

ECOSYSTEM RESTORATION PROGRAM Rocky Mountain Trench

NATURAL DISTURBANCE TYPE 4

Five Year Plan 2010-2015

I certify that the work described herein fulfills the standards expected of a member of the Association of British Columbia Forest Professionals and that I did personally supervise the work.

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May 21st 2010**

Approved by _____ Date: _____

**Tony Wideski,
District Manager Rocky Mountain Forest District
Under Section 52 1) b) Forest and Range Practices Act**

Rocky Mountain Trench

Ecosystem Restoration Program

Five Year Plan 2010-2015

Table of Contents	i
List of Figures	iv
List of Tables	iv
Text of Report	
1.0 Introduction	1
1.1 Definition of Ecosystem Restoration	1
1.2 Legal Mandate for Ecosystem Restoration	1
1.2.1 Kootenay Boundary Land Use Plan	2
1.2.2 Forest and Range Practices Act	3
1.2.3 Ungulate Winter Range	3
1.2.4 Blue Print for Action	3
2.0 Five Year Plan Process	
2.1 Goals of program	5
2.2 Prioritisation process and table of results	5
2.3 Description of default operations	8
2.4 Consultation with First Nations (timelines and process)	9
2.5 Referral to stakeholders	9
3.0 Resources to be managed	
3.1 Timber/Overstory	13
3.2 Understory (Grasses, forbs shrubs)	16
3.3 Riparian/ wetlands	17
3.4 Community and Consumptive use watersheds	20
3.5 Old Growth Management Areas	22
3.6 Patch size distribution	28
3.7 Wildlife Trees	25
3.8 Coarse Woody debris	28
3.9 Wildlife Species at Risk	29
3.10 Rare plants and Ecological Communities at Risk	34
3.11 Ungulates (Elk, Bighorn sheep, White tail deer, mule deer)	36
3.12 Forest Health	37
3.13 Invasive plants	40
3.14 Soils	43
3.15 Recreation	44
3.16 Prescribed burns	45
3.17 Archaeological Resource	48
3.18 Cultural and Heritage issues	49
3.19 Removing Natural Range Barriers	50
3.20 Visual Quality	51
3.21 Access Management	52

3.22 Protection of Public Utilities	54
3.23 Research, Growth and Yield and Range Exclosures	58
4.0 Monitoring	62
5.0 Bibliography/ Source documents	74
Appendix I Schedule of Ecosystem Restoration Projects, sorted by Project type and year	
Appendix II Summary of referral comments received	
Appendix III Maps and Documentation on maps	

List of Figures

List of Tables

Table 2.1 Targets of forest types to be achieved by the Ecosystem Restoration Program by 2030 (source Blueprint for Action 2006)	5
Table 2.2 Prioritisation rating for Ecosystem Restoration Treatments for 14 Restoration Units in Rocky Mountain Trench	6
Table 2.3 Legend to interpret Table 2.2	7
Table 2.4 Time table and Summary of referral and consultation process for Five Year Plan Ecosystem Restoration Program	10
Table 3.1.1 Open Range and Open Forest defined by Biogeoclimatic zone variant and sites series as per Ungulate Winter Range orders UWR-4-006 (Cranbrook) and 008 (Invermere)	15
Table 3.3.1 Definition and recommended management strategies for riparian areas by stream classes	18
Table 3.3.1 Definition and recommended management strategies for riparian areas by wetland classes	18
T Table 3.3.3 Definition and recommended management strategies for riparian areas by lake classes	18
able 3.9.1 List of potential Lewis' Woodpecker Management Units (areas of Crown Land)	30
Table 3.9.2 List of Red Blue listed wildlife species for Rocky Mtn Trench as recommended June 2007 by Conservation Data Centre	31
Table 3.10.1 List of Plant Communities (now called Ecological Communities) found in Rocky Mountain Forest District. List is based on Conservation Data Centre list and in Cooper, J.M., C. Steeger, S .M. Beauchesne, M . Machmer, L . Atwood and E.T. Manning. 2004. Habitat attribute targets for red and blue listed wildlife species and plant community conservation.	35
Table 3.12.1 Observed (2004 – 2006) and projected (2007 – 2011) annual green-attack volume (millions m ³) for the 22 “pine units” (peak year of kill is highlighted by an outlined box). From Walton et al 2004	38
Table 3.13.1 The Rocky Mountain Forest District preferred grass seed mix; a Fescue blend with annual and perennial ryegrass.	40

Table 3.13.2: Synopsis of Invasive plants and Management Implications for Ecosystem Restoration Program in Rocky Mountain Forest District (per Val Miller 2007)	41
Table 3.18.1 Probable effects of light frequent fires actions on cultural keystone species (Source Fire Effects Information system http://www.fs.fed.us/database/feis/plants/index.html)	49
Table 3.20.1 List of Wildlife Act Access Management Areas in the NDT4 Ecosystem Restoration operating area (as per 2009 Hunting Regulation synopsis http://www.env.gov.bc.ca/fw/wildlife/hunting/regulations/)	61
Table 3.22.1 General Limits of Approach to BC Hydro Power lines	56
Table 3.23.1 List of Growth and Yield Plots in Rocky Mountain Forest District Source: MOFR Research Branch, stored in Land and Resource Data Warehouse.	59
Table 3.23.2 List of Research Trials in Rocky Mountain Forest District Source; MOFR Research Branch, stored in Land and Resource Data Warehouse.	60
Table 4.1 List of all Active Ecosystem Restoration monitoring sites in the Rocky Mountain Trench. Updated from Page 2006	66
Table 4.2 List of Existing Ecosystem Restoration Monitoring Sites that could be remeasured. Source Paige 2006	68
Table 4.3 List of East Kootenay Trench monitoring reports and literature (as per Page 2006, updated by Harris, 2009)	70

Chapter 1 Introduction

This plan outlines the process, management objectives and proposed Ecosystem Restoration projects for the Rocky Mountain Trench Ecosystem Restoration Program. It should be noted at the start that although co-ordinated by the Ministry of Forests and Range out of the Rocky Mountain Forest District, the Rocky Mountain Trench Ecosystem Restoration Program is a coalition of forest and range licensees, naturalist, hunting, angling and environmental clubs, and government agencies.

1.1 Definition of Ecosystem Restoration

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 Trench the ecosystem in need of restoration is the treed grassland/ savannah that occupied the valley bottom prior to European settlement and the suppression of the natural fire regime. Fire return studies in the Trench refer to low intensity fires burning through the Douglas fir and Ponderosa Pine forests ever 5 to 20 years (Gray et al 2004, Gray, Daniels 2005)

1.2 Legal Mandate for Ecosystem Restoration

This plan has to meet the legal requirement of the Forest and Range Practices Act (FRPA), FRPA regulations, orders issued under the Government Action Regulations and the Kootenay Boundary Higher Level Plan Order (KBHLPO). This interaction of legal direction is complicated by the fact that the Kootenay Boundary Higher Level Plan order was drafted under the legal terms and regulations of the Forest Practices Code of BC Act.

In setting objectives for this program administrative law requires that some provisions in legislation override provisions in regulations. In this sense the hierarchy of legal precedence is the Kootenay Boundary Land Use Plan (KBLUP), FRPA and other legislation, regulations issued under FRPA and other Acts, Planning documents (approved FSPs, objectives set under previous Acts) and the Ecosystem Restoration Plan created for any Range Unit. The choice of measurables as directed to a great degree by the *Effectiveness Monitoring Plan for NDT4 Ecosystem Restoration in the East Kootenay Trench*, March 2002, by Marlene Machmer, Hillary Paige, Chris Steeger, Pandion Ecological Research, a protocol agreed to by most Ecosystem Restoration partners involved in the program

1.2.1 Kootenay Boundary Land Use Plan,

The consensus arrived at in the 1990s can be found contained in the final draft of the Kootenay Boundary Land Use Plan (KBLUP). The document and the implantation strategy can be found at

<http://ilmbwww.gov.bc.ca/ilmb/lup/lrmp/southern/Kootenay>

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Despite this the legally enforceable portion of the plan is contained the Kootenay Boundary Higher Level Plan Order declared in January 2003. It establishes Resource Management zones (corresponding to the six former Forest Districts in the Kootenay Region since reduced to 4) and 10 Resource Objectives to be met in each of the Resource Management Zones. They are:

1. Biodiversity emphasis
2. Mature and Old Forest Retention targets (based on Biogeoclimatic Zones)
3. Caribou habitat requirements
4. A variation to greenup heights
5. Grizzly Bear Habitat and Connectivity Corridors
6. Management of Consumptive Use streams
7. an Enhanced Resource development zone for Timber
8. Fire Maintained ecosystems (which outlines management in the area for Ecosystem Restoration)
9. Visual quality
10. Social and Economic stability.

As with every other program carrying out primary forest activities the Ecosystem Restoration program must write measures to address these objectives; these will be found in Section 3. If, in the opinion of the 5 year plan proponent the objective should not apply to the Ecosystem Restoration program than a rationale will be submitted for review and rejection or approval by the Rocky Mountain Forest District manager. The actual plan, backup documents and implantation strategy for the Kootenay Boundary Land Use Plan are used as known information in fleshing out the measures and strategies.

1.2.2 Forest and Range Practices Act

The Ecosystem Restoration Program is unique in that it does not fit clearly into any of the provisions of forest management contained the *Forest and Range Practices Act* yet the program cuts trees and harvests trees, builds roads, landings and fireguards, carries out silviculture operations and prescribed burns under a variety of programs. The following is a series of interpretations of the Act that must be considered in developing or evaluating this plan.

Under section 52 of the Act no trees may be cut or destroyed on crown land unless authorised by a license granted under the *Forest, Land or Parks Acts*. Harvest under *Forest Act* Licenses requires a Forest Stewardship Plan. Activities funded by basic government votes or the Forest Investment Account are authorised under this section. Unfortunately the majority of funding sources do not fall into this category and other authourity is required.

Under Section 52.1 the Minister may authorise cutting trees for silviculture, stand tending, fuel abatement, forest health or other reasons. Ecosystem Restoration falls into this category and the Rocky Mountain District Manager has requested that the review and comment period of the five year plan as well as the final five year plan document approximate the same rigour and content that a full Forest Stewardship Plan would meet. This would be the interpretation of Sections 1.2 to 4.01 of the Forest Planning and Practices Regulation issued under FRPA.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Forest and Range Practices Act is results oriented and has set objectives for timber, water, riparian/ fish habitat, wildlife, cultural heritage, soils, biodiversity, forage/ communities, recreation, visual quality and resource features. This plan drafts measures to address all these issues. It considers the measures laid out in Forest Planning and Practices and means to meet or exceed these measures as per section 1.2 and 2 of the Regulation. By signing this 5 year plan the District Manager approves the subsequent prescriptions and actions of the program so long as they follow this plan. If the Ministry of Forests and Range do not actually supervise or carry out the operations then a letter signed by the District Manager is required to allow operations to proceed as per Section 52.1b) Of the *Forest and Range Practices Act*.

1.2.3 Ungulate Winter Range

Two Government Act regulations dated February 10, 2005 (U-006 Cranbrook and U-008 Invermere) cover the ungulate Winter Range in Invermere and Cranbrook Timber Supply Areas. These Ungulate Winter Ranges completely overlap the NDT4- Ecosystem Restoration Area. It is this regulation that establishes the stocking standards for Open Range and Open Forest stands and it defines these two desired stand conditions by Biogeoclimatic ecosystem types. It is unlikely that exemptions will be required to this order as Ecosystem Restoration operational goals are consistent with the Ungulate Winter Range General Wildlife Measures.

Note too that one restoration unit is in Wildlife Management Area # 10 (East Columbia) established under section 4 of the Wildlife Act. To use the resources of this area will require the consent of the Regional Manager of the Ministry of Environment. The consent will be sought by the Ecosystem Restoration program and it should hopefully be given as it is the Ministry of Environment that has taken the lead on proposing works in this restoration unit.

1.2.4 Blue Print for Action

The goals of the Ecosystem Restoration Program in the Rocky Mountain Trench (RMT) are taken from the executive of the “Blueprint for Action”. The Blue print for Action is the summary document put forward by the RMT Natural Disturbance Type 4 Steering Committee; it is not legal direction but it is known information put forward by citizen groups to interpret the mandate of the Kootenay Boundary Land Use Plan (KBLUP). As it has been agreed to by all Ecosystem Restoration partners it is used in this plan as direction towards a common goal.

Vision:

A restored Trench Landscape functioning at its ecological potential and thereby supporting:

- The native and historical and condition matrix of trees plants and animals
- A sustainable forage resource for wild and domestic grazing ungulates and
- The social economic and cultural needs of stakeholders as they relate to the open range and open forests of the Trench

The Mission:

1. Progressively restore the designated 118,500 hectares of the Trench to an ecologically appropriate fire maintenance condition by 2030, in accordance with tree stocking standards for open range and open forest sites.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

2. Maintain the restored 118,500 hectares in an open range or open forest condition in perpetuity.

This document breaks this direction into 20 objectives with measurable targets, design criteria for prescribers and monitoring procedures.

This Ecosystem Restoration program mandated a Steering Committee to oversee progress and find funding for the projects required to carry out the restoration of the grasslands and open forests. The members of this Committee are representatives from:

- The Ministry of Forests and Range
- Parks Canada
- Rocky Mountain Trench Natural Resources Society
- Range Advisory Committee
- Columbia Basin Fish and Wildlife Compensation Program
- Kootenay Livestock Association
- BC Wildlife Federation
- Tembec Industries
- Ministry of Agriculture and Lands
- Ministry of Environment

To carry out the fine details of project development and implementation an Operations Committee was also struck. Members are;

- Ministry of Forests and Range
- Rocky Mountain Trench Natural Resources Society
- Fish and Wildlife Compensation Program (Columbia Basin)
- Galloway Lumber Company Ltd.
- BC Parks Branch
- BC Timber Sales
- Tembec Industries
- Ministry of Agriculture and Lands
- Ministry of Environment
- The Nature Trust of BC
- The Nature Conservancy of Canada

Chapter 2 Process of Plan Development and referral

2.1 Goals of program

The goals of the program is contained the Blueprint for Action and involves progressively treating the 118,500 hectares contained in the NDT4 operating areas until all hectares are in a mosaic of open range and open forest types by the year 2030. The goal by forest type are summarised in table 2.1. The blue print for action also targets 4500 hectares of treatment per year. The target numbers were derived by a GIS algorithm being run on the entire NDT4 area (some 250,000 hectares) in the Rocky Mountain Trench. The details of the algorithm are found in section 3.1 Timber.

Table 2.1 Targets of forest types to be achieved by the Ecosystem Restoration Program by 2030 (source Blueprint for Action 2006)

Forest type	Percentage of Trench NDT4 Area (%) 250,000 ha			Area in 2030 (ha)
	As of 1998	As of 2004	As of 2030	
Shrub lands	5	1	5	12,500
Open Range	10	12	17	43,500
Open Forest	Combined as 85%	26	30	75,000
Managed Forest		61	48	119,000

2.2 Prioritisation process and table of results

In order to focus operations to achieve this goal the NDT4 Operations Committee drafted criteria to prioritise 14 Range Units in the Rocky Mountain Trench. These 14 units comprise about 80% of the entire NDT4 area. In a series of 6 meetings over the winter of 2005 to 2006 the multi sector committee came to a consensus over the relative score for each range unit. The end results are tabulated in table 2.2 and 2.3. The remaining twenty one range units should be scored by 2010 and the scores of these 14 range units revisited in 2009.

Note also that the prioritisation score is one of many factors in scheduling, funding or inclement weather may delay projects going forward. It is also desirable to spread out projects within the same restoration or range unit so that operations of range or forest licensees are not disturbed and that a steady supply of habitat features (snags, rejuvenated shrubs etc.) are provided across the landscape on a more or less steady stream.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Table 2.2 Prioritisation rating for Ecosystem Restoration Treatments for 14 Restoration Units in Rocky Mountain Trench

<i>Range Unit</i>	Score	Fire Interface		Non Game Sp		Ungulates		Biodiversity		Forage Crunch	Planning	Economical	Regional Priority
		L	C	L	C	L	C	L	C				
<i>Possible Scores</i>	170	5	5	5	5	5	5	5	5	10	20	20	20
<i>E. Columbia Lake</i>	116	3	3	4	4	5	5	4	4	0	10	20	20
<i>TaTa Skook</i>	119	2	2	5	5	3	3	4	4	5	20	20	20
<i>Powerplant</i>	119	2	2	2	2	5	5	4	4	10	20	20	20
<i>Newgate</i>	114	2	2	5	5	3	3	4	4	10	20	20	10
<i>Dutch-Findlay</i>	110	2	2	4	4	3	3	4	4	5	20	20	20
<i>Westside</i>	110	4	4	4	4	3	3	3	3	0	20	20	20
<i>St. Mary's</i>	108	3	3	3	3	3	3	4	4	5	20	20	20
<i>Cherry Tata</i>	106	2	2	4	3	3	3	4	4	5	20	20	20
<i>Waldo-south half</i>	103	4	4	2	2	2	2	3	3	10	20	20	20
<i>Premier Ridge</i>	101	1	1	3	2	5	5	3	3	0	20	20	20
<i>Windermere/ Sinclair</i>	98	4	4	2	2	3	3	3	3	0	20	20	20
<i>Gold-Plumbob</i>	95	1	1	4	4	3	3	3	3	10	20	20	10
<i>Sheep Cr North</i>	93	1	1	3	3	3	3	3	3	5	20	20	20
<i>Peckham's</i>	92	2	2	2	2	5	5	3	3	10	10	10	20
<i>Rampart & Tokay</i>	86	2	2	3	3	3	3	2	2	10	20	20	10
<i>Colvalli</i>	78	1	1	3	3	3	3	2	2	5	20	20	10
<i>Windermere- Fairmont</i>	73	4	4	2	2	3	3	2	2	0	20	10	10
<i>Wild Horse-Lewis Cr</i>	68	1	1	3	3	3	3	3	3	0	10	20	10
<i>Lewis/Wolf</i>	62	2	2	2	2	4	5	2	2	0	10	10	10
<i>Findlay</i>	52	1	1	1	1	1	1	3	3	0	20	10	10
<i>Pickering Hills</i>	88	2	2	3	3	3	3	4	4	10	0	20	20

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Table 2.3 Legend to interpret Table 2.2

	Description			
Fire Interface	Based on Spotting Potential	5,4,3,2,1		
Non Game Sp	Based on R & E Species; Excludes Big Horn Sheep			
Game Sp.	Based on % of Class 1 Winter Range for Elk and Big Horn Sheep			
Biodiversity	Based on listed Plant Communities			
Forage crunch	Based on forage shortages for cattle and wildlife	10 =Serious forage shortage	5=Minor forage shortage	0= No Noted Forage shortage
Planning	Based on planning constraints (includes integrating with HCTF, CBFWCP, Range Use Plans)	20 = No planning constraints	10 = Minor planning Constraints	0 = Major Planning Constraints
Economical	Based on economic constraints Refers to best outcome for cost expended	20 = No Economic constraints	10 = Minor Economic Constraints	0 = Major Economic Constraints
Regional Priority	Based on Stakeholder Priorities	20 = High	10 = Medium	0 = Low
	L= Likelihood of unfavourable outcome	Note that Likelihood and Consequences are multiplied not added to reach a score		
	C= Consequences of unfavourable outcome			

2.3 Description of default operations

- The past 20 years of range burning and ecosystem restoration operations have created a body of experience that points to several efficiencies and a standard sequence of treatments to show the best results. For planning and budgeting purposes it is important to note them here. Frequent surveys are required to check the effectiveness of the treatment and to feed into a monitoring feedback loop that will be reviewed annually by the operations and steering committees to ensure that the program is constantly improving.
- The efficiencies found are
 - It is easier to control stocking of trees by logging and slashing than by burns alone. Burns hot enough to kill trees can usually burn off the grass and seed bank found in the soil.
 - Logging can increase forage production by as much as three fold but there is another increase of forage by combining a followup burn with logging.
 - The unit cost of treatments, especially prescribed burning decrease with larger blocks. An optimum size for a moderately complex block in the trench is about 300 to 400 hectares. Sixty hectares is about the maximum size that can be lit up by a hand light crew in one day. Blocks over 400 hectares will require two helicopters to complete the burn one day. Aerial Ignition Devices (Rocky Mountain District has three) are preferred as they ignite the understory and not the tree canopy. An aerial drip torch can be used to ignite the canopy but it is a slower treatment and a refuel crew is needed.
 - The North Waldo Pilot Project has shown there is considerable treatment efficiencies in combining the slashing of the block with logging. At 40m³/ha of sawlog and about 10-15m³/h of pulpwood the pilot showed a minor profit of logging and slashing in good log markets and a break even in poor log markets.
 - The Central pasture project has shown that it is cheaper to use feller bunchers and grapple skidders to get wood to roadside than conventional hand felling and piling. The end product is cleaner with less slash to burn and it increases the possibility of selling the wood as pulp, sawlog or hog fuel.
 - From both projects it is preferred to take wood to a landing or roadside for a cleaner block, less smoke management issues, better marketing opportunity and cheaper rehabilitation of roadside areas versus burning widely scattered burn piles. Typically burns follow slashing by two years so typically the Ministry of Forests and Range would have two years to market the semi logged, decked wood.
 - To decrease operational costs and fire guard construction it is best to treat a “logical burn unit” a block that ends in easily defended fire boundaries that respects topography, fence lines, road systems and reserve areas while still allowing good burn operations and the ability to set up convection columns.

The Preferred default treatment regime is:

- Outline a logical burn unit. Year 1
- Carry out the field work for an Ecosystem Restoration prescription, includes a review of conditions and the site by a biologist. Year 1
- Refer the projects January- March Year 2

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

- In high probability archaeological polygons either avoid damaging the site or hire and archaeologist for a preliminary field reconnaissance April to September Year 2
- It is preferable to log and slash the block simultaneously in summer to late winter year 2.
- Note that slashing of Ponderosa pine stands should occur only after cattle are off site (Ingesting Ponderosa pine needles can cause cattle to abort their foetuses).
- Hand slashing should be late fall prior to snowfall; snow makes heavier work for a crew, and increases high stumps and live limbs.
- Mechanical thinning of stands should be carried out on snow pack especially in archaeologically or ecologically sensitive sites. Note that this phase should include quality plots that carry out tree counts to ensure the correct stand structure is being retained.
- Debris should be left to cure on site two years before the initial broadcast burn in year 4
- A Post treatment plot survey should be carried out to ascertain burn intensity and tree count. Year 4.
- Maintenance burn should be scheduled every ten years south of Skookumchuck and every 15 years north of it. To fine tune the actual timing of routine maintenance surveys should be done every five years.

2.4 Consultation with First Nations

All government and licensee operations using natural resources and the land base are required to consult with First Nations to discuss their concerns. The Ecosystem Restoration program will follow government guidelines and processes for these consultations and allow at least 60 days for the response to the request for consultation.

2.5 Referral to stakeholders

All other stakeholders will be sent letters requesting input to the plan. Details of who was contacted and their timing for response are summarised in table 2.4. To facilitate the review it was decided to hold open houses to present maps and tables to the stakeholders. With few high speed internet cables in the Trench very few stakeholders can download the large ma files associated with these plans. If the stakeholders cannot make the open houses but still respond to the invitation letter then other methods of input (emails, field trips etc.) will be considered and carried out.

The list of stakeholders, ranges licensees, Forest Licensees, guide outfitters, trappers, municipalities, community groups, utilities, Conservation Programs, recreation organisations are noted in list kept on file 22000-20/ERP 2010. Their responses and comments are summarised and presented in Appendix II. An effort has been made to all known water licensees downstream of proposed projects for the 2010-2015 time frame. The list is short as there are few defined streams in the NDT4 area. The Water branch supplied list of water licences and their location is, after three years of using it field, proving to be somewhat inaccurate in location and addresses.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Table 2.4 Timetable and Summary of referral and consultation process for Five Year Plan Ecosystem Restoration Program

Activity	Group	Date	Location (and Media with respect to Pubic Review	Comments Received Y/N	Date
First Nation Consultation	K'tunaxa Nation Council	February 23rd 2010	Invitational letter		
First Nation Consultation	Shuswap Band Council	February 23rd 2010	Invitational letter		
Stakeholder referrals					
Forest Licensees referral	Galloway Timber Company Ltd. BC Timber Sales Tembec Industries Ltd Canfor- Radium Division Nupqu Development Corporation	October 28 th 2009	Referral letter all licensees	See Appendix II	
Range Licensees	All affected by proposals (see list Appendix II)	October 28 th 2009	Referral letters to affected ranchers	See Appendix II	
Utilities	BC Hydro and Power Authourity Trans Canada Transmission Ministry of Transportation and Highways	October 28 th 2009	Referral letters	None, See Appendix II	
Trappers	All affected by plans see	October 27 th , 2009	Referral letters to	None	

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

	Appendix II for total list 2010-2015		affected trappers		
Guide Outfitters	All affected by plans 2010-2015, see Appendix II for complete list	October 28 th , 2009	Referral letters to affected guide outfitters	None	
Christmas Tree Permitees	All permittees, see Appendix II for complete list	October 28 th , 2009	Referral letters to active Christmas Tree Permitees	Omit part of Lake Eileen project. Meeting with Christmas Tree Association	Meeting February 25 th
Water Licensees	All affected by plans 2010-2015 See Appendix II for list	February 22 nd , 2010	Referral letters to affected water licensees	See Appendix II	Note 11 licensees moved, 5 POD incorrectly mapped
Local Governments	City of Cranbrook City of Kimberley District of Invermere Village of Radium Regional District of East Kootenay Interior Health-Health Protection Services	October 28 th , 2009	Referral letters to affected municipalities	None	
Associations/ NGOs	The Nature Trust The Nature Conservancy of Canada The Land Conservancy East Kootenay Conservation Program Cranbrook Community Forest chair	October 28 th , 2009	Referral letters	See Appendix II	Map meeting held February 3 rd 2010
Fire chiefs and concerned Citizens	See Appendix II for full list	October 30, 2009	Referral Letters	See Appendix II	

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Agencies	Kootenay National Park Integrated Land Management Bureau Ministry of Tourism, Sports and the Arts East Kootenay Community Heath Services	October 27 th , 2009	Referral letters	See Appendix II	
Open Houses	Invermere Cranbrook Jaffray	November 27, 2009 November 24, 2009 November 26, 2009	Open Houses in each town	See Appendix II	
Second intake of projects	Range Licensees affected NB proposed by local communities under Community Wildfire Plans	Week of March 4 th , 2010	Telephone	See Appendix II	
Second intake of projects	Forest Licensees, Ministry of Environment, The Nature Trust, The Nature Conservancy	February 5 th , 2010	Map meeting	Specific comments; Field trips set, See Appendix II	
Second intake of projects	Regional District of East Kootenay	March 16 th , 2010	Meeting with Trench Society, Wildfire Management Branch	See Appendix II	
Approval	Ministry of Environment Cranbrook	May 24, 2010	Request for letter of authourity for East Columbia	Expected by May 31st, 2010	
Expected Approval	Cranbrook, Ministry of Forests and Range District Manager	March 21 2010	Meet to present plan	Expected by May 31st, 2010	

Chapter 3 Protection of Resources

1. TIMBER:

Objective:

1. For the treated areas reduce tree density, increase tree size and achieve a tree species composition that falls within the historical range of variability.
 - a. **Legal Reference:** KLUP Management Guidelines for NDT4 ecosystems, Ungulate Winter Range (UWR) order 4-006 and 008, Forest Planning and Practices Regulation (FPPR) section 6 and 41-46.2 Forest and Range Practices Act 149 (1)
 - b. **Measurable:** Open Forest stands shall produce 50% of their volume potential, this half production is estimated to be 70 m³/ha in a 100 year rotation. No merchantable volume is expected from Open Range stands.
 - c. **Measurable:** Open Range stands are to maintain 0-75 stems/ha on site with a target of 20 stems/ha while maintaining largest trees on site emphasizing trees greater than 30cm DBH.
 - d. **Measurable:** Open Forest stands are to maintain 76 to 400 stems/ha on sites with a target of 150 stems/ha while maintaining largest trees on site emphasizing trees greater than 30cm DBH. One third of trees retained are to be from largest diameter class present on site.
 - e. **Discussion**
 - i. Larch is to be reserved from cutting as its prevalence has been decreased by historic logging and fire suppression.
 - ii. Aspen stands should be reserved from cutting given their wildlife and biodiversity value. Burning should rejuvenate the stand when the stand shows signs of rot or senescence or destructive wildlife impacts.
 - iii. Further to the wildlife tree section; as a default all trees over 30cm DBH (40cm Diameter Stump Height (DSH)) should be reserved from cutting so as to recruit more wildlife trees. Cutting the trees over this diameter limit must be rationalised in the Ecosystem Restoration Prescription.
 - iv. As a default trees should be retained in clumps rather than uniformly across the landscape. In Open forest areas retain clumps of trees to an average of 150 stems per hectare in clumps of 5 to 20 trees with 10 to 15 clumps/hectare. In Open Range units retain 5 to 10 stems per clump with 5 to 8 clumps per hectare spaced about one tree length apart. Vary this dependant on site and stand characteristics.
 - v. Clumps of retained trees should be concentrated in wetter site series (riparian areas, swales, depressions, toe slope positions) or around clusters of veteran, large diameter or high value wildlife trees.
 - vi. The KBLUP Implementation Strategy contains the equivalent for of guidelines for fire maintained ecosystems to be considered for management.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

1. Re-entry for mechanical treatment or maintenance burns is targeted at 10% crown closure in Open Range and 40% in Open Forest.
 2. Minimum inter tree spacing is set at 1.5 metres.
 3. The early and late free growing window is set at 2-5 years after disturbance for all Open Range and Open Forest stands. Note that as per discussion with forest licensees the Ecosystem Restoration Program shall take over management of an NDT4 site of the forest licensee completes a survey showing that Open Forest or Open Range status has been achieved.
 4. Reforestation in NDT4 sites shall be by natural regeneration.
- vii. As per previous discussion with forest licensees the Ecosystem Restoration program shall manage a plantation established under previous silviculture obligations as managed forest until a commercial crop (sawlog or pulpwood) can be taken off the site. If the site can be classified as Open Range or Open Forest the site shall then be reclassified managed the appropriate standards. The intent is to recapture public investment in the plantation crop. If logistics of prescribed burning or other Ecosystem Restoration treatments require an earlier entry into the stand then the Ecosystem Restoration program will discuss this with the prescribing forest licensee.
- viii. Classifying the NDT4 area of the RMT into Managed Forest Open Forest and Open Range was carried defined by the KBLUP Implementation Strategy Task force in 1998. Open Range was defined as forest cover polygons inside the Natural Disturbance Type 4 area with the following characteristics:
1. Open Range, meadow, cultivated, Non Productive Forest types
 2. areas with Environmentally Sensitive Areas with classifications of p1 and p 2 (regeneration difficulty)
 3. dry warm aspects (135-270 degrees) with a site index <13 and
 4. neutral aspects (270-315 degrees or 90-135 degrees or flat land) with site index <13
- ix. Open Forest types are defined in the same study as
1. dry warm aspects (135-270 degrees) with site index 13-17
 2. neutral aspects (270-315 degrees or 90-135 degrees or flat land) with site index of 13-17
 3. cool moist aspects (315-90 degrees) with site index <10
 4. any other Ponderosa pine BEC units excluding those in Open Range classifications
- x. Managed forests are defined in the same study as
1. dry warm aspects (135-270 degrees) with site index >17
 2. neutral aspects (270-315 degree or 90-135 degrees or flat land) with site index >17
 3. cool moist aspects (315-90 degrees) with site index >10
 4. any other areas within NDT4 area not defined as open range open forest.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

- xi. Note also that the Ungulate Winter Range Orders 4-006 and 008 defines open range and forest through BEC units. This should be used as an the best methodology for defining open range and open forest and to distinguish both from Managed Forest.

Table 3.1.1 Open Range and Open Forest defined by Biogeoclimatic zone variant and sites series as per Ungulate Winter Range orders UWR-4-006 (Cranbrook) and 008 (Invermere)

Habitat Type	Concept Definition	Intended Field Verified Ecosystem Units
Open Range	Lands ecologically suited to production of bunchgrass and dry land shrub species. Snow accumulations are typically low. (includes existing open range, meadows, cultivated and similar cover classes with $\leq 10\%$ tree crown closure	PPdh2, 02a, 02b, 01 IDFdm2, un, 02, 03 IDFdm2a, un2, 02 MSdk 02 ICHdm, 02 (&rock talus sites)
Open Forest	Lands ecologically suited for production of large crowned trees in an open forest with bunchgrass and dry land shrub species. Snow accumulations are typically light. (typically $\leq 40\%$ tree crown closure, multi-storied stand structure and low stocking levels)	PPdh2, 03, 04 IDFdm2, un, 01 warm and neutral sites <1000m (except in LUs I32, I35 and I38) IDFdm2a, un2, 03 with Fd leading MSdk 03 with Fd leading, ICHdw 02 ICHdm, 03 with Fd leading ICHmk1 except Golden 02 ESSFdk 02, ICHwk1, 02, ICHvk1 02

f. Monitoring

- i. Effectiveness Monitoring: Over story retention shall be monitored as per Page 2006 Monitoring report (Page 2006)
- ii. Routine Monitoring: Over story retention shall be counted after every tree modification treatment (thinning, burn or logging) by one 5.64 metre radius plot per hectare (maximum of 60 plots per treatment unit) coupled with a Basal Area Factor (BAF) 2 prism sweep. Trees are to be tallied by species, total stems/ ha, tree class and diameter to 5 centimetre diameter classes at breast height. Process shall be as per Rocky Mountain Forest District Standard Operating Procedure #8.

2. UNDERSTORY (GRASSES, FORBS SHRUBS):

Objective:

1. Maintain or increase fire adapted native vegetation in treated areas.
2. Maintain or increase palatable grass and shrub production in treated areas.
 - a. **Legal Reference:** None specific to grasses or forage production, Ministry of Forests and Range is to maintain the productivity of the forest and range resources of BC as per Ministry of Forests and Range Act preamble.
 - b. **Measurable:** Increase the native grass and forb plant cover by 25% within ten years of initial burn treatment. Measurement of the increase shall be determined by photo plots taken during routine monitoring that will be calibrated by effectiveness monitoring plots where actual measurements will be taken.
 - c. **Measurable:** Increase forage biomass production by 5% within 5 years of initial burn treatment.
 - d. **Measurable:** increase the forage biomass of valuable decreaser (e.g. Saskatoon berry, rose spp., ceanothus, chokecherry) shrubs by 25% cover in treated areas within 5 years. The need for these shrubs should be specified in site specific plans.
 - e. **Measurable:** Burn off and reduce 75% of shrub biomass in treated areas where site specific plans do not require the shrubs as forage component.
 - f. Discussion
 - i. Grazing by wild and domestic ungulates should be modified to accommodate Ecosystem Restoration treatments by allowing a fine fuel build up the year before a fire. Similarly grazing use should be light the year following a broadcast burn to protect the new growth.
 - ii. Range licensee to follow a sustainable Range Use plan as approved by Rocky Mountain Forest District Manager.
 - iii. Initially, until better inventory data is available, the rough fescue/ Idaho fescue/ blue bunch wheatgrass is to be used as the default community to be increased. The figure of 25% is a program wide goal and it is recognised that this will vary by site.
 - iv. Ministry of Environment should take action to reduce homesteading ungulates (i.e. elk that do not leave their winter range in the summer months) and reduce overgrazing by wildlife.
 - g. **Monitoring**
 - i. Effectiveness Monitoring: Under story species composition and forage production shall be monitored as per Pandion 2002 report
 - ii. Routine Monitoring: Additional monitoring of under story species composition and production on specified sensitive sites shall be monitored using the methodology in Pandion 2002 report. Prescribers are to carefully record pre treatment cover of all species, forage or not, in plot notes. Prescribers are to establish photo plots as per routine monitoring procedure to illustrate vegetative changes.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

3. RIPARIAN/ WETLANDS:

Objective:

1. Maintain and or restore the integrity of riparian and wetland areas in and adjacent to treated areas.

a Legal Reference: Forest and Range Practices Act 149 (1) Forest Planning and Practices Regulation 8 and 12 (3). Forest Planning and Practices Regulation Sections 47 – 58: 52(2) and 53 specify retention; section 57 identifies need to not damage stream, section 56 no damage to natural drainage pattern. No Lakeshore management zones under Forest and Range Practices Act section 7 and 1812 or FPC

- i. EPR agrees to follow sections 47 to 51, 52 (2), 53-58 of FPPR with enhancements noted below

b. Measurable: All streams, wetlands and lakes shall be identified and classified in the Ecosystem Restoration Prescription for each treatment area as per Forest Practices Code (FPC) Stream Classification Guidebook and Riparian Management Guidebook.

c. Measurable: Where wetland management is called for wetlands shall be further classified with McKenzie, W.H. and J.H. Moran. 2004. Wetlands of British Columbia: a guide to identification. Res. Br., BC Min For., Victoria, BC Land Management Handbook No. 52.

d. Measurable Within each riparian management area, activities shall follow the best management practices contained in the Riparian Management Guidebook namely:

- i. Retain all under story shrubs and suppressed and intermediate trees in all Riparian Management Areas.
- ii. Retain all dominant and co-dominant trees in all Riparian Reserve Zones, except where provisions of FRPA require harvest. (i.e. safety or road construction)
- iii. In general the Ecosystem Restoration program will not harvest or disturb the riparian management area unless there is an operational, windthrow control, riparian restoration or forest health reason to do so. Rationale to do so shall be specified in the Ecosystem Restoration Prescription
- iv. If tree removal is required any on section of the Riparian Management Zones, Ecosystem Restoration Prescription will retain between 0 and 100% of the dominant and co-dominant trees but on average each Logical Burn Unit will maintain retention levels as per tables 3.3.1, 3.3.2 and 3.3.3:

e. Discussion:

- i. In areas of heavy grazing or recreation pressure, trees or other obstacles may be placed into the riparian management zone to reduce trafficability so as to protect streams whose banks may be negatively impacted by trampling or vehicle traffic
- ii. All streams are required to have the integrity of the bank maintained during and after operations. As a rule this is understood to be a 5 metre

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

machine free zone from the bank (as measured from the stream's high water mark) or to harvest on a snow pack sufficient to protect the bank.

- iii. Natural drainage pattern shall be maintained for classified and non classified drainages.
 - iv. The intent of variable retention is to retain trees where they are most required. Streams with marginal fish habitat or no consumptive water use habitat could have lower rates of retention than areas of better fish or wildlife habitat potential. In general highest rates of retention should occur where:
 - a) Stream is in a Community or Consumptive Use Watershed.
 - b) The stream is known to be a temperature sensitive stream (none in Rocky Mountain Forest District)
 - c) The stream is designated to be fishery sensitive (as of 2006 only the Palliser River in the Rocky Mountain Forest District is so designated)
 - d) Large organic debris is critical to the functioning of the stream
 - e) The stream is, or is directly tributary, to a stream of high fish value
 - f) The control of water or stream bank protection is a priority on the stream (e.g. an S5 or S6 with a 30% gradient flowing directly into fish habitat where trees and are critical to stream bank stability)
 - v. Non Classified Drainages are water bodies that do not fit the legal definition of streams but may still pose water control problems. Objectives here are to maintain stream bank stability similar to classifiable streams and to retain all shrubs and co-dominant trees within 10 metres of the stream bank.
 - vi. Stream crossings should be at designated crossings. All S1 to S4 crossings should be crossed by a bottomless structure so that no in stream work is required and disruption to fish habitat and water quality is minimal. This will also negate the need for an in stream work permit from the Ministry of Environment. In non fish bearing streams the crossings should be by box culvert, pipe culvert or clean log bundles with appropriate sedimentation control. Removal of structures should occur before the first spring freshet following the harvest and the deconstruction should remove all likely sediment sources from the natural water course and restore the original bank and channel configuration
- f. Monitoring protocol**
- i. Effectiveness Monitoring; monitor riparian integrity as per Pandion 2002 report.
 - ii. Routine Monitoring: Riparian tree and shrub retention shall be evaluated during all harvest, slashing and burning treatments inspections. Photo plots will be re-examined for riparian retention and deterioration during subsequent visits.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Table 3.3.1 Definition and recommended management strategies for riparian areas by stream class

Riparian Class	Size limits for riparian area in this class (width in metres)	Relevant Fish Community watershed status	Riparian Reserve Zone width (m)	Riparian Management Zone width (m)	Retention target for dominant- co-dominant trees in RMZ (% of pre treatment basal area)
S1A	> 100 m	Fish bearing, CW	0	100	50 windfirm overall 20
S1A	>20 < 100	Fish bearing, CW	50	20	50 windfirm overall 20
S2	>5 < 20m	Fish bearing, CW	30	20	50 of windfirm overall 20
S3	>1.5 <5 m	Fish bearing, CW	20	20	50 of windfirm overall 20
S4	< 1.5 m	Fish bearing, CW	0	30	25 (10m reserve preferred)
S5	> 3 m	Non fish	0	30	25 of windfirm overall 10
S6	< 3 m	Non Fish	0	20	5 of windfirm overall 10

Note that riparian classes and widths of riparian reserves and management zones for all lakes, streams and wetlands are set by the Forest Planning and Practices Regulation.

