under prescription	Complete work on two LBUs, trees returning after treatment
Crown	Premier Ridge	Quartz Block1-3	82G082	173	67.3	Thinning sell sawlog	141100	FES	99.8	27		67.3 hectares, 4500m3		2019	Bighorn sheep	Under prescription	Complete LBU of 650ha, already cruised and ribboned, PFR complete
Crown	Premier Ridge	Diorite Range TU A			158.1	logged- needs prescribed burn		BCTS	99.8	27		already logged		sep 2016-2017	bighorn sheep	BCTS prescription	Add as LBU 3 Wasa Mtn September
Crown	Premier Ridge	Diorite Range	82G082	177	750	Prescribed Burn	30000	HCTF	99.8	27		No		2019	Bighorn Sheep		Follow up to BCTS/ BC Parks harvest; open movement corridor up mtn
BC Parks	Premier Lake Park	Unit 4	82G082		75	Prescribed Burn	30000	HCTF	75	27		No		2019	Bighorn Sheep		Follow up to BCTS/ BC Parks harvest; open movement corridor up mtn
BC Parks	Premier Lake Park	Unit 4	82G082		60	Prescribed Burn	30000	HCTF	75	27		No		2021	Bighorn Sheep		Follow up to BCTS/ BC Parks harvest; open movement corridor Burnt Car pasture
Crown	Rampart-Mayook	Birdstone	82G053	28	123.7	Prescribed Burn	10000	LBI	68.9	31		None, open Range riparian		2021	elk	Very Old prescription	Unit with grass shortages, no commercial harvest likely, Russian Rye grass covers unit
Crown	Rampart-Mayook	Butte	82G053	68	141.2	Thin pulpwood hogfuel		HFES	68.9	31		All area			elk	Draft Prescription	Unit with grass shortages, no commercial harvest likely, steep sandy slopes
Crown	Rampart-Mayook	City	82G052	9	289	Follow up Commercial harvest BCTS	130050	FES	68.9	31		BCTS propose commercial harvest		2023	elk	Under prescription	BCTS has ribbon and complete Prescription, since 2008; will needs spacing post thin

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Land Owner	R Unit	LBU	Map sheet	Opening	Area to treat (ha)	Treatment Type	Projected Cost	Funding Source	ER Score	Inter face Score	CWPP Unit	Capture Low value stand	Silviculture?	Year Proposed	Species at risk	Prescription Status	Comments
Crown	Rampart-Mayook	Crested Wheat grass	82G053	67	104.4	Follow up Commercial harvest BCTS	46980	LBI	68.9	31		BCTS propose commercial harvest		2023	elk	Draft Prescription	Most LBU is maintenance grass land; BCTS has proposed harvest 2008
Crown	Rampart-Mayook	Isadore	82G053	69	207.4	Thin pulpwood hogfuel		FES	68.9	31		All area			elk	Draft Prescription	Unit with grass shortages, no commercial harvest likely
Crown	Rampart-Mayook	Oxbow	82G053	32	278	Prescribed Burn	10000	LBI	68.9	31		None, open Range riparian		2022	elk	Very Old prescription	Unit with grass shortages, no commercial harvest likely, Russian Rye grass covers unit
Crown	Rampart-Mayook	Whiskey Creek South	82G053	65	173	Mastication		FES	68.9	31		Unlikely		2021	elk	Draft Prescription	Unit with grass shortages, no commercial harvest likely
Crown	Sheep Creek North	Central	82G092	148	450.4	Thinning pulpwood/ mastication	170000	FES	72.5	28		Uncommercial			elk	Very Old prescription	Canfor harvest in Area due 2018
Crown	Sheep Creek North	CTP 113 Myer			289.7	logged-interface			72.5	28		already logged		Jun 2016-2021			Keep existing boundary LBU
Crown	Sheep Creek North	Dry Gulch	82G092	101	834	Post harvest spacing	40000	LBI	72.5	28		previous commercial harvest, part harvested		2025	badger	Under prescription	Canfor harvest done 2018, reconsider boundary
Crown	Sheep Creek North	Johnson Lake	82G092	87	650	Thinning pulpwood/ mastication	120000	LBI	72.5	28		Uncommercial		2025	badger WHA	Under prescription	Canfor harvest in Area due 2018, area exempt
Crown	Sheep Creek North	Johnson Lake North	82G092	150	689.9	Thinning pulpwood/ mastication	170000	FES	72.5	28		parts have pulpwood		2024	badger	Draft Prescription	Canfor harvest in Area due 2018, area exempt
Crown	Sheep Creek North	New Pasture			793.5	logged-interface			72.5	28		already logged		Sep 2015-2021			Add as new LBU, New Pasture, not current priority
Crown	Sheep Creek North	pre1	82G092		14.8	Thinning-Interface	28120	SWPI	72.5	28	Pre1	Possible pulp hogfuel		2019		none	interface not CORE
Crown	Sheep Creek North	Springbrook	82G092	82	514	Post harvest spacing	45000	LBI	72.5	28		previous commercial harvest		2023	badger	Under prescription	Canfor harvested 2017 A8450 101 CP 373
	South Cranbrook	West M1	82G042		263.5	263.5 masticate and 32 ha harvest	527000	FES	NA	55		35.2 ha commercial	Y	2020		Under prescription	Fuel break for Cranbrook
	South Cranbrook	East M1	82G042		200	263.5 masticate and 32 ha harvest	400000	FES	NA	55		Some commercial	Y	2021		Under prescription	Fuel break for Cranbrook
Crown	South Cranbrook	South Cranbrook			337.8	logged-interface			NA	55	GOL1	already logged		Oct 2016-2020			Add as new LBU, Cranbrook South TU 1, not current priority