Table 3.3.2 Definition and recommended management strategies for riparian areas by wetland class

Riparian Class	Size limits for riparian area in this class (hectares)	Relevant Biogeoclimatic zone	Riparian Reserve Zone width (m)	Riparian Management Zone width (m)	Retention target for dominant- co-dominant trees in RMZ (% of pre treatment basal area)
W1	> 5 ha	IDFdm, MS	10	40	40 wind firm overall 10
W2	> 1 ha	PP	10	20	70 wind firm overall 25
W3	<5 >1 ha	IDFdm, MS	0	30	40 wind firm overall 10
W4	< .25 > 1 ha	PP	0	30	70 wind firm overall 25
W5	A wetland complex of over 5 ha size	All	10	40	70 wind firm overall 25

Table 3.3.3 Definition and recommended management strategies for riparian areas by lake class

Riparian Class	Size limits for riparian area in this class (hectares)	Relevant Biogeoclimatic zone	Riparian Reserve Zone width (m)	Riparian Management Zone width (m)	Retention target for dominant- co-dominant trees in RMZ (% of pre treatment basal area)
L1A	>1000 ha	All	0		25 overall
L1 B	5 to 1000 ha	All	10		25 overall
L2	>1<5 ha	PP	10	20	70 wind firm overall 25
L3	>1<5 ha	IDFdm, MS	0	30	40 wind firm overall 10
L4A	>.25<1 ha	PP	0	30	70 wind firm overall 25
L4B	>.5<1 ha	CDF, CWH dry	0	30	40 wind firm overall 10

4. COMMUNITY AND CONSUMPTIVE USE WATERSHEDS:

Objective:

1. Do not impair the quality of domestic or irrigation water supplies
 - a. **Legal Reference:** Forest and Range Practices Act 149 (1) Forest Planning and Practices Regulation 8 .2 and 59 -63 speaks to community watersheds. Objective 6 Kootenay Boundary Land Use Plan (KBLUP) also establishes consumptive use stream. No water quality objectives have been set for Rocky Mountain Trench
 - b. **Measurable;** Referrals will be sent to water licensees, during the 5 year plan referral process, if a classifiable stream connects the POD to the Ecosystem Restoration treatment area.
 - c. **Measurable;** Notify the water licensee prior to commencing work in a designated community watershed.
 - d. **Measurable;** Ecosystem Restoration Program shall abide by watershed assessments created for any consumptive use or community watershed in the NDT4 area.
 - e. **Measurable:** As per section 59, 60 and 61 of FPPR Ecosystem Restoration program will control sediment through out project areas by grass seeding exposed mineral soil within one growing season of disturbance, carry out no soil disturbance works within 100 metres upstream of all consumptive water intakes and take care to damage no water works infrastructure.
 - f. **Measurable:** Increase riparian retention in consumptive use watershed and extend the streamside management zone to 30 metres from the high water mark of the stream or the top of an inner gorge as per section 6 of the Kamloops Boundary Higher Level Plan Order. Site specific recommendations to maintain soil and stream bank stability will be specified within the Ecosystem Restoration prescription for any block that occurs upstream of a water intake.
 - g. **Discussion**
 - i. Impact to watersheds typically come as a result of riparian reserve harvest and increased stream instability, input of sediment or increases in harvest causing a change in the peak flow (FPC 1995c). Ecosystem Restoration Program operations should not be creating a risk to watersheds as:
 1. As per the riparian section of the Objectives matrix the Ecosystem Restoration Program shall be maintaining a enhanced riparian buffers in these watersheds. The Ecosystem Restoration Program shall be exposing mineral soil for fireguards with a minimum addition of roads for small scale harvesting. As per the Invasive Plants section of the Objectives Matrix Ecosystem Restoration Program is committed to rapid revegetation of denuded sites. The avoidance of sediment near water intakes has already been made and will be adhered to.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

2. The Ecosystem Restoration Program does not produce clearcuts but a select harvest of trees. The select harvests will increase snow catch and subsequent spring runoff. The shading of the selectively harvested stand will slow the spring runoff and decrease the risk of creating an earlier higher peak in spring run off.
 - ii. Note that the elevation contour which 60% of the land area of a drainage is above, is called the H 60 line. When the elevation of melting snow climbs up the hill and the snow line reaches the H60 elevation, peak spring flow occurs. Tree removals below the H60 line have less impact to peak flow than tree removals above this line. Most of the consumptive streams in question originate in the higher portions of the Rocky and Purcell Mountains. Most of the Ecosystem Restoration operating area is well below the H60 for these creeks and impact to peak flows should be minimal (Gluns 2001).
 - iii. The removal of trees from these watersheds is will reduce evapotranspiration and this put more water in the groundwater (Hewlett 1982) system. This will make more water available for recharging wells, streams and wetlands. This would have a beneficial effect for water users and the red and blue listed species dependant ion riparian areas.
 - iv. Nearly all Ecosystem Restoration plan areas are downstream of the water intake for the consumptive streams shown on KBLUP map 6.1
 - v. To comply with the Domestic watershed objective of KBLUP, all Ecosystem Restoration prescriptions shall be reviewed for the presence of down stream domestic water Points of Diversion (POD) ARCVIEW map layer available from the Land and Resource Data Warehouse through MAPVIEW. There will no soil disturbance within 100 metres upstream of a point of diversion. The Ecosystem Restoration program will not treat into a 30 metre wide RMA upstream of a domestic water POD unless hydrologic opinion is sought. Referrals will be sent to water licensees, during the 5 year plan referral process, if a classifiable stream connects the POD to the Ecosystem Restoration treatment area.
- h. Monitoring:** Maintain referral and notification documentation on the 5 year plan file and opening file. The area around water intakes is to be checked during operations and the riparian monitoring process followed.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

5. OLD GROWTH MANAGEMENT AREAS (OGMA):

Objective:

1. Maintain or recruit old growth characteristics on all treatment areas-
 - a. **Legal Reference:** Forest and Range Practices Act 149 (1) Forest Planning and Practices Regulation section 9 and 64-65. KBLUP Management Guidelines for NDT4 systems (Implementation Strategy). Objective 1 (Biodiversity Emphasis Option), 2 (Mature and Old forest), 4 (Greenup), 5 (Grizzly Bear Habitat and Connectivity Corridors) 8 (Fire Maintained Ecosystems) KBLUP. See variances for KBLUP objectives 2, 4 and 5
 - b. **Measurable** Ecosystem Restoration Program shall maintain the OGMA as laid out by ILMB in a map product produced in 2006, and will thin and burn them only to maintain function and stand health.
 - c. **Measurable;** The Ecosystem Restoration program shall consult map 5.2 showing movement corridors in laying out retention strategies at the landscape and Range Unit level. These movement corridors shall not consist of unbroken dense forest canopy as intimated by the implementation strategy but denser concentrations of retained forests in Managed forest polygons, wildlife tree patches, draws, gulleys or imbedded retention areas so as to facilitate wildlife movement at a landscape level. Large unbroken closed forest in the NDT4 area would contradict direction given by Objective 8 of KBLUP Fire Maintained Ecosystems.
 - d. **Measurable** As per Objective 2 of the KBLUP From a current level of 26% of the stands in the NDT4 being > 100 years old and only 1% > 250 years old the Ecosystem Restoration area shall progress, over 100 years, to ;
 - i. 17% >100 years old and 13%>250 years old in low emphasis Landscape Units and
 - ii. 34%>100 years old and 13% > 250 years old in intermediate Landscape Units.
 - e. **Description**
 - i. Objective 1 of KBLUP establishes the Biodiversity Emphasis options of all the various landscape units in the Cranbrook and Invermere Timber Supply Areas. They will of course apply to the Ecosystem Restoration program as well as all other primary forest operations.
 - ii. Similarly Objective 4 applies to Ecosystem Restoration operations. As the Ecosystem Restoration program maintains a forest on site the green up height requirement should be a limiting factor in Ecosystem Restoration operations.
 - iii. Legally Old growth Management Areas are aspatial in the Rocky Mountain Trench NDT4 area. The spatial OGMA as provided by Integrated Land Management Bureau (ILMB) shall be respected as OGMA. Large trees will not be taken from them; any actions within their boundaries shall concentrate on thinning from below so as to maintain the function and health of the OGMA. In these cases:

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

1. All trees over 20cm diameter at stump height shall be reserved from cutting.
 2. Piling of debris shall be more 10 metres or half a tree length from any tree over 30 centimetre at breast height or any high value wildlife tree.
 3. Piling of debris shall be by hand or by machine on adequate snow cover or frozen soil conditions. The intent to prevent root damage.
 4. Any machine use in an OGMA shall be on adequate snow cover or frozen soil conditions.
 5. Excess fuel build up shall be screefed away from high value dead wildlife trees and tree over 50 centimetre diameter at breast height.
- iv. As stands are spaced and thinned the average stand age will increase and speed the achievement of Objective listed in measurables above. The retention of larger trees in Ecosystem Restoration projects is expected to meet old growth requirements and characteristics for the Trench. Ecosystem Restoration treatment will create a healthier stand to be maintained in the long term.
- v. As the retention strategy called for in the understory section of this plan is designed to mimic the natural pattern of forests the intent of the Movement Corridor Objective 5 under KBLUP should be met without a specific result or strategy. Retaining extra trees would contradict Objectives 8 Fire maintained Ecosystems.
- vi. Ponderosa pine stems should be evaluated for their value as old growth using methodology pioneered in Colorado see:
1. Huckaby, Laurie Stroh; Kaufmann, Merrill R.; Fornwalt, Paula J.; Stoker, Jason M.; and Dennis, Chuck. 2003. **Field guide to old ponderosa pines in the Colorado Front Range**. Gen. Tech. Rep. RMRS-GTR-109. and
 2. Huckaby, Laurie Stroh; Kaufmann, Merrill R.; Fornwalt, Paula J.; Stoker, Jason M.; and Dennis, Chuck. 2003a. **Identification and ecology of old ponderosa pine trees in the Colorado Front Range**. Gen. Tech. Rep. RMRS-GTR-110.
- f. **Monitoring:** Interagency Management Committee is charged under KBLUP with monitoring the achievement of this goal. The Ecosystem Restoration program will provide information to the committee to this end.

6. PATCH SIZE DISTRIBUTION:

Objective:

1. Burn and treatment areas should approximate historic patch size distributions.
 - a. **Legal Reference:** Forest and Range Practices Act 149 (1) Forest Planning and Practices Regulation section 9 and 64-65.; Objectives 1 (Biodiversity Emphasis) Objective 4 (Green up) KBLUP Management Guidelines for NDT4 Systems references Forest Practices Code Biodiversity guidebook targets.
 - b. **Measurable:** The Ecosystem Restoration program is following the direction of the KBLUP NDT4 guidelines and the Ungulate Winter Range orders 4-006 (Cranbrook) and 4-008 (Invermere). The stand conditions for open range and open forest are designed to mimic the naturally occurring forest and thus the Ecosystem Restoration program complies with the Forest and Range Practices Act as delineated in section 62 (2) (b) of the Forest and Range Practices Regulation.
 - c. **Discussion:**
 - i. The Biodiversity guidebook (FPC, 1995a) estimate of patch size distribution for NDT4 ecosystems specifies that 30-40% of the stands should be under 40 hectares in size, 30-40% of the stands between 40-80 hectares in size and 20-30% of the stands between 80 to 250 hectares in size.
 - ii. Recent publications indicate that the NDT4 distribution may be simplistic and that the Rocky Mountain Trench may be a complex of mixed and low intensity fire regimes (RW Gray 2008; Blackwell et al, 2003) and that stand replacement patches may be much smaller than suggested by the biodiversity guidebook (Hessburg, et al 2007).
 - iii. Recent studies in the Rocky Mountain Trench point to the open forest being created by the Ecosystem Restoration program is similar to the naturally occurring forests in the Trench (Gray 2001, Gray et al, 2002, Gray et al, 2004, Gray and Daniels, 2007, Gray, 2009, Stuart-Smith and Hendry, 1988).
 - iv. The natural distribution is obscured by logging in the 1920's through 1970's, large fires in the 1930's, Christmas Tree Permit development from 1940's to the present as well as Douglas fir in growth and encroachment over the last 70 years. A base pattern and distribution must be researched and agreed to.
 - d. **Monitoring:** This is a strategic landscape level analysis required every 5 years. Strong suggestion that ILMB and Ecosystem Restoration program co-operate to carry this out.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

7. WILDLIFE TREES (WT):

Objective:

1. Increase or maintain the density and sizes of wildlife trees in treated areas.
 - a. **Legal Direction:** Forest and Range Practices Act 149 (1) and Forest Planning and Practices Regulation section 9.1 and 66. Section 66 requires to maintain 7% stand in Wildlife Tree Patch (WTP).
 - b. **Measurable:** Treatment will maintain or recruit 2 to 10 wildlife trees (over 30cm DBH, 40cm preferred) per hectare through out treatment cycle on open forest treated area. Tree species in descending order of preference are Ponderosa Pine, Western Larch, Douglas-fir, Trembling Aspen and Black Cottonwood (the latter if available).
 - c. **Measurable:** Recruited patches of snags and live trees will be in patches of .1 to 1.0 hectares rather than even distribution so as to approximate the natural occurrence of snags after a wildfire.
 - d. **Measurable:** The Ecosystem Restoration program shall maintain a Wildlife tree (WT) and WTP tracking layer as a feature class in the fmer database.
 - e. **Discussion**
 - i. The overstory retention of the Ecosystem Restoration program meets the retention of live green trees required by Section 66 of Forest Planning and Practices Regulation Ecosystem Restoration should meet the intent of Wildlife Tree retention as the trees reserved in Open Forests will be maintained and added to over the 100 year rotation of the stand to maintain 76 to 400stems per hectare. As well trees in Open Range Treatment Units will never be harvested. These trees must be live trees; the issue for Ecosystem Restoration to meet is to provide and recruit the snags required for cavity nesters and other wildlife
 - ii. Ecosystem Restoration program will set aside untreated areas or multi layered stand for site specific tied to a specific species or habitat need. There will be reserves set aside at the landscape level to reflect untreatable ground, Flammulated owl habitat, goshawk nests and riparian areas, but this figure is not likely to average out at 7% at the stand, but will be estimated at the Restoration Unit level. Some stands may require thinning from beneath to protect the entire stand from burning in a prescribed fire. This will be rationalised at stand level.
- e. **Retention strategies**
 - i. The actual retention of snags and wildlife trees shall be documented by the Ecosystem Restoration program with landscape and stand level set asides recorded and mapped and the recording of stand structure retained after a broadcast burn is completed. A shortage of retention in one treatment due to windthrow or beetles shall be addressed by heavier retentions in remaining forests.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

- ii. All prescribers and contractors are required to note and work around high value wildlife trees and protect them with a no work zone.
- iii. All Ecosystem Restoration prescriptions shall survey or inspect the treatment area prior to treatment to identify and ribbon out patches and trees with features important to cavity nesters. (see iv below) These features shall be recorded, the patches GPSd and protection or recruitment strategies specified in the prescription. Areas of good WTs or relatively dense snags should be prescribed as a WTP and ribboned out and protected during mechanical treatments. Location and boundaries should consider long term retention of the WTP with boundaries that can be easily defended during maintenance burns. The best location for a fire proof WTP would be 100 metres from south end of a burn, on the wet side of a burn (winds are generally prevailing from south an west) or on dry light fuel ridges or guarded by riparian areas or road systems. High value trees are to be retained wherever they are found, and protection strategies specified.
- iv. Use tree species recommendations in Cooper et al 2004 when targeting WT retention or recruitment towards any Species at risk. Treatment should provide for future WT recruitment by leaving patches of the largest diameter stems available in the stand. The general high value trees to retain are:
 - i. Large diameter decay class 3-5 wildlife trees
 - ii. Trees with the presence of cavities, dead trees with broken tops, evidence of internal decay and largest available diameter classes (Machmer 2002)
 - iii. Reserve all class 1 to 5 wildlife trees with pileated woodpecker excavated holes.
 - iv. Large diameter thick bark Douglas-fir with thin crowned poor form “woffy” trees with large branches and the bright yellow lichen *Letharia vulpina* growing on their stems and branches.
 - v. Smaller diameter Douglas-fir and Ponderosa pine should be conserved for growth into future WTs in all areas.
 - vi. Large senescent or dead top Ponderosa Pine should be reserved from harvest or cutting. With thick bark, they are relatively resistant to fire and can provide wildlife habitat for decades. Specifically protect trees >30cm DBH with flat red bark. See OGMA section for references.

f. Burning Considerations

- i. Large diameter decay class 3-5 wildlife trees that lack intact bark on the lower portions of the bole are particularly susceptible to prescribed burning. These wildlife trees, especially those with existing cavities, should be protected during burning by raking duff and flammables away from the base of the tree, leaving a protective green curtain of younger stems to absorb the heat or by guarding the WTP.
- ii. Burn boss can avoid a heavier burn in rich areas of WTs by dropping less Aerial Ignition Device (AID) balls near the WTP, back burning or black lining the boundary or reducing fuel adjacent to the WTP before light up by screefing light fuels away from the base.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

- iii. As a last resort (due to high treatment costs and access issues), foaming or wetting down high-value individual WTs might protect these ecological assets. Wrapping the tree in metal foil does not greatly increase the wildlife tree's ability to survive a prescribed burn (Gray, 2004, Gray, Blackwell, 2002)

g. Recruitment Strategies

- i. In a shortage of snags following harvest or slashing about 5 to 10 stems/ha of a merchantable size should be planned to be converted to snags by piling debris against them, ringing or damaging the tree or igniting them during the prescribed burn. Inoculating the trees with a fungus is a more sure way of producing a high value wildlife tree (Manning, 2008). Snags produced by inoculation take longer to form but may stand longer and will be planned for in specific areas where a need for them is identified.
- ii. It is important to plan for the recruitment of snags by estimating the lifespan of wildlife trees. Evidence from American reports suggests tree can rot from standing dead to decay stage 5 (equivalent of Canadian decay class 9) using following formulas (Cline 1980 as reported in Everett et al 1988). Report was based on retrospective study of 81 fires in Oregon state dry forest belt. The following formulas should be used to predict a snag shortfall on a restoration unit and a plan evolved to bridge "gaps" in the spacing or timing of snags in the restoration unit.
 - i. Douglas-fir years to decay state = $(-2.052 + 2.2431 * (\text{decay state}))^2$
 - ii. Ponderosa pine is Years to decay class = $(-0.988 + 1.9325 * (\text{decay state}))^2$

h. Monitoring protocol

- iii. Effectiveness Monitoring: Wildlife tree, species composition, diameter and density shall be monitored as per the Pandion 2002 report. The longevity and deterioration rates of snags should also be investigated.
- iv. Routine Monitoring: Wildlife trees and snags are to be noted in all post burn and mechanical treatment surveys. Wildlife trees and WTP set asides are to be tracked in prescriptions and as an ARCVIEW mapping layer. Layer and database are defined in fimer Version 3.2 geodatabase.

8. COARSE WOODY DEBRIS (CWD):

Objective:

- 1) Maintain a naturally occurring level of large sized (>30cm diameter) CWD in treated areas.
 - a) **Legal Reference:** Forest and Range Practices Act 149 (1) and Forest Planning and Practices Regulation section 9.1 and 68. Section 68 requires 4logs /ha > 5 metres long, 7.5cm diameter at small end
 - b) **Measurable:** Maintain and recruit 3 cubic metres of CWD (over 30cm DBH and all rot stages not just sawlog grade) per hectare through out treatment cycle on the treated area. Number and distribution shall, at least, meet minimums set by FPPR namely as minimum of 4 logs per hectare, greater than 5 metres long and 7.5cm diameter at small end.
 - c) **Discussion**
 - i) The life span of CWD in the dry interior is not firmly known but Douglas fir of >30cm DBH appears to cycle from CWD decay Class 1 to 5 in a 15 to 25 year cycle. This should be considered when planning CWD recruitment. It's anticipated that prescribed burns will be prescribed about every 15 to 25 years; CWD should be recruited on every prescribed burn pass.
 - ii) Evidence from American reports suggests tree can rot from standing dead to decay stage 5 (equivalent of Canadian decay class 5) using following formulas (Cline 1980 as reported in Everett et al 1988). Report was based on retrospective study of 81 fires in Oregon state dry forest belt. These formulas should be used to estimate the lifespan of existing CWD and to plan the recruitment of more.
 - (1) Douglas-fir years to decay state = $(-0.102 + 1.99949 * (\text{decay state}))^2$
 - (2) Ponderosa pine is years to decay class = $(-.075 + 1.5254 * (\text{decay state}))^2$
 - iii) It is almost impossible to protect soft wood snags (WT class 4 to 9) or coarse woody debris (CWD class 3 to 5) through even a light intensity maintenance burn. Soft wood must be recruited continuously between burns. Use above numbers as a guide.
 - d) **Monitoring protocol**
 - i) Effectiveness Monitoring: CWD composition and density shall be monitored as per the Pandion 2002 report. The longevity and deterioration rates of CWD should also be investigated further than this protocol (Pandion 2002) requires. The natural occurring amount of CWD needs to be more firmly established.
 - ii) Routine Monitoring: Photo plots will be re-examined for CWD retention and deterioration during subsequent visits. The fuel management plots and FIREMON and FMA photo guides described in the Routine Monitoring protocol needs to be followed and expanded to allow CWD to be estimated by prescribers. Estimates to be compared before and after treatments.

9. WILDLIFE SPECIES AT RISK

Objective:

3. Maintain or increase the species richness and population density of endemic wildlife species in treated areas; with special emphasis in species listed as being red or blue listed by the Conservation Data Centre (CDC).
 - a. **Legal Reference:** Section 149.1 FRPA, Section 7 Forest Planning and Practices Regulation section 7, Government Action Regulation (GAR) Section 13, Wildlife Habitat Area (WHA) Orders (see attached table) and Wildlife Habitat Features (WHF) (none to date). Objective 3 (Caribou) Objective 5 (Grizzly Bear and Connectivity Corridors)
 - b. **Measurable;** Prior to any Ecosystem Restoration prescription being prepared the prescriber shall check the CDC database for occurrence of red and blue listed species and the Ministry of Environment website for WHAs in the area prescribed for treatment. Prescriptions shall be consistent with the General Wildlife Measures contained in the WHA orders.
 - c. **Measurable;** All Prescriptions with WHA shall be referred to ecologists and biologists knowledgeable in the species of concern for comment and recommendation. All prescriptions prepared shall be reviewed by a biologist either under hire or through government.
 - d. **Discussion;**
 - i. The Ecosystem Restoration Program doesn't manage wildlife populations nor have the mandate to complete the full inventories to effectively measure this objective. The measures described for overstory, understory, riparian and stand level biodiversity should be treated as coarse filter measures to manage for the species listed in table #4. Fine filter measures such as ground and call back surveys in areas of known and confirmed red and blue-listed species shall be carried out when necessary.
 - ii. These plans and prescriptions are reviewed at various levels by the Ministry of Environment Species at Risk Specialist. The opportunity to carry out more detailed monitoring or surveys for Species at Risk should be assessed at an annual basis and practicable or funded opportunities taken with the results fed back into the Ecosystem Restoration program.
 - iii. The list of species at risk in the Rocky Mountain Trench is attached. The Best management Practices prescribed by *Cooper, J.M., C. Steeger, S.M. Beauchesne, M. Machmer, L. Atwood and E.T. Manning. 2004. Habitat attribute targets for red and blue listed wildlife species and plant community conservation* and various Ministry of Environment publications (specifically the Identified Wildlife Accounts and Measures documents), shall be considered prior to submission for review by a biologist.
 - iv. Prescribers and administrators of the Ecosystem Restoration Program shall report unusual habitat features or wildlife sightings to Team Leader Ecosystem Restoration or contract administrator. These unusual habitat features or wildlife sightings will be discussed with Ministry of

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Environment (Ministry of Environment) in case there is a need for changes in operations, practices or monitoring protocols.

- v. As yet no wildlife features have been identified through a Government Actions Regulation. Should the Ecosystem Restoration program find any in the field management will be prescribed for it with guidance from a biologist and *Wildlife Habitat Features Summary of Management Guidelines, Southern Interior Forest Region* (Ministry of Water, Land and Air Protection, 2004).
 - vi. A draft Memorandum of Understanding regarding the management of the Dutch Findlay Range Unit has recently been negotiated between the Ecosystem restoration Program, the Nature Conservancy of Canada, the Nature Trust of Canada and Thunder hill Ranch. This may become the first of several memoranda to set up joint management of large landscape areas between land owners. A specific goal of this program is to retain and develop habitat for Lewis' Woodpecker through open forests and Snag creation. Several more areas could benefit from similar management as this. Table 3.9.2 lists possible Lewis' Woodpecker Areas areas
- d. Monitoring:**
- i. Effectiveness Monitoring. Monitoring for red and blue-listed species shall be as per the Pandion 2002 report with extra monitoring for yellow badger and Bighorn sheep in areas of known habitat use as per Page 2006. Habitat reports by Nancy Newhouse (Newhouse 2006) shall be incorporated into monitoring strategies.
 - ii. Routine Monitoring: All practitioners and prescribers on site shall report wildlife sightings to Team Leader Ecosystem Restoration who will forward the information to the CDC.

Table 3.9.1 List of potential Lewis' Woodpecker Management Units (areas of Crown Land)

Management Unit	Range Units	Pasture	Estimated Area (ha)
Dutch Findlay	Dutch Findlay/ Findlay Basin	Spur, Sun, Thunder/ Stinky Saddle	4500
Gold Creek	Gold-Plumbob/ Newgate	Wakefield, Gorrie, Hansen East, Hansen West/ Ash Fire, Alkali, Burlott's, Sharptail, Demers	3700
Elko-Highway 95	Waldo	Burnt Bottom, Sheep Mtn South, Sheep Mtn North, Cutts, Airport, Fusee East, Fusee West	2500
St Mary's Prairie	St Mary's Prairie	Rouse, Artesian Springs, Deep Springs, Sheep Camp, Pine Butte	1650
Grasmere	Grasmere	AI, Bagley's Seeding, Bagley	1450

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Table 3.9.2 List of Red Blue listed wildlife species for Rocky Mtn Trench as recommended June 2007 by Conservation Data centre

Scientific Name	English Name	RISC Code	BC Status	SA RA	Nest/Den	Foraging	Guidelines	WHA?
Amphibians								
<i>Ascaphus montanus</i>	Rocky Mountain Tailed Frog	A-ASMO	Red	1	aquatic/ Riparian, fast clean streams	aquatic/ Riparian, fast streams	BMP for Coastal	WHA-4-046-063
<i>Plethodon idahoensis</i>	Coeur d'Alene Salamander	A-PLID	Blue	1				
<i>Rana pipiens</i>	Northern Leopard Frog	A-RAPI	Red	1	Aquatic, Riparian, wetlands	Aquatic, Riparian, wetlands		
Birds								
<i>Botaurus lentiginosus</i>	American Bittern	B-AMBI	Blue		Riparian, marshes, cattail, emergent vegetation			
<i>Hirundo rustica</i>	Barn Swallow	B-BASW	Blue		Mud nests in overhangs, buildings	Open meadows fields, farmland		
<i>Dolichonyx oryzivorus</i>	Bobolink	B-BOBO	Blue			Pasture and farmland		
<i>Spizella breweri breweri</i>	Brewer's Sparrow, <i>breweri</i> subspecies	B-BRSP-BR	Red			Open forest and brush	BMP	
<i>Athene cunicularia</i>	Burrowing Owl	B-BUOW	Red	1	Badger dens		BMP	
<i>Buteo platypterus</i>	Broad-winged Hawk	B-BWHA	Blue					
<i>Otus flammeolus</i>	Flammulated Owl	B-FLOW	Blue	1	Cavity nester, multi layered closed forest		Cooper et al, 2004, BMP	WHA-4-077-085 and 099-101
<i>Ardea herodias herodias</i>	Great Blue heron, <i>herodias</i> subspecies	B-GBHE-HE	Blue		Rookeries	Aquatic, Riparian, wetlands	BMP	

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

<i>Numenius americanus</i>	Long-billed Curlew	B-LBCU	Blue	1	Open Grasslands	Open grasslands	Cooper et al, 2004, BMP	WHA-4-065-075
<i>Ammodramus leconteii</i>	Le Conte's Sparrow	B-LCSP	Blue					
<i>Melanerpes lewis</i>	Lewis's Woodpecker	B-LEWO	Red	1	Cavity nester Open Forests	Open Forests, feeds on the wing	Cooper et al, 2004, BMP	WHA-4-001, 002,086,087
<i>Grus canadensis</i>	Sandhill Crane	B-SACR	Blue		Ground nest riparian areas	Feeds riparian areas, meadows, fields, wetlands, lakes	BMP	
<i>Asio flammeus</i>	Short-eared Owl	B-SEOW	Blue	3	Cavity nester		BMP	
<i>Tympanuchus phasianellus columbianus</i>	Sharp-tailed Grouse, <i>columbianus</i> subspecies	B-STGR-CO	Blue			Open grasslands	Cooper et al, 2004, BMP	
<i>Sphyrapicus thyroideus nataliae</i>	Williamson's sapsucker, <i>nataliae</i> subspecies	B-WISA-NA	Red	1	Cavity nester, closed forest?	Insectivore, closed forest?	Cooper et al, 2004, BMP	
<i>Megascops kennicottii macfarlanei</i>	Western Screech-Owl, <i>macfarlanei</i> subspecies	B-WSOW-MA	Red	1	Cavity Nester		BMP	Proposed Gold Creek
<i>Fish</i>								
<i>Acrocheilus alutaceus</i>	Chiselmouth	F-ACAL	Blue					
<i>Oncorhynchus clarkii lewisi</i>	Cutthroat Trout, <i>lewisi</i> subspecies	F-ONCL-LE	Blue		pea gravel or better, clean substrate highly oxygenated	Fast clear streams	BMP	
<i>Salvelinus confluentus</i>	Bull Trout	F-SACO	Blue		pea gravel or better, clean substrate highly oxygenated	Fast clear streams	BMP	

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

<i>Mammals</i>								
<i>Corynorhinus townsendii</i>	Townsend's Big-eared Bat	M-COTO	Blue		Loose bark, Cavities Wildlife trees	Insectivore on the wing	BMP	
<i>Gulo gulo luscus</i>	Wolverine, <i>luscus</i> subspecies	M-GUGU-LU	Blue				BMP	
<i>Martes pennanti</i>	Fisher	M-MAPE	Blue				BMP	
<i>Ovis canadensis</i>	Bighorn Sheep	M-OVCA	Blue		Open forests with escape habitat	Open range/ Forest, escape habitat	Cooper et al, 2004, BMP	
<i>Taxidea taxus</i>	Badger	M-TATA	Red	1	Subterranean, grasslands	Grasslands; ground squirrel areas, sandy light soils	Cooper et al, 2004, BMP	WHA-4-088- 092, 102, 103
<i>Ursus arctos</i>	Grizzly Bear	M-URAR	Blue		Sub alpine Krummholtz		BMP	
<i>Reptiles</i>								
<i>Chrysemys picta pop. 2</i>	Western Painted Turtle - Intermountain - Rocky Mountain Population		Blue		Sandy soils; open forest, clear of shrubs	Aquatic	BMP	

NB since the publication Cooper et al 2003 (JM Cooper, C Steeger, SM Beauchesne, M Machmer, L Atwood, ET Manning, 2003 Habitat Attributes Targets for Red and Blue Listed Species and Plant Community Conservation, Columbia Basin Fish and Wildlife conservation Program

The following species have been delisted for consideration for management in Rocky Mountain District by the Conservation Data Centre: Northern goshawk, white headed woodpecker, Consider adding Common Night hawk

10. RARE PLANT SPECIES AND ECOLOGICAL COMMUNITIES AT RISK

Objective:

1. Maintain or increase the species richness and population density of endemic plant species in treated areas.
 - a. **Legal Reference:** Forest and Range Practices Act Section 149.1, Forest Planning and Practices Regulation , Section 7, Government Action Regulation Section 13, WHAs in process
 - b. **Measurables;** Prior to any Ecosystem Restoration prescription being prepared the prescriber shall check the CDC database for occurrence of red and blue listed plants or Ecological Communities in the area prescribed for treatment.
 - c. **Measurable:** Should the 6 red and blue listed plant communities (now known as Ecological Communities) described in Cooper et al. (2004) be found on site, the prescriber shall use guidance contained in Cooper et al. while developing the prescription.
 - d. **Discussion;**
 - i. The Ecosystem Restoration Program doesn't have the mandate to complete the full inventories to effectively measure this objective. The measures described for overstory, understory, riparian and stand level biodiversity should be treated as coarse filter measures to manage for these plants and communities. Fine filter measurables such as biologic investigation of known confirmed red and blue listed plants and ecological communities shall be considered.
 - ii. The list of species and plant communities (now known as ecological communities) at risk in the Rocky Mountain Trench is found in Cooper et al. (2004). Cooper et al's report expands on the ecological community information contained in the CDC lists.
 - iii. Prescribers and administrators of the Ecosystem Restoration Program shall report unusual plant and ecological community sightings to Team Leader Ecosystem Restoration or the contract administrator. These sightings will be discussed with the NDT4 Operations Committee in case there is a need for changes in operations, practices, or monitoring protocols.
 - e. **Monitoring:**
 - i. Effectiveness Monitoring for red and blue-listed plant and ecological communities shall be as per the Pandion 2002 report
 - ii. Routine Monitoring: All practitioners and prescribers on site shall report plant sightings to Team leader Ecosystem Restoration who will forward the information to Conservation Data Centre.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Table 3.10.1 List of Plant Communities (now called Ecological Communities) found in Rocky Mountain Forest District. List is based on Conservation Data Centre list and is found in Cooper, J.M., C. Steeger, S .M. Beauchesne, M . Machmer, L . Atwood and E.T. Manning. 2004. Habitat attribute targets for red and blue listed wildlife species and plant community conservation.

Plant community	Usually occurs in BEC sub zone/ Variant/ site series	Ecosystem Restoration treatment usually acceptable
Douglas-fir/ Snowberry/ balsamroot	IDFdm2/03	Cool fire
Antelope brush/ blue bunch wheatgrass	IDFdm2/02 PPdh2/00	Cool fire
Western snowberry- Idaho fescue	IDFdm2/00	No prescribed fire, Idaho fescue not resistant
Blue bunch wheatgrass junegrass	IDFuu/00 PPdh2/02a; PPdh2/02b	Cool fire
Douglas fir Larch- spruce/ pinegrass	IDFdm2/04	Fire interval 90-150 years
Ponderosa pine trembling aspen/ rose /Solomon's Seal	PPdh2/03	Cool fire
Ponderosa pine/ bluebunch wheatgrass- lupine	PPdh2/01	Cool fire

11. UNGULATES:

Objective:

1. Maintain or increase the species richness and population density of endemic wildlife species in treated areas;

- a. **Legal References:** FPRA 149 (1) Forest Planning and Practices Regulation Section 7, Ungulate Winter Range (UWR) Orders U-006 (Cranbrook TSA) and U-008 (Invermere TSA)
- b. **Measurables** The Ecosystem Restoration program shall follow the direction of : Ungulate Winter Range (UWR) Orders U-006 (Cranbrook TSA) and U-008 (Invermere TSA)
- c. **Discussion**
 - i. For the NDT4 area the Ungulate Winter Range Order prescribes Open Range and Open Forest stands which closely resemble the Timber measurable guidelines already mentioned.
 - ii. Ministry of Environment shall give direction to all prescriptions covering the UWR. They shall also specify which Range Units require Bighorn sheep visibility protocols at the 5 year plan stage.
 - iii. Note that the UWR specifies that tree retention shall include 5-20 trees /ha in Open Range sites 1/3 of which must be in the largest diameter range. Further it specifies 76 to 400 stems per hectare to be retained on site with a target of 250 stems /ha in Open Forest types. Further 20 to 50 trees/ha of shall be from the largest diameter range in open forest types. This varies from the Blue Print for Action.
 - iv. The UWR order provision for larger diameter trees shall prevail when numbers of trees on site are low and the retention rate specified in the Blue Print for Action would fall below 5-20 (Open Range) or 20-50 (Open Forest) large stems per hectare.
 - v. Remaining tree cover retention requirements are not placed on Open Range and Open Forest but the division of the land base into Open Range, Managed Forest and Open Forest based on site series is recommended for field procedures. (see objective 1 Timber)
- d. **Monitoring protocol**
 - i. **Effectiveness monitoring** as per Pandion 2002. Bighorn sheep shall require extra monitoring as the addition of the bighorn sheep visibility monitoring protocol shown in Page 2006.
 - ii. **Routine Monitoring** Ungulate use of the site is to be qualitatively estimated when the prescription is being prepared as well as during and after the slashing and burning stages. The bighorn sheep visibility protocol shall be measured at the prescription, slashing and burn stages as per Page 2006.

12. FOREST HEALTH:

Objective:

1. Reduce the incidence of insect and disease incidence and spread in the treated stands.
 - a. **Legal Reference:** Forest Planning and Practices Regulation 41-46.2
 - b. **Measurable:** Keep root rot incidence to less than 8% of stand affected based on ocular estimates undertaken during routine monitoring surveys of the Ecosystem Restoration blocks.
 - c. **Measurable:** Action 50% of all Mountain Pine Beetle infestations within one year of detection, as per the Cranbrook and Invermere Timber Supply Area Forest Health Strategy. Action may not necessarily be taken by Ecosystem Restoration program due to forest licensing constraints.
 - d. **Discussion:**
 - i. Reducing stand densities to historic levels will over all improve the health of the stands.
 - ii. Ministry of Forests and Range does carry out a district wide detection program for all insects and diseases. Small scale salvage or major licensees are typically tasked with harvesting the infestations. The Ministry of Forests Forest Health program deals with other infestations by single tree disposal, lethal funnel traps or trap tree programs dependant on funding levels. Note that as per government policy all forest activities in Rocky Mountain Forest District must follow the approved Forest Health Strategies for both Invermere and Cranbrook TSAs. Currently this strategy (Ministry of Forests and Range 2009a and 2009b) calls for action on
 1. Mountain pine beetle,
 2. Douglas fir bark beetle
 3. armillaria root rot
 4. Dwarf mistletoe,
 5. commandra blister rust,
 6. western gall rust,
 7. northern twig pitch moth and
 8. sequoia pitch moth
 - iii. The Ecosystem Restoration Program will participate in the district forest health effort and report forest health concerns discovered by the monitoring actions of the Ecosystem Restoration Program will be reported to the forest health officer. Infestations that can be controlled by the slashing and burning actions of the Ecosystem Restoration Program will be carried out. Forest Health concerns will be considered in all Ecosystem Restoration prescriptions..
 - iv. The Rocky Mountain Trench is regarding by the TSA Forest Health Strategy (Ministry of Forests and Range 2009a and 2009b) as being a “holding” Beetle Management Unit due to the low

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

amount of Mtn Pine beetle in the Trench. Aggressive control action is called for. The Rocky Mountain Forest District is covered by the Emergency Bark Beetle regulation and priority there is placed on suppressing the bark beetles in areas adjacent to the Alberta border so as to avoid the spread of Mtn Pine beetle across the Rocky Mountains. Note as per table 3.4 the bark beetle epidemic is expected to peak in the Rocky Mountain Trench in 2010 and 2011.

Table 3.12.1 Observed (2004 – 2006) and projected (2007 – 2011) annual **green-attack** volume (millions m³) for the 22 “pine units” (peak year of kill is highlighted by an outlined box). Note that the mortality caused by MPB (green-attack) occurs in the year prior to that in which it is observed by the Provincial Aerial Overview of Forest Health (observed as red-attack). From Walton et al 2004

Pine Unit	Year							
	2004	2005	2006	2007	2008	2009	2010	2011
Vanderhoof (District)	25.0	7.2	3.9	2.0	0.9	0.4	0.2	0.2
Quesnel	23.8	11.7	5.1	1.7	0.5	0.2	0.1	0.1
Lakes	15.0	9.9	6.2	3.4	1.4	0.7	0.3	0.2
Prince George (District)	12.5	8.3	7.7	3.3	1.8	1.0	0.6	0.4
Williams Lake	19.4	20.8	17.5	12.9	8.6	5.0	2.7	1.3
100 Mile House	8.6	18.0	7.1	2.7	1.3	0.7	0.4	0.3
Kamloops	6.0	9.1	6.8	5.1	3.9	2.7	1.8	1.2
Ft. St. James (District)	10.7	8.9	14.7	10.8	9.3	7.7	6.3	4.5
Morice	3.7	6.4	5.8	6.5	6.0	4.3	2.7	1.6
Lillooet	0.4	0.9	1.2	2.2	2.9	2.7	2.0	1.3
Merritt	1.3	2.5	3.9	6.1	7.8	8.3	6.7	4.6
Dawson Creek	0.0	0.1	2.7	3.4	4.3	4.6	3.6	2.3
Bulkley	0.1	0.1	0.2	0.6	1.5	2.2	2.1	1.5
Robson Valley	0.1	0.2	0.3	0.4	0.6	0.7	0.6	0.4
Arrow	0.5	0.6	0.2	0.3	0.6	0.8	0.8	0.6
Mackenzie	0.6	2.1	4.8	5.5	7.9	11.6	14.2	13.5
Okanagan	1.0	1.4	1.7	2.6	4.5	6.3	6.6	5.6
Invermere	0.2	0.3	0.2	0.3	0.7	1.1	1.3	1.1
Golden	0.2	0.3	0.1	0.1	0.2	0.4	0.5	0.5
Cranbrook	0.6	0.5	0.2	0.4	0.8	1.9	2.9	3.5
Boundary	0.1	0.2	0.1	0.2	0.6	1.3	2.0	2.1
Kootenay Lake	0.3	0.4	0.2	0.4	0.7	1.1	1.4	1.5
Grand Total	130.3	109.8	90.5	70.8	66.7	65.5	59.9	48.1

- v. The Nelson Forest Region policy (Norris et al 1998) directs operators to stump and take aggressive action on Armillaria root rot areas. The Ecosystem Restoration Program does promote a

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

“gappy forest” with a significant wildlife tree component that Armillaria can facilitate (Steeger, Machmer 1995). Much of the NDT4 operating area is on sensitive calcareous soils that can be degraded by stumping (Curran et al 2000). As well, with its decreased volume expectation, the Ecosystem Restoration Program will not take aggressive action as well on root rot pockets. If an ocular estimate at the time of prescription shows the root rot infestation to affect less than 8% of the stand the Ecosystem Restoration Program will prescribe to leave root rot pockets to create as wildlife tree patches but slash the area outside the safe work zone to avoid spread. If the ocular estimate places the root rot level above 8% the Ecosystem Restoration Program shall clear and burn off the root rot centres and burn the site to keep them clear of growing trees for 20 years so as to diminish the root rot infestation.

- vi. Dwarf mistletoe, commandra blister rust, western gall rust, northern twig pitch moth and sequoia pitch moth in lodgepole pine are serious forest health concerns in the Rocky Mountain Forest District. Lodgepole pine is a minor stand component in the NDT4 operations area. The standard practice of the Ecosystem Restoration treatment regime is to slash this species to the ground or prescribe fire which should lead to the death of any remaining lodgepole pine trees. As such the Ecosystem Restoration Program will note the occurrence of these diseases and follow its normal treatment prescription.
 - vii. Rhizina root rot and black army cutworm have also been reported in the district and they do follow forest fires. So far their occurrence has only been on pine and white spruce plantations in the ESSF ad ICH biogeoclimatic zones; not in the IDF and PP zones where the Ecosystem Restoration program operates (Ministry of Forests and Range 2009a and 2009b). If found they will be reported and dealt with.
 - viii. So far Douglas fir and western pine beetle are in low levels of infestation in the Rocky Mountain Trench. As these trees specifically attack the Douglas fir and Ponderosa Pine forests that the Ecosystem Restoration Program manages for, the Ecosystem Restoration Program will take aggressive control action such as accelerated thinning, funnel traps or trap trees (dependant on funding levels) should the incidence of these pests increase.
- e. **Monitoring protocol**
- i. Effectiveness Monitoring Forest health shall be monitored as per Pandion 2002 report
 - ii. Routine Monitoring: Photo plots will be re-examined for forest health issues during subsequent visits and during all surveys of the treatment areas. The Ecosystem Restoration Program will participate in district bark beetle detection and suppression program.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

13. INVASIVE PLANTS:

Objective:

1. Minimise the establishment and spread of priority non-native invasive plant species, particularly noxious species, in treated areas. Priority species are determined through collaboration with the East Kootenay Invasive Plant Program Committee.

a. Legal Reference: Forest and Range Practices Act Section 47 and Weed Control Act

b. Measurable: Invasive plant infestations of priority species should not increase from those recorded by the Ministry of Forests and Range, Range Branch for the Range Unit being treated. The Invasive Alien Plants (AIP) application website shall be consulted prior to the writing of any prescription and the invasive plant species found on site shall be noted and a map of all infestations forwarded to the East Kootenay Invasive Plant Program Committee (or its successor). See website:

<http://www.for.gov.bc.ca/hfp/invasive/index.htm>

c. Measurable: Ecosystem Restoration program shall prescribe treatment for invasive plant infestations in the Ecosystem Restoration Prescription.

d. Discussion:

- ii. Management shall follow Table 6: Synopsis of Invasive plants and Management Implications for Ecosystem Restoration Program in Rocky Mountain Forest District (per Val Miller 2007)
- iii. Bare soil exposed for fireguards shall be reseeded immediately following burn activity or at the next available seeding window, which ever is less. A suitable forage mixture composed of the species listed in Table 3.5 Seeding rate is 12 to 20 kilograms per hectare. This mix is designed to be non persistent, erosion controlling, fast growing to decrease the invasive plant establishment and provide good fuel bed for subsequent fires. It is to a nurse crop for longer term recovery of native grasses.

Table 3.13.1 The Rocky Mountain Forest District preferred grass seed mix a Fescue blend with annual and perennial ryegrass.