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Crown	South Cranbrook	South Cranbrook			311.9	logged-interface			NA	55	GOL2, GOL3	already logged		Sept 2017-2021			Add as new LBU, Cranbrook South TU 2, not current priority
Crown	South Cranbrook	South Cranbrook			41.5	logged-interface			NA	55	GOL2, GOL3	already logged		Nov 2017-2019			Add as new LBU, Cranbrook South TU 3, not current priority
Crown	St Mary's Prairie	Dry Lake TU3	82G061	58	70	Thinning 20ha/ slash pile 50	84000	LBI	88	50		20 hectares		2020	Badger WHA, Williamson sapsucker	Under prescription	Also Williamson's sapsucker; powerline, part logged Canswel
Crown	St Mary's Prairie	Indian Springs NS	82G061	60	246	Hand slash/ prescribed Burn	184500	LBI	88	50		Harvested 2011		2020	badger	Draft Prescription	Tie into Aqam Work and burn to north, build fire guard on west
Crown	St Mary's Prairie	Rouse	82G062	41	365	Hand slash/ prescribed Burn	273750	LBI	88	50		Harvested 2011		2020	badger	Draft Prescription	Thin to tie into Aqam work and burn to north
Crown	Tata-Skookumchuck	Dune A	82G082	unk	210	Thinning/ hand slashing			86.1	41		Likely				Draft Prescription	Lot of off Road vehicle use
Crown	Tata-Skookumchuck	Dune B	82G082	149	212	Thinning/ hand slashing			86.1	41	TA3	Likely				Draft Prescription	Lot of off Road vehicle use
Crown	Tata-Skookumchuck	Dune C	82G082	150	260	Thinning/ hand slashing			86.1	41		Likely				Draft Prescription	Lot of off Road vehicle use
Crown	Tata-Skookumchuck	Reed A	82G082	146	316.0	Thinning/ hand slashing			86.1	41						Draft Prescription	Burnt 2005, very open
Crown	Tata-Skookumchuck	Reed B	82G082	154	303.0	Thinning/ hand slashing			86.1	41						Draft Prescription	Burnt 2005, very open
Crown	Tata-Skookumchuck	Reed C	82G082	155	250.0	Thinning/ hand slashing			86.1	41						Draft Prescription	Burnt 2005, very open
Crown	Tobacco Plains	Block 15				Slash hand pile		FNESS	110.2	47		Yes, better result		2019	Spaulding's Campion	Under prescription	part of CWPP
Crown	Toby Benches	Columbia Marsh National Wildlife Area			38.6	Thinning- Prescribed Burn		CWS	72.7	45	Shuswap Will	pulp and hogfuel		2019-2020	Badger	Under prescription	CWS conservation property
Crown	Toby Benches	Lake Eileen West			38.6	Thinning-Interface		SWPI	72.7	45	TOB1	pulp and hogfuel	y	2019			
Crown	Toby Benches	Lake Eileen East			44.3	Thinning-Interface		SWPI	72.7	45	TOB2	pulp and hogfuel	y	2019			
Crown	Toby Benches	Lillian Lake North South, Wilmer West	NA		138.5	Thin		SWPI	72.7	45	TOB 5, 6, WIL1		Yes	2021			Several units in active Woodlot or cTP, units of riparian by lake, try to create a fuel break
Crown	Upper Elk Valley	Aldridge	A		2048	Prescribed Burn-spacing	35000	FWCP	na	25		probable commercial		2023	Bighorn Sheep		
Crown/ BC Parks	Upper Elk Valley	Cadorna	A		2493	Prescribed Burn-spacing	35000	FWCP	na	25		probable commercial		2021	Bighorn Sheep		