Species	% by Weight	% by Species
Slender Wheatgrass	35%	21%
Perennial Ryegrass	25%	23%
Annual Ryegrass	20%	16%
Rocky mountain Fescue	10%	19%
Hard Fescue	10%	21%

- iv. The mix in table 3.5 shall also be used in areas of high conservation value and low risk to invasive plant infestations. Note that native species have a very low germination rate so that higher seeding rates of natives or planting of native grass seedling plugs may be in order if naïve seeding is prescribed.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

- v. Prescribed burn areas will be assessed after the fire to see if grass seeding is required.
- vi. Areas proposed for prescribed burns that have large incidence of invasive weeds shall be considered for sloop or pile burning and shall be grass seeded or planted with native grass seed plugs immediately following burn activity or at the next available seeding window, which ever is less.
- vii. More detailed description of plant response to fire can be found at In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer). Available: <http://www.fs.fed.us/database/feis/>.

Table 3.13.2: Synopsis of Invasive plants and Management Implications for Ecosystem Restoration Program in Rocky Mountain Forest District (per Val Miller 2007)

Plant Species	Management Option	Response to Logging or Thinning	Response to Prescribed Burn
Blue weed	Chemical spray: Tordon, Grazon – must treat early in spring (pre-bolt is best), or in fall.	Increase expected through introduction to site by equipment (graders, skidders). Tap-rooted species that spreads by heavy seed.	Unknown - more research is needed.
Common Tansy (<i>Tanacetum vulgare</i>)	Chemical spray: Escort	Readily increases along road systems and skid trails. Spreads by seed.	Unknown – more research is needed.
Dalmatian toadflax (<i>Linaria dalmatica</i>)	High success rate with biological control agents, although some delay in success on colder sites. Do not rule out chemical spray (Tordon with a surfactant) on small infestation patches	Expect rapid or explosive growth response. Spreads by rhizomes and seed.	Explosive growth of new seedlings onto exposed mineral soil
Diffuse knapweed (<i>Centaurea diffusa</i>)	Chemical spray: Milestone, Transline Biological Control: numerous bioagents available – good success on hot, dry sites. Use in areas in East Kootenay where herbicides are not a viable option.	Expect moderate increase if seed source present, exposed soil evident, and canopy is removed. Spreads by seed.	More research is needed. Low severity fires will likely not impact plants or seed bank.
Hoary Alyssum (<i>Berteroa incana</i>)	Chemical spray: Dyvel DS, Banvel II, 2,4-D amine. Must be treated early in the season.	Expect Dramatic increase in plant density and distribution if established populations are disturbed while in seed. Shallow rooted annual to short-lived perennial. Spreads by heavy seed – prolific seed producer over an extended period of time.	Unknown – more research is needed.
Hounds tongue (<i>Cynoglossum officinale</i>)	High success with biological agent <i>Mogolones cruciger</i>	Expect Significant increase on landings, burn piles, and exposed mineral soil sites.	Initial increase if seed source previously on site or close by. Potential to resprout from root crowns. More research is needed.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Leafy Spurge (<i>Euphorbia esula</i>)	Chemical spray: Tordon, Grazon	Expect dramatic increase in plant density and distribution as a result of disturbance. Deep rooted species that readily resprouts and spreads by rhizomes.	Plants will likely resprout from root crown, taking full advantage of increased availability of nitrogen.
Orange Hawkweed (<i>Hieracium aurantiacum</i>)	Chemical spray: Milestone, Transline – most effective when used with surfactant and N fertilization	Expect explosive increase if seed source present or nearby, or if established plants disturbed by equipment. Spreads by seeds, rhizomes, stolons, adventitious root buds. Slower to establish and spread on extremely dry sites.	Unknown – assume ready colonization due to windborne seed. More research is needed.
Rush Skeletonweed (<i>Chondrilla juncea</i>)	Chemical spray: Tordon; Transline (only gives partial control).	Expect significant increase in population following ground disturbance. Spreads by windborne seed and root fragments; a deep rooted plant that can resprout from 1 m depth.	Unknown - Plants will readily resprout from deep root system. Likely to spread into burned areas via windborne seed if seed source nearby. Research is needed.
Spotted knapweed (<i>Centaurea biebersteinii</i>)	Chemical spray: Milestone, Transline Biological Control: numerous bioagents available – good success on hot, dry sites. Use in areas in East Kootenay where herbicides are not a viable option.	Expect moderate to significant increase if seed source present, exposed soil evident, and canopy removed. Spreads by seed.	Significant increase in plant density, distribution and vigour. Low severity fires provide limited impact to plants or seed bank. Seeds may not be affected by higher intensity fires.
Sulphur Cinquefoil (<i>Potentilla recta</i>)	Chemical spray: Milestone	Expect moderate rate of response dependant upon level of disturbance, existing seed source, and amount of shading. Spreads by seed.	Rapid expansion and dense colonization
Yellow, non-native Hawkweeds (<i>Hieracium piloselloides</i> , <i>H. flagellare</i> , <i>H. floribundum</i> , <i>H. praelatum</i> , <i>H. caespitosum</i> , <i>H. glomeratum</i>)	Chemical spray: Milestone, Transline – most effective when used with surfactant and N fertilization	Expect explosive increase if seed source is present or nearby, or if established plants are disturbed by equipment. Spreads by seeds, rhizomes, stolons, adventitious root buds. Slower to establish and spread on extremely dry sites.	Unknown – assume explosive colonization due to windborne seed and speed at which species are spreading in province. More research is needed.

e. Monitoring protocol

- i. **Effectiveness Monitoring** The under story species composition and production shall be completed following Pandion 2002 report
- ii. **Routine Monitoring:** Photo plots and plot data will be re-examined for invasive plants during subsequent visits.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

14. SOILS:

Objectives:

1. Maintain soil fertility and minimize soil erosion and compaction in treated area.
 - a. **Legal Reference:** Forest and Range Practices Act 149 (1) Forest Planning and Practices Regulation 5 and 35 -38. EPR shall abide by FPPR direction
 - b. **Measurable:** Permanent access in treatment areas is to be kept below 7% of the gross area of the area under prescription. Increases above this number may be made but only the cases listed in FRPA (e.g. very small block, mainline located in centre of the block) and documentation of the rationale kept on file.
 - c. **Measurable:** Temporary disturbance is to be less than 10% of the area under prescription on medium or low hazard soils and under 5% on sensitive or high hazard soils.
 - d. **Measurable:** Maintain natural drainage patterns and do not contribute to landslide hazards.
 - e. **Measurable** Bladed soil created by Ecosystem Restoration projects shall be revegetated within one growing season of the disturbance.
 - f. **Discussion**
 - i. It is almost impossible to measure the soil fertility and productivity aspects of soil management during standard operations. Above measurables are FRPA standards required by all licensees.
 - g. **Monitoring protocol**
 - i. Effectiveness Monitoring soil issues shall be monitored as per Pandion 2002 report
 - ii. Routine Monitoring: On any treatment area soil erosion and compaction shall be monitored qualitatively during all Ecosystem Restoration and range monitoring visits. The areas disturbed on any treatment area shall be measured and evaluated after any equipment pass on a treatment unit and documentation will be kept on the opening file.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

15. RECREATION:

Objective:

1 Meet declared recreation objectives.

- a. **Legal Reference** Forest and Range Practices Act Section 180/181 and 56 ,
Forest Practices Code Section 6
- b. **Measurable:** Access control is to be considered in each prescription and
appropriate action prescribed and implemented. Actions are to be documented
and kept on Opening or Ecosystem Restoration Plan files. (see Section 21)
- c. **Measurable:** Ecosystem Restoration Program shall be consistent with the
Management Plan for the Cranbrook Community Forest when active in the
Alkali or Cranbrook Fort Steele Range Unit pastures that fall within the
Community Forest.
- d. **Measurable** Ecosystem Restoration program shall manage consistent with the
objectives for any recreation sites or trails falling with the NDT4 area and act
in concert with the District Recreation Officer for Ministry of Tourism, Sport
and the Arts.
- e. **Discussion**
 - i. List of Recreational Trail objectives is on file at the Ministry of Forests
and Range office at: G:\!Workgrp\wpdocs\ECOSYSTEM
RESTORATION\Plans & Planning\Higher Level Plans
 - ii. This document is to be considered in every prescription falling in or near a
recreational site or trail.
- e. **Monitoring protocol** All Ministry of Forests and Range and Ministry of
Environment staff shall monitor treated areas for the need for access
management and recreation use management with every site visit.

16. PRESCRIBED BURNS:

Objective

- 1) Rank 3 burn during initial prescribed burn and a rank 2 burn during maintenance burns. Rank 3 burns have rate of spread of 1.5 to 3 metres per minute, with 2 metre high flames and an organised front and may display candling. Rank 2 fires spread at less than 1.5 metre per minute with a disorganised head and virtually no candling.
 - a. Legal Reference: Wildfire Regulation requires all possible man made fire hazards to be evaluated and acted upon. Open burning Regulation controls venting and air quality concerns. Ecosystem Restoration program will follow direction in regulation.
 - b. **Measurable of initial burn;**
 - i. reduce 80% fuels < 5cm diameter,
 - ii. kill 80% of trees under 3 metre tall,
 - iii. maintain seed bank and nutrients by creating a moderate fire over 75% of the burn area as determined by a post fire evaluation using the US National Parks Service Fire monitoring Handbook FMH 21 And FMH 22 criteria. (National Parks Service, 2003)
 - iv. time the burn to avoid killing grass growing points,
 - v. do not burn more than 10% of pole and co-dominant trees,
 - vi. cover 70% of area with burn,
 - vii. lift live canopy to 1.5 metres
 - c. **Measurable of maintenance burn;**
 - i. kill 80% trees under 3 metre tall,
 - ii. maintain seed bank and nutrients by creating a moderate fire over 75% of the burn area as determined by a post fire evaluation using the US National Parks Service Fire monitoring Handbook FMH 21 And FMH 22 criteria. (National Parks Service, 2003)
 - iii. time the burn to avoid killing grass growing points,
 - iv. do not burn more than 10% of pole and co-dominant trees (need 5% for recruitment as WT and CWD),
 - v. cover 70% of area with burn,
 - vi. lift live canopy to 1.5 metres
 - d. **Discussion**
 - i. Light up requires a burn plan accepted by Ministry of Forests and Range Wildfire Management Branch and under venting conditions set by Ministry of Environment Open Burning Smoke Control Regulation. This legislation requires that the burn come off safely, with minimal risk to public or private resources and that the smoke be vented away within 4 days of light up.
 - ii. Majority of prescribed burns are to be carried out by Ministry of Forests and Range district staff but Ecosystem Restoration Program shall reach

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

out to contractors, other agencies and the Ministry of Forests and Range Protection branch to increase capacity for burns in the narrow windows available.

- iii. Only low intensity fires (less than 20% of standing co-dominant trees burnt) to be considered here due to proximity to habitations and high risk area with large existing fuel build ups. The High severity fires in the mixed fire spectrum are still occurring naturally even with strenuous suppression activities.
- iv. Spring burn fire weather indices are currently Duff Moisture Code (DMC) of less than 40, Fine Fuel Moisture Content (FFMC) of 88 to 93, Drought Code of 200 to 700, Minimum temperature of 18 degrees centigrade, wind speed of no more than 20 kilometres an hour, Relative humidity of 20%. The intent is a low intensity fire with a slow rate of spread of up to 3 meters/minute is desired. Flame height may vary from 0.5 to 2 meters. Venting must be good for at least 48 hours after the burn light up and smoke mostly extinguished with 96 hours of light up.
- v. Indices for fall burns must be developed with a suggestion that FFMC should be 55 and a higher DMC. Intent is to consume larger fuels and heavy slashing areas. Typically achieving a good venting window can be a larger issue in fall burns.

d. Monitoring protocol

- i. Intensive Monitoring: As per draft Routine Monitoring protocol. Fuel plots recording down and standing fuels are to be established including photo points. This is to build on existing data bases (FMA plus or Kamloops fuel plot index) and create a district data base of photo plots to allow burn bosses to predict fuel loading, fire behaviour and track the evolution of CWD and WTs. Plots are to be fed into fire behaviour prediction models (FMA plus and Prometheus) so as to expand our ability to predict fire behaviour.
- ii. Routine Monitoring: Five photo plots per fire are to be revisited pre and post burn, data recorded for fuel reduction and vegetative response as per draft Routine Monitoring protocol. Fire behaviour to be recorded during burn and this data fed into all other aspects of monitoring and research. Post fire evaluation plots are to be carried out on all fires within one growing season of ignition. Fuel loading is to be estimated pre and post fire by photo plots found in FMA plus and the Kamloops fuel plot index.

17. ARCHAEOLOGICAL RESOURCES:

Objective

1. Is to maintain unimpaired all known archaeological sites within treatment areas and comply with the Heritage Conservation Act.
 - a. Measurable** During the 5 year plan submission the Ecosystem Restoration program shall suggest strategies (i.e. avoidance, machine operation only on snow pack or frozen soils, or preliminary field reconnaissance) to address all overlaps between Ecosystem Restoration prescriptions and high to medium archaeological polygons.
 - b. Measurable:** All Ecosystem Restoration Prescriptions that overlay medium to high potential archaeological polygons will be considered for examination by an archaeologist acceptable to First Nations. Recommendations for treatments (e.g. avoidance, treat only under sufficient snow pack) will be discussed with the archaeologist and incorporated into the Ecosystem Restoration Prescription.
 - c. Measurable;** further to b above an archaeological assessment shall be completed for any Ecosystem Restoration operation that requires the exposure of earth (i.e. the construction of new road, landing, fireguard or reopening an existing road) within a medium to high archaeological polygon prior to work commencing. Operations shall respect the recommendations of the assessment.
 - d. Discussion**
 - i. Archaeologist will decide if excavation and archaeological permits are needed.
 - ii. Ecosystem Restoration Program will maintain standing contract with archaeologist who will carry out surveys on an ongoing basis throughout the summer or snow free period.
 - iii. Where pile and burn operations are proposed within medium and high potential archaeological polygons Ecosystem Restoration operations shall follow guidelines worked out with Robert Williams of the K'tnuaxa Land Resources. These guidelines involve piling and burning on:
 - c.** Piles are on previously disturbed areas
 - d.** Piles are not on terrace edges/bench edges, but on slopes or at base, preferably on slopes.
 - e.** Tree throws that have no obvious cultural materials.
 - f.** Rock outcrops if no cultural significance is identified (i.e. pictographs, rock quarries, petroglyphs)
 - g.** In smaller piles because heat intensity would be less but the placement of the piles must also be considered
 - iv. The Ecosystem Restoration program shall incorporate into its planning
 - c.** Where deemed necessary half day training sessions where a archaeologist or a First Nations Lands and Resource staff can training up machine operators as to how best carry out operations in sensitive archaeological areas.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

- d.** Follow-up monitoring inspections by archaeologists to ascertain impact of Ecosystem Restoration operations to archaeological resources where it appears to the Ecosystem Restoration inspector that an impact may have occurred to archaeological resources..
- e. Monitoring protocol.** Ministry of Forests and Range will keep all archaeological reports in the opening file for future monitoring and guidance. Starting in 2008 the Ecosystem Restoration program shall hire and work with an archaeologist to establish pre and post treatment plots to ascertain any impacts to archaeological resources that Ecosystem Restoration treatments specifically pile burning may have on archaeological resources.

18. CULTURAL AND HERITAGE RESOURCES:

Objective

1. Is to maintain unimpaired all known First Nations Cultural and Heritage Resources within treatment areas.
 - a. **Legal reference:** Forest and Range Practices Act 149 (1), Forest Planning and Practices Regulation Section 10 a) and b)
 - b. **Measurable** Strategy Ecosystem Restoration Program will meet at least once annually with First Nations and discuss all proposed Ecosystem Restoration treatments on all areas of the Trench. Recommendations from First Nations shall be reviewed and considered for incorporation into the Ecosystem Restoration Prescriptions.
 - c. **Measurable:** Ecosystem Restoration prescribers shall note, in the Ecosystem Restoration prescription the occurrence of plant species noted by experts as being “cultural keystone species”. The current list (by Mike Keefer, personal communication, 2008) is blue camas, bitter root, Soopallalie, Saskatoon berry. See table below
 - d. **Discussion**
Cultural and Heritage resources from European settlers with be discussed with local residents and those concerns addressed in the prescription.
 - d. **Monitoring protocol.** Ministry of Forests and Range will keep all records of these discussions on five year plan file for future auditing and follow up. The performance of cultural keystone species shall be noted through photo plots taken under routine and effectiveness monitoring.

Table 3.18.1 Probable effects of light frequent fires actions on cultural keystone species (Source Fire Effects Information system <http://www.fs.fed.us/database/feis/plants/index.html>)

Common name	Latin name	Effect of light frequent fire
Blue camas or Small Camas	Camassia quamash	Top kills camas especially in spring, one report lists camas increases with burning. Frequent fires known to be a First Nations cultivation technique. Maybe present in Wigwam RU
Bitter root	Lewisii rediviva	No data found but plant is known to gown in very dry soils under open range conditions.
Soopallalie (russet buffalo berry)	Shepherdia canadensis	Resprouts or reseeds after fire; fire increase density and vigour. Fairly resistant to burning.
Saskatoon berry	Amelanchier alnifolia	Resprouts easily from root collar even after severe fires. In forests it is fire dependant as fire decreases competing vegetation. Fire return periods for western Montana were 2 to 48 years. In general plant usually increases or is unaffected by fire.

19. REMOVING NATURAL RANGE BARRIERS

Objective

1. Maintain range barriers so that range licensees can control and manage the distribution and forage use of their cattle.
 - a. **Legal reference:** Forest and Range Practices Act Section 48, Forest Planning and Practices Regulation Section 18
 - b. **Measurable** Ecosystem Restoration program shall not open up closed forests that would change the distribution of cattle and shall ensure that any fence damaged by Ecosystem Restoration practices is repaired to acceptable standards.
 - c. **Discussion**
 - i. This is more a strategic level direction. Ecosystem Restoration program shall meet with ranchers, or at least refer projects to them, prior to commencement of activities. The range licensees shall be asked to designate areas required to be kept as natural barriers. As a first option Ecosystem Restoration program, shall designate strips of timber or ravines to be left untreated so as to maintain natural barriers between pastures. Fence construction shall only be considered if priorities are high and there is no other option; Ecosystem Restoration program cannot really under take large scale fence reconstruction projects.
 - ii. Range improvements (fences, water troughs etc.) are to be protected during ecosystem restoration operations (logging slashing and especially prescribed burns). If damage is created, the Ecosystem Restoration Program is to finance repairs in consultation with the range licensees.
 - d. **Monitoring protocol.** Ministry of Forests and Range will keep all records of these discussions on five year plan file for future auditing and follow up. Fence lines and natural barrier corridors shall be inspected as a matter of course during the final inspection of any project undertaken under Ecosystem Restoration.

20. VISUAL QUALITY

Objective:

1 Meet declared visual quality objectives.

1. **Legal Reference** KBLUP Management Guidelines for NDT4 systems Objective 9 KBLUP, Forest and Range Practices Act 9.2
2. **Measurable;** All tree harvesting prescriptions should meet existing declared visual quality objectives (VQO) due to retention strategies of Ecosystem Restoration program.
3. **Discussion**
 - a. Note that the KBLUP management Guidelines for NDT4 systems notes that it is the unlikely that Ecosystem Restoration actions will create a VQO conflict. Further, if a conflict arises the NDT4 guidelines prevail.
 - b. As most Ecosystem Restoration treatments retain trees and site and recreate a historic mosaic of grasslands, open forests and treed grasslands it is unlikely the impact of Ecosystem Restoration treatments will degrade the existing viewscape or fail to meet retention or partial retention VQOs.
 - c. The VQO shall be noted in each prescription; source of information shall be by reviewing the FDP or FSP maps of the major Forest Licensee for the area. The majority of VQOs for the Rocky Mountain Trench are modification and partial retention.
4. **Monitoring protocol** Ecosystem Restoration program shall review VQO issues with the Ministry of Forests and Range and MOTSA staff during the annual submission of the five year plan and take action as required.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

20. ACCESS MANAGEMENT:

Objective:

1 Meet declared access management objectives and manage access so as to decrease off road vehicle damage to the open forests and grasslands.

- f. Legal Reference** Forest and Range Practices Act Section 180/181 and 56 , Forest Practices Code Section 6
- g. Measurable:** Access control is to be considered in each prescription and appropriate action prescribed and implemented. Actions are to be documented and kept on Opening or Ecosystem Restoration Plan files.
- h. Measurable:** Ecosystem Restoration Program shall be consistent with declared access management orders issued under the Wildlife and Forest and Range Practices Acts.
- i. Discussion**
 - i. Access management requires legal action and referral process from Ministry of Forests and Range or Ministry of Environment. Access restrictions and management plans are a process separate from Ecosystem Restoration operations. Ecosystem Restoration operations will close off and grass seed what new trails or fire guards are constructed during operations. Ecosystem Restoration Program will participate in all access management discussions.
 - ii. Ecosystem Restoration Program shall, as a matter of course, abide by existing access restrictions. Table 3.20 is to be consulted during prescription development time and the MOE website checked prior to sealing of prescriptions.
 - iii. Refrain from treated an site with high recreation use and damage to the grasslands until the recreation and access use issues are addressed in higher level access planning processes.
- f. Monitoring protocol** All Ministry of Forests and Range and Ministry of Environment staff shall monitor treated areas for the need for access management and recreation use management with every site visit. Documentation is to be in the prescription or in inspections forms stored on the opening file.

Table 3.20.1 List of Wildlife Act Access Management Areas in the NDT4 Ecosystem Restoration operating area (as per 2009 Hunting Regulation synopsis <http://www.env.gov.bc.ca/fw/wildlife/hunting/regulations/>)

Restoration Unit	Ministry of Environment Management Unit	Dates of Closures	Comments
Wigwam Flats	4-2	Year round	See map most main roads open
Grasmere (east of Highway 95)	4-2 Galton Range	Year round	See map main roads open
Cranbrook-	4-3 Elizabeth Lake	Year round	

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Elizabeth Lake			
Gold Plumbob-Pinchecks	4-3 Linklater Lakes	Year round	See map, main roads open
East Columbia	4-25 East Columbia WMA	Most minor roads December 1-April 30	Check maps, main roads open year round, minor open May 1 November 30
Stoddart Creek	4-25 Shuswap Creek to Kootenay National park	Year round	See map only road up Shuswap Creek is open
Dutch Findlay-Spur, Sun, Thunder, stinky, Saddle pastures	4-26 Dutch Findlay	Most minor roads December 1-April 30	Check maps, main roads open year round, minor open May 1 November 30
Waldo-	4-22 Baynes Lake Koocanusa	April 15-June 30	No public access at all, dogs must be leashed April 1 to 15 and July 1-August 1st
Cherry Tata-TNT property	4-21- Cherry Creek ranch and Bummers Flats	Year round	Highway three access roads open, see map
Premier Ridge-All	4-21 Premier Ridge	December 1-April 30	See map
Pickering Hills; all	4-22 Pickering Hills	Year round	Check maps, main roads open year round,
Waldo-Sheep Mtn north, Cutts Road	4-22 Sheep Mountain	Year round	Check maps, main roads open year round,
Powerplant; all	4-22 Powerplant	Most minor roads December 1-April 30	Check maps, main roads open year round, minor open May 1 November 30

22. PROTECTION OF PUBLIC UTILITIES

Objective:

1 Carry out operations so as to minimize the risk of destroying or harming telephone lines, pipelines, public highways or power transmission lines..

- A Legal reference:** Utilities can be considered as Resource features as per section 70 of the *Forest Planning and Practices Regulation*, although they are not specifically mentioned as such in the Act. In general they are of value and should be protected.
- e. Measurable** The five year plan shall be referred to all known public utilities within the Rocky Mountain Trench. Recommendations from public utilities shall be reviewed and considered for incorporation into the Ecosystem Restoration Prescriptions.
- f. Discussion**

MINISTRY OF HIGHWAYS AND TRANSPORTATION

Ecosystem Restoration Program will follow the locally negotiated memorandum of understanding with the Ministry of Transportation and Highways regarding prescribed burns and Highways. A copy may be obtained from Dean Draper at the Ministry of Forests and Range Cranbrook office.

BC HYDRO

Rocky Mountain Trench primary contact at BC Hydro is Darcy Johnson (tel 250-489-6806, cell 250-919-7511) email darcy.johnson@bhydro.com Secondary Contact is Ian Kozicky (tel 250-489-6857 cell 250-417-7316) email I: Ian.Kozicky@bhydro.com

These are parameters as to how Ecosystem Restoration can carry out tree thinning and burning operations around BC Hydro Transmission and distribution lines without impacting the operations of either agency. Our guidelines:

1) General Conditions:

- ❑ Do not park underneath hydro lines for any length of time; electrical discharge can occur. Parking, tying down loads, slash piles, decking / loading areas, etc are typically not allowed underneath the powerlines
- ❑ Equipment with extended reach or loads must use extreme caution when working near powerlines. At all times the 'Limits of Approach' must be obeyed. Do not work closer to the powerlines than the distances listed in the table below
- ❑ In certain situations, specific equipment may not be allowed to work within the powerline area
- ❑ Flagging guy wire locations and placing warning signs at all powerline crossing is also recommended

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

- ❑ Contact BC Hydro at least 3 days prior to any work commencing around the powerlines. BC Hydro will send a representative to act as a safety watch and to supervise any activities around the powerlines
- ❑ Review the Worksafe BC publication “Overhead high-voltage electricity” and BC Hydro “High Voltage Systems” with all crews prior to start of work near lines.

2) Tree felling

- All trees that can touch a line or come within the limits of approach should be felled
- Feller bunchers are preferred for felling so as to best control trees and keep them out of the Limits of approach.
- If no feller buncher is available use a Certified Utility Arborist, BC Hydro has a list of CUAs and our local contractors are Scott Wills and Asplundh
- Use general crew to buck up trees and pile near the transmission line so long as operations do not encroach into the limits of approach.
- Remove all trees with 5 metres radius of any pole or anchor
- There is to be no fuel build up on the right of way. No pile burning on or within 20 metres of the RW
- Remove any trees within a 5m radius of any pole or anchor prior to the main burn

3) Tree hauling;

- Trees can be hauled on a right of way road, but this is site specific and MOFR must contact BC Hydro ahead of time for an evaluation. All BC Hydro roads to be used must be treated on an individual bases between BC Hydro and the contractor using the roads. A permission to use/construct form (PTC) will be filled out at that time.
- Dean Draper MOFR office Cranbrook has copies of forms (permission to Use or construct works within BC Hydro Transmission Lines Right of way) to be submitted to BC Hydro prior to any road building or hauling operations
- In general clearance between truck and line should be 11 metres. To be confirmed with a field visit with BC Hydro. In general heights over 4.02 metres should be avoided and a vertical distance of 4.5 metres should be maintained between vehicles and overhead lines.
- No new road or landing constriction with 10 metres of poles, guy wires or other transmission infrastructure

4) Prescribed Burning

- Water trucks and hoses can be used on the line; do not spray with 4.5 metres of an energised line to avoid arcing.
- The transmission poles are to be protected during a burn by raking, wrapping or black lining. Black lining is not limited to wood poles only, it must include the entire structure (i.e. Pole and guy wires)
- Do not spray or soak any pole or anchor without the supervision of a BC Hydro representative. Use of water around Hydro poles is extremely dangerous and should be avoided.
- Black lining may be required along the ROW edge where there is an abundant amount of fuel adjacent to the ROW.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

- A water truck must be on-site while any burning is underway
- No personnel or aircraft should spray or dump water or retardant on or near any BC Hydro plant (building) without previous permission or supervision of a BC Hydro representative
- It may be necessary to remove vegetation or other fuels prior to burning near a power pole or within the rights-of-way
- Burning onto the guard is permitted so long as infrastructure and other values are protected (e.g. a Christmas tree permit under the lines as per Eager Hills) Access road can make a fireguard, This is to be confirmed during planning stage by field inspection with BC Hydro
- The Burn Boss is to contact BC Hydro prior to light up and they will send a line man out to monitor the line (no cost to us).
- Good venting is needed for light up as smoke can cause arcing. Conditions which could allow for dense smoke within the power line rights-of-way should be avoided as this could create a serious electrical hazard. In general remove all slash and debris from within 20 metres of a hydro right of way.
- Note that the line from Indian Springs pasture due east to Kimberley is currently unenergised.
- If MOFR has information about rare and endangered species, such as a Lewis' Woodpecker nesting in a Hydro pole, we are to pass this information onto Hydro so that they can do their due diligence in environmental protection.

General limits of approach (Table 3.22.1)

Voltage, phase to phase		Minimum distance	
Kilovolts	Volts	Metres	Feet
Over 750 V to 75 kV	Over 750 V to 75,000 V	3	10
Over 75 kV to 250 kV	Over 75,000 V to 250,000 V	4.5	15
Over 250 kV to 550 kV	Over 250,000 V to 550,000 V	6	20

TRANSCANADA PIPELINE

The main Trans Canada Pipeline contact for the Rocky Trench is Darren Mitchell, phone 529-7724 or cell 421-7348 email: darren_mitchell@transcanada.com

The general conditions are:

- 1) Trans Canada Pipelines do not want any debris, slash piles or log decks on their pipeline right of way.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

- 2) Vehicles over 55,000 kilogram Gross vehicle weight (nothing over a 1 ton truck) should not be operating on the pipeline, although pick up truck and water trucks are acceptable.
- 3) Crossings of the pipeline should only be undertaken at existing crossings. If more crossings are required Tarns Canada Pipeline is to be contacted for the specifications required for the crossing construction.
- 4) A one time emergency crossing of the pipeline by a larger vehicle is possible. This intended to deal with environmental emergencies such as wildfire control or attacking an escaped prescribed burn.
- 5) Usually burning is not an issue around the pipeline but above ground structures such as pump houses may be at risk. As a precaution TransCanada Pipeline must be contacted prior to any prescribed burn being ignited adjacent to the pipeline. Even if there are no issues Trans Canada pipeline would appreciate being kept informed.

TELUS Telephone Lines

The main contact for TELUS is 1-800-474-6886 which only grants information about digging near TELUS underground lines or Trans Canada pipelines. For above ground powerlines contact Dave Bulford Cable Manager in Cranbrook at 250-489-8636 email dave.bulford@telus.com

Recommendations' are to protect the lines and power poles during operations, they do have the arcing potential of powerlines but the lines will not withstand much pressure and the poles have the same potential to burn as power poles. A fibre optic line runs under most telephone lines; assume there is one there for road or landing construction. Specific recommendations are:

- 1) During Tree felling ensure the trees are felled away from the line; a feller buncher or a certified faller is required. Do not fall trees onto the line.
 - 2) Remove all trees with 5 metres radius of any pole or anchor.
 - 3) There is to be no fuel build up on the right of way. No pile burning on or within 20 metres of the RW
 - 4) In general heights over 4.02 metres should be avoided and a vertical distance of 4.5 metres should be maintained between vehicles and overhead lines.
 - 5) No new road or landing construction with 10 metres of poles, guy wires or other transmission infrastructure
- d. Monitoring protocol.** Ministry of Forests and Range will keep all records of any discussions or permissions for operations on five year plan file for future auditing and follow up.

22. PROTECTION OF RESEARCH TRIALS, GROWTH AND YIELD PLOTS, RANGE REFERENCE AREAS

Objective:

Carry out operations so as to minimize the risk of destroying or harming Research Trials, Growth and Yield Plots, Range Reference areas

A Legal reference: Research Trials, Growth and Yield Plots and Range reference Areas can be considered as Resource features as per section 70 of the *Forest Planning and Practices Regulation*, although the Government Action Regulation order for their protection did not go through. In general they are of value and should be protected.

- g. Measurable:** Prescribers shall check the mapping layers available for occurrence of any of these features within a treatment area. Field crews as well must check for their occurrence. Actions must be prescribed to protect each feature.
- h. Discussion**
- i.** Discussion with Ministry of Forests and Range Inventory Branch shows that a 100 metre buffer is required around all growth a yield plots. Contact Bob MacDonald Growth and Yield Forester Southern Interior Forest Region, Ministry of Forests and Range, 1265 Dalhousie Drive, Kamloops BC Canada V2C 5Z5 telephone ((250) 371-5211 Facsimile: (250) 371-5293
- j.** The Ministry of Forests and Range Research Branch prefers that all activities close (within 500 metres) to their active research site be referred to them for site specific conditions. In general nothing may be touched within the research plot area and buffering may be required on some specific projects. Fire guarded with reseeding may be an acceptable protection action. Contact Ryan Jordan or Frank J. van Thienen Field and Database Technician, BC Ministry of Forests, Research Branch Kalamalka Research Station, Vernon BC voice 250-260-4760 fax 250-542-2230
- k.** Range Reference areas are to be treated to treated the same within the fence line as without. The exclosures are tied to changes inside as outside and measure the effects of grazing on the plant community. Excluding the range exclosures from fire could confound the results. The fence posts are to reserved and protected from fire preferably by black lining, presoaking or foam. It is definitely not approved to expose mineral soil, and the attendant risk of invasive plants or other plant community changes near a range reference area. Contact Rick Tucker Range Agrologist, Ministry of Forest and Range, Southern Interior Region telephone 250-828-4141

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Table 3.23.1 List of Growth and Yield Plots in Rocky Mountain Forest District
Source: MOFR Research Branch, stored in Land and Resource Data Warehouse.

Growth & Yield SAMPLE Number	50K_Map sheet	LONG_	LAT	Area (ha)
18-26-23G	082F.120	116.0199	49.6149	0.8
18-1-64G	082G.102	115.2815	49.0547	0.8
18-2-94G	082G.102	115.5355	49.0270	0.8
18-2-95G	082G.102	115.5004	49.0305	0.8
18-2-96G	082G.102	115.4928	49.0521	0.8
18-17-3G	082G.106	115.9436	49.2633	7.2
18-17-4G	082G.106	115.9458	49.2621	7.2
18-17-5G	082G.106	115.8980	49.2696	7.2
18-17-6G	082G.106	115.8997	49.2691	7.2
18-17-50G	082G.106	115.9270	49.3058	7.2
18-17-51G	082G.106	115.9134	49.2966	7.2
18-9-34G	082G.107	115.3382	49.2400	0.8
18-21-14G	082G.111	115.8811	49.5449	7.2
18-22-1G	082G.111	115.9711	49.4615	7.2
18-22-2G	082G.111	115.9732	49.4622	7.2
18-22-3G	082G.111	115.9755	49.4630	7.2
18-22-25G	082G.111	115.9574	49.4311	7.2
18-26-22G	082G.111	115.9179	49.5639	7.2
19-21-7G	082G.113	115.0269	49.5803	0.8
21-3-12G	082G.121	115.6796	49.8380	0.8
21-6-10G	082G.121	115.8238	49.9749	0.8
21-7-100G	082G.121	115.8469	49.9789	0.8
21-6-9G	082G.121	115.7390	49.9701	7.2
21-28-80G	082J.103	115.1628	50.1693	0.8
21-28-84G	082J.107	115.3195	50.3469	0.8
21-28-86G	082J.107	115.3234	50.3501	0.8
21-26-56G	082J.107	115.4719	50.2114	7.2
21-28-78G	082J.107	115.2975	50.3187	7.2
21-28-83G	082J.107	115.2717	50.2495	0.8
21-17-50G	082K.119	116.4485	50.6434	7.2
21-17-51G	082K.119	116.4489	50.6446	7.2
21-17-57G	082K.120	116.3178	50.6315	7.2
21-17-58G	082K.120	116.3182	50.6308	7.2

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

**Table 3.23.2 List of Research Trials in Rocky Mountain Forest District Source;
MOFR Research Branch, stored in Land and Resource Data Warehouse.**

Trial Number	Project_Title	Study_Site	50K Mapsheet	LONG_	LAT	Area (ha)
EP0670.71.06	Studies of Englemen Spruce Genetics	Lamb Creek	082F.110	116.0084	49.2574	2.4
EP1020.02.01.04	Western Larch Progeny Trials	Sawmill Creek	082F.115	116.0213	49.5650	4.4
EP1209.12	Skid Trail Rehabilitation Effects on Soil Properties and Resulting Forest Productivity	Bloom Creek	082G.102	115.4423	49.1168	1.0
EP1209.12	Skid Trail Rehabilitation Effects on Soil Properties and Resulting Forest Productivity	Caven Creek	082G.102	115.4836	49.1771	0.9
EP0670.02.03.02	Genetic Improvement of Interior Spruce	Bloom Creek Site 1 & 2	082G.102	115.4519	49.0144	3.6
EP0670.02.03.19	Genetic Improvement of Interior Spruce	Roche Creek Site 1 & 2	082G.105	114.3101	49.1812	2.8
EP1020.02.01.03	Western Larch Progeny Trials	Semlin Creek	082G.106	115.9639	49.3918	4.4
EP1020.02.01.02	Western Larch Progeny Trials	Lamb Creek	082G.106	115.8503	49.3577	12.2
EP1020.02.03.02	Western Larch Progeny Trials	Upper Lamb Creek	082G.106	115.8612	49.3350	3.2
EP0670.02.03.31	Genetic Improvement of Interior Spruce	Gold Hill Creek Site 2	082G.106	115.8995	49.3282	1.8
EP0670.02.03.21	Genetic Improvement of Interior Spruce	Lamb Creek Site 2	082G.106	115.8733	49.3376	3.3
EP1209.05	Longterm soil productivity - rehabbed landing	Tait Creek Block 1	082G.106	115.8806	49.3293	0.8
EP1209.05	Longterm soil productivity - rehabbed landing	Tait Creek Block 2	082G.106	115.8756	49.3260	0.8
EP0670.02.03.01	Genetic Improvement of Interior Spruce	Lamb Creek Site 1	082G.106	115.8664	49.3393	2.0
EP0886.01.12	Fertilization Trials in the BC Interior	Gold Creek	082G.107	115.4992	49.3161	15.1
EP0886.01.04	Fertilization Trials in the BC Interior	Gold Creek	082G.107	115.5325	49.3085	27.7
EP0886.01.47	Fertilization Trials in the BC Interior	Teepee Creek	082G.107	115.5325	49.3121	27.6
EP1020.02.03.04	Western Larch Progeny Trials	Semlin Creek 95	082G.111	115.9544	49.4105	2.8
EP0511.01	Crop-tree thinning of Western Larch	Perry Creek	082G.111	115.9171	49.5694	12.4
EP0670.71.12.05	White/Engelman Spruce Genecology Climate Change Trial	Cranbrook	082G.111	115.9586	49.4103	1.9
EP0657.03	Exploratory studies with 30 Lodgepole pine provenances	Negro Creek	082G.111	115.9532	49.4238	11.8
EP0657.06	All range lodgepole pine provenance trials	Wuho Creek	082G.111	115.9506	49.4541	6.6
EP0976.02.08.04	Interior Douglas-fir Progeny Trials	Lumberton	082G.111	115.9054	49.4315	4.9
EP0670.02.04.02	Second Generation Breed Production Trial	Bull River	082G.112	115.4572	49.4655	3.6
EP1365	Residual Basal Area Study in a	St Marys East	082G.116	115.9765	49.6212	6.4

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

	mixed conifer stand					
EP1365	Residual Basal Area Study in a mixed conifer stand	St Marys Centre	082G.116	115.9860	49.6273	8.4
EP0607.01	Ponderosa Pine Spacing Trials	Cherry Creek	082G.116	115.8404	49.6943	3.0
EP1333	Monitoring Restoration of Fire-Maintained Ecosystem	Sheep Creek North	082G.121	115.6989	49.9866	396.9
EP1333	Monitoring Restoration of Fire-Maintained Ecosystem	Wolf Creek	082G.121	115.6958	49.8432	154.6
EP0770.20.20.03	Lodgepole pine OP/full-sib progeny testing	Pommier Creek	082G.121	115.8417	49.8795	2.4
EP1209.12	Skid Trail Rehabilitation Effects on Soil Properties and Resulting Forest Productivity	Grave Creek Site 1	082J.102	115.3003	50.1931	1.7
EP0670.02.04.03	Second Generation Breed Production Trial	WhiteSwan Lake	082J.102	115.4593	50.1576	2.7
EP0670.02.03.17	Genetic Improvement of Interior Spruce	Grave Creek Site 1 & 2	082J.102	115.2961	50.1929	4.1
EP0670.02.03.13	Genetic Improvement of Interior Spruce	East White River Site 1	082J.103	115.1092	50.1512	1.8
EP0670.02.03.22	Genetic Improvement of Interior Spruce	East White River Site 2	082J.103	115.1080	50.1502	1.7
EP1209.12	Skid Trail Rehabilitation Effects on Soil Properties and Resulting Forest Productivity	Grave Creek Site 2	082J.107	115.3093	50.2034	1.7
EP0886.01.39	Fertilization Trials in the BC Interior	South Jack Creek	082J.107	115.4825	50.2647	9.1
EP0657.06	All range lodgepole pine provenance trials	Elk Creek	082J.107	115.4663	50.2517	6.4
EP0670.02.03.07	Genetic Improvement of Interior Spruce	Horsethief Creek Site 1	082K.114	116.5529	50.5180	1.8
EP0670.02.03.15	Genetic Improvement of Interior Spruce	Horsethief Creek Site 2	082K.114	116.5546	50.5159	1.7
EP0922.07	Juvenile Spacing Trials	Driftwood Creek	082K.124	116.5862	50.9196	5.1
EP1209.12	Skid Trail Rehabilitation Effects on Soil Properties and Resulting Forest Productivity	McMurdo Creek	082N.103	117.0936	51.1227	8.5

Chapter 4 Monitoring

GOALS

The goals of the Ecosystem Restoration (ER) - Effectiveness Monitoring (EM) Program are as follows:

- 1) To create an EM framework that is consistent with the goals of the Ecosystem Restoration program and can be realistically applied throughout the Rocky Mountain Trench (RMT) by all proponents of the Ecosystem Restoration program.
- 2) To monitor the effects of Ecosystem Restoration treatments on the flora and fauna in the treatment areas.
- 3) To provide Ecosystem Restoration program managers and practitioners with empirical data to evaluate the effectiveness and efficiency of Ecosystem Restoration treatments, and to determine if restoration program goals and objectives are being met.
- 4) To use this data to adapt practices and procedures to better meet the program goals.
- 5) To sample fuel loading and burn behaviour to determine if Ecosystem Restoration program is decreasing fire hazards through its treatments and to allow calibration of fire predictive models so risk can be easily assessed on a landscape level.

OBJECTIVES

“An Effectiveness Monitoring Plan for NDT4 Ecosystem Restoration in the East Kootenay Trench” (Pandion, 2002) identifies the following 13 monitoring objectives and prioritizes them as high, medium or low.

Monitoring Objective	Priority
1. Monitor tree density, size, and species composition.	High
2. Monitor cover and species composition of native grass, herb, and shrub species.	High
3. Monitor number and cover of non-native and noxious weed species.	High
4. Monitor existing density and cover of rare plants.	Low
5. Monitor the species richness and population density of endemic wildlife.	High
6. Monitor number and population density of vertebrate species of special interest.	High
7. Monitor forage production.	High
8. Monitor wildlife tree densities and sizes.	High
9. Monitor large-sized coarse woody debris.	Medium
10. Monitor the integrity of riparian and wetland areas.	Medium

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

11. Monitor soil fertility.	Low
12. Monitor soil erosion and compaction.	Low
13. Monitor insect and disease incidence.	Medium

Faced with a limited budget the NDT4 Steering committee pared the 13 monitoring objectives down to the following 4 high priority objectives. As documented in “Blue print for Action’ these 4 would be examined first before expanding to other objectives:

- 1) Monitor stand structure and over story vegetation: crown closure, tree density, diameter, species and decay class.
- 2) Monitor under story structure and composition: grass, herb and shrub percent cover by species, species richness and composition.
- 3) Monitor forage production: kilograms per hectare by species, grazed and ungrazed.
- 4) Monitor status of invasive plant species: percent cover by species, number of species.

Some discretion will be left up to Ecosystem Restoration practitioners and proponents as to whether it would be more beneficial to implement a higher level of monitoring in a given treatment area or carry out monitoring for the other objectives. However, it is critical that all practitioners and proponents use consistent data collection and storage approaches so that all data can be analysed and compared in a robust, scientifically credible manner.

LAYERS OF MONITORING

Routine Monitoring is one of three tiers of effectiveness monitoring called for in Pandion Ecological Research Ltd. “An Effectiveness Monitoring Plan for NDT4 Ecosystem Restoration in the East Kootenay Trench” 2002 and by Hillary Page’s paper “An Update to the Trench Effectiveness Monitoring Plan for NDT4 Ecosystem Restoration in the East Kootenay Trench” in 2006. These two reports are accepted by all proponents in the Rocky Mountain Trench Ecosystem Restoration program as the key documents for effectiveness monitoring. The reports set out objectives and an outline methods for an Effectiveness Monitoring program, but they do not define routine monitoring beyond photo plots. A summary from the page 14 of the 2002 notes:

Based on our review, it appears that considerable monitoring of restoration treatments has already been undertaken, but results of these efforts have not consistently been documented, summarized, and communicated to promote adaptive management. Future monitoring efforts might benefit from a more strategic and consistent approach, particularly in light of reduced provincial funding projections in future years. Such an approach might involve three tiers:

- (1) *intensive* monitoring at a subset of operational restoration sites to quantify treatment effects on key resources;
- (2) *routine* monitoring at the majority of operational restoration sites to provide qualitative ecosystem recovery data that can support intensive findings; and
- (3) parallel research studies involving replicated treatments and controls to investigate causal mechanisms underlying monitoring results

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

A distinction must be made between Routine and Implementation and Effectiveness monitoring. Implementation monitoring is simply assessing if the treatments being carried out in a given unit comply with the Ecosystem Restoration Prescription and terms that were laid out in agreed upon contracts. Implementation monitoring asks the question- Was the plan that was set out to achieve, achieved in full? Effectiveness monitoring on the other hand, assesses the degree to which Ecosystem Restoration practices are achieving specific objectives of the Ecosystem Restoration program. Here the question is asked- What was the biological response to a given treatment, and was that response in-line with meeting set Ecosystem Restoration objectives? Effectiveness and Implementation monitoring are not the same thing but the program aims to take normal, routine implementation monitoring protocols and upgrade them to integrate them with the intensive monitoring and research programs.

A separate Report by the Rocky Mountain Trench Ecosystem Restoration Program Operations Committee sets out details of 6 routine protocols based on the two existing monitoring documents. The protocols are defined in the document as 6 levels and the objectives of the routine Monitoring Protocols are as follows:

- 1) to apply Level 1, 2, 3 routine monitoring to 100 % of the Ecosystem Restoration treatment areas;
- 2) to apply Level 4 or 5 routine monitoring to selected Ecosystem Restoration treatment areas with bighorn and badger populations.
- 3) Establish 30 Fuel management plots in all types of fuel, aspects and forest types throughout the Ecosystem Restoration treatment areas to meet level 6 by 2013

As per the recommendations of Pandion, 2002, routine monitoring procedures should be carried out in the summer growing season, one year prior to treatment and again the year following a treatment. Data collection in the terms of photo plot revisits should also occur 1, 3, 5 and 10 years following a prescribed burn as well as immediately prior to and after Restoration prescribed burn.

ASSUMPTIONS

The ability to monitor the effectiveness of Ecosystem Restoration work is contingent upon funding, resources, and time allocation. Available funding for the Ecosystem Restoration program will vary from year to year, therefore the monitoring program must be able to expand or contract based upon funding for each fiscal year. As a general guideline it is recommended that 6-10% of a program's budget be allocated for monitoring (Pandion, 2002).

As no two treatment units are identical, a decision must be made for each treatment unit for the level of monitoring to be applied. The decision to apply intensive monitoring will be made at the program level, it is expected that a level of routine monitoring will be made on every treatment unit. The effort required will be set at the Ecosystem Restoration Prescription level.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

After 10 years of monitoring efforts these two framework reports are being revisited by a newly struck subcommittee of the NDT4 Steering Committee. A new protocol will draw on the objectives outlined here, but will include more detailed and standardized data collection, storage, and analysis methods that allow for varying levels of effort and detail in effectiveness monitoring activities. These new protocols for effectiveness monitoring are hoped to be in place by January 2010. As well by March 2010 the Ecosystem Restoration program hopes to have in place:

- A synopsis of the 57 monitoring reports completed to date (list attached) below
- An on line searchable library that all partners and Ecosystem Restoration researchers can access should be available by January 2010
- A 10 year work plan to revisit and re measure existing monitoring sites or to re establish new ones. Table .1 shows current active sites and table 4. Shows inactive sites that could be revisited. Goal from Page 2006 is to have 10 intensive sites in both PPdh2 and IDF Biogeoclimatic zones.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Table 4.1 List of all Active Ecosystem Restoration monitoring sites in the Rocky Mountain Trench. Updated from Page 2006

Land Owner	Biogeoclimatic Zone	Report Citation	Range Unit/Location	Pasture	Monitoring Measured	Objective	Agency/Proponent
Crown	IDFdm2	Newman et al, 2004, 2005, 2006, Page 2002, Powell et al 1999	Sheep Creek North	Central	Research EP 1333	understory	Ministry of Forests
Crown	PPdh2	Newman et al, 2004, 2005, 2006, Page 2002, Powell et al 1999	Wolf-Sheep (Premier)	Wolf Creek	Research EP 1333	understory	Ministry of Forests
Crown	PPdh2	Page 2004	Powerplant	North Fontaine	due 2009, 2010	overstory/understory	Fish and Wildlife Compensation Program
Crown	IDFun	Page 2004	Windemere Fairmont	Stoddart Creek North	Due 2010	overstory/understory	Fish and Wildlife Compensation Program
Crown	IDFdm2	Page and Machmer 2003	Wolf Premier	Gina Lake	due 2010	overstory/understory	Fish and Wildlife Compensation Program
Crown	IDFdm2	Page and Machmer 2003	Newgate	Rock's	Due 2009, 2011, 2016	overstory/understory	Fish and Wildlife Compensation Program
TNT	IDFun/IDFdm 2	Page 2005	Hoodoo/Hofert	Hawke Road	forage each year	overstory/understory	Fish and Wildlife Compensation Program
TNT	IDFdm2	Page 2005	Hoodoo/Hofert	Hoodoo	forage each year	overstory/understory / Wildlife Trees	Fish and Wildlife Compensation Program
Federal	IDFun	Page 2004; Page 2005	Kootenay National Park	Redstreak	2007	overstory/understory	Kootenay National Park
federal	IDFun	Osprey Communication	Kootenay National Park	Redstreak	2001	Bighorn Sheep visuals	Kootenay National Park

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

		s					
Crown	IDFun	Page 2007	Windemere Fairmont	Stoddart Creek South (Juniper Heights)	due 2010, 2012, 2014, 2019	overstory/understory	Fish and Wildlife Compensation Program
Crown	IDFdm2	Not yet	Lewis Wolf	Lewis Badlands	Established 2008	overstory/understory	Fish and Wildlife Compensation Program
Crown	IDFdm2	Not yet	Cherry Tata	Airport	Established 2008	overstory/understory / Badgers/ Old Growth	Fish and Wildlife Compensation Program
Crown	IDFdm2/PPdh2	Ross 2005	Waldo North	Colvalli, Twin Lakes, Pipeline	due 2010	overstory/understory	Trench Society
TNT	IDFdm2	Machmer 2002c	Cherry Tata	Cherry Creek Ranch		Birds/ wildlife trees	The Nature Trust
TNT	IDFdm2	Wager and Ross 2001, Ross 2001d, Ross 2007	Cherry Tata	Cherry Creek Ranch	2007	Overstory/ Understory	The Nature Trust
crown	PPdh2	Ross 1999a, b, 2002a, b	Waldo	Kikomun Provincial Park	2002	Effectiveness overstory/understory	BC Parks Branch
NCC	IDFdm2	N/A	Sheep Creek North	Kootenay River Ranch	2008 baseline	overstory/understory	Nature Conservancy of Canada
NCC	IDFdm2	Cooper some time soon	Sheep Creek North	Kootenay River Ranch	due 2012	Bird life	Nature Conservancy of Canada

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Table 4.2 List of Existing Ecosystem Restoration Monitoring Sites that could be remeasured. Source Paige 2006

Land Owner	BEC Zone	Report Citation	Range Unit/Location	Pasture	Monitoring Measured	Type of Monitoring	Objective	Agency/Proponent
crown	PPdh2	Ross et al 1998	St. Mary's Prairie	?	1998	Research	overstory/understory	Ministry of Forests
crown	PPdh2	Ross et al 1998	Cherry-TaTa Creek	?	1998	Research	overstory/understory	Ministry of Forests
crown	PPdh2	Ross et al 1998	TaTa Skook	?	1998	Research	overstory/understory	Ministry of Forests
crown	IDFdm2/ PPdh2	Smith 199 et al	Wolf-Sheep Creek	Sheep	1998	Effectiveness	overstory/understory	Ministry of Forests
crown	PPdh2	Machmer 2001, 2002b	East Columbia Lake		2002	Effectiveness	wildlife	Pandion Ecological Research
crown	IDFdm2	Machmer 2001, 2002b	Grasmere	Dump	2002	Effectiveness	wildlife	Pandion Ecological Research
crown	IDFdm2/ PPdh2	Machmer	Cherry-TaTa Creek	TaTa Creek?	2001	Effectiveness	Wildlife	Pandion Ecological Research
crown	IDFdm2/ PPdh2	Ross	Cherry-TaTa Creek	Miller Road	2001	Effectiveness	overstory/understory	Rocky Mountain Natural Resources Society
crown	IDFdm2/ PPdh2	Ross 1998 b, c	Cherry-TaTa Creek	Tata Creek?	2001	Effectiveness	overstory/understory	Rocky Mountain Natural Resources Society
crown	IDFdm2/ PPdh2	Penniket and Associates 1998	Cherry-TaTa Creek	TaTa Creek?	2001	Effectiveness	overstory structure	Rocky Mountain Natural Resources Society
Crown	IDFdm2/	Ross 2001c,	Waldo-	Fusee		Effectiveness	verstory/Understory	Tembec, Steering

Rocky Mountain Trench Ecosystem Restoration Program
 Five Year Plan 2010-2015 Final May, 2010

	PPdh2	Ross 2005a, Ross 2008		East and North- Baynes Lake			(3 retention levels)	Committee
crown	IDFdm2	Dyskstra et al, 1995 ; Kayl 1997	Gold PlumBob	Strauss Road	Inactive Research	Effectiveness	overstory/understory	Ministry of Forests

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Table 4.3 List of East Kootenay Trench monitoring reports and literature (as per Page 2006, updated by Harris, 2009)

- Berg, G 2001 Vegetation Change Following Restoration Treatments 1995-2001, unpublished, Ministry of Forests and Range, Rocky Mtn District
- Berg, G . 2005. An update of vegetation change following burning and/or thinning 1995-2005. Rocky Mountain Forest District, Cranbrook, BC. 41p.
- Demarchi, Dennis and Susan Lofts, The Effects of Spring Burning on the Productivity and Nutrient Concentration of Several Shrub Species in the Southern Rocky Mtn. Trench. Ministry of Environment, Wildlife Branch, Victoria, Jan., 1985
- Dykstra, P., D. DeLong, T. Braumandl and C. Steeger. 2002. Old Growth Restoration in the IDFdm2: Monitoring Plot Installation and Five Year Results - Strauss Road Site. Prepared for Forest Renewal BC Terrestrial Ecosystem Restoration Programme by the BC Ministry of Forests and Pandion Ecological Research Ltd, Nelson, BC.
- EMBER 1995. Ecosystem Maintenance Demonstration Burns Research Project: General Work Plan and establishment report for Picture Valley and Findlay Creek sites. B.C. Ministry of Forests, Nelson Forest Region, Nelson, B.C. 53pp.
- Gayton, D., T. Braumandl and R. Stewart. 1995. Ecosystem maintenance burning evaluation and research programme (EMBER) pilot project, Nelson Forest Region (1993-1997): Problem Analysis and Working Plan. BC Ministry of Forests, Nelson Region. 52pp.
- Hawe, A. and D. DeLong. 1997. Case study: partial cutting to restore old-growth forest conditions in the East Kootenay Trench. Research Summary RS-032, B.C. Ministry of Forests, Nelson Forest Region, Nelson, BC. 4pp.
- Kayll, A.J. 1995. EMBER: an interim assessment. Report by Appropriate Forestry Services, Nelson, British Columbia. 18pp.
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Wildlife Habitat Areas: http://www.env.gov.bc.ca/cgi-bin/apps/faw/wharesult.cgi?search=wap_region&wap=Kootenay

ABBREVIATIONS USED IN THE TEXT

AAC allowable annual cut

cm centimeter (1 cm = .394 inch)

CORE Commission on Resources & Environment

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

EKTAWC East Kootenay Trench Agriculture/Wildlife Committee
Ecosystem Restoration fire-maintained ecosystem restoration
(*range, rangeland, open range, grassland, open forest, savanna* and *NDT4*
are used interchangeably to identify the ecosystems being restored)
ha hectare (1 ha = 2.471 acres)
kg kilogram (1 kg = 2.205 pounds)
km kilometre (1 km = .621 mile)
KBLUPIS Kootenay Boundary Land Use Plan Implementation Strategy
m³ cubic metre
NDT4 Natural Disturbance Type 4
RMFD Rocky Mountain Forest

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Appendix I Schedule of Ecosystem Restoration Projects
Sorted by Project Type and Year

RESTORATIO	LOGICAL_BU	TREATMENT_	TOTAL_ARE	NET_AREA	MAPSHEET	OPENING	FOREST_TYP	TU_STATUS	PRIORITY	INSIDE_AIA	ARCHAEOL	TIMBER_LIC	SPECIES_AT	LOG_TYPE	LOG_TREATM	LOGCALENDA	LOG_MONTH	LOG_ESTIM	LOG_ACTUA	LOG_FUND	LOG_CONTRA	LOG_CONT_1	LOG_LOCAL_
Grasmere	Dump	TSLA45087	900.0	99.0	82G015	1300	OR	Initiated	NR	Y	Y	BCTS		log	BCTS	2007	4	11868		BCTS			
Waldo North Pilot	Munson Slough	Munson Slough	294.0	57.0	82G034	178	OR	Maintenance	103			Galloway		Log	Trench So	2007	12						
Grasmere	Dump	TSLA81351	900.0	143.0	82G015	1301	OR	Initiated	NR	Y	Y	BCTS		log	BCTS	2008	12	17100		BCTS			
Cherry - Ta Ta	Beacon West	NRFL	762.2	239.0	82G071	121	OR	Unmanaged	106	Yes lake	Licensee	BCTS		Log	NRFL2 CBK	2008	5		100	NRFL	Prairie Holdings		Y
Cherry - Ta Ta	Old Airport	Old OGMA A19042-CP14	707.6	345.2	82G072	91	OF	Initiated	106	By road	No-Avoid	Galloway	Yellow Ba	Log	Tembec Er	2008	5	31150	100				
Waldo	East Kootenay-Eimer	East Kootenay-Eimer	-2.0	556.0	82G034	178	OF	Maintenance	103			Galloway		Log	Trench So	2008	12						
Waldo North Pilot	Pipeline	Pipeline	358.0	358.0	82G034	178	OR	Maintenance	103			Galloway		Log	Trench So	2008	5						
Grasmere	Dump	DumpA	900.0	0.0	82G015		OF	Initiated	NR	Y	Licensee	BCTS		log	BCTS	2009	12	17100		BCTS			
Cherry - Ta Ta	Old Airport	Old Airport A81787-CP1	707.6	35.2	82G072	91	OR	Initiated	106	By road	No-Avoid	Galloway	Yellow Ba	Log	Tembec Er	2009	5	NRFL 1 CBK	100				
Waldo North Pilot	North, South Lake	North, South Lake	250.0	250.0	82G034	178	OF	Initiated	103			BCTS		Log	Trench So	2009	12						
St. Mary's Prairie	Rouse	Rouse TU 4	365.3	18.7	82G062	41	OF	Unmanaged	108	N		Galloway	Yellow ba	Log	NRFL 2	2010	5	14400					
St. Mary's Prairie	Rouse	Rouse TU 5	365.3	46.5	82G062	41	OF	Unmanaged	108	N		Galloway	Yellow ba	Log	NRFL 2	2010	5	14400					
St. Mary's Prairie	Rouse	Rouse TU 6	365.3	13.3	82G062	41	OF	Unmanaged	108	N		Galloway	Yellow ba	Log	NRFL 2	2010	5	14400					
St. Mary's Prairie	Rouse	Rouse TU 7	365.3	13.6	82G062	41	OF	Unmanaged	108	N		Galloway	Yellow ba	Log	NRFL 2	2010	5	14400					
St. Mary's Prairie	Rouse	Rouse TU 8	365.3	58.0	82G062	41	OF	Unmanaged	108	N		Galloway	Yellow ba	Log	NRFL 2	2010	5	14400					
Cherry - Ta Ta	Lost Spring	Lost Spring F	500.0	323.0	82G072	93	OF	Unmanaged	106	Snowpack-		Galloway	Yellow Ba	Log	NRFL 2 CBK	2010	11	25252.5					
Cherry - Ta Ta	China North South	China North South	491.0	491.0	82G062		OF	Unmanaged	106			Galloway	Yellow ba	Log	NRFL 2 Cran	2010							
St. Mary's Prairie	Sheep Camp	Sheep Camp TU1	353.3	38.0	82G061	64	OF	Unmanaged	108	yes ripar	Winterlog	Galloway	Yellow ba	Log	NRFL 2 Cran	2010							
St. Mary's Prairie	Sheep Camp	Sheep Camp TU2	353.3	25.2	82G061	64	OF	Unmanaged	108	yes ripar	Winterlog	Galloway	Yellow ba	Log	NRFL 2 Cran	2010							
St. Mary's Prairie	Sheep Camp	Sheep Camp TU3	353.3	66.1	82G061	64	OF	Unmanaged	108	yes ripar	Winterlog	Galloway	Yellow ba	Log	NRFL 2 Cran	2010							
St. Mary's Prairie	Sheep Camp	Sheep Camp TU8	353.3	34.1	82G061	64	OF	Initiated	108	yes ripar	Winterlog	Galloway	Yellow ba	Log	NRFL 2 Cran	2010							
St. Mary's Prairie	Sheep Camp	Sheep Camp TU9	353.3	17.2	82G061	64	OF	Initiated	108	yes ripar	Winterlog	Galloway	Yellow ba	Log	NRFL 2 Cran	2010							
St. Mary's Prairie	Steer	Steer	252.0	252.0	82G062	59	OF	Unmanaged	108	yes ripar	Winterlog	Galloway	Yellow ba	Log	NRFL 2 CRBJ	2010		30240					
St. Mary's Prairie	Indian North-South	Indian North-South	424.0	424.0	82G061	60	OF	Unmanaged	108	yes ripar	Winterlog	Galloway	Yellow ba	Log	NRFL 2 CRBK	2010	11	50880					
Ta Ta-Skookumchuck	42 A	42 A1	305.0	78.0	82G082	151	OF	Initiated	119			Tembec	Yellow ba	Log	NRFL 2 In	2010	11	12200					
Ta Ta-Skookumchuck	Foster	Foster	308.0	308.0	82G082	141	OF	Unmanaged	119			Tembec	Yellow ba	Log	NRFL 2 In	2010	11	12320					
Ta Ta-Skookumchuck	Plot	Plot 2A	503.7	60.8	82G082	99	OF	Initiated	119			Tembec	Yellow ba	Log	NRFL 2 In	2010	11	204					
Waldo North Pilot	Colvali-Waldo	Colvali-Waldo	376.0	376.0	82G034	178	OF	Maintenance	103			Galloway		Log	Trench So	2010	12						
Gold - Plumbob	Gold Creek Canyon	CP157-330	146.0	146.0	82G014	65	OF	Initiated	95			Tembec		Relog Strip	Tembec	2011	11	17520		TEMBEC			
Gold - Plumbob	Gold Creek Canyon	CP157-328	217.0	217.0	82G014	63	OF	Initiated	95			Tembec		Relog Strip	Tembec	2011	11	26040		TEMBEC			
Gold - Plumbob	Gold Creek Canyon	CP157-332	208.0	208.0	82G014	67	OR	Initiated	95			Tembec		Relog Strip	Tembec	2011	11	24960		TEMBEC			
Rampart - Mayook	City	City	188.0	188.0	82G052	9	OR	Unmanaged	86			BCTS		Log	BCTS	2012							
Newgate	Demar-Sharp tail	Demar	307.0	307.0	82G004	34	OF	Unmanaged	114	Yes	snowpack/	BCTS	LEWO WHA	Log	BCTS	2012							
Newgate	Demar-Sharp tail	Sharptail	407.0	407.0	82G004	34	OF	Unmanaged	114	Yes	snowpack/	BCTS	Lewo, sha	Log	BCTS	2012							
Cranbrook Fort Steele	Highway Overpass	Overpass-tu7	336.4	80.0	82G052	40	OF	Initiated		Yes-lake		BCTS		Log	BCTS	2012							
Cherry - Ta Ta	Old Airport	Old Airport A81787-CP1	707.6	66.1	82G072	91	OR	Initiated	106	By road	No-Avoid	Galloway	Yellow Ba	Log	Galloway	2012	5			NRFL 1 CBK			
Ta Ta-Skookumchuck	Echo	Echo	707.0	657.0	82G082	147	OF	Initiated	119			Tembec	Yellow ba	log	NRFL 3 In	2012	11	39420					
Ta Ta-Skookumchuck	Pulp mill	Pulp mill	393.0	285.2	82G082	153	OR	Initiated	119			Tembec	Yellow ba	log	NRFL 3 In	2012	11	23580					
Premier Ridge	Alkali North	Alkali South	366.0	366.0	82G082	156	OF	Initiated	101	Yes lake		BCTS		Log	BCTS	2013							
Gold - Plumbob	Buck West	Dilts-Cut	350.0	350.0	82G024		OF	Initiated	95			Tembec		Log	Tembec	2013	11	42000		TEMBEC			
Waldo	Cemetery Hills	Cemetery Hills TU A CP2	582.0	67.4	82G024	131	OF	Unmanaged	103			Tembec		Log	Tembec	2013	5						
Waldo	Cemetery Hills	Cemetery Hills TU C	582.0	168.2	82G024	131	OF	Unmanaged	103			Tembec		Log	Tembec	2013	5						
Waldo	Cemetery Hills	Cemetery Hills TU D1	582.0	24.4	82G024	131	MF	Unmanaged	103			Tembec		Log	Tembec	2013	5						
Waldo	Cemetery Hills	Cemetery Hills U D2	582.0	30.4	82G024	131	OF	Unmanaged	103			Tembec		Log	Tembec	2013	5						
Waldo	Fusee West	Fusee West Alpa TU 1	339.0	30.0	82G024	75	OF	Unmanaged	103	Yes	Licensee	Tembec		Log	Tembec	2013	5			CP 292			
Waldo	Fusee West	Fusee West Alpa TU 1	339.0	40.0	82G024	75	OF	Unmanaged	103	Yes	Licensee	Tembec		Log	Tembec	2013	5			CP 292			
Waldo	Fusee West	Fusee West Alpa TU 1	339.0	60.0	82G024	75	OF	Unmanaged	103	Yes	hand slas	Tembec		Log	Tembec	2013							
Peckham's Lake	Garbutt Norbury	Norbury	536.0	536.0	82G053		OF	Unmanaged	92			BCTS		Log	NRFL 3	2014	11	64320					
Peckham's Lake	Garbutt Norbury	Garbutts	390.0	390.0	82G053	66	OF	Unmanaged	92	No		BCTS		Log	NRFL 3 CBK	2014	11	46800					
Ta Ta-Skookumchuck	Reed A	Reed A	316.0	316.0	82G081	146	OR	Initiated	119			Tembec	Yellow ba	log	NRFL 4 In	2014	11	18960					
Ta Ta-Skookumchuck	Reed B	Reed B	303.0	303.0	82G082	154	OF	Initiated	119			Tembec	Yellow ba	log	NRFL 4 In	2014	11	18180					
Ta Ta-Skookumchuck	Reed C	Reed C	250.0	250.0	82G082	155	OR	Initiated	119			Tembec	Yellow ba	log	NRFL 4 In	2014	11	15000					
Waldo	Baynes Lake North	Baynes Lake North	269.0	269.0	82G025	70	OF	Unmanaged	103	Y		Tembec		Log	tembec	2014		5					
Waldo	Fusee North	Fusee North A	360.0	140.0	82G025	74	OF	Unmanaged	103	Yes	Licensee	Tembec		Log	Tembec	2014		CP 292					
Waldo	Sheep Mtn	Sheep Mtn AB	327.0	327.0	82G025		OR	Unmanaged	103	Yes	No, need	Tembec		Log	Tembec	2014		11					

RESTORATIO	LOGICAL_BU	TREATMENT_	TOTAL_ARE	NET_AREA	MAPSHEET	OPENING	FOREST_TYP	TU_STATUS	PRIORITY	INSIDE_AIA	ARCHAEOL	TIMBER_LIC	SPECIES_AT	LOG_TYPE	LOG_TREATM	LOGCALENDA	LOG_MONTH	LOG_ESTIM	LOG_ACTUA	LOG_FUND	LOG_CONTRA	LOG_CONT_1	LOG_LOCAL_
Rampart - Mayook	Whiskey Creek North	Whiskey Creek North	173.0	173.0	82G053	65	OF	Unmanaged	86	Yes	Yes, 2007	BCTS		Log	BCTS	2015	11	20760					
Waldo	Duck A	Duck A	506.1	180.0	82G025	76	OF	Unmanaged	103	Yes, poth	No, Avoid	Tembec		Log	Tembec	2015	5						
Waldo	Duck B	Duck B	506.0	180.0	82G025	76	OF	Unmanaged	103	Yes, poth	No, Avoid	Tembec		Log	Tembec	2015	5						
Waldo	Duck C	Duck C	506.0	138.0	82G025	76	OR	Unmanaged	103	Yes, poth	No, Avoid	Tembec		Log	Tembec	2015	5						
Waldo	Fusee West	Fusee West Beta	323.7	323.7	82G024	71	OF	Unmanaged	103	Yes	hand slas	Tembec		Log	Tembec	2015	5	CP 542					
Peckham's Lake	Alkaline purvis	Deep Springs TU 1	491.0	412.0	82G053	20	OF	Unmanaged	92			BCTS		Log	NRFL 4	2016	11	49440					
Peckham's Lake	Alkaline purvis	Purvis	238.0	238.0	82G053		OF	Unmanaged	92			BCTS		Log	NRFL 4	2016	11	28560					
Cherry - Ta Ta	Highway North	Highway North	704.0	704.0	82G071	123	OF	Unmanaged	106	Y-riparia		BCTS		log	nrfl 4	2016	11	35200					
Cherry - Ta Ta	Highway South	Highway South	176.0	176.0	82G071	122	OF	Unmanaged	106	N		BCTS		log	nrfl 4	2016	11	8800					
Cherry - Ta Ta	Beacon West	Non-NRFL	762.6	523.0	82G071	121	OF	Unmanaged	106	Y-riparia	No-Winter	BCTS		Log	BCTS	2017	11	14280					
Peckham's Lake	Hotfoot North	Hot Foot TU 1a	658.3	45.0	82G053	5	OF	Initiated	92	yes ripar	Winterlog	BCTS		Log	BCTS	2017	5						
Peckham's Lake	Hotfoot North	Hot Foot TU 1b	658.3	25.2	82G053	5	OF	Initiated	92	yes ripar	Winterlog	BCTS		Log	BCTS	2017	5						
Cherry - Ta Ta	Rock Lake	Rock Lake	616.0	616.0	82G072	93 (85-6	OF	Unmanaged	106			BCTS	Yellow ba	Log	NRFL 5	2018	11	36960					

RESTORATIO	LOGICAL_BU	TREATMENT_	TOTAL_ARE	NET_AREA	MAPSHEET	OPENING	FOREST_TYP	INSIDE_AIA	ARCHAEOLO	TIMBER_LIC	SLASH_TYP	SLASH_TRE	SLASH_CAL	SLASH_MO	SLASH_ESTI	SLASH_ACT	SLASH_FUN	SLASH_CONT	SLASH_CO_1	SLASH_LOCA
Premier Ridge	Gina	Gina TU 1	300.000	31.200	82G082	111	OF	Yes	Yes on fi	BCTS	Thin	Sell Pulp	2008	11	14085	30956	FIA	ER09SMJ003	Scott Wills	y
Cherry - Ta Ta	Old Airport	Old Airport NSR TU 1	707.600	16.200	82G072	91	OR	By road	No-Avoid	Galloway	thin	Sell Pulp	2008	12	10500	13107.5	FIA	ER09SMJ-005	Scott Wills	Y
Cherry - Ta Ta	Old Airport	Old Airport Select Log TU	707.600	68.200	82G072	91	OR	By road	No-Avoid	Galloway	Thin	sell pulp	2008	12	42000	86181	FIA	ER09SMJ-005	Scott Wills	Y
Cherry - Ta Ta	Old Airport	Old Airport OGMA TU 3	707.600	63.000	82G072	91	OF	By road	No-Avoid	Galloway	Thin	sell pulp	2008	12	41400	83230	FIA	ER09SMJ-005	Scott Wills	Y
Waldo	Clear Lake	Clear Lake 180D	231.400	10.700	82G034	180	OF			Galloway	Thin	Sell Pulp	2008	10	8025	7998.9	FIA	FS09SMJ-004	Scott Wills	Y
Waldo	Clear Lake	Clear Lake177B	295.000	8.200	82G034	177	OF			Galloway	Thin	Sell Pulp	2008	10	2050	6919.35	FIA	FS09SMJ-004	Scott Wills	Y
Waldo	Clear Lake	Clear Lake177C	295.000	5.400	82G034	177	OF			Galloway	Thin	Sell Pulp	2008	11	1350	4493.18	FIA	FS09SMJ-004	Scott Wills	Y
Waldo	Clear Lake	Clear Lake177D	295.000	0.900	82G034	177	OF			Galloway	Thin	Sell Pulp	2008	11	225	737.81	FIA	FS09SMJ-004	Scott Wills	Y
Waldo	Clear Lake	Clear Lake177E	295.000	5.100	82G034	177	OF			Galloway	Thin	Sell Pulp	2008	11	1275	4321.41	FIA	FS09SMJ-004	Scott Wills	Y
Waldo	Clear Lake	Clear Lake177F	295.000	6.300	82G034	177	OF			Galloway	Thin	Sell Pulp	2008	11	1580	5365.68	FIA	FS09SMJ-004	Scott Wills	Y
				215											122490	30956				
Premier Ridge	Gina	Gina TU 2	300.000	8.400	82G082	111	OF	Yes	Yes on fi	BCTS	Thin	Sell Pulp	2009	3	120000	7971	FIA	ER09SMJ003	Scott Wills	y
Premier Ridge	Gina	New Gina TU 4	342.000	120.700	82G082	158	OF	Yes	Yes on fi	BCTS	Thin	Sell Pulp	2009	3	120000	78330	FIA	ER09SMJ003	Scott Wills	Y
Community Forest	Sylvan lakes	Sylvan LakesD	812.000	156.000	82G052		OF	Potholes		BCTS	Thin	Scatter	2010	11	5000		Interface			
Waldo	Cutts Road	Cutts Road 2B	629.000	26.400	82G025	34	OF	Yes, ripa	No, winte	Tembec	Thin	Sell Pulp	2010	11	26400		MOFR-ERP		y	
Waldo	Cutts Road	Cutts Road 2D	629.000	48.600	82G025	34	OF	Yes, ripa	No, winte	Tembec	Thin	Sell Pulp	2010	11	48600	0	MOFR-ERP			
Waldo	Cutts Road	Cutts Road 2E	629.000	17.800	82G025	34	OF	Yes, ripa	No, winte	Tembec	Thin	Sell Pulp	2010	11	17800	0	MOFR-ERP			
Waldo	Cutts Road	Cutts Road 2F	629.000	0.500	82G025	34	OF	Yes, ripa	No, winte	Tembec	Thin	Sell Pulp	2010	11	500	0	MOFR-ERP			
Waldo	Cutts Road	Cutts Road 2G	629.000	11.700	82G025	34	OF	Yes, ripa	No, winte	Tembec	Thin	Sell Pulp	2010	11	11700	0	MOFR-ERP			
Waldo	Cutts Road	Cutts Road 2H	629.000	6.100	82G025	34	OF	Yes, ripa	No, winte	Tembec	Thin	Sell Pulp	2010	11	6100	0	MOFR-ERP			
Waldo	Elko-Airport west	Elko-Airport west	250.000	250.000	82G025		OR			Tembec	Thin	Sell Pulp	2010	11	150000		MOFR-ERP			
Waldo	Burnt Bottom	Not slashed	362.000	204.000	82G015	104	OF			Tembec	Thin	sell pulp	2010	12	122400		MOFR-ERP			
Waldo	Rabbit mtn	Rabbit mtn TU 1	330.000	35.000	82G025	73	OF	Yes	No, need	Tembec	Thin	Sell Pulp	2010	11	35000		Inteface			
Waldo	Rabbit Mtn	Rabbit mtn TU 2	330.000	50.000	82G025	73	OF	Yes	No, need	Tembec	Thin	Sell Pulp	2010	11	50000		Interface			
Premier Ridge	Quartz	CTP 165	161.000	161.000	82G082	New	OR			BCTS	Thin	sell pulp	2010	11	120450	0	MOFR-ERP			
St. Mary's Prairie	Dry Lake-Artesian	Dry Lake TU 1	274.000	57.300	82G061	58	OF	yes ripar	Winterlog	Galloway	Thin	Sell Pulp	2010	12	57300		MOFR-ERP			
				1024											651250					
Second Uptake of Projects																				
Cranbrook Fort Steele	Gravel Pit		250	250	82G052		OF	Y	Snowpack/		Thin	Sell Pulp	2010	10	325000		UBCM			
Cranbrook Fort Steele	MM20		1200	1200	82G052		OF	Y	Snowpack/		Thin	Sell Pulp	2010	10	1560000		UBCM			
Rampart Mayook	Isadore-Butte		889.5	889.5	82G053		OF	Y	Snowpack/		Thin	Sell Pulp	2010	10	1156350		UBCM			
Peckhams Lake	Wallcam		100	100	82G053		OF	Y	Snowpack/		Thin	Sell Pulp	2010	10	130000		UBCM			
Peckhams Lake	Hatchery Ridge		590	590	82G043		OF	Y	Snowpack/		Thin	Sell Pulp	2010	10	767000		UBCM			
Power Plant	Little Bull		181.6	181.6	82G043		OF	Y	Snowpack/		Thin	Sell Pulp	2010	10	236080		UBCM			
Power Plant	MOE-Bull River		150	150	82G043		OF	Y	Snowpack/		Thin	Sell Pulp	2010	10	195000		UBCM			
Premier Ridge	3 Sons North		500	500	82G082		OF	Y	Snowpack/		Thin	Sell Pulp	2010	10	650000		UBCM			
Dutch Findlay	saddle		1403.6	1403.6	82J011		OF	Y	Snowpack/		Thin	Sell Pulp	2010	10	1824680		UBCM			
East Side Columbia	Sabine bench		250	250	82J011		OF	Y	Snowpack/		Thin	Sell Pulp	2010	10	325000		UBCM			
East Side Columbia	Camp 1		450	450	82J021		OF	Y	Snowpack/		Thin	Sell Pulp	2010	10	585000		UBCM			
Watson	Watson-Mud		300	300	82J011		OF	Y	Snowpack/		Thin	Sell Pulp	2010	10	390000		UBCM			
St May's Prairie	South Wycliffe crridor		350	40	82G061		OF	Y	Snowpack/		Thin	Sell Pulp	2010	10	52000		UBCM			
Grasmere	Adolph's		1164.6	1164.6	82G005		OF	Y	Snowpack/		Thin	Sell Pulp	2010	10	1513980		UBCM			
Grasmere	Loon Lake		1444.2	1444.2	82G005		OF	Y	Snowpack/		Thin	Sell Pulp	2010	10	1877460		UBCM			
Grasmere	Bagley's		1030.0	1030.0	82G005	17	OF	Y	Snowpack/	BCTS	Thin	Sell Pulp	2010	10	1339000		UBCM			
Grasmere	A.I.		827.0	827.0	82G005	1	OF	Y	Snowpack/	BCTS	Thin	Sell Pulp	2010	10	1075100		UBCM			
Alkali	Cranbrook Reservoir		350	350	82G052		OF	Y	Snowpack/		Thin	Sell Pulp	2010	10	455000		UBCM			
Alkali	Mt Baker Road		250	250	82G042		OF	Y	Snowpack/		Thin	Sell Pulp	2010	10	325000		UBCM			
				11371											14781650					
Newgate	Earl Ranch	Earl Ranch	250.000	250.000	82G004		OF	Yes	snowpack/	BCTS	Thin	Sell Pulp	2011	11	250000		HCTF			
Premier Ridge	Alkali South	CTO 126	344.000	344.000	82G082	142	OF	Yes, poth		BCTS	Thin	sell pulp	2011	12	258000		MOFR-ERP			
				594											508000					
Sheep Creek North	Kootenay Ranch Addendum	Dragons Tail	703.000	400.000	82J002		OF			Tembec	Thin	Sell Pulp	2012	2	260000		MOFR-ERP			
Gold - Plumbob	Gold Creek Canyon	CP157-332	208.000	208.000	82G014	67	OR			Tembec	Thin	sell pulp	2012	9	52000		MOFR-ERP			
Wildhorse Lewis	South Lakit Ridge	South Lakit Ridge SU1	132.000	132.000	82G063	64	OR	Y	Tembec	Tembec	Thin	sell pulp	2012	9	32000		CBFWCP			
Newgate	Demar-Sharp tail	Demar	307.000	307.000	82G004	34	OF	Yes	snowpack/	BCTS	Thin	Sell Pulp	2012	11	184200		MOFR-ERP			

RESTORATIO	LOGICAL_BU	TREATMENT_	TOTAL_ARE	NET_AREA	MAPSHEET	OPENING	FOREST_TYP	INSIDE_AIA	ARCHAEOL	TIMBER_LIC	SLASH_TYP	SLASH_TRE	SLASH_CAL	SLASH_MO	SLASH_ESTI	SLASH_ACT	SLASH_FUN	SLASH_CONT	SLASH_CO_1	SLASH_LOCA
Newgate	Demar-Sharp tail	Sharptail	407.000	407.000	82G004	34	OF	Yes	snowpack/	BCTS	Thin	pile/burn	2012	11	184200		MOFR-ERP			
PowerPlant	Bull River Property	Bull River Property	100.000	100.000	82G053		OF			BCTS	Thin	Sell Pulp	2012	11	100000		HCTF			
				1554											812400					
Gold - Plumbob	Wakefield-Gorrie	Wakefield	274.000	274.000	82G004	147	OR			Tembec	Thin	sell pulp	2013	9	68500		MOFR-ERP			
Premier Ridge	Alkali North	Alkali South	366.000	366.000	82G082	156	OF	Yes lake		BCTS	Thin	sell pulp	2013	12	274500		MOFR-ERP			
Premier Ridge	Alkali North	CTP126	150.000	150.000	82G082	156	OF	Yes lake		BCTS	Thin	sell pulp	2013	12	112500		MOFR-ERP			
Peckham's Lake	Hotfoot South	Hot Foot TU 3	658.300	69.600	82G053	5	OF	yes ripar	Winterlog	BCTS	Thin	sell pulp	2013	11	62640		MOFR-ERP			
Peckham's Lake	Hotfoot South	Hot Foot TU 4	658.300	15.900	82G053	5	OF	yes ripar	Winterlog	BCTS	Thin	sell pulp	2013	11	14310		MOFR-ERP			
Peckham's Lake	Hotfoot South	Hot Foot TU 7	658.300	14.000	82G053	5	OF	yes ripar	Winterlog	BCTS	Thin	sell pulp	2013	11	12600		MOFR-ERP			
				890											545050					
Grasmere	A.I.	A	827.000	827.000	82G005	1	OF	Y	Snowpack/	BCTS	Thin	Scatter	2014	10	100000		MOFR-ERP			
Rampart - Mayook	City	City	188.000	188.000	82G052	9	OR			BCTS	Thin	Sell Pulp	2014	11	65800		MOFR-ERP			
Waldo	Labb	A	73.000	73.000	82G024		OF	Yes	hand slas	Tembec	Thin	Sell Pulp	2014	11	69350		MOFR-ERP			
Newgate	Newgate-Alkali	Newgate-Alkali	153.000	153.000	82G004		OR	Yes	snowpack/	BCTS	Thin	Sell Pulp	2014	11	91800		MOFR-ERP			
Pickering Hills	Bronze Lake	Bronze Lake	687.000	687.000	82G043	1	OR			Galloway	Thin	Sell Pulp	2014	11	560000		MOFR-ERP			
Pickering Hills	Pickering Pasture	Pickering Pasture	577.000	577.000	82G043		OR			Galloway	Thin	Sell Pulp	2014	11	577000		MOFR-ERP			
Colvalli North	Frenchman's pasture	Frenchman's pasture	250.000	250.000	82G034		OF	Yes- Lake	Avoid-res	BCTS	Thin	Sell Pulp	2014	11	250000		MOFR-ERP			
Wildhorse Lewis	Fort Steele fire	Fort Steele fire	250.000	250.000	82G072		OR	Y	Tembec	Tembec	Thin	Sell Pulp	2014	11	250000		MOFR-ERP			
Wildhorse Lewis	Bummer's Flat	Bummer's Flat	170.000	170.000	82G072		OR	Y	Tembec	Tembec	Thin	Sell Pulp	2014	11	170000		HCTF			
St. Mary's Prairie	Luke- Meadow	Luke Meadow TU A	613.000	11.400	82G061	55	OF	yes ripar	Winterlog	Galloway	Thin	sell pulp	2014	12	10260		Interface			
St. Mary's Prairie	Luke- Meadow	Luke Meadow TUB	613.000	54.500	82G061	55	OR	yes ripar	Winterlog	Galloway	Thin	sell pulp	2014	12	49050		Interface			
St. Mary's Prairie	Luke- Meadow	Luke Meadow TU D	613.000	67.100	82G061	55	OR	yes ripar	Winterlog	Galloway	Thin	sell pulp	2014	12	60390		Interface			
St. Mary's Prairie	Luke- Meadow	Luke Meadow TU G	613.000	72.100	82G061	55	OR	yes ripar	Winterlog	Galloway	Thin	sell pulp	2014	12	64890		Interface			
Sheep Creek North	Springbrook South	Springbrook South	526.000	316.000	82G092	82	OF			Tembec	Thin	sell pulp	2014	12	316000		MOFR-ERP			
				3696											2634540					
Newgate	Rocks	Rocks	688.000	688.000	82G004	37	OF	Yes	snowpack/	BCTS	Thin	Sell Pulp	2015	11	412800		MOFR-ERP			
Waldo	Sheep Mtn	Sheep Mtn AB	327.000	327.000	82G025		OR	Yes	No, need	Tembec	Thin	pile/burn	2015	11	327000		MOFR-ERP			
				1015											739800					
Lewis - Wolf Creek	C. T. P.	CTP1A	745.000	250.000	82G072	88	OF	Yes	Yes	BCTS	Thin	Sell Pulp	2016	11	150000		MOFR-ERP			
Lewis - Wolf Creek	C. T. P.	CTP1B	745.000	250.000	82G072	88	OF	Yes	Yes	BCTS	Thin	Sell Pulp	2016	11	150000		MOFR-ERP			
Lewis - Wolf Creek	C. T. P.	CTP1C	745.000	250.000	82G072	88	OR	Yes	Yes	BCTS	Thin	Sell Pulp	2016	11	150000		MOFR-ERP			
Newgate	Burlotts	Burlotts	539.000	220.000	82G004	38	OF	Yes	snowpack/	BCTS	Thin	Sell Pulp	2016	11	447000		MOFR-ERP			
Sheep Creek North	Dry Gulch	Dry Gulch	834.000	170.000	82G092	101	OF				Thin	Sell Pulp	2016	12	150000		MOFR-ERP			
				1140											1047000					
Peckham's Lake	Hotfoot North	Hot Foot TU 2	658.300	33.400	82G053	5	OF	yes ripar	Winterlog	BCTS	Thin	sell pulp	2017	11	30060		MOFR-ERP			
Peckham's Lake	Hotfoot North	Hot Foot TU 9	658.300	16.000	82G053	5	OF	yes ripar	Winterlog	BCTS	Thin	sell pulp	2017	11	14400		MOFR-ERP			
Cherry - Ta Ta	Miller Road	Miller Road C	200.000	70.000	82G072	9 (31)	OR	Snowpack-		Galloway	Thin	sell pulp	2017	11	70000		MOFR-ERP			
				119											114460					
Lewis - Wolf Creek	Big Burn	Big Burn1A	422.000	0.000	82G082	144	OR			BCTS	Thin	Sell Pulp	2018	11	253200		MOFR-ERP			
Lewis - Wolf Creek	Big Burn	Big Burn1B	422.000	0.000	82G082	144	OR			BCTS	Thin	Sell Pulp	2018	11	253200		MOFR-ERP			
Lewis - Wolf Creek	Big Burn	Big Burn1C	422.000	0.000	82G082	144	OR			BCTS	Thin	Sell Pulp	2018	11	253200		MOFR-ERP			
Lewis - Wolf Creek	Big Burn	Big Burn1D	422.000	0.000	82G082	144	OF			BCTS	Thin	Sell Pulp	2018	11	253200		MOFR-ERP			
Ta Ta-Skookumchuck	Dune B	Dune B	212.000	212.000	82G082	149	OR			Tembec	thin	sell pulp	2018	12	14700		MOFR-ERP			
Ta Ta-Skookumchuck	Dune C	Dune C	260.000	260.000	82G082	150	OF			Tembec	thin	sell pulp	2018	12	182000		MOFR-ERP			
				472											1209500					
Sheep Creek North	Canal	Canal Non NRFL	522.000	337.000	82G092		OF			Tembec	Thin	Sell pulp	2020	9	252750		MOFR-ERP			
Cherry - Ta Ta	Highway North	Highway North	704.000	704.000	82G071	123	OF	Y-riparia		BCTS	Thin	sell pulp	2020	12	422400		MOFR-ERP			
Cherry - Ta Ta	Highway South	Highway South	176.000	176.000	82G071	122	OF	N		BCTS	Thin	sell pulp	2020	12	105600		MOFR-ERP			
				1217											780750					