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Crown	Upper Elk Valley	Chauncey-Todhunter	B		11480	Prescribed Burn-spacing	35000	FWCP	na	25		probable commercial		2022	Bighorn Sheep		Note there is an existing TU in Todhunter area, delete; this unit is the LBU TU B
Crown/BC Parks	Upper Elk Valley	Forsyth Creek	B		2514	Prescribed Burn-spacing	35000	FWCP	na	25		probable commercial		2025	Bighorn Sheep		Use this as LBU Boundary, rest of unit TU B
Crown	Upper Elk Valley	Forsyth Creek Burns			307.57	Prescription Preparation	35000	FWCP	na	25		Inoperable		2019-2020	Bighorn Sheep		Timed with Galloway Lumber Harvest
Crown	Upper Elk Valley	Musil	A		19850	Range Improvement		Range	na	25				2019			
Crown	Waldo	BAY2	82G024	133	33.6	Space scatter/ Prescribed Burn	25000	WMB	100.4	50.5	BAY2	Already masticated, no commercial value		2019	badger, elk	Under prescription	Already masticated and pile burnt
Crown	Waldo	Cemetery	82G024	131	250	Post harvest spacing	375000	LBI	100.4	50.5	BAY1	already harvested		2019	badger, elk	Draft Prescription	Needs layout WTPs
Crown	Waldo	Duck	82G025	76	180	Prescribed burn	20000	LBI	100.4	50.5		already harvested		2019		Under prescription	Just spaced, needs fuel reduction
Crown	Waldo	Elko Airport West	82G025		523.3	Prescribed Burn- Grass seed	15000	LBI	100.4	50.5	Elk 4	already logged		2019	badger		Use existing LBU boundary
Crown	Waldo	Fusee North	82G025	74	306.7	Prescribed burn	20000	LBI	100.4	50.5		already harvested		2019		Under prescription	Just spaced, needs fuel reduction
Crown	Waldo	Fusee West Alpha	82G024	75	375	Prescribed burn	20000	LBI	100.4	50.5		already harvested		2019		Under prescription	Just spaced, needs fuel reduction
Crown	Waldo	Fusee West Beta	82G024	71	367	Prescribed burn	20000	LBI	100.4	50.5		already harvested		2019		Under prescription	Just spaced, needs fuel reduction
Crown	Waldo	Rabbit Mtn TU2, 3 5, 8	82G025	73	187	Invasive species/ prescribed Burn	25000	WMS	100.4	50.5	Elk 2,5, 7	Already thinned		2019	Bighorn sheep	Under prescription	Needs follow up burn for masticated fuels
Crown	Waldo	Sheep Mtn	82G025	72	398.1	Prescribed burn	20000	LBI	100.4	50.5	ELK3	already harvested		2020	Bighorn Sheep	Under prescription	Just spaced, needs fuel reduction
Crown	Waldo North	Darling Lake	823G025		400	logged-interface			92.9	33	Elk 2, Elk 3	already logged		Jul 2015-2019			CP 167, Combine north and South Mudd Creek
Crown	Waldo North	Jaffray 2			22.4	logged-interface			92.9	33	JAFF 2, Jaff 3	already logged		Oct 2017-19			Add as new LBU, Brewer Creek, not current priority
Crown	Waldo North	Mud Lake	823G025		101	logged-interface			92.9	33		already logged		Jul 2015-2019			CP 167, Combine north and South Mudd Creek
Nature Conservancy of Canada	Watson	Kootenay River Ranch (KRR)			218.39	Prescribed Fire		NCC	46.4	32		Harvested		2018	Spring/Fall		Nature Conservancy of Canada
Crown	Westside	Rushmere			5	Prescription and Fuels treatment		SWPI	82.3	32				2017			

First Nations Forest Enhancement Society Service Delivery Model Pilot Project-Southeast

Land Owner	R Unit	LBU	Map sheet	Opening	Area to treat (ha)	Treatment Type	Projected Cost	Funding Source	ER Score	Interface Score	CWPP Unit	Capture Low value stand	Silviculture?	Year Proposed	Species at risk	Prescription Status	Comments
Crown	Wigwam	Wigwam Flats West	82G0G025	58	682	Hand slash scatter by volunteers	5000	Volunteer	94.3	7		No access		2022	Lots bighorn	old Prescription	Already three volunteer spacings
Crown	Wildhorse Lewis Creek	Campbellmeyer	82G072	na	250	50% thin/ 50% hand slash pile	120000	LBI	94	27							Partially harvested in 2006
Crown	Wildhorse Lewis Creek	Smith Prairie	82G072	na	272.6	Post harvest slashing	65000	LBI	94	27		Already harvested		Apr 2014-2018			Harvested Canfor 2015
Crown	Wildhorse Lewis Creek	Brewery Creek			341.1	logged-interface			94	27		already logged		Apr 2013-2017			Add as new LBU, Brewer Creek, not current priority
Radium	Windermere-Sinclair	Radium North	82K080		72	Thin, hand slash steep slopes	140000	SWPI	76.9	41	RAD1	Pulp-hogfuel old CTP		2023	Bighorn sheep Migration		FN property
Crown	Windemere-Sinclair	Radium South			218.37	Fuel Reduction Treatment - Community Wildfire Protection Plan-Coach Road rehabilitation		SWPI	76.9	41	Radium 17A	Possible pulp hogfuel		2018-2019	bighorn sheep		Shuswap Indian Band Community Wildfire Protection Plan
Crown	Windermere-Sinclair	Juniper Heights	82K060	163	132.5	Mechanical Thin/ hand space pile burn 25 ha	331250	CBT	76.9	41	Shuswap, JUN1	all site		2019	Bighorn Sheep	Under prescription	Already spaced needs more large tree removal, CTP cancelled
Crown	Windermere-Sinclair	South Stoddart	82K060	166	108.1	Mechanical Thin	270250	CBT	76.9	41	Shuswap, JUN2, JUN3	all site		2019	Bighorn Sheep	Under prescription	Already spaced needs more large tree removal