RESTORATIO	LOGICAL_BU	TOTAL_AREA	NET_AREA_F	MAPSHEET	OPENING	FOREST_TYP	PRIORITY	TIMBER_LIC	SLASH_TYP	SLASH_TRE	SLASH_CAL	SLASH_MOI	SLASH_ESTI	SLASH_ACT	SLASH_FUN	SLASH_CONT	SLASH_CO_1	SLASH_LOCA
Wigwam	Wigwam Flats - West	632.0	272.0	82G025	58	OR		Tembec	Slash	pile burn	2003	0	51033		HCTF			
Wigwam	Wigwam Road	106.0	106.0	82G025	58	OR		Tembec	Slash	pile burn	2003	10	0		HCTF			
			378.0											0.0				
Waldo	Fusee East	356.1	33.5	82G025	68	OF	103	Tembec	Slash	Scatter	2005	2	0		HCTF	STDRM05-01	Scott Wills	
Waldo	Fusee East	356.1	19.5	82G025	68	OR	103	Tembec	Slash	Scatter	2005	2	0		HCTF	STDRM05-01	Scott Wills	
Waldo	Fusee East	356.1	29.4	82G025	68	OF	103	Tembec	Slash	Scatter	2005	2	0		HCTF	STDRM05-01	Scott Wills	
Waldo	Fusee East	356.1	141.6	82G025	68	OF	103	Tembec	Slash	Scatter	2005	2	0	25000	HCTF	STDRM05-01	Scott Wills	
			224.0											25000.0				
Wigwam	Rocky Ridge End	145.0	145.0	82G025	58	OF		Tembec	Slash	pile burn	2006	8	0		HCTF			
Wigwam	Rocky Ridge North	140.0	140.0	82G025	67	OR		Tembec	Slash	pile burn	2006	8	0		HCTF			
Wigwam	Rocky Ridge South	111.0	111.0	82G025	67	OR		Tembec	Slash	pile burn	2006	8	0		HCTF			
			396.0											0.0				
Waldo	Fusee East	356.1	76.1	82G025	68	OR	103	Tembec	Slash	Scatter	2007	11	0	12850.45	FIA	ER08SML027	Mike Dola	Y
Waldo North Pilot	Munson Slough	294.0	57.0	82G034	178	OR	103	Galloway	Slash	Scatter	2007	11	25740	11154	FIA	EER06SML-	Charley W	Y
Waldo	Clear Lake	295.0	213.0	82G034	177	OF	103	Galloway	Slash	Scatter	2007	4	53250	33046	FIA	FSDRM-07SM011	Purcell R	Y
Waldo	Clear Lake	231.4	180.7	82G034	180	OF	103	Galloway	Slash	Scatter	2007	4	53250	33046	FIA	FSDRM-07SM011	Purcell R	Y
Cranbrook Fort Steele	Eager Hill	96.1	77.3	82G052	41	OF		BCTS	Slash	Pile	2007	4	0	50573	FIA	DRM07SMM013	SCOTT wills	Y
Cranbrook Fort Steele	Eager Hill	96.1	7.7	82G052	41	OF		BCTS	Slash	Pile	2007	4	0	5305	FIA	DRM07SMM013	SCOTT wills	Y
Cranbrook Fort Steele	Eager Hill	96.1	11.1	82G052	41	OF		BCTS	Slash	Pile	2007	4	0	4400	FIA	DRM07SMM013	SCOTT wills	Y
East Columbia Lake	5A	58.0	58.0	82J021	35	OR	116	Tembec	Slash	Piles	2007	4	4500	25000	HCTF	FSDRM06SM	K'tunaxa	Y
Cranbrook Fort Steele	Highway Overpass	336.4	40.0	82G052	40	OR		BCTS	Slash	Scatter	2007	4	0	14134	FIA	DRM07SMM013	SCOTT wills	Y
Cranbrook Fort Steele	Highway Overpass	336.4	18.0	82G052	40	OF		BCTS	Slash	Pile	2007	4	0	15720	FIA	DRM07SMM013	SCOTT wills	Y
Cranbrook Fort Steele	Highway Overpass	336.4	18.0	82G052	40	OF		BCTS	Slash	Pile	2007	4	0	15720	FIA	DRM07SMM013	SCOTT wills	Y
Waldo	Burnt Bottom	362.0	158.0	82G015	104	OF	103	Tembec	Slash	Scatter	2007	4	0	32372.17	FIA	FSDRM-07S	Purcell R	Y
Windermere-Sinclair	Juniper Heights	110.0	110.0	82K060	163	OR	98	Canfor	Slash	pile	2007	10	0	80770	CBFWCP	FSDRM06SM005	New Fores	Y
Wildhorse Lewis	Lakit Lake	409.0	4.5	82G072	89	OF	68	Tembec	slash	scatter	2007	11	2430	12445.42	MOFR-ERP	EER06SML30-	Ktunaxa K	Y
			1029.4											256439.5				
Waldo	Clear Lake	231.4	7.2	82G034	180	OF	103	Galloway	Slash	Pile burn	2008	12	3500	8755	JOP	Galloway 2		Y
Waldo	Clear Lake	231.4	7.5	82G034	180	OR	103	Galloway	Slash	sell pulp	2008	12	148200	0	FIA	FSDRM-07S	Purcell R	Y
Cranbrook Fort Steele	Highway Overpass	336.4	24.0	82G052	40	OR		BCTS	slash	Scatter	2008	12	23800	5308.8	FIA	ER09SMJ-008	Charley W	Y
Premier Ridge	Wolf	39.0	30.6	82G082	145	OF	101	BCTS	Slash	Pile burn	2008	4	0	10000	CBFWCP			
Premier Ridge	Wolf	39.0	8.6	82G082	145	OF		BCTS	Slash	Pile burn	2008	4	0	10000	CBFWCP			
Wildhorse Lewis	Lakit Lake	409.0	14.9	82G072	89	OF	68	Tembec	slash	Pile	2008	4	2430	14826	MOFR-ERP	EER06SML042	Scott Wil	Y
Wildhorse Lewis	Lakit Lake	409.0	15.6	82G072	89	OF	68	Tembec	slash	scatter	2008	4	2430	10124	MOFR-ERP	EER06SML042	Scott Wil	Y
Wildhorse Lewis	Lakit Lake	409.0	8.0	82G072	89	OF	68	Tembec	slash	scatter	2008	4	17190	5192	MOFR-ERP	EER06SML042	Scott Wil	Y
Wildhorse Lewis	Lakit Lake	409.0	6.4	82G072	89	OF	68	Tembec	slash	scatter	2008	4	2430	4154	MOFR-ERP	EER06SML042	Scott Wil	Y
Grasmere	Dump	900.0	99.0	82G015	1300	OR	NR	BCTS	Slash	Scatter	2008	10	34615	7857	FIA	ER08SML02	jesse Ram	
Cherry - Ta Ta	Old Airport	707.6	35.2	82G072	91	OR	106	Galloway	Slash	Scatter	2008	10		5000	JOP	Galloway 1		
Waldo	Clear Lake	231.4	5.6	82G034	180	OF	103	Galloway	Slash	Scatter	2008	10	4200	6810	JOP	Galloway 2		Y
Waldo	Clear Lake	231.4	1.3	82G034	180	OF	103	Galloway	Slash	Scatter	2008	10	938	1581	JOP	Galloway 2		Y
Gold - Plumbob	Bare Mtn	231.1	75.0	82G014	48	OF	95	Tembec	Slash	Scatter	2008	11		43880	JOP	Galloway 2		Y
Gold - Plumbob	Bare Mtn	231.1	32.7	82G014	48	OR	95	Tembec	Slash	Scatter	2008	11		19131	JOP	Galloway 2		Y
Gold - Plumbob	Bare Mtn	231.1	6.4	82G014	48	OR	95	Tembec	Slash	Scatter	2008	11		3744	JOP	Galloway 2		Y
Gold - Plumbob	Bare Mtn	231.1	11.7	82G014	48	OF	95	Tembec	Slash	Scatter	2008	11		6845	JOP	Galloway 2		Y
Gold - Plumbob	Bare Mtn	255.9	135.8	82G014	48	OF	95	Tembec	Slash	Scatter	2008	11	62250	67710	JOP	Galloway 2		Y
Gold - Plumbob	Bare Mtn	255.9	7.6	82G014	48	OF	95	Tembec	Slash	Scatter	2008	11		7058	JOP	Galloway 2		Y
Gold - Plumbob	Bare Mtn	255.9	58.6	82G014	48	OF	95	Tembec	Slash	Scatter	2008	11		41102	JOP	Galloway 2		Y
Waldo	Cutts Road	629.0	7.2	82G025	34	OF	103	Tembec	Slash	Scatter	2008	11	0	2093.9	FIA	ER09SMJ08	Charley W	y
Waldo	Cutts Road	629.0	6.2	82G025	34	OF	103	Tembec	Slash	Scatter	2008	11	25000	1749	FIA	ER09SMJ08	Charley W	y
East Columbia Lake	5B	79.0	79.0	82J021	38	OR	116	Tembec	Slash	Piles	2008	11	12500	12500	HCTF		Nupqu	
			684.1											16342.9				

RESTORATIO	LOGICAL_BU	TOTAL_AREA	NET_AREA_F	MAPSHEET	OPENING	FOREST_TYP	PRIORITY	TIMBER_LIC	SLASH_TYP	SLASH_TRE	SLASH_CAL	SLASH_MO	SLASH_ESTI	SLASH_ACT	SLASH_FUN	SLASH_CONT	SLASH_CO_1	SLASH_LOCA
Waldo	East Kootenay-Eimer	-2.0	556.0	82G034	178	OF	103	Galloway	Slash	Pile	2009	7	0	201489	JOP	Galloway 1		
Cherry - Ta Ta	Beacon West	762.2	239.0	82G071	121	OR	106	BCTS	Slash	Scatter	2009	11	59775	83650	jop	TEMBEC 2		Y
Waldo North Pilot	Pipeline	358.0	358.0	82G034	178	OR	103	Galloway	Slash	Scatter	2009	11	876000		jop	Trench 1	trench Society	
Waldo North Pilot	North, South Lake	250.0	250.0	82G034	178	OF	103	BCTS	Slash	Pile	2009	4	25000	206450	jop	Trench 1	Trench Society	
Grasmere	Dump	900.0	0.0	82G015		OF	NR	BCTS	Slash	Scatter	2009	10	2500		JOP			
Waldo North Pilot	Colvali-Waldo	376.0	376.0	82G034	178	OF	103	Galloway	Slash	Pile	2009	4	25000	202494	jop	Galloway 1		Y
Waldo	Clear Lake	295.0	14.7	82G034	177	OF	103	Galloway	Slash	Scatter	2009	4	3425	17875	JOP	Galloway 2		Y
Waldo	Clear Lake	295.0	1.3	82G034	177	OF	103	Galloway	Slash	Scatter	2009	4	315	1581	JOP	Galloway 2		Y
Windermere-Sinclair	Redstreak	350.0	80.0	82K070	81	OR	98	Canfor	Slash	Fireguard	2009	6	2500	3500	National		Rick Kubi	Y
Findlay Basin	Stinky	550.0	251.4	82J011	143	OF	110	Tembec	Slash	Scatter	2009	6	0	45000	JOP	Trench 2		
Gold - Plumbob	Bare Mtn	231.1	32.2	82G014	36	OF	95	Tembec	Slash	Scatter	2009	7	23500	29911	JOP	Galloway 2		Y
Gold - Plumbob	Bare Mtn	231.1	7.8	82G014	36	OF	95	Tembec	Slash	Scatter	2009	7	23500	7245	JOP	Galloway 2		Y
Gold - Plumbob	Bare Mtn	255.9	15.5	82G014	48	OR	95	Tembec	Slash	Scatter	2009	7		-9010	JOP	Galloway 2		Y
St. Mary's Prairie	Cherry North South	219.9	19.9	82G061	57	OF	108	Galloway	Slash	Pile Burn	2009	8	6965		JOP	S D Hunt	SD Hunt	Y
St. Mary's Prairie	Cherry North South	219.9	9.9	82G061	57	OF	108	Galloway	Slash	Pile Burn	2009	8	3465		JOP	S D Hunt	SD Hunt	Y
St. Mary's Prairie	Cherry North South	219.9	22.4	82G061	57	OF	108	Galloway	Slash	Pile Burn	2009	8	7840		JOP	S D Hunt	SD Hunt	Y
St. Mary's Prairie	Cherry North South	219.9	40.6	82G061	57	OR	108	Galloway	Slash	scatter	2009	8	14210		JOP	S D Hunt	SD Hunt	Y
St. Mary's Prairie	Cherry North-South	319.5	17.0	82G061	16	OR	108	Galloway	Slash	Pile-Burn	2009	11	136500	278000	JOP	S D Hunt	SD Hunt	
St. Mary's Prairie	Cherry North-South	319.5	49.2	82G061	16	OR	108	Galloway	Slash	Pile-Burn	2009	11			JOP	Tembec 2	SD Hunt	
St. Mary's Prairie	Cherry North-South	319.5	9.5	82G061	16	OR	108	Galloway	Slash	Pile-Burn	2009	11			JOP	Tembec 2	SD Hunt	
St. Mary's Prairie	Cherry North-South	319.5	27.5	82G061	16	OF	108	Galloway	Slash	Scatter	2009	11			JOP	Tembec 2	SD Hunt	
St. Mary's Prairie	Cherry North-South	319.5	9.8	82G061	16	OF	108	Galloway	Slash	Scatter	2009	11			JOP	Tembec 2	SD Hunt	
St. Mary's Prairie	Cherry North-South	319.5	4.7	82G061	16	OF	108	Galloway	Slash	Scatter	2009	11			JOP	Tembec 2	SD Hunt	
St. Mary's Prairie	Cherry North-South	319.5	2.6	82G061	16	OF	108	Galloway	Slash	Scatter	2009	11			JOP	Tembec 2	SD Hunt	
St. Mary's Prairie	Cherry North-South	319.5	1.7	82G061	16	OF	108	Galloway	Slash	Scatter	2009	11			JOP	Tembec 2	SD Hunt	
St. Mary's Prairie	Cherry North-South	319.5	1.2	82G061	16	OF	108	Galloway	Slash	Scatter	2009	11			JOP	Tembec 2	SD Hunt	
St. Mary's Prairie	Cherry North-South	319.5	90.6	82G061	16	OR	108	Galloway	Slash	Scatter	2009	11			JOP	Tembec 2	SD Hunt	
St Mary-Wycliffe	Pine Butte	60.0	60.0	82G061	62	OR	108	NA	Slash	Pile burn	2009	9	24000		JOP	Trench 1		
Dutch-Findlay Creek	Thunder Bob	523.2	135.6	82J011	142	OF	110	Tembec	Slash	pile burn	2009	9	45000	35000	JOP	trench 2		
Dutch-Findlay Creek	Thunder Bob	523.2	22.2	82J011	142	OR	110	Tembec	Slash	pile burn	2009	9		10000	JOP	trench 2		
Dutch-Findlay Creek	Thunder Bob	523.2	49.2	82J011	142	OR	110	Tembec	Slash	pile burn	2009	9		5000	JOP	trench 2		
Dutch-Findlay Creek	Thunder Bob	523.2	71.3	82J011	142	OF	110	Tembec	Slash	pile burn	2009	9		2500	JOP	trench 2		
Waldo	Cemetery Hills	582.0	8.9	82G024	131	OR	103	Tembec	Slash	scatter	2009	10	60000	33200	JOP-FIA	Galloway 2		
Cranbrook Fort Steele	Highway Overpass	336.4	76.0	82G052	40	OF		BCTS	Slash	Pile-Burn	2009	10	75500		JOP	Tembec 2	SD Hunt	
Dutch-Findlay Creek	Thunder Phil	709.4	43.0	82J011	144	OF	110	Tembec	Slash	Scatter	2009	11	15050		JOP	Trench 2		
Dutch-Findlay Creek	Thunder Phil	709.4	51.6	82J011	144	OF	110	Tembec	Slash	Scatter	2009	11	18060		JOP	Trench 2		
Dutch-Findlay Creek	Thunder Phil	709.4	13.2	82J011	144	OF	110	Tembec	Slash	Scatter	2009	11	4620		JOP	Trench 2		
Dutch-Findlay Creek	Thunder Phil	709.4	4.6	82J011	144	OF	110	Tembec	Slash	Scatter	2009	11	1610		JOP	Trench 2		
Dutch-Findlay Creek	Thunder Phil	709.4	11.9	82J011	144	OF	110	Tembec	Slash	Scatter	2009	11	4165		JOP	Trench 2		
Dutch-Findlay Creek	Thunder Phil	709.4	15.0	82J011	144	OF	110	Tembec	Slash	Scatter	2009	11	5250		JOP	Trench 2		
Dutch-Findlay Creek	Thunder Phil	709.4	7.2	82J011	144	OF	110	Tembec	Slash	Scatter	2009	11	2520		JOP	Trench 2		
Dutch-Findlay Creek	Thunder Phil	709.4	18.8	82J011	144	OF	110	Tembec	Slash	Scatter	2009	11	6580		JOP	Trench 2		
Dutch-Findlay Creek	Sun Lakes	317.3	41.8	82J011	145	OF	110	Tembec	Slash	Scatter	2009	11	14630		JOP	Trench 2		
Dutch-Findlay Creek	Sun Lakes	317.3	46.2	82J011	145	OF	110	Tembec	Slash	Scatter	2009	11	16170		JOP	Trench 2		
Dutch-Findlay Creek	Sun Lakes	317.3	37.7	82J011	145	OF	110	Tembec	Slash	Scatter	2009	11	13195		JOP	Trench 2		
Dutch-Findlay Creek	4 Amigos	795.5	30.4	82J021	36	OF	110	Tembec	Slash	Scatter	2009	11	10640		JOP	Trench 3		
Dutch-Findlay Creek	4 Amigos	795.5	6.6	82J021	36	OF	110	Tembec	Slash	Scatter	2009	11	2310		JOP	Trench 3		
Dutch-Findlay Creek	4 Amigos	795.5	11.0	82J021	36	OR	110	Tembec	Slash	Scatter	2009	11	3850		JOP	Trench 3		
Dutch-Findlay Creek	4 Amigos	795.5	64.1	82J021	36	OF	110	Tembec	Slash	Scatter	2009	11	22435		JOP	Trench 3		
Dutch-Findlay Creek	4 Amigos	795.5	29.3	82J021	36	OF	110	Tembec	Slash	Scatter	2009	11	10255		JOP	Trench 3		
Dutch-Findlay Creek	4 Amigos	795.5	58.8	82J021	36	OF	110	Tembec	Slash	Scatter	2009	11	20580		JOP	Trench 3		
Waldo	Elko-Airport East	215.4	162.8	82G025	20	OR	103	Tembec	Slash	pile burn	2009	11	60000	31526	JOP	Galloway 2		
Waldo	Elko-Airport East	215.4	52.8	82G025	20	OF	103	Tembec	Slash	pile burn	2009	11	90000		JOP	Purcell Resources		
Sheep Creek North	Johnson Lake	250.0	250.0	82G092	87	OF	93	Tembec	Slash	scatter	2009	11	87500		JOP	Trench 2		

RESTORATIO	LOGICAL_BU	TOTAL_AREA	NET_AREA_F	MAPSHEET	OPENING	FOREST_TYP	PRIORITY	TIMBER_LIC	SLASH_TYP	SLASH_TRE	SLASH_CAL	SLASH_MOI	SLASH_ESTI	SLASH_ACT	SLASH_FUN	SLASH_CONT	SLASH_CO_1	SLASH_LOCA
Lewis - Wolf Creek	C. T. P.	90.0	71.0	82G082	159	OR	62	BCTS	Slash	pile burn	2009	11	42300		CBFWC			
Cranbrook Fort Steele	Highway Overpass	336.4	113.0	82G052	40	OF		BCTS	Slash	Pile-Burn	2009	11	113300	25000	JOP			
St. Mary's Prairie	Rouse	365.3	73.1	82G062	41	OR	108	Galloway	Slash	Pile-Burn	2009	12	270000		JOP			
Peckham's Lake	Hotfoot South	658.3	28.4	82G053	5	OF	92	BCTS	Slash	Pile-Burn	2009	8	0	10000	JOP	Tembec 2		Y
Peckham's Lake	Hotfoot South	658.3	7.2	82G053	5	OF	92	BCTS	Slash	Pile-Burn	2009	8	0	10000	JOP	Tembec 2		Y
Peckham's Lake	Hotfoot North	658.3	33.9	82G053	5	OF	92	BCTS	Slash	Pile-Burn	2009	8	0	10000	JOP	Tembec 2		Y
			41.1											20000.0				
St. Mary's Prairie	Indian North-South	424.0	424.0	82G061	60	OF	108	Galloway	Slash	Scatter	2010	10	106000		MOFR-ERP			
St. Mary's Prairie	Rouse	365.3	18.7	82G062	41	OF	108	Galloway	Slash	Scatter	2010	12	3740		MOFR-ERP			
St. Mary's Prairie	Rouse	365.3	46.5	82G062	41	OF	108	Galloway	Slash	Scatter	2010	12	9300		MOFR-ERP			
St. Mary's Prairie	Rouse	365.3	13.3	82G062	41	OF	108	Galloway	Slash	Scatter	2010	12	2660		MOFR-ERP			
St. Mary's Prairie	Rouse	365.3	13.6	82G062	41	OF	108	Galloway	Slash	Scatter	2010	12	2720		MOFR-ERP			
St. Mary's Prairie	Rouse	365.3	58.0	82G062	41	OF	108	Galloway	Slash	Scatter	2010	12	11600		MOFR-ERP			
Cranbrook Fort Steele	Highway Overpass	336.4	76.0	82G052	40	OF		BCTS	Slash	Pile-Burn	2010	2	75500		JOP			
Sheep Creek North	Springbrook North	526.0	210.0	82G092	82	OF	93	Tembec	Slash	pile burn	2010	2	2000		JOP			
Waldo	Rabbit Mtn	330.0	45.0	82G025	73	OR	103	Tembec	Slash	Pile burn	2010	3	25000		jop			
St. Mary's Prairie	Deep Springs	563.2	40.5	82G061	20	OF	108	Galloway	Slash	scatter	2010	4	14175		jop			
St. Mary's Prairie	Deep Springs	563.2	55.0	82G061	20	OF	108	Galloway	Slash	scatter	2010	4	19250		jop			
St. Mary's Prairie	Deep Springs	563.2	45.7	82G061	20	OF	108	Galloway	Slash	Scatter	2010	4	15995		jop			
St. Mary's Prairie	Deep Springs	563.2	1.1	82G061	20	OF	108	Galloway	Slash	Pile burn	2010	4	385		jop			
St. Mary's Prairie	Deep Springs	563.2	1.3	82G061	20	OF	108	Galloway	Slash	Pile burn	2010	4	455		jop			
St. Mary's Prairie	Deep Springs	563.2	7.3	82G061	20	OF	108	Galloway	Slash	Pile burn	2010	4	2555		jop			
St. Mary's Prairie	Deep Springs	563.2	175.9	82G061	20	OF	108	Galloway	Slash	Scatter	2010	4	61565		jop			
St. Mary's Prairie	Deep Springs	563.2	15.9	82G061	20	OF	108	Galloway	Slash	Scatter	2010	4	5565		jop			
St. Mary's Prairie	Deep Springs	563.2	1.5	82G061	20	OR	108	Galloway	Slash	Pile burn	2010	4	525		jop			
St. Mary's Prairie	Artesian-Dry	387.9	5.4	82G061	63	OF	108	Galloway	Slash	Scatter	2010	4	1890		jop			
St. Mary's Prairie	Artesian-Dry	387.9	18.9	82G061	63	OF	108	Galloway	Slash	Scatter	2010	4	6615		jop			
St. Mary's Prairie	Artesian-Dry	387.9	51.4	82G061	63	OF	108	Galloway	Slash	Scatter	2010	4	17990		jop			
St. Mary's Prairie	Artesian-Dry	387.9	21.4	82G061	63	OR	108	Galloway	Slash	Scatter	2010	4	7490		jop			
Dutch-Findlay Creek	Spur Flat	556.3	15.7	82J021	34	OF	110	Tembec	Slash	scatter	2010	4	144000		JOP	Trench 3		
Dutch-Findlay Creek	Spur Hill	556.3	203.1	82J021	34	OF	110	Tembec	Slash	scatter	2010	4	144000		JOP	Trench 3		
Wigwam	Wigwam Flats - East	0.0	66.0	82G025	58	OF		Tembec	Slash	pile burn	2010	5	5000		BCWF		Kent Petr	
St. Mary's Prairie	Dry Lake-Artesian	274.0	83.7	82G061	58	OR	108	Galloway	Slash	Scatter	2010	12	29295		jop			
St. Mary's Prairie	Dry Lake-Artesian	274.0	42.1	82G061	58	OR	108	Galloway	Slash	Scatter	2010	12	14735		jop			
St. Mary's Prairie	Dry Lake-Artesian	274.0	20.5	82G061	58	OF	108	Galloway	Slash	Pile/ burn	2010	12	7175		jop			
St. Mary's Prairie	Dry Lake-Artesian	274.0	5.5	82G061	58	OF	108	Galloway	Slash	Pile/ burn	2010	12	1925		jop			
Waldo	Cemetery Hills	582.0	127.7	82G024	131	OR	103	Tembec	Slash	scatter	2010	12	60000		JOP			
Waldo	Cemetery Hills	582.0	26.6	82G024	131	OF	103	Tembec	Slash	scatter	2010	12	60000		JOP			
Waldo	Cemetery Hills	582.0	102.9	82G024	131	OR	103	Tembec	Slash	scatter	2010	12	75000		JOP			
Findlay Basin	Stinky	150.0	150.0	82J011		OF	110	Tembec	Slash	Pile-Burn	2010	11	33300		JOP			
Toby Benches	Enid2	70.0	70.0	82K060	1301	OF		BCTS	Slash	pile	2010	8	31500		jop			
Toby Benches	Enid3	200.0	200.0	82K060	1302	OF		BCTS	Slash	pile	2010	8	90000		jop			
East Columbia Lake	Columbia Lake East A6	50.0	50.0	82J021		OR	116	Tembec	Slash	Piles	2010	11	18000		HCTF			
St. Mary's Prairie	Wycliffe Corridor	150.0	150.0	82G062		OR	108	Galloway	Slash	Pile-Burn	2010	11	54000		HCTF			
Lewis - Wolf Creek	Bradford Connector	10.0	10.0	82G082		OR	62	BCTS	Slash	pile burn	2010	11	10000		CBFWCP			
Lewis - Wolf Creek	Lazy Lake Connector	62.0	62.0	82G082		OR	62	BCTS	Slash	pile burn	2010	11	62000		CBFWCP			
Lewis - Wolf Creek	Lazy Lake North	31.0	31.0	82G082		OR	62	BCTS	Slash	pile burn	2010	11	11160		CBFWCP			
Wildhorse Lewis	Brewery Ridge	188.6	188.6	82G063	64	OR	68	Tembec	Slash	Pile	2010	12	23400		CBFWCP			
Waldo	Rabbit Mtn	330.0	120.0	82G025	73	OR	103	Tembec	Slash	Pile burn	2010	11	25000		jop			
			3071.8										1292465.0					
Ta Ta-Skookumchuck	42 A	305.0	78.0	82G082	151	OF	119	Tembec	Slash	Scatter	2011	12	213500	0	MOFR-ERP			
Cherry - Ta Ta	Lost Spring	500.0	323.0	82G072	93	OF	106	Galloway	Slash	Scatter	2011	3	84175		MOFR-ERP			
Ta Ta-Skookumchuck	Foster	308.0	308.0	82G082	141	OF	119	Tembec	Slash	sell pulp	2011	12	215600		MOFR-ERP			

RESTORATIO	LOGICAL_BU	TOTAL_AREA	NET_AREA_F	MAPSHEET	OPENING	FOREST_TYP	PRIORITY	TIMBER_LIC	SLASH_TYP	SLASH_TRE	SLASH_CAL	SLASH_MOI	SLASH_ESTI	SLASH_ACT	SLASH_FUN	SLASH_CONT	SLASH_CO_1	SLASH_LOCA
Ta Ta-Skookumchuck	Plot	503.7	60.8	82G082	99	OF	119	Tembec	slash	scatter	2011	12	20000		MOFR-ERP			
Sheep Creek North	Kootenay Ranch East	120.0	120.0	82J002		OF	93	Tembec	Slash	scatter	2011	9	2400		MOFR-ERP			
Cherry - Ta Ta	Kootenay Ranch East	500.0	45.0	82G072	93 (85,65)	OF	106	Galloway	Slash	Scatter	2011	9	37590		MOFR-ERP			
Waldo	Cemetery Hills	582.0	26.0	82G024	131	OR	103	Tembec	Slash	Scatter	2011	12	-58500		JOP			
Lewis - Wolf Creek	Lazy Lake East	52.0	52.0	82G082		OR	62	BCTS	Slash	pile burn	2011	11	18720		CBFWCP			
			1012.8										533485.0					
Gold - Plumbob	Gold Creek Canyon	146.0	146.0	82G014	65	OF	95	Tembec	Slash	Scatter	2012	9	36500		MOFR-ERP			
Gold - Plumbob	Gold Creek Canyon	217.0	217.0	82G014	63	OF	95	Tembec	Slash	Scatter	2012	9	54250		MOFR-ERP			
Newgate	Butt's	95.0	95.0	82G004		OF	114	BCTS	Slash	pile/burn	2012	11	57000		MOFR-ERP			
Waldo	Fusee West	323.7	323.7	82G024	71	OF	103	Tembec	Slash	Scatter	2012	11	15000		JOP			
Wildhorse Lewis	Estella Connector		73.0	82G082		OR	68	Tembec	Slash	pile burn	2012	11	26280		CBFWCP			
Ta Ta-Skookumchuck	River	126.0	126.0	82G082	148	OR	119	Tembec	Slash	bpile bur	2012	12	88200		jop			
Frances Creek	Height of Land	250.0	80.0			OF		Canfor	Slash	Scatter	2012	9	28000		MOFR-ERP			
			1060.7										305230.0					
St. Mary's Prairie	Steer	252.0	252.0	82G062	59	OF	108	Galloway	Slash	Scatter	2013	10	63000		MOFR-ERP			
Ta Ta-Skookumchuck	Echo	707.0	657.0	82G082	147	OF	119	Tembec	Slash	Scatter	2013	12	459900		MOFR-ERP			
Ta Ta-Skookumchuck	Pulpmill	393.0	285.2	82G082	153	OR	119	Tembec	Slash	scatter	2013	12	275100		MOFR-ERP			
Premier Ridge	3 Sons Property	200.0	200.0	82G082		OF	101	BCTS	Slash	scatter	2013	3	72000		HCTF			
Torrent	Middle-Sheep	234.0	234.0	82J001	109	OR		Tembec	Slash	shrubs	2013	7	117000		MOFR-ERP			
Toby Benches	Eileen	200.0	200.0	82K060			0	BCTS	Slash	pile	2013	8	90000		Interface			
Gold - Plumbob	Wakefield-Gorrie	224.0	224.0	82G004	147	OR	95	Tembec	Slash	Pile	2013	9	56000		MOFR-ERP			
Wildhorse Lewis	Estella North (blk 10a)	40.0	40.0	82G082		OR	68	Tembec	Slash	pile burn	2013	11	14400		CBFWCP			
Waldo	Baynes Lake	93.5	93.5	82G015	1	OF	103	Tembec	Slash	Scatter	2013	11	0		MOFR-ERP			
Wildhorse Lewis	Estella Northwest	73.0	73.0	82G082		OR		Tembec	Slash	pile burn	2013	11	26280		CBFWCP			
			2258.7										1173680.0					
Waldo	Cemetery Hills	582.0	67.4	82G024	131	OF	103	Tembec	Slash	Scatter	2014	4	37500		MOFR-ERP			
Waldo	Cemetery Hills	582.0	168.2	82G024	131	OF	103	Tembec	Slash	Scatter	2014	4	23000		MOFR-ERP			
Waldo	Cemetery Hills	582.0	30.4	82G024	131	OF	103	Tembec	Slash	Scatter	2014	4	37500		MOFR-ERP			
Gold - Plumbob	Buck West	350.0	350.0	82G024		OF	95	Tembec	Slash	Scatter	2014	9	87500		MOFR-ERP			
Waldo	Fusee West	339.0	30.0	82G024	75	OF	103	Tembec	Slash	Scatter	2014	11	7500		JOP			
Waldo	Fusee West	339.0	40.0	82G024	75	OF	103	Tembec	Slash	Scatter	2014	11	10000		JOP			
Waldo	Fusee West	339.0	60.0	82G024	75	OF	103	Tembec	Slash	Scatter	2014	11	15000		JOP			
Lewis - Wolf Creek	Leask	379.0	379.0	82G072	157	OR	62	BCTS	Slash	Sell Pulp	2014	11	227400		MOFR-ERP			
Pickering Hills	Jurik Pasture	620.0	620.0	82G053		OR	88	Galloway	Slash	scatter	2014	11	60000		MOFR-ERP			
Pickering Hills	Eimer Pasture	120.0	120.0	82G053		OF	88	Galloway	Slash	scatter	2014	11	43500		MOFR-ERP			
			1865.0										548900.0					
Cherry - Ta Ta	China North South	491.0	491.0	82G062		OF	106	Galloway	Slash	Scatter	2015	12	171850		MOFR-ERP			
Peckham's Lake	Garbutt Norbury	390.0	390.0	82G053	66	OF	92	BCTS	Slash	Scatter	2015	9	97500		MOFR-ERP			
Peckham's Lake	Garbutt Norbury	536.0	536.0	82G053		OF	92	BCTS	Slash	Scatter	2015	9	134000		MOFR-ERP			
St. Mary's Prairie	Sheep Camp	353.3	38.0	82G061	64	OF	108	Galloway	Slash	Scatter	2015	9	13300		MOFR-ERP			
St. Mary's Prairie	Sheep Camp	353.3	25.2	82G061	64	OF	108	Galloway	Slash	Scatter	2015	9	8820		MOFR-ERP			
St. Mary's Prairie	Sheep Camp	353.3	66.1	82G061	64	OF	108	Galloway	Slash	Scatter	2015	9	23135		MOFR-ERP			
St. Mary's Prairie	Sheep Camp	353.3	34.1	82G061	64	OF	108	Galloway	Slash	Scatter	2015	9	11935		MOFR-ERP			
St. Mary's Prairie	Sheep Camp	353.3	17.2	82G061	64	OF	108	Galloway	Slash	Scatter	2015	9	6020		MOFR-ERP			
Ta Ta-Skookumchuck	Reed A	316.0	316.0	82G081	146	OR	119	Tembec	Slash	scatter	2015	12	221200		MOFR-ERP			
Ta Ta-Skookumchuck	Reed B	303.0	303.0	82G082	154	OF	119	Tembec	Slash	scatter	2015	12	212100		MOFR-ERP			
Ta Ta-Skookumchuck	Reed C	250.0	250.0	82G082	155	OR	119	Tembec	Slash	scatter	2015	12	175000		MOFR-ERP			
Waldo	Sheep Mtn	400.0	400.0	82G025		OR	103	Tembec	Slash	pile/burn	2015	11	42000		MOFR-ERP			
			2866.6										1116860.0					

RESTORATIO	LOGICAL_BU	TOTAL_AREA	NET_AREA_F	MAPSHEET	OPENING	FOREST_TYP	PRIORITY	TIMBER_LIC	SLASH_TYP	SLASH_TRE	SLASH_CAL	SLASH_MOI	SLASH_ESTI	SLASH_ACT	SLASH_FUN	SLASH_CONT	SLASH_CO_1	SLASH_LOCA
Waldo	Baynes Lake North	269.0	269.0	82G025	70	OF	103	Tembec	Slash	Scatter	2016	10	67250		MOFR-ERP			
Waldo	Fusee North	360.0	140.0	82G025	74	OF	103	Tembec	Slash	Scatter	2016	11	35000		MOFR-ERP			
Waldo	Duck A	506.1	180.0	82G025	76	OF	103	Tembec	Slash	Scatter	2016	10	18750		MOFR-ERP			
Waldo	Duck B	506.0	180.0	82G025	76	OF	103	Tembec	Slash	Scatter	2016	10	20000		MOFR-ERP			
Waldo	Duck C	506.0	138.0	82G025	76	OR	103	Tembec	Slash	Scatter	2016	10	30000		MOFR-ERP			
Peckham's Lake	Alkaline purvis	491.0	412.0	82G053	20	OF	92	BCTS	Slash	Scatter	2016	11	267800		MOFR-ERP			
Peckham's Lake	Alkaline purvis	238.0	238.0	82G053		OF	92	BCTS	Slash	Scatter	2016	11	154700		MOFR-ERP			
Grasmere	Bagley's	1030.0	1030.0	82G005	17	OF	NR	BCTS	Slash	Scatter	2016	10	25000		MOFR-ERP			
Waldo	Fusee North	360.0	30.0	82G025	74	OR	103	Tembec	Slash	Scatter	2016	11	2500		MOFR-ERP			
Waldo	Fusee North	360.0	10.0	82G025	74	OF	103	Tembec	Slash	Scatter	2016	11	2500		MOFR-ERP			
Waldo	Fusee North	360.0	10.0	82G025	74	OF	103	Tembec	Slash	Scatter	2016	11	2500		MOFR-ERP			
			2637.0										626000.0					
Grasmere	Flagstone	1285.0	250.0	82G015		OR	NR	BCTS	Slash	Scatter	2017	10	25000		MOFR-ERP			
Grasmere	Flagstone	1285.0	150.0	82G015		OR	NR	BCTS	Slash	Scatter	2017	10	25000		MOFR-ERP			
			400.0										50000.0					
Cherry - Ta Ta	Beacon West	762.6	523.0	82G071	121	OF	106	BCTS	Slash	Scatter	2018	10	9000		mofr-erp			
Peckham's Lake	Hotfoot North	658.3	45.0	82G053	5	OF	92	BCTS	Slash	Scatter	2018	9	13500		MOFR-ERP			
Peckham's Lake	Hotfoot North	658.3	25.2	82G053	5	OF	92	BCTS	Slash	Scatter	2018	9	7560		MOFR-ERP			
			593.2										30060.0					
Cherry - Ta Ta	Rock Lake	616.0	616.0	82G072	93 (85-6)	OF	106	BCTS	Slash	Scatter	2019	3	154000		MOFR-ERP			
Rampart - Mayook	Whiskey Creek North	173.0	173.0	82G053	65	OF	86	BCTS	Slash	scatter	2019	9	60550		MOFR-ERP			
			789.0										214550.0					

RESTORATIO	LOGICAL_BU	TREATMENT_	TOTAL_AREA	NET_AREA	MAPSHEET	OPENING	FOREST_TYP	PRIORITY	BURN_TYPE	BURN_TREA	BURN_CALE	BURN_MON	BURN_ESTII	BURN_ACTI	BURNFUND	BURN_CONTR	BURN_CON	BURN_LOCAL
Waldo	North Kikkomun	Bob's Burn	187.0	187.0	82G024	65, 26	OF	103	Burn	Broadcast	2007	4.00	20000.00	24798.04	MOFR-ERP		Bob Couperus	
Waldo	Fusee East	Fusee East TU 2	356.1	33.5	82G025	68	OF	103	Burn	Broadcast	2008	4	20000	33240.00	FIA		Mark LaForest	
Waldo	Fusee East	Fusee East TU 3	356.1	19.5	82G025	68	OR	103	Burn	Broadcast	2008	4	0		FIA		Mark LaForest	
Waldo	Fusee East	Fusee East TU 4	356.1	29.4	82G025	68	OF	103	Burn	Broadcast	2008	4	0		FIA		Mark LaForest	
Waldo	Fusee East	Fusee East TU 5	356.1	76.1	82G025	68	OR	103	Burn	Broadcast	2008	4	0		FIA		Mark LaForest	
Premier Ridge	Gina	Gina TU 6	342.0	17.8	82G082	111	OR	101	Burn	Broadcast	2008	4.00	25000.00	26419.91	FIA	Purcell	Bob Couperus	
Kimberley Nature Park	Sunflower Hill	Sunflower Hill	56.0	56.0	82G061	54	OR		Burn	Broadcast	2008	4	15000	4164.00	MOFR-ERP		Mike Daigle	
Cherry - Ta Ta	Miller Road	Miller Road A	200.0	15.0	82G072	9 (86)	OR	106	Burn	Broadcast	2008	4		11474.00	MOFR-ERP		Mike Daigle	
Cherry - Ta Ta	Miller Road	Miller Road C	200.0	70.0	82G072	9 (31)	OR	106	Burn	Broadcast	2008	4		0	MOFR-ERP		Mike Daigle	
Cherry - Ta Ta	Miller Road	Miller Road B	200.0	75.0	82G072	9	OF	106	Burn	Broadcast	2008	4		0	MOFR-ERP		Mike Daigle	
Cherry - Ta Ta	Miller Road	Miller Road E	200.0	10.0	82G072	9 (75)	OF	106	Burn	Broadcast	2008	4		0	MOFR-ERP		Mike Daigle	
Cherry - Ta Ta	Miller Road	Miller Road D	200.0	35.0	82G072	9 (87)	OF	106	Burn	Broadcast	2008	4		0	MOFR-ERP		Mike Daigle	
Ta Ta-Skookumchuck	Plot	Plot 2A	503.7	5.0	82G082	99	OF	119	Burn	piles	2008	2		1453.5	HCTF	ER08SML040	purcell r	Y
				442.3										75297.9				
Waldo	Clear Lake	Clear Lake 180A	231.4	7.2	82G034	180	OF	103	Burn	Broadcast	2009	4	25000.00	35870.46	MOFR-ERP		Bob Couperous	
Waldo	Clear Lake	Clear Lake 180B	231.4	5.6	82G034	180	OF	103	Burn	Broadcast	2009	4	0		MOFR-ERP		Bob Couperous	
Waldo	Clear Lake	Clear Lake 180C	231.4	1.3	82G034	180	OF	103	Burn	Broadcast	2009	4	0		MOFR-ERP		Bob Couperous	
Waldo	Clear Lake	Clear Lake 180D	231.4	10.7	82G034	180	OF	103	Burn	Broadcast	2009	4	0		MOFR-ERP		Bob Couperous	
Waldo	Clear Lake	Clear Lake 180F	231.4	180.7	82G034	180	OF	103	Burn	Broadcast	2009	4	0		MOFR-ERP		Bob Couperous	
Waldo	Clear Lake	Clear Lake 180TU1	231.4	7.5	82G034	180	OR	103	Burn	Broadcast	2009	4			MOFR-ERP		Bob Couperous	
Wildhorse Lewis	Lakit Lake	Lakit Lake TU 1	409.0	272.3	82G072	89	OF	68	Burn	Broadcast	2009	4	25000	19972.29	MOFR-ERP		Mike Daigle	
Wildhorse Lewis	Lakit Lake	Lakit Lake TU 2	409.0	14.9	82G072	89	OF	68	Burn	Broadcast	2009	4	0		MOFR-ERP		Mike Daigle	
Wildhorse Lewis	Lakit Lake	Lakit Lake TU 3	409.0	15.6	82G072	89	OF	68	Burn	Broadcast	2009	4	0		MOFR-ERP		Mike Daigle	
Wildhorse Lewis	Lakit Lake	Lakit Lake TU 4A	409.0	4.5	82G072	89	OF	68	Burn	Broadcast	2009	4	0		MOFR-ERP		Mike Daigle	
Wildhorse Lewis	Lakit Lake	Lakit Lake TU 4B	409.0	8.0	82G072	89	OF	68	Burn	Broadcast	2009	4	0		MOFR-ERP		Mike Daigle	
Wildhorse Lewis	Lakit Lake	Lakit Lake TU 5	409.0	65.2	82G072	89	OR	68	Burn	Broadcast	2009	4	0		MOFR-ERP		Mike Daigle	
Wildhorse Lewis	Lakit Lake	Lakit Lake TU 6	409.0	6.4	82G072	89	OF	68	Burn	Broadcast	2009	4	0		MOFR-ERP		Mike Daigle	
East Columbia Lake	East Columbia 5B	East Columbia 5B	79.0	79.0	82J021	38	OR	116	Burn	Piles	2009	10.00	4500		HCTF		Nupqu	
Cranbrook Fort Steele	Eager Hill	Eager Hill TU A	96.1	77.3	82G052	41	OF		Burn	Piles	2009	3	5000	10300.00	JOP	Trench 1 and Galloway 1, 2	Y	
Cranbrook Fort Steele	Eager Hill	Eager Hill TU B	96.1	7.7	82G052	41	OF		Burn	Piles	2009	3	5000	2000.00	FIA	Trench 1 and Galloway 1, 2	Y	
East Columbia Lake	5A	East side Columbia 5A	58.0	58.0	82J021	35	OR	116	Burn	Piles	2009	11	4500	10000.00	HCTF	ER09SML01	K'tunaxa	Y
Premier Ridge	Wolf	Wolf Bench A	39.0	30.6	82G082	145	OF	101	Burn	piles	2009	4	5000.00	5000.00	HCTF			
Premier Ridge	Wolf	Wolf Bench B	39.0	8.6	82G082	145	OF		Burn	piles	2009	4	5000	5000.00	HCTF			
				861.1										88142.8				
Waldo	Clear Lake	Clear Lake177B	295.0	8.2	82G034	177	OF	103	Burn	Broadcast	2010	4	0		MOFR-ERP		Bob Couperus	
Waldo	Clear Lake	Clear Lake177C	295.0	5.4	82G034	177	OF	103	Burn	Broadcast	2010	4			MOFR-ERP		Bob Couperus	
Waldo	Clear Lake	Clear Lake177D	295.0	0.9	82G034	177	OF	103	Burn	Broadcast	2010	4			MOFR-ERP		Bob Couperus	
Waldo	Clear Lake	Clear Lake177E	295.0	5.1	82G034	177	OF	103	Burn	Broadcast	2010	4			MOFR-ERP		Bob Couperus	
Waldo	Clear Lake	Clear Lake177F	295.0	6.3	82G034	177	OF	103	Burn	Broadcast	2010	4			MOFR-ERP		Bob Couperus	
Waldo	Clear Lake	Clear Lake177H	295.0	14.7	82G034	177	OF	103	Burn	Broadcast	2010	4	0		MOFR-ERP		Bob Couperus	
Waldo	Clear Lake	Clear Lake177I	295.0	1.3	82G034	177	OF	103	Burn	Broadcast	2010	4	0		MOFR-ERP		Bob Couperus	
Waldo	Clear Lake	Clear Lake177TU1	295.0	213.0	82G034	177	OF	103	Burn	Broadcast	2010	4	30000.00		MOFR-ERP		Bob Couperus	
Premier Ridge	Gina	Gina TU 1	300.0	31.2	82G082	111	OF	101	Burn	Broadcast	2010	4	35000.00		MOFR-ERP		Mike Daigle	
Premier Ridge	Gina	Gina TU 2	300.0	8.4	82G082	111	OF	101	Burn	Broadcast	2010	4	0		MOFR-ERP		Mike Daigle	
Premier Ridge	Gina	Gina TU 3	300.0	44.9	82G082	111	OF	101	Burn	Broadcast	2010	4	0		MOFR-ERP		Mike Daigle	
Premier Ridge	Gina	Gina TU 5a	342.0	12.0	82G082	111	OR	101	Burn	Broadcast	2010	4	0		MOFR-ERP		Mike Daigle	
Premier Ridge	Gina	Gina TU 5b	342.0	5.0	82G082	111	OR	101	Burn	Broadcast	2010	4	0		MOFR-ERP		Mike Daigle	
Premier Ridge	Gina	Gina TU 5c	342.0	63.5	82G082	111	OR	101	Burn	Broadcast	2010	4	0		MOFR-ERP		Mike Daigle	
Premier Ridge	Gina	Gina TU 5d	342.0	3.0	82G082	111	OR	101	Burn	Broadcast	2010	4	0		MOFR-ERP		Mike Daigle	
Premier Ridge	Gina	Gina TU 7	342.0	10.8	82G082	111	OR	101	Burn	Broadcast	2010	4	0		MOFR-ERP		Mike Daigle	
Premier Ridge	Gina	Gina TU 7a	342.0	2.0	82G082	111	OR	101	Burn	Broadcast	2010	4	0		MOFR-ERP		Mike Daigle	
Premier Ridge	Gina	New Gina TU 4	342.0	120.7	82G082	158	OF	101	Burn	Broadcast	2010	4	0		MOFR-ERP		Mike Daigle	
Windermere-Sinclair	Redstreak	Redstreak Province	350.0	80.0	82K070	81	OR	98	Burn	Broadcast	2010	5	25000.00	0.00	National Parks		Rick Kubian	
Gold - Plumbob	Bare Mtn	Bare Mtn - Block 4 TU2	255.9	7.6	82G014	48	OF	95	Burn	Piles	2010	11.00	50000.00		MOFR-ERP			

RESTORATIO	LOGICAL_BU	TREATMENT_	TOTAL_AREA	NET_AREA	MAPSHEET	OPENING	FOREST_TYP	PRIORITY	BURN_TYPE	BURN_TREA	BURN_CALE	BURN_MON	BURN_ESTII	BURN_ACTI	BURNFUND	BURN_CONTR	BURN_CON	BURN_LOCAL
Dutch-Findlay Creek	Sun Lakes	Sun Lakes TU B1	317.3	41.8	82J011	145	OF	110	Burn	Piles	2010	4	5000.00		JOP	Trench 2		
Dutch-Findlay Creek	Sun Lakes	Sun Lakes TU B2	317.3	46.2	82J011	145	OF	110	Burn	Piles	2010	4	5000.00		JOP	Trench 2		
Dutch-Findlay Creek	Sun Lakes	Sun Lakes TU B4	317.3	37.7	82J011	145	OF	110	Burn	Piles	2010	4	5000.00		JOP	Trench 2		
Dutch-Findlay Creek	4 Amigos	4 Amigos A	795.5	30.4	82J021	36	OF	110	Burn	Piles	2010	4	15000.00		JOP	Trench 2		
Dutch-Findlay Creek	4 Amigos	4 Amigos B2	795.5	6.6	82J021	36	OF	110	Burn	Piles	2010	4	15000.00		JOP	Trench 2		
Toby Benches	Enid2	Enid2	55.0	55.0	82K060	1301	OF		Burn	Piles	2010	3.00	4000.00		JOP	Trench 3		
Toby Benches	Enid3	Enid3	25.0	25.0	82K060	1302	OF		Burn	Piles	2010	4.00	10000		JOP	Trench 3		
Windermere-Sinclair	Juniper Heights	Juniper Heights	110.0	110.0	82K060	163	OR	98	Burn	Piles	2010	4	10000.00		JOP	Trench 3		
Premier Ridge	Wasa Cr North	Wasa Cr North	158.0	158.0	82G082		OR	101	Burn	Broadcast	2010	4	10000.00		CBFWCP			
Dutch-Findlay Creek	Thunder Phil	Thunder Phil A5	709.4	43.0	82J011	144	OF	110	Burn main	Broadcast	2010	9.00	15000.00		MOFR-ERP			
Dutch-Findlay Creek	Thunder Phil	Thunder Phil B9	709.4	90.0	82J011	144	OF	110	Burn main	Broadcast	2010	9.00			MOFR-ERP			
Findlay Basin	Stinky	Stinky TU 2	550.0	251.4	82J011	143	OF	110	Burn main	Broadcast	2010	9.00	20000.00		MOFR-ERP			
				1539.1									244000.0					
Cranbrook Fort Steele	Highway Overpass	Overpass	336.4	24.0	82G052	40	OF		Burn	Broadcast	2011	4		0	Interface			
Cranbrook Fort Steele	Highway Overpass	Overpass-tu3	336.4	40.0	82G052	40	OR		Burn	Broadcast	2011	4	35000.00	0	Interface			
Cranbrook Fort Steele	Highway Overpass	Overpass-tu8	336.4	76.0	82G052	40	OF		Burn	Broadcast	2011	4	0	0	Interface			
Cranbrook Fort Steele	Highway Overpass	Overpass-tu8	336.4	76.0	82G052	40	OF		Burn	Broadcast	2011	4	0	0	Interface			
Cranbrook Fort Steele	Highway Overpass	Overpass-tu10	336.4	24.0	82G052	40	OR		Burn	Broadcast	2011	4	0	0	Interface			
Cranbrook Fort Steele	Highway Overpass	Overpass-tu6	336.4	113.0	82G052	40	OF		Burn	Broadcast	2011	4	0	0	Interface			
Cranbrook Fort Steele	Highway Overpass	Overpass-tu9	336.4	6.0	82G052	40	OR		Burn	Broadcast	2011	4	0	0	Interface			
Cherry - Ta Ta	Old Airport	Old Airport A81787-CP1	707.6	35.2	82G072	91	OR	106	Burn	Broadcast	2011	4			MOFR-ERP			
Cherry - Ta Ta	Old Airport	Old Airport NSR TU 1	707.6	16.2	82G072	91	OR	106	Burn	Broadcast	2011	4	35000.00	0	MOFR-ERP			
Cherry - Ta Ta	Old Airport	Old Airport Select Log TU	707.6	68.2	82G072	91	OR	106	Burn	Broadcast	2011	4			MOFR-ERP			
Cherry - Ta Ta	Old Airport	Old Airport OGMA TU 3	707.6	63.0	82G072	91	OF	106	Burn	Broadcast	2011	4			MOFR-ERP			
Cherry - Ta Ta	Old Airport	Old OGMA A19042-CP14	707.6	345.2	82G072	91	OF	106	Burn	Broadcast	2011	4			MOFR-ERP			
Cherry - Ta Ta	Old Airport	Old Airport A81787-CP1	707.6	66.1	82G072	91	OR	106	Burn	Broadcast	2011	4		0	MOFR-ERP			
Cherry - Ta Ta	Old Airport	Old Airport TU7	707.6	33.8	82G072	91	OF	106	Burn	Broadcast	2011	4			MOFR-ERP			
Dutch-Findlay Creek	Thunder Bob	Thunder Bob A	523.2	220.9	82J011	142	OR	110	Burn main	Broadcast	2011	4	35000.00		MOFR-ERP			
Dutch-Findlay Creek	Thunder Bob	Thunder Bob B	523.2	135.6	82J011	142	OF	110	Burn main	Broadcast	2011	4			MOFR-ERP			
Dutch-Findlay Creek	Thunder Bob	Thunder Bob C	523.2	22.2	82J011	142	OR	110	Burn main	Broadcast	2011	4			MOFR-ERP			
				1365.4									105000.0					
St. Mary's Prairie	Cherry North-South	North Cherry TU 1A	319.5	17.0	82G061	16	OR	108	Burn	Broadcast	2012	4	35000.00		MOFR-ERP			
St. Mary's Prairie	Cherry North-South	North Cherry TU 1B	319.5	49.2	82G061	16	OR	108	Burn	Broadcast	2012	4			MOFR-ERP			
St. Mary's Prairie	Cherry North-South	North Cherry TU 1C	319.5	9.5	82G061	16	OR	108	Burn	Broadcast	2012	4			MOFR-ERP			
St. Mary's Prairie	Cherry North-South	North Cherry TU 2A	319.5	27.5	82G061	16	OF	108	Burn	Broadcast	2012	4			MOFR-ERP			
St. Mary's Prairie	Cherry North-South	North Cherry TU 2B	319.5	9.8	82G061	16	OF	108	Burn	Broadcast	2012	4			MOFR-ERP			
St. Mary's Prairie	Cherry North-South	North Cherry TU 2C	319.5	4.7	82G061	16	OF	108	Burn	Broadcast	2012	4			MOFR-ERP			
St. Mary's Prairie	Cherry North-South	North Cherry TU 2D	319.5	2.6	82G061	16	OF	108	Burn	Broadcast	2012	4			MOFR-ERP			
St. Mary's Prairie	Cherry North-South	North Cherry TU 2E	319.5	1.7	82G061	16	OF	108	Burn	Broadcast	2012	4			MOFR-ERP			
St. Mary's Prairie	Cherry North-South	North Cherry TU 2G	319.5	1.2	82G061	16	OF	108	Burn	Broadcast	2012	4			MOFR-ERP			
St. Mary's Prairie	Cherry North-South	North Cherry TU 3A	319.5	90.6	82G061	16	OR	108	Burn	Broadcast	2012	4			MOFR-ERP			
St. Mary's Prairie	Cherry North-South	North Cherry TU 4A	319.5	19.9	82G061	16	OR	108	Burn	Broadcast	2012	4			MOFR-ERP			
St. Mary's Prairie	Cherry North-South	North Cherry TU 5A	319.5	25.2	82G061	16	OR	108	Burn	Broadcast	2012	4			MOFR-ERP			
St. Mary's Prairie	Cherry North-South	North Cherry TU 5B	319.5	16.1	82G061	16	OR	108	Burn	Broadcast	2012	4			MOFR-ERP			
St. Mary's Prairie	Cherry North South	Cherry-South TU 1D	219.9	19.9	82G061	57	OF	108	Burn	Broadcast	2012	4	25000.00		MOFR-ERP			
St. Mary's Prairie	Cherry North South	Cherry-South TU 1E	219.9	9.9	82G061	57	OF	108	Burn	Broadcast	2012	4			MOFR-ERP			
St. Mary's Prairie	Cherry North South	Cherry-South TU 2F	219.9	22.4	82G061	57	OF	108	Burn	Broadcast	2012	4			MOFR-ERP			
St. Mary's Prairie	Cherry North South	Cherry-South TU 3B	219.9	40.6	82G061	57	OR	108	Burn	Broadcast	2012	4			MOFR-ERP			
St. Mary's Prairie	Cherry North South	Cherry-South TU 4B	219.9	62.0	82G061	57	OR	108	Burn	Broadcast	2012	4			MOFR-ERP			
St. Mary's Prairie	Cherry North South	Cherry-South TU 4C	219.9	7.7	82G061	57	OR	108	Burn	Broadcast	2012	4			MOFR-ERP			
Lewis - Wolf Creek	Lazy Lake North	Lazy Lake North		62.0	82G082		OR	62	Burn	Broadcast	2012	4	6000.00		CBFWCP			
East Columbia Lake	Columbia Lake East A6	Columbia Lake East A6	50.0	50.0	82J021		OR	116	Burn	Piles	2012	10.00	4500.00		HCTF			
Premier Ridge	Wasa Mtn South (block 16a)	Wasa Mtn South (block	141.0	141.0	82G082		OR	101	Burn	Broadcast	2012	4	10000.00		CBFWCP			
Dutch-Findlay Creek	4 Amigos	4 Amigos E	795.5	11.0	82J021	36	OR	110	Burn main	Broadcast	2012	4	25000.00		MOFR-ERP			
Dutch-Findlay Creek	4 Amigos	4 Amigos F	795.5	64.1	82J021	36	OF	110	Burn main	Broadcast	2012	4			MOFR-ERP			
Dutch-Findlay Creek	4 Amigos	4 AmigosNCC2	795.5	58.8	82J021	36	OF	110	Burn main	Broadcast	2012	4			MOFR-ERP			

RESTORATIO	LOGICAL_BU	TREATMENT_	TOTAL_AREA	NET_AREA	MAPSHEET	OPENING	FOREST_TYP	PRIORITY	BURN_TYPE	BURN_TREA	BURN_CALE	BURN_MON	BURN_ESTIM	BURN_ACTU	BURNFUND	BURN_CONTR	BURN_CON	BURN_LOCAL
				824.4									105500.0					
St. Mary's Prairie	Indian North-South	Indian North-South	424.0	424.0	82G061	60	OF	108	Burn	Broadcast	2013	4	25000.00		MOFR-ERP			
St. Mary's Prairie	Rouse	Rouse TU 1	365.3	33.6	82G062	41	OR	108	Burn	Broadcast	2013	4	25000.00		MOFR-ERP			
St. Mary's Prairie	Rouse	Rouse TU 2	365.3	73.1	82G062	41	OR	108	Burn	Broadcast	2013	4			MOFR-ERP			
St. Mary's Prairie	Rouse	Rouse TU 3	365.3	58.2	82G062	41	OR	108	Burn	Broadcast	2013	4			MOFR-ERP			
St. Mary's Prairie	Rouse	Rouse TU 4	365.3	18.7	82G062	41	OF	108	Burn	Broadcast	2013	4			MOFR-ERP			
St. Mary's Prairie	Rouse	Rouse TU 5	365.3	46.5	82G062	41	OF	108	Burn	Broadcast	2013	4			MOFR-ERP			
St. Mary's Prairie	Rouse	Rouse TU 6	365.3	13.3	82G062	41	OF	108	Burn	Broadcast	2013	4			MOFR-ERP			
St. Mary's Prairie	Rouse	Rouse TU 7	365.3	13.6	82G062	41	OF	108	Burn	Broadcast	2013	4			MOFR-ERP			
St. Mary's Prairie	Rouse	Rouse TU 8	365.3	58.0	82G062	41	OF	108	Burn	Broadcast	2013	4			MOFR-ERP			
St. Mary's Prairie	Rouse	Rouse TU 9	365.3	38.9	82G062	41	OF	108	Burn	Broadcast	2013	4			MOFR-ERP			
Cherry - Ta Ta	Lost Spring	Lost Spring A	500.0	70.0	82G072	93 (86)	OR	106	Burn	Broadcast	2013	4		0	MOFR-ERP			
Cherry - Ta Ta	Lost Spring	Lost Spring G	500.0	2.0	82G072	93	OR	106	Burn	Broadcast	2013	4		0	MOFR-ERP			
Cherry - Ta Ta	Lost Spring	Lost Spring B	500.0	30.0	82G072	93 (87)	OF	106	Burn	Broadcast	2013	4		0	MOFR-ERP			
Cherry - Ta Ta	Lost Spring	Lost Spring D	500.0	10.0	82G072	93 (68)	OF	106	Burn	Broadcast	2013	4		0	MOFR-ERP			
Cherry - Ta Ta	Lost Spring	Lost Spring E	500.0	20.0	82G072	93 (56)	OR	106	Burn	Broadcast	2013	4		0	MOFR-ERP			
Cherry - Ta Ta	Lost Spring	Lost Spring F	500.0	323.0	82G072	93	OF	106	Burn	Broadcast	2013	4		0	MOFR-ERP			
Cherry - Ta Ta	Lost Spring	Lost Spring C	500.0	45.0	82G072	93 (85,65)	OF	106	Burn	Broadcast	2013	4	30000.00	0	MOFR-ERP			
Premier Ridge	Quartz	CTP 165	161.0	161.0	82G082	New	OR	101	Burn	Broadcast	2013	4	25000.00		MOFR-ERP			
Newgate	Butt's	Butts	95.0	95.0	82G004		OF	114	Burn	Piles	2013	11.00	6000.00		MOFR-ERP			
Toby Benches	Eileen	Eileen	200.0	200.0	82K060			0	Burn	Piles	2013	11	7000.00		Interface			
Wildhorse Lewis	Brewery Ridge	Brewery Ridge SU1-TU1	188.6	188.6	82G063	64	OR	68	Burn main	Broadcast	2013	4	25000.00		CBFWCP			
Dutch-Findlay Creek	Spur Flat	Spur TU 1	556.3	262.2	82J021	34	OR	110	Burn main	Broadcast	2013	9	15000.00		MOFR-ERP		Grant Neville	
Dutch-Findlay Creek	Spur Flat	Spur TU 2	556.3	15.7	82J021	34	OF	110	Burn main	Broadcast	2013	9			MOFR-ERP		Grant Neville	
Dutch-Findlay Creek	Spur Hill	Spur TU 3	556.3	203.1	82J021	34	OF	110	Burn main	Broadcast	2013	9	15000.00		MOFR-ERP		Grant Neville	
Waldo	Burnt Bottom	Slashed	362.0	158.0	82G015	104	OF	103	Burn	Broadcast	2013	4	15000.00		MOFR-ERP			
Waldo	Burnt Bottom	Not slashed	362.0	204.0	82G015	104	OF	103	Burn	Broadcast	2013	4	15000.00		MOFR-ERP			
				2765.5									203000.0					
Cherry - Ta Ta	China North South	China North South	491.0	491.0	82G062		OF	106	Burn	Broadcast	2014	4	25000.00	0	MOFR-ERP			
Newgate	Demar-Sharp tail	Demar	307.0	307.0	82G004	34	OF	114	Burn	Broadcast	2014	4	20000.00		MOFR-ERP			
Sheep Creek North	Kootenay Ranch Addendum	Dragons Tail	703.0	400.0	82J002		OF	93	Burn	Broadcast	2014	4	15000.00		MOFR-ERP			
Sheep Creek North	Kootenay Ranch East	Kootenay Ranch East	120.0	120.0	82J002		OF	93	Burn	Broadcast	2014	4	15000.00		MOFR-ERP			
Gold - Plumbob	Gold Creek Canyon	CP157-330	146.0	146.0	82G014	65	OF	95	Burn	Broadcast	2014	4	35000.00		MOFR-ERP			
Gold - Plumbob	Gold Creek Canyon	CP157-328	217.0	217.0	82G014	63	OF	95	Burn	Broadcast	2014	4			MOFR-ERP			
Gold - Plumbob	Gold Creek Canyon	CP157-332	208.0	208.0	82G014	67	OR	95	Burn	Broadcast	2014	4			MOFR-ERP			
Wildhorse Lewis	Estella Connector	Estella Connector		29.0	82G082		OR	68	Burn	Broadcast	2014	4	20000.00		CBFWCP			
Wildhorse Lewis	Estella Northwest	Estella Northwest		73.0	82G082		OR	68	Burn	Broadcast	2014	4	20000.00		CBFWCP			
Wildhorse Lewis	Estella North (blk 10a)	Estella North (blk 10a)		40.0	82G082		OR	68	Burn	Broadcast	2014	4	0		CBFWCP			
Wildhorse Lewis	Estella South (blk 10b)	Estella South (blk 10b)		82.0	82G082		OR	68	Burn	Broadcast	2014	4	0		CBFWCP			
Sheep Creek North	Johnson Lake	Johnson Lake	250.0	250.0	82G092	87	OF	93	Burn	Broadcast	2014	4	25000.00		MOFR-ERP			
Newgate	Demar-Sharp tail	Sharp tail	407.0	407.0	82G004	34	OF	114	Burn	Broadcast	2014	4	20000.00		MOFR-ERP			
Pickering Hills	Bronze Lake	Bronze Lake	687.0	687.0	82G043	1	OR	88	Burn	Broadcast	2014	4	25000		MOFR-ERP			
				3457.0									195000.0					
Grasmere	Dump	TSLA45087	900.0	99.0	82G015	1300	OR	NR	Burn	Broadcast	2015	4	35000.00		MOFR-ERP			
Grasmere	Dump	TSLA81351	900.0	143.0	82G015	1301	OR	NR	Burn	Broadcast	2015	4	0		MOFR-ERP			
Grasmere	Dump	DumpA	900.0	0.0	82G015		OF	NR	Burn	Broadcast	2015	4	0		MOFR-ERP			
Waldo	Cemetery Hills	Cemetary Hills TU B	582.0	127.7	82G024	131	OR	103	Burn	Broadcast	2015	4	35000.00		MOFR-ERP			
Waldo	Cemetery Hills	Cemetary Hills TU G	582.0	8.9	82G024	131	OR	103	Burn	Broadcast	2015	4			MOFR-ERP			
Waldo	Cemetery Hills	Cemetary Hills TU2	582.0	26.6	82G024	131	OF	103	Burn	Broadcast	2015	4			MOFR-ERP			
Waldo	Cemetery Hills	Cemetary Hills TU E	582.0	102.9	82G024	131	OR	103	Burn	Broadcast	2015	4			MOFR-ERP			
Waldo	Cemetery Hills	Cemetary Hills TU F	582.0	26.0	82G024	131	OR	103	Burn	Broadcast	2015	4			MOFR-ERP			
Waldo	Cemetery Hills	Cemetary Hills TU A CP2	582.0	67.4	82G024	131	OF	103	Burn	Broadcast	2015	4			MOFR-ERP			
Waldo	Cemetery Hills	Cemetary Hills TU C	582.0	168.2	82G024	131	OF	103	Burn	Broadcast	2015	4			MOFR-ERP			
Waldo	Cemetery Hills	Cemetary Hills TU D1	582.0	24.4	82G024	131	MF	103	Burn	Broadcast	2015	4			MOFR-ERP			

RESTORATIO	LOGICAL_BU	TREATMENT_	TOTAL_AREA	NET_AREA	MAPSHEET	OPENING	FOREST_TYP	PRIORITY	BURN_TYPE	BURN_TREA	BURN_CALE	BURN_MON	BURN_ESTII	BURN_ACTI	BURNFUND	BURN_CONTR	BURN_CON	BURN_LOCAL
Waldo	Cemetery Hills	Cemetery Hills U D2	582.0	30.4	82G024	131	OF	103	Burn	Broadcast	2015	4			MOFR-ERP			
Peckham's Lake	Hotfoot South	Hot Foot TU 3	658.3	69.6	82G053	5	OF	92	Burn	Broadcast	2015	4	35000.00		MOFR-ERP			
Peckham's Lake	Hotfoot South	Hot Foot TU 4	658.3	15.9	82G053	5	OF	92	Burn	Broadcast	2015	4			MOFR-ERP			
Peckham's Lake	Hotfoot South	Hot Foot TU 5	658.3	28.4	82G053	5	OF	92	Burn	Broadcast	2015	4			MOFR-ERP			
Peckham's Lake	Hotfoot South	Hot Foot TU 6	658.3	7.2	82G053	5	OF	92	Burn	Broadcast	2015	4			MOFR-ERP			
Peckham's Lake	Hotfoot South	Hot Foot TU 7	658.3	14.0	82G053	5	OF	92	Burn	Broadcast	2015	4			MOFR-ERP			
Peckham's Lake	Hotfoot North	Hot Foot TU 8	658.3	33.9	82G053	5	OF	92	Burn	Broadcast	2015	4			MOFR-ERP			
Peckham's Lake	Hotfoot North	Hot Foot TU 9	658.3	16.0	82G053	5	OF	92	Burn	Broadcast	2015	4			MOFR-ERP			
Peckham's Lake	Hotfoot South	Hot Foot TU 10b	658.3	8.0	82G053	5	OF	92	Burn	Broadcast	2015	4			MOFR-ERP			
Peckham's Lake	Hotfoot South	Hot Foot TU 10c	658.3	25.0	82G053	5	OF	92	Burn	Broadcast	2015	4			MOFR-ERP			
Peckham's Lake	Hotfoot South	Hot Foot TU 10d	658.3	8.4	82G053	5	OF	92	Burn	Broadcast	2015	4			MOFR-ERP			
Peckham's Lake	Hotfoot South	Hot Foot TU 12	658.3	18.1	82G053	5	OR	92	Burn	Broadcast	2015	4			MOFR-ERP			
Peckham's Lake	Hotfoot South	Hot Foot TU 13	658.3	18.1	82G053	5	OR	92	Burn	Broadcast	2015	4			MOFR-ERP			
Torrent	Middle-Sheep	Saskatoon Heaven	234.0	234.0	82J001	109	OR		Burn	Broadcast	2015	4	15000.00		MOFR-ERP			
Cranbrook Fort Steele	Highway Overpass	Overpass-tu7	336.4	80.0	82G052	40	OF		Burn	Broadcast	2015	4	25000.00	0	Interface			
Cranbrook Fort Steele	Highway Overpass	Overpass-tu4	336.4	18.0	82G052	40	OF		Burn	Broadcast	2015	4	0	0	Interface			
Cranbrook Fort Steele	Highway Overpass	Overpass-tu4	336.4	18.0	82G052	40	OF		Burn	Broadcast	2015	4	0	0	Interface			
Ta Ta-Skookumchuck	Pulpmill	Pulpmill	393.0	285.2	82G082	153	OR	119	Burn	Broadcast	2015	4	25000.00		MOFR-ERP			
Findlay Basin	Stinky	Fir Mtn	150.0	150.0	82J011		OF	110	Burn	Broadcast	2015	4	25000.00		MOFR-ERP			
Premier Ridge	3 Sons Property	3 Sons Property	200.0	200.0	82G082		OF	101	Burn	Broadcast	2015	4	2000.00		HCTF			
Newgate	Earl Ranch	Earl Ranch	250.0	250.0	82G004		OF	114	Burn	Broadcast	2015	4	20000.00		HCTF			
PowerPlant	Bull River Property	Bull River Property	100.0	100.0	82G053		OF	116	Burn	Broadcast	2015	4	20000.00		HCTF			
Waldo North Pilot	Munson Slough	Munson Slough	294.0	57.0	82G034	178	OR	103	Burn main	Broadcast	2015	9	10000.00		MOFR-ERP			
Waldo	East Kootenay-Eimer	East Kootenay-Eimer	-2.0	556.0	82G034	178	OF	103	Burn main	Broadcast	2015	9	15000.00		MOFR-ERP			
Wildhorse Lewis	South Lakit Ridge	South Lakit Ridge SU1	132.0	132.0	82G063	64	OR	68	Burn main	Broadcast	2015	9	20000.00		CBFWCP			
Premier Ridge	Alkali North	Alkali South	366.0	366.0	82G082	156	OF	101	Burn	Broadcast	2015	4	25000.00		MOFR-ERP			
				3533.3									307000.0					
Rampart - Mayook	City	City	188.0	188.0	82G052	9	OR	86	Burn	Broadcast	2016	4	15000.00		MOFR-ERP	Glenn Gib		
Gold - Plumbob	Buck West	Dilts-Cut	350.0	350.0	82G024		OF	95	Burn	Broadcast	2016	4	2000.00		MOFR-ERP			
Waldo	Elko-Airport East	Elko-Airport East TU 1	215.4	162.8	82G025	20	OR	103	Burn	Broadcast	2016	4	15000.00		MOFR-ERP			
Waldo	Elko-Airport East	Elko-Airport East TU 2	215.4	52.8	82G025	20	OF	103	Burn	Broadcast	2016	4	15000.00		MOFR-ERP			
Waldo	Elko-Airport west	Elko-Airport west	250.0	250.0	82G025		OR	103	Burn	Broadcast	2016	4	15000.00		MOFR-ERP			
Ta Ta-Skookumchuck	Foster	Foster	308.0	308.0	82G082	141	OF	119	Burn	Broadcast	2016	4.00	25000.00		MOFR-ERP			
Frances Creek	Height of Land	Height Of Land TU B	250.0	170.0			OF		Burn	Broadcast	2016	4	20000.00		MOFR-ERP			
Frances Creek	Height of Land	Height Of Land TU A	250.0	80.0			OF		Burn	Broadcast	2016	4			MOFR-ERP			
Waldo	Labb	A	73.0	73.0	82G024		OF	103	Burn	Broadcast	2016	4	25000.00		MOFR-ERP			
Lewis - Wolf Creek	Leask	North Wasa Interfac	379.0	379.0	82G072	157	OR	62	Burn	Broadcast	2016	4	20000.00		MOFR-ERP			
St. Mary's Prairie	Luke- Meadow	Luke Meadow TU A	613.0	11.4	82G061	55	OF	108	Burn	Broadcast	2016	4	25000.00		Interface			
St. Mary's Prairie	Luke- Meadow	Luke Meadow TUB	613.0	54.5	82G061	55	OR	108	Burn	Broadcast	2016	4			Interface			
St. Mary's Prairie	Luke- Meadow	Luke Meadow TU C	613.0	34.0	82G061	55	OR	108	Burn	Broadcast	2016	4			Interface			
St. Mary's Prairie	Luke- Meadow	Luke Meadow TU D	613.0	67.1	82G061	55	OR	108	Burn	Broadcast	2016	4			Interface			
St. Mary's Prairie	Luke- Meadow	Luke Meadow TU G	613.0	72.1	82G061	55	OR	108	Burn	Broadcast	2016	4			Interface			
Newgate	Newgate-Alkali	Newgate-Alkali	153.0	153.0	82G004		OR	114	Burn	Broadcast	2016	4	15000.00		MOFR-ERP			
St. Mary's Prairie	Steer	Steer	252.0	252.0	82G062	59	OF	108	Burn	Broadcast	2016	4	25000.00		MOFR-ERP			
Pickering Hills	Pickering Pasture	Pickering Pasture	577.0	577.0	82G043		OR	88	Burn	Broadcast	2016	4	25000.00		MOFR-ERP			
St. Mary's Prairie	Deep Springs	Deep Springs TU 12	563.2	40.5	82G061	20	OF	108	Burn main	Broadcast	2016	9	25000.00		MOFR-ERP			
St. Mary's Prairie	Deep Springs	Deep Springs TU 3	563.2	55.0	82G061	20	OF	108	Burn main	Broadcast	2016	9			MOFR-ERP			
St. Mary's Prairie	Deep Springs	Deep Springs TU 5	563.2	45.7	82G061	20	OF	108	Burn main	Broadcast	2016	9			MOFR-ERP			
St. Mary's Prairie	Deep Springs	Deep Springs TU 6	563.2	1.1	82G061	20	OF	108	Burn main	Broadcast	2016	9			MOFR-ERP			
St. Mary's Prairie	Deep Springs	Deep Springs TU 7	563.2	1.3	82G061	20	OF	108	Burn main	Broadcast	2016	9			MOFR-ERP			
St. Mary's Prairie	Deep Springs	Deep Springs TU 10	563.2	7.3	82G061	20	OF	108	Burn main	Broadcast	2016	9			MOFR-ERP			
St. Mary's Prairie	Deep Springs	Deep Springs TU 11	563.2	175.9	82G061	20	OF	108	Burn main	Broadcast	2016	9			MOFR-ERP			
St. Mary's Prairie	Deep Springs	Deep Springs TU 2	563.2	15.9	82G061	20	OF	108	Burn main	Broadcast	2016	9			MOFR-ERP			
St. Mary's Prairie	Deep Springs	Deep Springs TU 8	563.2	74.0	82G061	20	OR	108	Burn main	Broadcast	2016	9			MOFR-ERP			
St. Mary's Prairie	Deep Springs	Deep Springs TU 9	563.2	1.5	82G061	20	OR	108	Burn main	Broadcast	2016	9			MOFR-ERP			
Ta Ta-Skookumchuck	Echo	Echo	707.0	657.0	82G082	147	OF	119	Burn	Broadcast	2016	4	25000.00		MOFR-ERP			
Gold - Plumbob	Wakefield-Gorrie	Gorrie	224.0	224.0	82G004	147	OR	95	Burn	Broadcast	2016	4	15000.00		MOFR-ERP			

RESTORATIO	LOGICAL_BU	TREATMENT_	TOTAL_AREA	NET_AREA	MAPSHEET	OPENING	FOREST TYP	PRIORITY	BURN_TYPE	BURN_TREA	BURN_CALE	BURN_MON	BURN_ESTII	BURN_ACTI	BURNFUND	BURN_CONTR	BURN_CON	BURN_LOCAL
Gold - Plumbob	Wakefield-Gorrie	Wakefield	274.0	274.0	82G004	147	OR	95	Burn	Broadcast	2016	4	2000.00		MOFR-ERP			
				4807.9									309000.0					
Waldo	Baynes Lake	Baynes Lake A	93.5	93.5	82G015	1	OF	103	Burn	Broadcast	2017	4	15000.00		MOFR-ERP			
Waldo	Baynes Lake North	Baynes Lake North	269.0	269.0	82G025	70	OF	103	Burn	Broadcast	2017	4	10000.00		MOFR-ERP			
Premier Ridge	Alkali North	CTP126	150.0	150.0	82G082	156	0	101	Burn	Broadcast	2017	4	25000.00		MOFR-ERP			
St. Mary's Prairie	Dry Lake-Artesian	Dry Lake TU 1	274.0	57.3	82G061	58	OF	108	Burn	Broadcast	2017	4	15000.00		MOFR-ERP			
St. Mary's Prairie	Dry Lake-Artesian	Dry Lake TU 2	274.0	83.7	82G061	58	OR	108	Burn	Broadcast	2017	4			MOFR-ERP			
St. Mary's Prairie	Dry Lake-Artesian	Dry Lake TU 3	274.0	42.1	82G061	58	OR	108	Burn	Broadcast	2017	4			MOFR-ERP			
St. Mary's Prairie	Dry Lake-Artesian	Dry Lake TU 5	274.0	20.5	82G061	58	OF	108	Burn	Broadcast	2017	4			MOFR-ERP			
St. Mary's Prairie	Dry Lake-Artesian	Dry Lake TU 6	274.0	5.5	82G061	58	OF	108	Burn	Broadcast	2017	4			MOFR-ERP			
Waldo	Fusee West	Fusee West Alpha TU 1	339.0	30.0	82G024	75	OF	103	Burn	Broadcast	2017	4			MOFR-ERP			
Waldo	Fusee West	Fusee West Alpha TU 2	339.0	40.0	82G024	75	OF	103	Burn	Broadcast	2017	4			MOFR-ERP			
Waldo	Fusee West	Fusee West Alpha TU 3	339.0	60.0	82G024	75	OF	103	Burn	Broadcast	2017	4			MOFR-ERP			
Waldo	Fusee West	Fusee West Beta	323.7	323.7	82G024	71	OF	103	Burn	Broadcast	2017	4			MOFR-ERP			
Peckham's Lake	Garbutt Norbury	Garbutts	390.0	390.0	82G053	66	OF	92	Burn	Broadcast	2017	4	35000.00		MOFR-ERP			
Peckham's Lake	Garbutt Norbury	Norbury	536.0	536.0	82G053		OF	92	Burn	Broadcast	2017	4	25000.00		MOFR-ERP			
Ta Ta-Skookumchuck	Reed A	Reed A	316.0	316.0	82G081	146	OR	119	Burn	Broadcast	2017	4	10000.00		MOFR-ERP			
Ta Ta-Skookumchuck	Reed B	Reed B	303.0	303.0	82G082	154	OF	119	Burn	Broadcast	2017	4	10000.00		MOFR-ERP			
Ta Ta-Skookumchuck	Reed C	Reed C	250.0	250.0	82G082	155	OR	119	Burn	Broadcast	2017	4	25000.00		MOFR-ERP			
Waldo	Sheep Mtn	Sheep Mtn AB	327.0	327.0	82G025		OR	103	Burn	Broadcast	2017	4	25000.00		MOFR-ERP			
Waldo	Sheep Mtn	Sheep Mtn CD	400.0	400.0	82G025		OR	103	Burn	Broadcast	2017	4	25000.00		MOFR-ERP			
St. Mary's Prairie	Artesian-Dry	Artesian TU 1	387.9	5.4	82G061	63	OF	108	Burn main	Broadcast	2017	9	20000.00		MOFR-ERP			
St. Mary's Prairie	Artesian-Dry	Artesian TU 2	387.9	18.9	82G061	63	OF	108	Burn main	Broadcast	2017	9			MOFR-ERP			
St. Mary's Prairie	Artesian-Dry	Artesian TU 3	387.9	51.4	82G061	63	OF	108	Burn main	Broadcast	2017	9			MOFR-ERP			
St. Mary's Prairie	Artesian-Dry	Artesian TU 4	387.9	21.4	82G061	63	OR	108	Burn main	Broadcast	2017	9			MOFR-ERP			
St. Mary's Prairie	Artesian-Dry	Artesian TU 5	387.9	290.8	82G061	63	OR	108	Burn main	Broadcast	2017	9			MOFR-ERP			
Waldo North Pilot	Colvali-Waldo	Colvali-Waldo	376.0	376.0	82G034	178	OF	103	Burn main	Broadcast	2017	9	20000.00		MOFR-ERP			
				4461.2									260000.0					
Peckham's Lake	Alkaline purvis	Peckham lkaline	491.0	412.0	82G053	20	OF	92	Burn	Broadcast	2018	4	25000.00		MOFR-ERP			
Pickering Hills	Jurik Pasture	Jurik Pasture	620.0	620.0	82G053		OR	88	Burn	Broadcast	2018	4	25000.00		MOFR-ERP			
Lewis - Wolf Creek	C. T. P.	CTP1A	745.0	745.0	82G072	88	OF	62	Burn	Broadcast	2018	4	35000.00		MOFR-ERP			
Lewis - Wolf Creek	C. T. P.	CTP1B	745.0	745.0	82G072	88	OF	62	Burn	Broadcast	2018	4			MOFR-ERP			
Lewis - Wolf Creek	C. T. P.	CTP1C	745.0	745.0	82G072	88	OR	62	Burn	Broadcast	2018	4			MOFR-ERP			
St. Mary's Prairie	Sheep Camp	Sheep Camp TU1	353.3	38.0	82G061	64	OF	108	Burn	Broadcast	2018	4	25000.00		MOFR-ERP			
St. Mary's Prairie	Sheep Camp	Sheep Camp TU2	353.3	25.2	82G061	64	OF	108	Burn	Broadcast	2018	4			MOFR-ERP			
St. Mary's Prairie	Sheep Camp	Sheep Camp TU3	353.3	66.1	82G061	64	OF	108	Burn	Broadcast	2018	4			MOFR-ERP			
St. Mary's Prairie	Sheep Camp	Sheep Camp TU4	353.3	44.1	82G061	64	OR	108	Burn	Broadcast	2018	4			MOFR-ERP			
St. Mary's Prairie	Sheep Camp	Sheep Camp TU6	353.3	64.1	82G061	64	OF	108	Burn	Broadcast	2018	4			MOFR-ERP			
St. Mary's Prairie	Sheep Camp	Sheep Camp TU7	353.3	95.8	82G061	64	OR	108	Burn	Broadcast	2018	4			MOFR-ERP			
St. Mary's Prairie	Sheep Camp	Sheep Camp TU8	353.3	34.1	82G061	64	OF	108	Burn	Broadcast	2018	4			MOFR-ERP			
St. Mary's Prairie	Sheep Camp	Sheep Camp TU9	353.3	17.2	82G061	64	OF	108	Burn	Broadcast	2018	4			MOFR-ERP			
Sheep Creek North	Dry Gulch	Dry Gulch	834.0	834.0	82G092	101	OF		Burn	Broadcast	2018	4	35000.00		MOFR-ERP			
Waldo	Duck A	Duck A	506.1	180.0	82G025	76	OF	103	Burn	Broadcast	2018	4	35000.00		MOFR-ERP			
Waldo	Duck B	Duck B	506.0	180.0	82G025	76	OF	103	Burn	Broadcast	2018	4			MOFR-ERP			
Waldo	Duck C	Duck C	506.0	138.0	82G025	76	OR	103	Burn	Broadcast	2018	4			MOFR-ERP			
Waldo	Fusee North	Fusee North A	360.0	140.0	82G025	74	OF	103	Burn	Broadcast	2018	4	25000.00		MOFR-ERP			
Waldo	Fusee North	Fusee North B	360.0	30.0	82G025	74	OR	103	Burn	Broadcast	2018	4			MOFR-ERP			
Waldo	Fusee North	Fusee North C	360.0	10.0	82G025	74	OF	103	Burn	Broadcast	2018	4			MOFR-ERP			
Waldo	Fusee North	Fusee North D	360.0	10.0	82G025	74	OF	103	Burn	Broadcast	2018	4			MOFR-ERP			
Grasmere	A.I.	A.I.	827.0	827.0	82G005	1	OF	NR	Burn	Broadcast	2018	4	30000.00		MOFR-ERP			
Newgate	Burlotts	Burlotts	539.0	539.0	82G004	38	OF	114	Burn	Broadcast	2018	4	25000.00		MOFR-ERP			
Peckham's Lake	Alkaline purvis	Purvis	238.0	238.0	82G053		OF	92	Burn	Broadcast	2018	4	25000.00		MOFR-ERP			
				6777.6									285000.0					
Waldo North Pilot	North, South Lake	North, South Lake	250.0	250.0	82G034	178	OF	103	Burn main	Broadcast	2019	9	15000.00		MOFR-ERP			
Waldo North Pilot	Pipeline	Pipeline	358.0	358.0	82G034	178	OR	103	Burn main	Broadcast	2019	9	15000.00		MOFR-ERP			

RESTORATIO	LOGICAL_BU	TREATMENT_	TOTAL_AREA	NET_AREA	MAPSHEET	OPENING	FOREST_TYP	PRIORITY	BURN_TYPE	BURN_TREA	BURN_CALE	BURN_MON	BURN_ESTIM	BURN_ACT	BURNFUND	BURN_CONTR	BURN_CON	BURN_LOCAL
				608.0									30000.0					
Gold - Plumbob	Bare Mtn	Bare Mtn - Block 1TU1	231.1	32.2	82G014	36	OF	95	Burn	Broadcast	2020	9.00	25000.00		MOFR-ERP			
Gold - Plumbob	Bare Mtn	Bare Mtn - Block 1 TU 2	231.1	7.8	82G014	36	OF	95	Burn	Broadcast	2020	9.00			MOFR-ERP			
Gold - Plumbob	Bare Mtn	Bare Mtn - Block 1 TU3	231.1	11.5	82G014	36	OF	95	Burn	Broadcast	2020	9.00			MOFR-ERP			
Gold - Plumbob	Bare Mtn	Bare Mtn - Block 1TU 4	231.1	14.7	82G014	36	OR	95	Burn	Broadcast	2020	9.00			MOFR-ERP			
Gold - Plumbob	Bare Mtn	Bare Mtn - Block 1 Tu5	231.1	31.5	82G014	36	OF	95	Burn	Broadcast	2020	9.00			MOFR-ERP			
Gold - Plumbob	Bare Mtn	Bare Mtn - Block 2 TU1	231.1	75.0	82G014	48	OF	95	Burn	Broadcast	2020	9.00			MOFR-ERP			
Gold - Plumbob	Bare Mtn	Bare Mtn - Block 2 TU2	231.1	32.7	82G014	48	OR	95	Burn	Broadcast	2020	9.00	0		MOFR-ERP			
Gold - Plumbob	Bare Mtn	Bare Mtn - Block 2 TU 3	231.1	6.4	82G014	48	OR	95	Burn	Broadcast	2020	9.00	0		MOFR-ERP			
Gold - Plumbob	Bare Mtn	Bare Mtn - Block 2 Tu4	231.1	11.7	82G014	48	OF	95	Burn	Broadcast	2020	9.00	0		MOFR-ERP			
Gold - Plumbob	Bare Mtn	Bare Mtn - Block 3 TU1	255.9	135.8	82G014	48	OF	95	Burn	Broadcast	2020	9.00	25000.00		MOFR-ERP			
Gold - Plumbob	Bare Mtn	Bare Mtn - Block 5 TU 1	255.9	58.6	82G014	48	OF	95	Burn	Broadcast	2020	9.00			MOFR-ERP			
Gold - Plumbob	Bare Mtn	Bare Mtn - Block 5 TU2	255.9	15.5	82G014	48	OR	95	Burn	Broadcast	2020	9.00			MOFR-ERP			
Pickering Hills	Eimer Pasture	Eimer Pasture	120.0	120.0	82G053		OR	88	Burn	Broadcast	2020	4	25000.00		MOFR-ERP			
Cherry - Ta Ta	Beacon West	NRFL	762.2	239.0	82G071	121	OR	106	Burn	Broadcast	2020	4		0	MOFR-ERP			
Cherry - Ta Ta	Beacon West	Non-NRFL	762.6	523.0	82G071	121	OF	106	Burn	Broadcast	2020	4	25000.00	0	MOFR-ERP			
Ta Ta-Skookumchuck	Dune B	Dune B	212.0	212.0	82G082	149	OR	119	Burn	Broadcast	2020	4	12500.00		MOFR-ERP			
Ta Ta-Skookumchuck	Dune C	Dune C	260.0	260.0	82G082	150	OF	119	Burn	Broadcast	2020	4	12500.00		MOFR-ERP			
Peckham's Lake	Hotfoot North	Hot Foot TU 1a	658.3	45.0	82G053	5	OF	92	Burn	Broadcast	2020	4	35000.00		MOFR-ERP			
Peckham's Lake	Hotfoot North	Hot Foot TU 1b	658.3	25.2	82G053	5	OF	92	Burn	Broadcast	2020	4			MOFR-ERP			
Peckham's Lake	Hotfoot North	Hot Foot TU 2	658.3	33.4	82G053	5	OF	92	Burn	Broadcast	2020	4			MOFR-ERP			
Peckham's Lake	Hotfoot North	Hot Foot TU 10a	658.3	10.0	82G053	5	OF	92	Burn	Broadcast	2020	4			MOFR-ERP			
Peckham's Lake	Hotfoot North	Hot Foot TU 11	658.3	120.5	82G053	5	OF	92	Burn	Broadcast	2020	4			MOFR-ERP			
Grasmere	Flagstone	A	1285.0	250.0	82G015		OR	NR	Burn	Broadcast	2020	4	20000.00		MOFR-ERP			
Grasmere	Flagstone	A	1285.0	150.0	82G015		OR	NR	Burn	Broadcast	2020	4	0		MOFR-ERP			
Grasmere	Bagley's	A	1030.0	1030.0	82G005	17	OF	NR	Burn	Broadcast	2020	4	0		MOFR-ERP			
				3451.5									180000.0					
Lewis - Wolf Creek	Big Burn	Big Burn1A	422.0	0.0	82G082	144	OR	62	Burn	Broadcast	2021	4	20000.00		MOFR-ERP			
Lewis - Wolf Creek	Big Burn	Big Burn1B	422.0	0.0	82G082	144	OR	62	Burn	Broadcast	2021	4	20000.00		MOFR-ERP			
Lewis - Wolf Creek	Big Burn	Big Burn1C	422.0	0.0	82G082	144	OR	62	Burn	Broadcast	2021	4			MOFR-ERP			
Lewis - Wolf Creek	Big Burn	Big Burn1D	422.0	0.0	82G082	144	OF	62	Burn	Broadcast	2021	4			MOFR-ERP			
Cherry - Ta Ta	Highway North	Highway North	704.0	704.0	82G071	123	OF	106	Burn	Broadcast	2021	4	25000.00	0	MOFR-ERP			
Cherry - Ta Ta	Highway South	Highway South	176.0	176.0	82G071	122	OF	106	Burn	Broadcast	2021	4		0	MOFR-ERP			
Cherry - Ta Ta	Rock Lake	Rock Lake	616.0	616.0	82G072	93 (85-6)	OF	106	Burn	Broadcast	2021	4		0	MOFR-ERP			
Rampart - Mayook	Whiskey Creek North	Whiskey Creek North	173.0	173.0	82G053	65	OF	86	Burn	Broadcast	2021	4	20000.00		MOFR-ERP			
Newgate	Rocks	Rocks	688.0	688.0	82G004	37	OF	114	Burn	Broadcast	2021	4	20000.00		MOFR-ERP			
				2357.0									105000.0					
Sheep Creek North	Canal	Canal Non NRFL	522.0	337.0	82G092		OF	93	Burn	Broadcast	2022	4	25000.00		MOFR-ERP			
Colvalli North	Frenchman's pasture	Frenchman's pasture	250.0	250.0	82G034		OF	78	Burn	Broadcast	2023	4	25000.00	19972.29	MOFR-ERP			
Wildhorse Lewis	Fort Steele fire	Fort Steele fire	250.0	250.0	82G072		OR	68	Burn	Broadcast	2023	4	25000.00	19972.29	MOFR-ERP		Mike Daigle	
Sheep Creek North	Springbrook North	Springbrook North	526.0	210.0	82G092	82	OF	93	Burn main	Broadcast	2023	9	15000.00	2500	MOFR-ERP			
Sheep Creek North	Springbrook South	Springbrook South	526.0	316.0	82G092	82	OF	93	Burn main	Broadcast	2023	9	15000.00	0	MOFR-ERP		Y	
				1026.0									80000.0					
Waldo	Fusee East	Fusee East TU 1	356.1	141.6	82G025	68	OF	103	Burn	Broadcast	2028	4	30000.00		MOFR-ERP		Mark LaFo	
Premier Ridge	Premier Sheep	TU 6	205.0	20.0	82G082	111	OR	101	Burn	Broadcast	2028	4	25000.00		MOFR-ERP		Y	
				161.6									55000.0					
Wildhorse Lewis	Bummer's Flat	Bummer's Flat	170.0	170.0	82G072		OR	68	Burn	Broadcast	2030	4	25000.00		HCTF			
Newgate	Ash Fire	Ash	279.0	279.0	82G004	17	OR	114	Burn main	Broadcast	2030	4	25000.00		MOFR-ERP			
				449.0									50000.0					

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Appendix II Summary of Referral Comments Received
Actual copies of comments are on file 22000-20/ERP 2010

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

Document Number	Person	Organisation	Date	Pasture (Range Unit)	Comment	Result																		
General-burns-01	Shawna Larade	Ministry Forests and Range-Agrologist	April 22, 2009	All Premier Ridge/ Gina Waldo/ Clear Lake Dutch Findlay/ Stinky	List of co-operation from Range licensees: <ul style="list-style-type: none"> No grazing year before and year after Spring Fall graze spring year of burn Fall graze in fall year after burn List of three burns for 2010 	Agree with comments, ER program needs confirmation of acceptance by licensee																		
General-burns-02	Leanne Colombo	Ministry Forests and Range-Agrologist	April 22, 2009	All	Agreed but pointed out need to confirm burns will be undertaken. Wild ungulate increases are again a confounding factor	No Action																		
General-Seed-03	Leanne Colombo	Ministry Forests and Range-Agrologist	April 6, 2009	All Grasmere/ Dump	Proposing new Seed Mix for use on this pasture, slender Wheat grass replacing chewing fescue Here is the blend discussed, Gleeson Logging Blend <table border="1"> <thead> <tr> <th>Species</th> <th>% by Weight</th> <th>% by Species</th> </tr> </thead> <tbody> <tr> <td>Slender Wheatgrass</td> <td>35%</td> <td>21%</td> </tr> <tr> <td>Perennial Ryegrass</td> <td>25%</td> <td>23%</td> </tr> <tr> <td>Annual Ryegrass</td> <td>20%</td> <td>16%</td> </tr> <tr> <td>Rocky mountain Fescue</td> <td>10%</td> <td>19%</td> </tr> <tr> <td>Hard Fescue</td> <td>10%</td> <td>21%</td> </tr> </tbody> </table>	Species	% by Weight	% by Species	Slender Wheatgrass	35%	21%	Perennial Ryegrass	25%	23%	Annual Ryegrass	20%	16%	Rocky mountain Fescue	10%	19%	Hard Fescue	10%	21%	Original seed mix from winter 2009 still being used; as of May 2010 no consensus n a new seed Mix
Species	% by Weight	% by Species																						
Slender Wheatgrass	35%	21%																						
Perennial Ryegrass	25%	23%																						
Annual Ryegrass	20%	16%																						
Rocky mountain Fescue	10%	19%																						
Hard Fescue	10%	21%																						
General 04	Brian Morrison	Ministry Forests and Range-Webmaster	October 30, 2009	All	Confirmation that Draft 5 year plan text and maps were on district website	Note																		
General Open House 05	Ken Streloff	Tembec, Planner	October 19, 2010	All	Confirmation of schedule of 3 Open Houses; Cranbrook November 24, Jaffray November 25 th and Invermere November 27 th	Open Houses held, attended by Dean Draper and Liz Goyette for ER program																		
General Open House 06	Dean Draper	Ministry of Forests and Range, Stewardship FOS	December 11 th , 2009	All	List of attendees from 3 Open Houses	No Action																		
General Open House 07	Dean Draper	Ministry of Forests and Range, Stewardship FOS	December 11 th , 2009	All	Copy of handout distributed at Open Houses	No Action																		
General Open House 08	Dean Draper	Ministry of Forests and Range, Stewardship FOS	December 11 th , 2009	All	Comment from un-named individual who wanted TNT and NCC conservation properties coulerd separate from each other	Unable to comply, the maps are o cluttered to accept more data before they become unreadable																		
General Open House 09	Norman Hendricks	President, Lake Windemere Rod and Gun Club	December 10 th 2009	All	Concern that not enough prescribed burns were occurring; wanted a more aggressive approach, more MOFR trained staff, use retired staff. They want to help where they can	Met with Lake Windemere Rod and Gun club On March 18 th , 2010, explained that staff shortages and short window issues, beyond control of ER program																		
General Open House 09	Daryl Carter		November 2009	All	Well thought out process needs consistent funding	Agree, No Action																		

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

Document Number	Person	Organisation	Date	Pasture (Range Unit)	Comment	Result
General-11	Bill DuBois	Representative, Southern Guide Outfitters	April 9, 2009	All	Wanted a list of JOP projects in north half of district	List forwarded
General-RDEK-12	Rob Gay	East Kootenay Regional District director Area C	April 12, 2009	All	Several issues raised, effort to set up a meeting with Rob	No Action
General-RDEK-13	Rob Gay	East Kootenay Regional District director Area C	May 1 st , 2009	All	<p>Some comments</p> <ol style="list-style-type: none"> 1. I am very pleased that the Ministry of Forests is taking the lead on planning and operations on crown land. In the past my view is that the responsibility and accountability was not clear to the public. 2. The number of players has certainly increased over time and I expect that the complexities of layout, field operations, worker safety, and burning are far greater. My concern is with the amount of burning for month 4. I personally feel we must expand this time frame to meet the targets. I would support controlled burning in May and late august in most years. 3. As mentioned I would like to see some greater evaluation of the cost effectiveness of machine clear and burning. 4. Thinning with low impact fire treatment is of great concern. I know of many areas (i.e. lower bull river) that were spaced and treated with a low intensity fire which has resulted in a regime hostile to cattle, ungulates and humans. I do note in some areas of your plan a need for secondary treatment which is good. <p>I would like to see some fire guards/restoration activities of our of rural communities incorporated into plan amendments</p>	<p>1) The Ministry of Forests and Range is taking the lead on coordinating the ER program, with over 20 partners and increased complexity of planning this is very necessary.</p> <p>2) I agree we should expand the time frames for our burn windows as we are now down to 2 to 4 days each spring for burn windows. We may have to extend into March as soon as we can get snow free; May is now greening up so soon it is difficult to get a burn away past the third week of April. We will try to get a burn in September of this year. This will double our burn season, but we do need a wet September for it to work.</p> <p>3) Machine clearing is expensive and we do use it sparingly. Our preference is for a logging pass with a follow up slashing treatment; a cheaper cleaner option that removes trees in a well controlled fashion. When we use machine clearing it is for dense, larger diameter stands where piling could damage the soil and where forest licensees indicate that they cannot economically harvest the stand.</p> <p>4) I am not sure of the examples that you speak of but we do remove a lot more stems now than previously. The low intensity burns are designed to clear off logging and slashing debris, kill in growing seedling under 1 metre tall but still have only a light impact on the grass and shrubs. The impact is assessed post burn using data cards and databases derived from experiments, monitoring data and methodologies used by the United States Forest Service. It does take up to 10 years for a pine grass understory to convert o a high value Bluebunch wheatgrass and fescue grassland.</p> <p>5) I will send a separate note on co-coordinating our operations with fire proofing communities. Peter Hisch, Dan Murphy and I have some ideas</p>
General-RDEK-	Rob Gay	East Kootenay	May 26th, 2009	All	More discussion on using Union of BC Minicipality funding for interface and ER	Details were to be discussed by RDEK directors, no word

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

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14	Peter Hisch	Regional District director Area C Ministry of Forests and Range Fuel Management Technician			projects. To be funded ER projects have to be within 2 kilometre PSTA polygon and be shown to reduce hazard. ER projects can be used to leverage UBCM funding. Projects from previous years can be amalgamated Local government must apply for money, a local contractor or partner can facilitate.	received on progress
General-RDEK-15	Carol Lind	Emergency Preparedness Co-ordinator RDEK	March 23, 2010	All	Proposal meeting; ER program offered to facilitate the application for Union of BC Municipalty funding to carry out Interface/ ER projects in RDELK area ER program offered to put up all previous work for leverage (4.5 million dollars). RDEK does not have capacity this year, fully booked in their delivery plan RDEK concerned over liabilities of wood left over or of poor performance by contractors RDEK will hire a contractor to review priorities in 2010	ACTION POINT: Barb Bridger will discuss the Community Forest project with Wayne Price the Cranbrook Fire Chief to see if Cranbrook will sponsor a fuel treatment in the area. The directors at RDEK feel that this strip of forest is a Cranbrook issue not a small community issue ACTION POINT After the meeting Cranbrook Fire zone made a decision to carry out a few small demonstration fuel management projects in the Cranbrook Community Forest ACTION POINT Aware of the points raised by Carol during this meeting the Trench Society will forward a proposal to the RDEK board to treat the Fort Steele Fire. The directors may or may not back a proposal to treat the area, and using the process outlined this may or may not affect the delivery plan of the existing RDEK budget
General-BCTS-16	Gerry Grady	Practices Forester, BCTS, Cranbrook	January 29 th , 2010	All	BCTS wants to set up commercial sawlog and pulp sales in ER areas and are targeting 40% Py stands several possible ER projects may be covered by First Nation treaty land tenures or CPR timber reservations.	ER program has handed off three projects in City pasture, Newgate-Sharptail and Hotfoot pasture for BCTS development ER program has revised ER prescription flow sheet to include a clearance for these issues
General-17	Kevin Podrasky	Tech Cominco	March 31 st	Grasmere, Waldo, Pickering Hills, Burton, Colvalli North, Rosen Lake/ All	Request for information on ER projects east of Lake Koocanusa	Data from 5 year plan and next two years proposed projects forwarded
Map Meeting 18	Randy Harris	Team Leader Ecosystem Restoration, Ministry of Forests and Range	October 26 th 2009	All	Agenda for Interagency map meeting to be held in February 2010 1) Dutch Findlay, progress to date, future actions, where do we develop new WT's, who does the surveys, prescribed burn schedule, develop a budget to submit for LEWO (Lewis' Woodpecker) funding. This is a first meeting, we will have a later meeting to detail out the WT subjects with Ted Antifeau at MOE, this is a heavy to tree removal topics. 2) Premier ridge, integrate Premier park and 3 Sons projects to Gina, Quartz,	Meeting held February 3 rd , 2010

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

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					<p>Alkali and Burnt car proposals. The Wasa Mtn burns by Fish Wildlife Compensation Program. Funding for Vacant Crown Land projects</p> <p>3) Newgate, rework of Burlott's, harvest of Sharptail and Demers by BCTS, Rework Rocks pasture? Integrate with Earl's Ranch? Manage for LEWO and FLOW</p> <p>4) Gold Plumbob, harvest of Strauss road by Tembec, follow up slashing of Hansen, East West, Wakefield Gorrie; time area and schedule to create grass so as to avoid fuel and forage shortages. Includes small TNT property. Manage for LEWO (need budget submission)</p> <p>5) Sheep Mtn, harvest time frame by Tembec of North aspect, slashing if summit. Integrate projects with TNT property (Cutt's Ranch) and old Ingham farm (MOE Map notation reserve) Again area for LEWO and bighorn sheep management.</p> <p>6) Pickering Hills where to start? Should we change the Managed Forest, Open Forest Areas</p> <p>7) Kootenay Ranch; schedule of treatments, Tembec has logged east crown land portion to Open Forest standards. NCC and crown land.</p> <p>8) St Mary's Prairie NCC, TLC, MOE conservation properties we have Lewis' Woodpecker and Williamson's Sapsucker issues. Wjere are we with tree removal and WT production; another goos area to follow up with Ted.</p> <p>9) Kikkoumun Park and Labb pasture, treat as one unit</p> <p>10) Harvest of CP 293 Cemetery, Fusee North and South, tie into slashing and fuel management projects</p>	
Map Meeting 18	<p>Randy Harris Dean Draper Ken Wahlberger Rae Haddow Gary Dolynchuk Peter Hisch Peter Von Wittgenstein</p> <p>Sue Crowley Mike Gall</p> <p>Rob Neil</p> <p>Gerry Grady</p> <p>Larry Ingham</p> <p>Hillary Page</p>	<p>Ministry of Forests and Range, Cranbrook</p> <p>Ministry of Environment</p> <p>The Nature Trust</p> <p>BCTS</p> <p>FWCP</p> <p>The Nature</p>	February 3 rd 2010	All	<p>1. Dutch Findlay, Develop Snag subcommittee, add MOE to MOU.</p> <p>2. Premier ridge, BCTS to check interest in Lazy Lake and premier Lake no interest in Alkali and Wolf pastures</p> <p>3. Newgate, BCTS interested in Sharptail next -3 years, joint field trip to Rocks Mike, Randy Larry</p> <p>4. Gold Plumbob, No appetite for pulp at this time, can't log for hog</p> <p>5. Sheep Mtn, Sue Crowley Rob Neil to come up with joint management of conservation properties</p> <p>6. Pickering Hills Field trip to Pickering Hills, Hatchery Ridge and Power Plat areas needed</p> <p>7. Kootenay Ranch; schedule of treatments, Tembec has logged east crown land portion to Open Forest standards. NCC and crown land.</p>	<p>1 Committee met March field trip in May 12, 1 MOU to be signed June 010</p> <p>2 Wolf and Alkali south developed as Forestry License o Cut blocks.</p> <p>3 Randy to arrange field trip</p> <p>6 Pickering Hills field trip to be arranged, Gay T, Galloway, MOE, Range and ER to attend</p> <p>6 Field trip to Hatchery Ridge held in February</p> <p>7 Randy to complete prescriptions on crown land portions</p>

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

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	Jeff Allen Steve Temple Brian Dureski Randy Byford	Conservancy of Canada Tembec Galloway			8. St Mary's Prairie Randy to review NRFL SP, MOE developing Wycliffe prescription TNT operates on TLC land, move JOP to pine Butte 9. Kikkoumun Park and Labb pasture, treat as one unit 10. Priority to complete Cemetery CP 293 11. Lakit Ridge Tembec to review possible CP extension into ER project	
Second Intake 20	Randy Harris	Team Leader Ecosystem Restoration, Ministry of Forests and Range	February 24th, 2010	East Columbia Findlay Basin/ Saddle Watson/ Home Rampart Mayook Cranbrook Fort Steele Grasmere/ Bagley, A.I., Adolph, Loon Lake Alkali Lakes Wycliffe Premier ridge	Rationale to add 17 new blocks to project in mid stream <ul style="list-style-type: none"> Chris Paget/ Greg Dubois carrying out Community Wildlife Plan for Canal Flats and Invermere, affects projects in East Columbia, Findlay Basin and Watson Range Units Nupqu Development Corporations using FIA funds to develop prescriptions for Rampart Mayook (Butte, Isadore, Created Wheat pastures) Cranbrook fort Steele (North and west of Highway 95) and t Mary's Steer pasture Tobacco Plans and was rumoured to have interest in work in crown land in Grasmere A.I, Bagley's, Adolph and loon Lake Interface blocks in Alkali Range Unit Two MOE conservation properties in Wycliffe and Premier Ridge 	In terms of referral the process now is: <ol style="list-style-type: none"> Send consultation letters to all First Nation groups Send letters to water licensees affected by entire plan (a group overlooked in November) Discuss new proposals by telephone with affected ranch licensees Forest Licensees were apprised of changes on February 3rd during a map meeting along with MOE, Nature Trust and Nature Conservancy of Canada No further letters will be sent to Guide outfitters and trappers as we have not had any comments from them in two years; it is a low risk to not include them in these front country issues.
Second Intake 21	Brian Morrison	Ministry Forests and Range-Webmaster	February 19, 2010	All	Confirmation that Draft 5 year plan maps showing second intake were on district website	No Action
Second Intake 22	Brian Morrison	Ministry Forests and Range-Webmaster	March 8, 2010	All	Confirmation that Draft 5 year plan text and maps showing second intake were on district website	No Action
Second Intake 23	Randy Harris	Team Leader Ecosystem Restoration, Ministry of Forests and Range	February 24th, 2010	East Columbia Findlay Basin/ Saddle Watson/ Home Rampart Mayook Cranbrook Fort Steele Grasmere/ Bagley, A.I., Adolph, Loon Lake Alkali Lakes Wycliffe Premier ridge	Notes from telephone conversations with ranchers regarding second intake	Documentation is clarified in this document below
Telephone call	Jordy Thibeault	Range Licensee	March 5 th , 2010	Alkali Lake	Discussed possible new Interface funded blocks near Cranbrook reservoir and Mt Baker Road. JT likes removal of trees but a lot of ATV traffic on sites already and swimming in spillway. Mr Thibeault owns land controlling access to east side	Plan for ORV control when developing prescription, discuss further with Range Licensee

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

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					Joseph Creek near reservoir	
Telephone call	Joe Masi	Range Licensee	March 5 th 2010	Cranbrook Fort Steele- MM20, Lake, Gravel pit pastures	Nupqu development corporation is interested in developing interface-Ecosystem restoration prescriptions in this area; fuel management near ST Mary's band housing-Mission Hill-Standard Hill. Range staff advise these pastures have little forage, only three weeks use. With difficulty of excessive Off Road vehicle use and open gates, the pastures are now vacant, no Range licensee use.	Range licensee not contacted about this unit; ER would have no effect on his operations. Plan for Off Road Vehicle pressure in prescription. Note that BCTS is interested in pulpwood logging gravel pit pasture near Highway 93/95
Personal Communication	Brain McKersie	Range Licensee	February 20 th , 2010	Findlay Basin- Saddle pasture	During annual general meeting of Kootenay Livestock Association discussed possible UBCM funded project to thin Saddle pasture. Licensee is happy with work to date will co-operate with thinning this pasture.	Add Saddle pasture actions to Dutch Findlay Memorandum of Understanding. Keep Range licensee informed of operations. Chris Paget and Greg DuBois take lead on prescription.
Telephone call	Cam MacDonald	Range Licensee	March 9 th , 2010	Grasmere- Loon Lake, Adolph, Bagley pastures	Informed range licensee that Tobacco plains Band may be applying for funding to thin and treat these areas. Intent is interface areas and manage for Spaulding's Campion. Cam wants to discuss this with Rae Hadow, waterholes are losing water (possible ingrowth) east central Adolph's pasture has good commercial volume as does Flagstone; some slashing possible in Loon lake. He has invitation to prescriber for a field trip.	Manage three pastures for interface and Spaulding's Campion (check against map provided by Michael Keefer) Strongly suggest prescriber arrange field trip with range licensee, lot of past ER work on site; emphasis should be on tree removal not just burning.
Telephone call	Glenn Proudfoot	Range Licensee	March 5 th , 2010	Grasmer- A.I.	Telephone call Informed range licensee that Tobacco plains Band may be applying for funding to thin and treat these areas. Intent is interface areas and manage for Spaulding's Campion. Licensee strongly in favour of burn feels tree removal was incomplete in South east corner	Strongly suggest prescriber arrange field trip with range licensee, lot of past ER work on site; emphasis should be on tree removal not just burning.
Telephone call	Jesse Mallard	Range Licensee	March 8 th , 2010	Peckham's Lake- Wallcam	Telephone call. Informed range licensee that Nupqu development may be applying for funding to thin and treat these areas. Intent is interface fuel reduction. Licensee has no issue with logging, Wallcam is crown land, locks on fence are to keep traffic off private land to south; no lease involved.	Get Range licensee to open gates to facilitate operations
Telephone call	Ben Hawke	Range Licensee	March 8 th , 2010	Peckham's Lake/ Kiek, Big Hill	Telephone call. Informed range licensee that Nupqu development may be applying for funding to thin and treat these areas. Intent is interface fuel reduction and bighorn sheep. Works area with Lonnie Jones	Licensee has no issue with ER treatment in these sites; has recommended Kiek for slashing projects in previous years
Telephone call	Ben Hawke	Range Licensee	March 8 th , 2010	Power Plant/ little Bull, Big Bull	Telephone call. Informed range licensee that Nupqu development may be applying for funding to thin and treat these areas. Intent is interface fuel reduction. Work this range unit with Herb and Val Bower. There is merchantable timber on site prefers it be used.	Tree removal to be considered for sale at conclusion of operations. Develop in conjunction with The Nature Trust and MOE properties.
Personal Communication	Don Lancaster	Range Licensee	March 5 th , 2010	Rampart-Mayook/ Isadore, Butte, Whiskey South and Crested Wheat Grass Seeding pastures	Range staff have talked to group of range licensees here; Anna Fontana, Don Lancaster, Colin Morison, Rod Savage. All are in favour of Ecosystem Restoration. Nupqu development may be applying for funding to thin and treat these areas. Intent is interface fuel reduction and Ecosystem Restoration.	Proceed with Ecosystem restoration.
Telephone call	Alfred Joseph	Manager J-2 Ranch	March 9 th , 2010	Watson/ Home, Mud pastures	Telephone call. Informed range licensee that Chris Paget and Greg Dubois may be applying for funding to thin and treat these areas. Intent is interface fuel reduction and Ecosystem Restoration. Licensee not active in Home pasture due to high level of ingrowth. Two units in Home and Mud pasture are proposed as	Exclude agriculture lease from Ecosystem Restoration projects.

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

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					agriculture leases; 8 year process but they due to be cleared, stumped and irrigated to get cattle use off Kootenay River flood plain	
Water Licensee 24	Sandra Loewen	Water Licensee	March 8 th , 2010	Wildhorse/ Lower Brewery St Mary's Prairie/ North Cherry	Just a file note dealing with a Ecosystem Restoration Five year referral letter that I sent out on February 22 nd 2010 asking for input from water licensees. Luke Creek POD 1380 was mapped as being in Wildhorse drainage close to two projects in Brewery Creek and owned by Sandra Loewen. Sandra called back that is her water license but her POD and home is 4 kilometres north of Kimberley upstream of the St Mary' Prairie projects. She was curious about Ecosystem Restoration so we discussed in general terms the St Mary's Meadowbrook fuel management projects. No input or requests and her actual address is 8512 Highway 95A Kimberley, BC V1A 3M1	No Action needed, Point of Diversion mis-mapped, ER operations should not affect water
Water Licensee 25	Gary Nimiken	Water Licensee	March 3 rd , 2010	Waldo/ Cutts	I returned a telephone call from Gary Nimiken (250-359-7815) Gary runs a restaurant in South Slocan in the West Kootenays and has a water license on Purdy spring. The water license database listed this spring as being in Cutts Road pasture in Waldo Range unit; his spring is actually in the West Kootenays. I apologised as there is an obvious error in the water licensee database. So far we have received 7 of 48 letters; returned with no forwarding address.	No Action needed, Point of Diversion mis-mapped, ER operations should not affect water
Water Licensee 26	Nancy Corrin	water licensee for Ross creek	March 10, 2010	Peckham's Range Unit / Norbury pasture	I received a telephone call from Nancy Corrin the water licensee for Ross creek which the Water Branch mapping showed as being in Peckham's Range Unit near Norbury pasture. Nancy does have the licensee for Ross Creek but her Ross creek is near her home Queens town's Bay town site on the south arm of Kootenay Lake.	No Action needed, Point of Diversion mis-mapped, ER operations should not affect water
Water Licensee 27	Brenda Buerge	water licensee for Samual Spring	March 18, 2010	Wild horse Lewis/ Lakit Mtn	Thank you for your letter of February 22, 2010. My family has been the holder of the water license on Samual Springs for a considerable number of years. In your letter you state that "project areas that occur upstream of your water licenses point of diversion on Samual Spring" are involved in this project. Please tell me what you are talking about as the spring comes out of the base of a mountain and I am unaware of where is originates from or where the point of diversion would be. This spring is on private property owned by School District No. 10 (Arrow Lakes), who I work for and, upon talking to the Maint/Facility Supervisor, seem to be unaware of what the letter talks about. So, I just need clarification on where the activity will be taking place in relation to the private property and the spring. Maybe if you sent a map of the area concerning this activity then I would be able to understand and I will also discuss with the private property owners on all sides, including the school district. Once again, thank you for the letter.	I called Brenda back, her spring is near Nakusp in the West Kootenay. Obviously no issue with work in the Wildhorse Lewis Creek area
Water Licensee 28	Heather Smith	Water Licensee Heather Creek	March 31 st 2010	Wildhorse Lewis/ CTP	Concern that ER operations would affect her West Kootenay water supply near Kaslo	No Action needed, Point of Diversion mis-mapped, ER operations should not affect water
BC Hydro 29	Darcy Johnson	Transmission Maintenance	April 23, 2009	All	Field notes from April 2str field trip covering Eager hill, St Mary's Prairie, Dutch Findlay areas for operations near Power lines	Note became basis of a Public Utility Standard Operating Procedure used for all operations near highways, pipelines

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

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		Technologist BC Hydro				and powerlines
BC Hydro 30	Darcy Johnson	Transmission Maintenance Technologist BC Hydro	May 1st, 2009	All	Feed back on previous email of Field notes from April 2str field trip covering Eager hill, St Mary's Prairie, Dutch Findlay areas for operations near Power lines	This feedback was incorporated into a Public Utility Standard Operating Procedure used for all operations near highways, pipelines and powerlines
BC Hydro 31	Darcy Johnson	Transmission Maintenance Technologist BC Hydro	May 5th, 2009	All	Further feed back with notes from Ian Kozicky and Bill Lafflin on previous email of Field notes from April 2str field trip covering Eager hill, St Mary's Prairie, Dutch Findlay areas for operations near Power lines	This feedback was incorporated into a Public Utility Standard Operating Procedure used for all operations near highways, pipelines and powerlines
BC Hydro 32	Darcy Johnson	Transmission Maintenance Technologist BC Hydro	June 8th, 2009	All	Final submission of final standard operating procedures for ER projects near BC Hydro powerlines	No further comments made
BC Hydro 33	Bill Lafflin	Vegetation Maintenance Co-ordinator, East Kootenay BC Hydro	March 29, 2010	All	New contact information for Bill Lafflin, Ian Kozicky, Darcy Johnson	Contact data sheets updated
Trans Canada Pipelines 34	Darren Mitchell	Trans Canada Pipelines	May 1 st 2009	All	Referred draft of Standard operating Procedure to be used in all ER projects near all Public Utilises	Minor changes incorporated into final SOP
CTP 36	Tom Quirk	CT Permitee	December 5 th 2009	Toby Benches	Concerns raised over ER program slashing down potential Christmas Trees Request made to not slash Lake Eileen block until a meeting is held Four other Christmas Tree Permits are to be held in abeyance until situation is resolved. General concern that Ministry of Forests and Range is not doing all it could to strengthen Christmas Tree industry	Lake Eileen block put on hold for JOP slashing until meeting held Meeting held February 18, 2010
CTP 37	Grant Neville	Tenures Forester, Ministry of Forests and Range	February 11 th , 2010	All	Set up Christmas Tree Permitee meeting for February 18, 2010	Meeting held
CTP 38	Randy Harris Grant Neville Paul White Tom Quirk Charlie Willis Mark Serediuk	Ministry of Forests and Range, Rocky Mtn District Christmas Tree Permitees/ Christmas tree Association	February 18 th , 2010	All	Christmas Tree Association is concerned industry is in decline, retired permits not being reoffered, less area in production, needle cast in south, expensive logging Permitees would like to work northern area, better trees or Montane spruce areas for Balsam, better trees Permitees would like letters of support fro MOFR when applying for thinning crews like JOP Well managed CPS could do some work as fuel management around communities Christmas Tree association would like to join ER Operations Team 10 hectares of Lake Eileen block, south of access road to be ribboned off by Tom Quirk, JOP crew will slash rest of block	Grant Neville to do response letter for broad concerns by Christmas Tree Association Randy to forward request to join ER operations committee at next Committee meeting North half of Lake Eileen block slashed by JOP in March

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

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CTP 39	Randy Harris	Team Leader Ecosystem Restoration, MOFR	February 18 th , 2010	All	Forwarding a note after a discussion with tom Quirk when Tom insisted that ER prescriptions identify, evaluate and collect data n possible Christmas Tree values on an ER project.	ER Team Leader holds that this is extra work; if good values are found information will be forwarded to Tenures staff for a cash sale.
CTP 40	Tom Quirk	CT Permitee	February 24 th 2010	All	Mr Quirk reiterated points in previous letter pointing that his desire is that ER program gather more data on Christmas trees inside ER projects.	ER Team Leader holds that this is extra work; if good values are found information will be forwarded to Tenures staff for a cash sale.
CTP 41	Tom Quirk	CT Permitee	February 24, 2010	All	Thank you note for meeting of February 18th	No Action necessary
CTP 42	Mark Serediuk	Director Kootenay Christmas Tree Association	March 30 th 2010	All	Kootenay Christmas Tree Association would like to sit on Ecosystem Restoration Operations Committee. Randy Harris sent response	Discussed at April 22 nd 2010 ER Operations Team Meeting. Kootenay Christmas Tree Association will be invited to sit on the September 2010 meeting
FN- Red Canyon 43	Brent Lucas	Aboriginal Liaison MOFR, Cranbrook	April 28, 2009	Grasmere/ Dalton Range	Tobacco Plains Band interested in turning Red canyon area east of Highway 95 into a Range Opportunity using ER operations.	Needs buy in from BCTS, site overall looks to be NDT3, needs ER Steering Committee approval
FN 44	Brent Lucas	Aboriginal Liaison MOFR, Cranbrook	February 4 th , 2010	Grasmere	Tobacco Plains Band requires letter of support for a JOP application	Work turned out to be all on federal reserve land no letter arrived.
FN-Shuswap 45	Bob Jamieson	Consulting Biologist, Tata Creek	November 10, 2009	Cherry Tata Frances Creek	Suggestion that Er program work with shuswap Band on projects off reserve	
FN Shuswap 46	Brent Lucas	Aboriginal Liaison MOFR, Cranbrook	February 4 th , 2010	Windemere Fairmont	Shuswap Band requires letter of support for a JOP application	Work turned out to be in stream, work was referred to Ministry of Environment.
FN Shuswap 47	Brent Lucas	Aboriginal Liaison MOFR, Cranbrook	February 8 th , 2010	Windemere Fairmont	Request for more information from Shuswap Band before a letter of support for a JOP application	Work turned out to be in stream, work was referred to Ministry of Environment.
FN Shuswap 48	Sue Crowley	Ministry of Environment, Invermere	March 16, 2010	Windemere Fairmont/ Stoddart Creek	Direction from MOE given on JOP in stream work proposed for Stoddart Creek	Issue closed for ER program, No further Action taken on letter
FN Shuswap 49	Greg Anderson	Provincial ER Manager, MOFR, Invermere	February 22, 2010	Windemere Fairmont/ Stoddart Creek	Press clippings from Invermere newspapers discussing the smoke issues arising from pile burning operations on Shuswap reserve	Er program elected to tour Shuswap operations and add helpful suggestions to Band operations; Smoke management is cross jurisdictional.
FN Shuswap 50	Randy Harris	Team Leader Ecosystem Restoration, MOFR	March 15, 2010	Windemere Fairmont/ Stoddart Creek	Field trip set up to discuss burning operations, possible contracting issues	Field trip held April 28 th 2010, information shared
FN Shuswap 51	Brad Munroe	Wildllands Eco-Forestry and Wildfire Prevention	May 4 th 2010	Windemere Fairmont	Details on work completed on reserve in last fiscal given and a interest shown in using the Shuswap crew in off reserve projects	Further meeting to tighten up proposals scheduled for May 27 th , 2010

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

Document Number	Person	Organisation	Date	Pasture (Range Unit)	Comment	Result
FN Shuswap 52	Rory Hromadnik	Planner, District of Invermere	May 5 th 2010	Windemere Fairmont	District of Invermere has some UBCM funding for planning and would like a JOP crew to carry out works. They wish to partner with ER program, Shuswap band in order to meet goals.	Further meeting to tighten up proposals scheduled for May 27 th , 2010, Invermere, Wildlife management Branch and Steve Schmidt of FNESSE invited
FN 53	Brent Lucas	Aboriginal Liaison MOFR, Cranbrook	February 17 th , 2010	All	Questions of clarity for inclusion in First Nation Consultation letters	Clarity added
FN 54	Brent Lucas	Aboriginal Liaison MOFR, Cranbrook	February 19 th , 2010	All	Request to review draft of consultation letter	Review completed, minor changes made
FN 55	Brent Lucas	Aboriginal Liaison MOFR, Cranbrook	February 23rd, 2010	All	Consultation letters mailed out to K'tnuaxa and Secwempec nations, St Mary's, Lake Windemere, Tobacco Plains and Shuswap Bands	No further Action needed
FN 56	Brent Lucas	Aboriginal Liaison MOFR, Cranbrook	April 27, 2010	All	Consultation summary of all discussions with First Nations	Approval recommended
Brisco 57	Bill DuBois	Representative, Southern Guide Outfitters	September 20, 2009	Sunny Bench Fish Lakes	Request from Bill to carry out thinning on Peter Feldman (Bugaboo Ranch) property near Brisco. Area is overgrown could be treated by JOP crew	Team Leader suggested no, good growing site, not an ER site may be possibility for a bushing treatment with a silviculture JOP crew. Request forwarded to Clay Tindall in 2009
Frances Creek 58	Frans Feldman	Rancher, Frances Creek, Horsethief Range units	January 19, 2010	Frances Creek	Frans would like a higher priority put on slashing and treating Height of land pasture, good for cattle good for wildlife. He followed with a telephone call in February to Team Leader Ecosystem Restoration	Area of Height of Land is proposed for treatment but the higher priorities in the Dutch Findlay crowded this small project out. Maybe hop in 2011, but this budget driven.
JH 59	Rose Walker	President, Juniper Heights Residents Association	October 6, 2009	Juniper Heights	Requested information on the slashing and pile project to be carried out on Juniper Heights	JOP crews were hired and slashed proceeded in mid October, 50% of pile burning completed in March 2020
JH 60	Randy Harris	Team Leader Ecosystem Restoration, MOFR	November 6, 2008	Juniper Heights	List of Juniper Heights Residents	Bob Couperus contacted residents prior to burn light up
JH 61	Dean Draper	Stewardship FOS, MOFR Cranbrook	March 9, 2010	Juniper Heights	Response to public complaint from Seona Helmer resident complained of piles being burnt next to trees, piles still smouldering, grass burnt between piles	Dean explained intent was to damage some trees for wildlife use, if poor venting persists operations stop, crew patrols and limits fire spread.
JH 62	Seona Helmer	Resident Juniper Heights	March 9, 2010	Juniper Heights	Thank you note for satisfactory explanation, offer made to finance improved road closure sign.	No Action from ER program required, offer to buy new sign forwarded to Ministry of Environment, who apparently did not take her up on the offer
JH 63	Randy Harris	Team Leader Ecosystem Restoration, MOFR	March 23d, 2010	Juniper Heights	Long file note detailing conversation with Tony Helmer and operations on Juniper Heights. Tony is a Juniper Heights resident and is unhappy that we were burning piles in hat was listed as poor venting conditions. He felt he was not listened to and that MOFR did not follow open burning regulations. Team leader denied allegation but Mr. Hekmer complained to Ministry of Environment.	Lawrence Umsonst CO in Invermere investigated and dismissed charges, he accepted that MOFR followed open burning regulation with spot forecasts and test bun piles.
JH 64	Rose Walker	President, Juniper Heights	April 28, 2010	Juniper Heights	The Juniper Heights Community Association wants confirmation that ER program will complete the pile burning project.	Confirmation was given, residents love the wok done to date.

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

Document Number	Person	Organisation	Date	Pasture (Range Unit)	Comment	Result
		Residents Association				
JH 65	Rose Walker	President, Juniper Heights Residents Association	May 10 th , 2010	Juniper Heights	Juniper Heights community complained of slash build up in Christmas Tree Permit 101 Mitchell Jopp, concern is over Interface fire risk	Complaint forwarded with maps to Compliance and Enforcement Supervisor Lise Lvesque
East Columbia 66	Dave White	President, Canal Flats Wilderness Club	February 18, 2010	East Columbia/Sabine Flats	Canal Flats Wilderness Club is looking to do some volunteer slashing and burning on the outskirts of Canal Flats. Good for Bighorn sheep, volunteer fire department will help as this reduces interface risks	Team Leader Ecosystem Restoration asked club to hold off until fall, Chris Paget is producing plan and prescriptions for area. Do it as part of larger picture. Club agreed. Notes to Chris
DF MOU 67	Randy Harris	Team Leader Ecosystem Restoration, MOFR	August 7, 2009	Dutch Findlay/ Spur, Sun, Dutch, Thunder Findlay Basin/ Saddle, Stinky	Referral of version 4 of Memorandum of Understanding for Dutch Findlay Area	Comments made, further revisions made as a result of February 3 rd 2010 map meeting and version 5 put into review February 10 th , 2010
DF MOU 68	Randy Harris	Team Leader Ecosystem Restoration, MOFR	March 9, 2010	Dutch Findlay/ Spur, Sun, Dutch, Thunder Findlay Basin/ Saddle, Stinky	Upgrading of version 6 of Memorandum of Understanding to version 7, need a legal opinion to address liability and access issues. Concern raised that crown must limit its liability in regards to a partnership with other parties and that crown must have access to non crown land to carry out its obligations.	A legal opinion was sought by MOE and then MOFR Range Branch in Victoria.
DF MOU 69	Karen Tannas	Resource, Environmental and Land Law Group, Legal services Branch Ministry of Attorney General	April 6, 2010	Dutch Findlay/ Spur, Sun, Dutch, Thunder Findlay Basin/ Saddle, Stinky	Legal opinion was that two documents were required, the memorandum of Understanding 6 should be cleaned of unwieldy liability clauses and forwarded for approval as a stand alone document with no legal action possible as a result of its wording. The access and liability issues should be addressed in a more strongly, legally worded document; access is allowed, landowners accept risk of operations and waive the right to sue the crown except in case of negligence. This document is best forged in partnership with Real Estate Operations of RTEB that th	MOU 7 prepared, RTEB to be contacted later for wording of second document.
DF MOU 70	Randy Harris	Team Leader Ecosystem Restoration, MOFR	April 12 th , 2010	Dutch Findlay/ Spur, Sun, Dutch, Thunder Findlay Basin/ Saddle, Stinky	New text of Memorandum of Understanding Version 7	Sent out for referral
DF MOU 71	Randy Harris	Team Leader Ecosystem Restoration, MOFR	April 28 th , 2010	Dutch Findlay/ Spur, Sun, Dutch, Thunder Findlay Basin/ Saddle, Stinky	Minor comments received for alteration from The Nature Trust of BC	Minor changes made
DF WT 72	Tanya Luszc	Canadian Wildlife Service, Lewis Woodpecker Recovery Plan	October 13, 2009	Dutch Findlay/ Spur, Sun, Dutch, Thunder Findlay Basin/ Saddle, Stinky	Tanya wants to include details of Dutch Findlay Lewis' Woodpecker recovery actions in an update report on the status of Lewis' Woodpecker.	Data was truncated but added.

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

Document Number	Person	Organisation	Date	Pasture (Range Unit)	Comment	Result
DF WT 73	Ted Antifeau	Rare and Endangered Species Biologist, Ministry of Environment, Nelson	January 27 th , 2010	Dutch Findlay/ Spur, Sun, Dutch, Thunder Findlay Basin/ Saddle, Stinky	Long email chain detailed that ER program will not broadcast burn moist of Lewis Woodpecker area, ThunderPhil, Sun Lakes to be slashed and pile burnt. Ted had gone out over fall 2009 and field located existing Lewis Woodpecker Nest trees, marked in field with yellow posting, tree tags and ribbon and GPSed into data spread sheet. He also photos of all trees	Data will be included in future surveys and stored as a mapping layer in LRDW
DF WT 74	Randy Harris	Team Leader Ecosystem Restoration, MOFR	February 12 th , 2010	Dutch Findlay/ Spur, Sun, Dutch, Thunder Findlay Basin/ Saddle, Stinky	Setting up a meeting and agenda to discuss creating wildlife trees in Dutch Findlay area using examples from previous Wildlife Tree creation studies in Hofert and Pine Butte properties.	Meeting set for February 25 th , 2010, meeting held.
DF WT 75	Randy Harris	Team Leader Ecosystem Restoration, MOFR	February 26 th , 2010	Dutch Findlay/ Spur, Sun, Dutch, Thunder Findlay Basin/ Saddle, Stinky	<p>WT creation meeting held, Present: Rob Neil (the Nature Trust of BC (TNT), Cary Tipper (Nature Conservancy of Canada (NCC) Sue Crowley and Ted Antifeau (Ministry of Environment (MOE)) Larry Ingham, Dave Lewis and Irene Manley (Fish Wildlife Compensation Program (FWCP)); Randy Harris (Ministry of Forests and Range (MOFR)) Absent: Hillary Page (NCC)</p> <ul style="list-style-type: none"> • Use existing survey methodology, surveys completed by NCC, TNT and FWCP staff • 100 trees to be inoculated in Dutch Findlay, • \$20,000 cost split between MOE and FWCP. • This template should work well in other Lewis Woodpecker areas in Gold Cree\Strauss Road\ Newgate, Sheep Mtn\Cutts Road, St May's Prairie\Wycliffe and Gina\Premier Ridge Planning areas • Wildlife trees are being cut down repeatedly around district mostly for firewood. Sign posting tree is not enough, most firewood cutters do not have a firewood permit and all agencies lack enough enforcement staff for effective patrols. Tactics to be tried by partners: <ul style="list-style-type: none"> ○ Continue posting wildlife trees with metal signs, consider painting stripes on trees ○ Sign post high value areas with cut no wildlife trees/ snags signs similar to Off road vehicle use signs ○ Wrap wildlife trees in sheet metal see District Manager MOFR for permission to nail trees as Section 55a of Forest and Range Practices prohibits tree spiking but Section 52.1 of Forest act allows agents of the crown to alter trees with conditions. 	<p>ACTION POINT Randy to inform Todd Manning of need for inoculums; Completed.</p> <p>ACTION POINT: TNT, NCC and MOFR to select out 3 or 4 highest potential areas for Lewis Woodpecker nest trees (overlooking wetlands, shrub areas, edge of more open forest, lots of larger residual trees, Py preferred) and map them out.</p> <p>ACTION POINT Maps to be shared with mailing list for review by mid March.</p> <p>ACTION POINT Hold comments until Field review in week of May 7th, 10th; Randy to send out Doodle poll to mailing list to choose field trip day. Include Amy Waterhouse who is being much put upon for mapping.</p> <p>ACTION POINT once areas finalised have a training day in early June to review methodologies with all 3 crews who will do the inventory; ensure consistency. FWCP, TNT and NCC will each inventory one TU with existing in house staff; need to find an aggregate of 100 good trees for inoculation</p> <p>ACTION POINT; FWCP and specifically Amy Waterhouse is to be keeper of the inoculated and high value wildlife tree map layer. Share with Randy Harris, NCC and TNT so data can be referenced and used in all future planning and operations.</p> <p>ACTION POINT: Sue Crowley to forward spreadsheet locations of Wildlife Tree protected in previous broadcast burns to Amy Waterhouse for inclusion in a WT layer.</p>
DF WT 76	Randy Harris	Team Leader Ecosystem Restoration, MOFR	February 26 th , 2010	Dutch Findlay/ Spur, Sun, Dutch, Thunder Findlay Basin/ Saddle, Stinky	<ol style="list-style-type: none"> 1. Areas to survey fine tuned, new survey to be remapped 2. Track Wildlife tree patches, High value wildlife trees/ Nest trees and manufactured trees on three separate databases. Gary Tipper to develop. 3. Survey areas split up between 3 partners TNT, NCC, FWCP 4. In future Stinky. Thundehill Ranch and Spur Lake Area should be surveyed 	<p>ACTION POINT Ted Antifeau to forward All nest tree location GPS data to Randy so Nest Tree layer and detail can be added to maps and location data forwarded to crews.</p> <p>ACTION POINT Randy or assistant to create 1:10,000 scale maps of units to be surveyed with graticules, wildlife Tree</p>

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

Document Number	Person	Organisation	Date	Pasture (Range Unit)	Comment	Result
					<p>5. Suggestion forwarded that Irene Manley look at Sheep Mtn / Cutts Road area for early WT creation for Lewis Woodpecker. ER treatment of trees completed on site; no burn for 5 years; exiting nest trees are nearly rotted through with limited useful life left.</p> <p>Present: Sue Crowley Ted Antifeau, MOE; Dave Lewis FWCP; Gary Tipper NCC, Randy Harris MOFR</p>	<p>patches and existing nest trees shown ACTION POINT Randy to forward jpeg files of 1950 photography so crews can better choose long term trees Attached.</p>
DF 77	Randy Harris	Team Leader Ecosystem Restoration, MOFR	July 20 th , 2009	Dutch Findlay/ Spur, Sun, Dutch, Thunder Findlay Basin/ Saddle, Stinky	<p>Compendium of 4 field trips Field trip 1 June 29th with Grant Neville, Rob Neil (the Nature Trust) and Laura Luxton. We reviewed proposed fire guards for Spur fire and the western fireguards for 4 Amigos and Thunder Phil. TNT is good with all three locations. Details:</p> <ul style="list-style-type: none"> The upper Spur fire guard will skirt the lower edges of several rock cliffs just south of Spur Lake. <ul style="list-style-type: none"> JOP crews will slash and pile burn trees between this fire guard and the edge of the cliff top tree line. Road deactivation to prevent a loop road is required. A new road providing a fire guard and running along a wetland in the south of the Spur fire is also in a good location although it does enter The Nature Trust property. The Nature Trust is also good with reopening a road into a landing in the south east corner of the Spur Fire block. The guards for 4 Amigos and Thunder Phil are in good location and they skirt TNT property. <ul style="list-style-type: none"> 4 Amigos guard (if built) will be recontoured at two major gulley crossings to prevent a loop road. Thunder Phil will have its first kilometre recontoured on completion of fire to prevent a loop road. TNT approves having several hectares of understory PL on the north boundary of Thunder Phil removed so as to strengthen the fire guard. <p>Field trip 2 Randy Harris and Dean Draper met Brad Hill resident living near Thunder Phil burn on July 9th 2009. Brad has been concerned about burning near his property. MOFR related all information from second paragraph and gave him maps of the prescriptions. He was very relieved to hear that no broadcast burning was to occur near his property; home protection was his biggest concern. MOFR left him maps of all three burns (ThunderBob, Sun Lake, Stinky and Thunder Phil) as well as maps of known Lewis' Woodpecker nest locations. An avid nature photographer he claims to know locations of 35 Lewis' Woodpecker nests, he has promised to GPS their locations and forward them to me.</p> <p>Meeting number 3 Randy Harris and Grant Neville met Jim Miller (Fairmont fire department) Stuart Moore (Canal Flats Fire department) Dave Rae (Columbia Ridge residents) Wendy Booth (RDEK area F) at Canal Flats Fire Department July 16th 2009. Details:</p> <ul style="list-style-type: none"> Related the theory and science of Ecosystem Restoration and plans for Dutch Findlay area as outlined in paragraph 2. Residents are quite knowledgeable about burns and would appreciate it we hurried t up. All 4 members would appreciate keeping kept in the loop regarding these fires 	<p>Comments incorporated into plans and prescriptions.</p>

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

Document Number	Person	Organisation	Date	Pasture (Range Unit)	Comment	Result
					<p>as they will be the first phone call for most residents when they see the burns.</p> <ul style="list-style-type: none"> • Dave Rae has the intention of fire proofing 500 acres of his private land just south and east of Spur fire. <p>Meeting number 4 Randy Harris met Brian McKersie to bring him into the loop regarding all the changes related in paragraph 2. He had no comments or requests for changes and will agree to removing 25 hectares from the south west corner of the family Christmas Tree Permit in Sun Lake burn. Brian would like to be considered as a contractor for guard development given his interest and familiarity with the roads and land. He also pointed out where the Range Reference area was located in 4 Amigos. July 17th.</p> <p>Meeting number 5 met Jeff Allan at MOFR office. We had been trading maps and emails regarding 4 Amigos burn as regarding linking up projects on crown land and Nature Conservancy of Canada properties. Our comments:</p> <ul style="list-style-type: none"> • There is very little fuel on 4 Amigos to carry a prescribed burn; with very few trees there no need for burning area east of the powerline. • Three small units on 4 Amigos can be pile burnt and left. • A small 100 hectare prescribed burn unit is possible; it is west of the powerline and south and west of the irrigated meadow and wetland complex in NCC property. It requires understory thinning by JOP. • There is small pockets of PL saw logs in this burn unit; if the burn is delayed until 2014 this gives MOFR and NCC time to set the wood up for sale. If crown land PL stands do not sell it is recommended that we burn them as is; they provide good habitat cover. • Most PL stands have heavy Mtn pine beetle attack if left unthinned the trees will die by them selves; thinning these stands will fire proof the BC Hydro line. • NCC will cover off some powerline edge thinning to be conducted by JOP crew as well as a north aspect logged block just east of the powerline. 	
DF 77	Wendy Booth	RDEK Director Area G; Fairmont Windermere	August 14th, 2009	Dutch Findlay/ Spur, Sun, Dutch, Thunder Findlay Basin/ Saddle, Stinky	Wendy wanted details of the ER schedule for the Dutch Findlay area so she could inform citizens at the August 21 st Fairmont residents association meeting	Meeting was held and Wendy informed residents of projects proposed in their air shed.
DF Stinky Burn 78	Shawna Larade	Agrologist, MOFR Range Branch Cranbrook	April 22, 2009	Findlay Basin/ Stinky	<p>Shawna outlined level of co-operation needed between rancher and prescribed burn program. List of co-operation from Range licensees:</p> <ul style="list-style-type: none"> • No grazing year before and year after Spring • Fall graze spring year of burn • Fall graze in fall year after burn <p>List of three burns for 2010</p>	Shawna met with Brian Dureski range licensee and grazing pattern was altered to allow more grass in Stinky pasture to facilitate a fall 2009 burn
DF Stinky Burn 78	Randy Harris	Team Leader Ecosystem Restoration, MOFR	July 25th, 2009	Findlay Basin/ Stinky	<p>Results of field trip with Shawna Larade and Ken Walburger on Stinky pasture to examine need for prescribed burn. Site is generally overgrazed but a light burn could</p> <ul style="list-style-type: none"> • Reduce the piled fuels, • Burn off the remaining understory 	Range staff agreed with notes.

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

Document Number	Person	Organisation	Date	Pasture (Range Unit)	Comment	Result
					<ul style="list-style-type: none"> Burn off the pine grass which should be invaded by the bunch grasses on site. 	
DF Stinky Burn 78	Shawna Larade	Agrologist, MOFR Range Branch Cranbrook	April 22, 2009	Findlay Basin/ Stinky	Results of a final September 7 th 2009 field tour with Bob Gray, Stephen Hatalcik, Grant Neville and Dean Draper and a synopsis of back and forth discussions about burning this block; it was proposed and reject three times, this time is final. Site will not be burnt as the grass on site in this September would not produce the tree killing heat needed. Burning off shrubs in an overgrazed site would lead to them vanishing from site. Unit B9 in ThunderPhil LBU is also on list to be burnt, it also is dropped.	Stinky TU 1 and 2 prescribed burn and ThunderPhil B8, B9 prescribed burn are dropped from prescribed burn treatment for foreseeable future. Need significant drop in grazing before project can continue.
DF 81	Bill DuBois	Trench Society Director, Southern Guide Outfitters	September 20 th , 2009	Dutch Findlay/ Spur, Sun, Dutch, Thunder Findlay Basin/ Saddle, Stinky	Concern raised that extensive pile burning is damaging grasslands, preference stated for chipping stems on site or criss crossing them for a range burn. Response was that ER program did not have funding under JOP to hire machinery, only concentrations were to be burnt and we would grass seed fire rings post treatment.	Bill generally accepted comments.
DF 4 Amigos/ Spur 82	Peter Kerchoff	Silviculture Forester Tembec Industries	March 29 th , 2010	Dutch Findlay/ Spur, Sun, Dutch	Peter was endeavouring to avoid planting two salvage blocks logged under FL A18978 CP 199 blocks 916 919 (openings 82J021-1200 and 1201). Blocks logged to Open Forest standards but regeneration did not meet 76 well spaced stems/ ha. Defied logic to plant a site so ER program could later burn the trees off.	Matter referred to Stewardship Forester Lyn Konowalyk who agreed to accept stand as is without a planting of the site
DF Fir Mtn 83	George Ingstrom	Owner Lot 42 foot Fir Mtn	February 24, 2010	Findlay Basin/ Stinky	Response to telephone call from George Ingstrom (250-349-5337) who owns lot 42 at the base of Fir Mtn straddling Emily Creek. He saw the Ecosystem Restoration ribbon hanging around his property and he wanted to know what was going . I told him that we planning to and slash and mechanically thin the area and then broadcast burn the area away from his property to Fir Mtn FSR; project was not due for a few years as we have no funds for mechanical thinning. He is in support of the project for wildlife and fuel management concerns; he is thinning pine on his own property. His concerns were that: <ul style="list-style-type: none"> We do not increase traffic on the hill behind his house. I said we would leave thickets near his property line, maintain the deactivation on the road above his property but we would need to thin close to the property line to safe guard his property and . I did not mention it but a field trip would e in order with George prior to operations commencing. He also wanted the “cathedral Grove’ stand of large Douglas fir near a spring on mid slope of the hill protected. We both noted it was in Wildlife Tree Patch and if fire did creep into the site the large fir could withstand the light burn. 	Concerns will be addressed in prescription and operations on Fir Mtn LBU
Premier Ridge 84	Doug Barraclough	Range Licensee Wolf Premier (Premier Ridge)	April 23, 2009	Wolf Premier/ Gina Wolf Premier/ Lot 338	Response to phone call from Doug Barraclough about his Range Unit Wolf Sheep (Premier ridge). He could not make the Open Houses and he wanted to know if any prescribed burns were called for on his Range Unit and what he could do to expedite them. I responded that there are no burns this year but Gina pasture is due to be burnt in 2010. He will amend his grazing schedule to graze Gina early in 2009, rest in fall and all 2010 to accommodate the burn. As an aside Doug would like to burn the MOE property by the Kootenay River, Lot 338. The fuels are building up and it has been on his wish list for some time. It shows on our maps as crown land but outside Ecosystem Restoration operating	Doug did vary his range use and a prescribed burn was carried out in spring 2010 on Gina pasture. Information has been forwarded to Ministry of Environment. It is a crown owned Conservation property and has b added to 5 Tear Plan. MOE is planning work on 3 Sons property

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

Document Number	Person	Organisation	Date	Pasture (Range Unit)	Comment	Result
					area. Next year? Moe will have to confirm land status	which may or may not be this property.
Premier Ridge 85	Cheryl Bradford	Rancher Lazy Lake	March 29 th 2010	Wolf Premier/Gina	Cheryl is asthmatic and requested an early warning call before ER program lit up Gina pasture prescribed burn. She also requested that hotel room be available if the smoke persisted in the valley and she could not return home that night.	Message was passed onto fire boss and Georgina Borho who called Cheryl the day before the prescribed burn (April 19 th) A hotel room was arranged with Trench Society funded but Cheryl did not use it; smoke dissipated to north.
Cherry Tata 86	Bob Jamieson	Consulting Biologist, Tata Creek	November 10, 2009		<p>1. Ta Ta Creek area. I am supportive of the continuing work there, as a local land owner and will help out with some of the neighbours as needed. I have talked with Ken Strolloff about this and have seen the plans for the area above the ranch.</p> <p>2. It looks like we have plans for doing extensive work in the area between Ta Ta Creek and Wycliffe Prairie. We had sharp-tailed grouse in both areas in decades past. Jack Brown, the former owner of our ranch told me that he would see them roosting and feeding on aspen and birch buds on the ranch here into the 60's. If we can do enough area between the two units, and manage grazing effectively, we just might be able to restore that population. That would be a feather in our collective hat.</p> <p>3. You might talk to the St. Mary's band folks and include their plans in the overall plan. Some work on their lands would compliment the work that you are doing just to the north and west of the reserve.</p> <p>5. It might be useful to talk to Rob Neil and get their plans included in your overall planning so we all know what is going on overall.</p>	<p>1) NRFL A84742 is proceeding on Lost Spring and China North pastures</p> <p>2) Sharp tailed grouse reintroduction is being explored by the Fish Wildlife Compensation Program</p> <p>3) St Mary's Band has proposed adding 320 hectares to side of NFRL A84743 in Indian Springs North/ South pastures. Tembec cannot accept due to pulp and markets</p> <p>4) Rob Neil has joined ER program Operations Committee. The Nature Trust of BC Cherry Creek property are proposed as a joit burn unit in 2011.</p>
St Mary's 87	Hugh McLuckie Gary Tipper	Range Licensee, Pine Butte Ranch and St Mary's Prairie Nature Conservancy of Canada	June 18, 2009	St Mary's Prairie/Pine Butte	<p>Request for input from Gary Tipper NCC and Hugh McLuckie for input on an ER Prescription covering a Pine Butte Ranch grazing Unit. Unit is crown but is cover by a grazing lease 401261 and NCC has tenure over adjacent private land.</p> <p>Hugh had no input but Gary did pass on notification of two rare plants on adjacent property.</p>	Comments were incorporated into prescription. File was checked to ensure operations were consistent with plan for grazing lease 401261.
St Mary's 88	Hugh McLuckie	Range Licensee, Pine Butte Ranch and St Mary's Prairie Canada	August 30th, 2009	St Mary's Prairie/Deep Springs	Request for input from Hugh McLuckie for input on an ER Prescription covering a Pine Butte Ranch grazing Unit. Unit is crown but is cover by a grazing lease 401261. Hugh had no input .	No comments to incorporate into prescription. File was checked to ensure operations were consistent with plan for grazing lease 401261.
St Mary's 89	Randy Harris	Team Leader Ecosystem Restoration, MOFR	September 16, 2009	St Mary's Prairie/Indian Springs North and South, Rouse, Sheep Camp, Deep Springs	Setting up a public meeting for October 7 th 2009 of concerned residents. Purpose is to update residents about ER operations on site. Data forwarded to Tembec is a list of concerned citizens, letter from previous meeting and notes on concerns raised that committee got. Concerns centred on recreational use of the pastures especially Rouse, range being too open and possible windthrow, maintain cover between Sommerfeldt Road and the airport for visual ad sound screening. Reduce	Meeting date set.

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

Document Number	Person	Organisation	Date	Pasture (Range Unit)	Comment	Result
					invasive plants and haul trees away from residences.	
St Mary's 90	Randy Harris	Team Leader Ecosystem Restoration, MOFR	September 16, 2009	St Mary's Prairie/ Indian Springs North and South, Rouse, Sheep Camp, Deep Springs	Due to a conflicting meeting resident meeting had to be reset to Wednesday October 8 th .	Meeting reset.
St Mary's 91	Ken Strelhoff Liz Monteith Gary Tipper	Planner, Tembec Industries Community Leader Sommerfeldt Road Nature Conservancy of Canada	October 15, 2009	St Mary's Prairie/ Indian Springs North and South, Rouse, Sheep Camp, Deep Springs	<p>Notes from a meeting held with the residents of Sommerfeldt Road. Liz Monteith was kind enough to post a letter at the main mail box pick up site informing residents about the meeting. Randy Harris and Bob Couperus attended for Ministry of Forests and Range, Ken Strelhoff for Tembec, Gary Tipper for Nature Conservancy of Canada; former range licensee Mike Rouse showed p late, current range licensee Hugh McLuckie could not make it.</p> <p>Topics covered</p> <ul style="list-style-type: none"> • Randy and Bob covered off Ecosystem Restoration program actions to date. ○ Bob ribboned out two WTPs and a proposed outside boundary for a Non Renewable Forest License (NRFL) cut block. ○ Hiking and biking trails were traversed and placed on map; locations will be confidential but shared with Tembec ○ Tembec has bid on the NRF License and is currently looking at block layout ○ Only slashing proposed is <ul style="list-style-type: none"> ▪ between the main access road and the private land fence line (for reducing fuel next to the housing) and ▪ within 20 metres of the power lines (to protect the power lines). • The trees on the hill side facing the housing and buffering the houses from the airport will be left untouched except for the slashing around the power lines. • Slashing only covers trees under 15cm diameter at breast height; trees outside the NRFL cut block and over 15cm diameter will be maintained. • Most trees within 10 metres of the fence lines will be cut and piled but enough over diameter trees should remain to retain privacy of the homes. • Trails will be kept clear of slash and slash piles. • Slashing should be started in December 2009, pile burning should be finished by April 2010 <p>Ken Strelhoff covered the proposed Non Renewable Forest License harvesting.</p> <ul style="list-style-type: none"> • Tembec has won the bid for the license and is starting the planning process to include this new unit into their existing Forest Development plan. • Harvest covers Rouse, Indian Springs north, Indian Springs south and possible Dry Lake and sheep Camp pastures. • Residents signed up at this meeting will receive a letter in the mail to request input on the plan. • Ministry of Forests and Range has forwarded notes from previous meetings with residents to Tembec and Tembec will consider these concerns and discussions in their planning and operations. • Tembec will minimise impact to the mapped trails, but they will have to cross them and possibly upgrade them to haul roads. • Exact route of log hauling has to be determined but the most likely route is 	<p>Citizens happy with response NRFL A84741 for Indian Springs developed 2010, no gravest until 2011.</p> <p>ER Program slashed 17 hectares of area adjacent to houses of Siommerfeldt road in February 2010 with JOP crew. Burn fall 2010.</p>

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

Document Number	Person	Organisation	Date	Pasture (Range Unit)	Comment	Result
					north away from Sommerfeldt road to the pulp mill at Skookumchuck. Need to add some more to Tembec comments: <ul style="list-style-type: none"> Plans are to commence road building this coming winter 2009/10 Harvesting to commence May, June and early July 2010 with in block processing of Chips and Hog fuel (Chip vans to haul out fibre vs logs on logging trucks) Reason for spring harvest and chipping is that the bark from species like Ponderosa and Douglas Fir can be removed sufficiently in the Spring by the chain flails to produce acceptable wood chips for the pulpmill. Bark tightens up during the winter and summer months making in block chipping of acceptable chips not possible. <p>Attached is a scan of the people that signed in at the evening meeting.</p>	
St Mary's 92	Peter Woods	Landowner Lot 8109	April 23 rd , 2010	St Mary's Prairie/Steer	Peter is worried that harvest south of his property will open up stand and blow down trees in his yard. Disagreed with a 600 foot buffer but said prescriber would address blow down risk in his prescription	Information assed onto Neil Thronson at Nupqu development who will use this information in developing prescription. Some Mtn Pine Beetle in area.
Eager Hills 93	Dave Bulford	Service Manager, East Kootenays, Telus	May 5 th 2009	Cranbrook-Fort Steele/ Tule pasture	Inquiry about operating near telephone lines proposal is <ul style="list-style-type: none"> Fell all trees that could touch the telephone line of either side of the line. Buck the fallen trees up and pile them 20 metres away from the line Black line, foam and otherwise protect the telephone poles and line during burning operations. At this time we have no intent to use heavy equipment near the lines other than water trucks during broadcast burn operations. The trees are o felled by a certified faller. 	Proposal is acceptable to Telus, work on TU 6 and 8 are proceeding under JOP crews.
Eager Hills 94	Terasen Gas	Vancouver	May 5 th 2009	Cranbrook-Fort Steele/ Tule pasture	Automated response detailing what to avoid when digging near a Tersaen line. As hand slashing only is proposed, the notes are of esoteric interest	No Action required.
CCF 95	Jordy Thibeault Ray Catherall	Range Licensee Alkali Lakes President Cranbrook Community Forest Society	April 23, 2009	Alkali /Alkali	Jordy wants to install new ate to allow access to Range Unit, ER program likes wider gate. Thinning the Forest raised at annual General Meeting of the Community Forest Society, some hand pulling underway. Consensus is that it should proceed. Grant Griffin committed to help.	Based on this a draft presriptin was developed in winter 2009/ 2010, no funding available to carry out project.
CCF 96	Wayne Price Bob Gray	Fire Chief, Cranbrook Fire Ecologist contracted to Cranbrook	July 28th, 2009	Alkali /Alkali	Cranbrook needs the area treated, 4 to 8 fires a year this year 8 houses in Edgewood Drive almost lost. MOFR agreed to develop a prescription; thin all area between access road and private lad; will need machinery. Management Plan for Community Forest should be updated to allow these projects. City will help with approaching Union of BC Municipalities to fund project and to help with public involvement.	A Draft prescription was developed for area, no movement on funding project or holding public meetings.
CCF 97	Ray Catherall	President Cranbrook	November 24th, 2009	Alkali /Alkali	Open House comment, the Cranbrook Community Forest Society is to be involved in any projects in the forest.	Community Forest Society will be involved. Mentioned project again at Annual General meeting April 21 st , 2010.

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

Document Number	Person	Organisation	Date	Pasture (Range Unit)	Comment	Result
		Community Forest Society				Society wants MOFR to help organise a work bee for the forest.
CCF 98	Jordie Thibeault	Range Licensee Alkali Lakes	November 24th, 2009	Alkali /Alkali	Jordy raised concern that fuel management is over riding management on this site. He wants recreation considered as well. He would like recreation and grass creation considered as well. His intent is to graze the Community forest on his way to Isadore's canyon.	Grass Creation and recreation will be considered in the operations. There will likely be public backlash on allow grazing use of the Community forest.
CCF 99	Lisa Cox	District Manager, Ministry of tourism, Culture and Arts	November 24th, 2009	Alkali /Alkali Lewis Wolf/ Lazy Lake	Include the stewardship zone of the Community Forest, high amount of homeless camps and parties in the area; high fire risk. Concern that off road vehicle use of Lazy Lake North and East will result if area is opened up.	Intent is to include the stewardship zone in the ER operations, must negotiate with College of the Rockies. Off Road Vehicle use will be considered in FWCP prescription for this site.
CCF 100	Grant Griffin	Resident Park Royal, Direct of Cranbrook Community forest Society	February 24 th , 2010	Alkali /Alkali	Grant wants thinning to occur in Cranbrook Community Forest for recreation and fire a reasons. He will bring it up at Cranbrook Community Forest Society Meeting in April 21, 2010.	Mentioned project again at Annual General meeting April 21 st , 2010. Society wants MOFR to help organise a work bee for the forest.
CCF 101	Mike Morrow	Fuel Technician, wildlife Management Branch, MOFR Cranbrook	April 23, 2010	Alkali /Alkali	Wildfire Management ranch is proposing to thin 2.8 hectares of area within the Cranbrook Community Forest with a Unit Crew.	Proposal will be covered by prescription for Community Forest Activity. Wildfire Management Branch will be asked to help with two fire interface work bees June 16 th 2010 Civil Servants clear small area near WMB unit and June 19 th when Cranbrook Community Forest Society
Lakit Mtn 102	Brian Dureski	Planning Superintendant, Tembec	February 12 th , 2010	Wildhorse Lewis/ Lakit Mtn	As per discussion at February 3 rd Map Meeting, Tembec looked at adding small ER volume to side of FL A19040 CP 488 block 153 on the Wild horse River road. Cost was prohibitive, though they would buy the wood if t was decked roadside	Issue dropped Er program does not have funds to thin stand mechanically.
Hatchery Ridge 103	Steve Byford Sue Crowley Rob Neil and Randy Harris	(BC Timber Sales) (Ministry of Environment) (The Nature Trust of BC) (ER Program) MOFR	March 31 st , 2010	Peckham's Lake/ Big Hill, Kiek PowerPlant/ Big Bull, Little Bull	These are field notes from a field trip that Steve Byford (BCTS) Sue Crowley (MOE) Rob Neil (TNT) and Randy Harris (ER Program) took to review Ecosystem Restoration options in the Hatchery Ridge area. Focus of treatment here is ungulates with Bighorn sheep being main focus. Lot of previous planning by MOE, BCTS and area is part of bighorn recovery plan by Columbia Basin Fish Wildlife Compensation program. Nupqu is also interested in prescription work ad proposing projects for funding by FIA, Union of BC Municipalities or other funding. My notes 1. Treatments at foot of hill (82G043-112); a. site is overgrown with pole, small sawlog stand but has a good understory of blue-bunch wheat grass. b. Soils are sandy and prone to erosion, lots of invasive plants in the areas as well as ORV use (everywhere in Trench) topography is benchy with natural OR stands on steep slope. c. The site has not received a good snow pack in a decade to facilitate ground skidding. d. An extremely large and complex archaeological site in this stand;	ACTION POINT: BCTS (Steve Byford or Gerry Grady) to forward existing AIA report to prescriber to drive the prescription. ACTION POINT: Forward these comments to NUPQU for use in prescription development (done) ACTION POINT: MOE or Fish Wildlife Compensation Program to forward Bighorn plan for Powerplant area to Randy for distribution to prescribers/ addition to ER library ACTION POINT: Propose steep hillsides in opening 111 as a hand slashing project; currently covered by 5 year ER plan

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

Document Number	Person	Organisation	Date	Pasture (Range Unit)	Comment	Result
					<p>contains a major village with a lot of surface material see BCTS for full AIA survey.</p> <ul style="list-style-type: none"> e. Treatment of opening 82G043-13 shows removing only under sawlog material still leaves too much canopy on site with some understory improvement. f. Bighorn sheep movement corridor runs down a ridge just west of gypsum quarry. g. Consensus from people on site remove poles small sawlog trees on benches and gentle slopes, retain canopy in draws and north aspects but skid trees out of a forwarder on frozen soil or snow pack to reduce drag on ground protect arch site and existing grass and avoid erosion on soils. <p>2. Top of the Hill (Big Hill pasture 82G043-111)</p> <ul style="list-style-type: none"> a. the flat area on top is mostly woodlot run as commercial operation by TNT b. Adjacent flat crown area could be thinned or logged on snowpack or forwarder in conjunction with adjacent woodlot opportunities; access issues and small opportunity or a stand alone sale. c. Steep open slopes show moss covered cap rock opening with prickly pear, locally rare species of interest d. Consensus of group was that hand slash pile and burn to Open Range status on rocky south aspect open slopes would greatly enhance bighorn sheep use and avoid soil problems. <p>3. O'Reilly Property Lot 4839, part Lot 4838</p> <ul style="list-style-type: none"> a. TNT Conservation property Big Hill pasture between gypsum quarry and Fort Steele –Norbury Road b. Current owner has life tenancy on property, TNT has management rights to majority c. TNT will propose a thinning/ slashing project on benched area on north part of property to facilitate bighorn movement and visibility <p>4. Armstrong properties east of Fort-Steele Norbury Road</p> <ul style="list-style-type: none"> a. TNT has one property straddling highway (Lot 2906), area to immediate east is still owned by Armstrong family (part Lot 10278), Area east of Armstrong property (part lot 10278) is MOE owned Conservation property b. MOE property is quite open does not appear to need much work, may have been treated in past c. Lot 2906 and private Armstrong property has flat land but very dense pulp to pole sized stand of Douglas fir and minor components of ponderosa and Lodgepole pine. Previous loggers have looked at site 	<p>ACTION POINT: Rob Neil to approach Tembec to see if sale of pulp or hog fuel is possible then check to see if Neil Gleason or another logger can make a go of this show.</p> <p>ACTION POINT If terms are favourable Rob Neil will approach Armstrong family to see if they will add their wood to the project.</p> <p>ACTION POINT: Rob will keep BCTS apprised of negotiations. If favourable BCTS would look at an innovative Timber Sale License (lump sum cover cost of development) to add crown timber to mix, thin stand for future pass and create a logical burn unit (private land Armstrong excluded) for ER program.</p>

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

Document Number	Person	Organisation	Date	Pasture (Range Unit)	Comment	Result
					<p>and could not find a lucrative pass on site;</p> <p>d. TNT would like their property thinned for ER biodiversity purposes bighorn sheep management as well. Armstrong family would like their remaining property logged for interface purposes.</p> <p>e. Crown land to north (lot 2959) is in similar shape as TNT property, no stand alone timber sale is possible</p>	
Colvali North 104	Darlene Larsen	Range Licensee, Frenchman's Pasture	April 23 rd , 2009	Colvali North/ Frenchman's Pasture	Darlene at an open house; interested in getting Frenchman's pasture opened up similar to Waldo North with JOP crew. ER Team Leader said ER program would look at it but JOP crew was only capable of doing machine thinning projects.	Pasture has been reviewed by Bob Couperus; some draws can be thinned but north aspects and ridge tops are managed forest types; difficult to keep open and boundaries would be very ragged for a burn and to maintain area as a LBU. Recce area once more
Colvali North 105	Jim Durham	Range Licensee, Colvali North Range Unit	March 4 th 2010	Colvali North/ All	Jim Durham wants pastures thinned; Brush East and West are especially brushed in. Team Leader mentioned draft prescription are available Frenchman's and Wapiti but so far Powerplant and Pickering Hills are higher priorities.	Brush East and west may be candidates if Fire proofing Jaffray becomes funded.
North Waldo 106	Alan Edwards	Range Licensee, North Waldo	April 6 th 2010	Waldo/ Colvalli, Twin Lakes, Pipeline, Eimer	Handed out standard ER mix grass seed to Alan to grass seed skid trails and landings in North Waldo Pilot project logging	Grass Seeding complete, grass seed mix discussion is not.
Waldo 107	Heath Slee, Dave Boreen, Jane Carlson, Craig Smith, Randy Harris Ken Strelloff;	RDEK Director Area B Jaffray/ Baynes Lake Fire chief Baynes Lake Residents Team Leader Ecosystem Restoration, MOFR Planner Tembec Industries		Waldo/ All Pickering Hills / Eimer	<p>Just a file note to cover off two meetings held recently between residents of Jaffray, Baynes Lake and Elko in which Ecosystem Restoration projects around the communities were discussed.</p> <p>Meeting number one was held May 13th 2009. at First Perk coffee Shop in Jaffray 9:45 to 10:30am. Attending were Heath Slee, Dave Boreen, Jane Carlson, Craig Smith, Randy Harris and Ken Strelloff; Stan Doehle sent his regrets. Intent was to describe Ecosystem Restoration projects in the area and get feedback on slashing, thinning and burning activities proposed over the next 3 years. Air photos of all three communities was handed out, showing communities in 1950 and 2004; much ingrowth has occurred in all 3. Projects are:</p> <ul style="list-style-type: none"> • Baynes Lake <ul style="list-style-type: none"> • about 250 hectares of slashing by Job Opportunity Program crews will be carried out over June, July 2009. • Crew will pile accumulations of slash, piles to be burnt in fall 2009 or fall 2010 dependant on venting indices. • Intent is to broadcast burn Cemetery pasture within 3 years but about 300 hectares of merchantable forest will need to be logged by TEMBEC under 292 prior to harvest. • Two smaller units (54 and 168 hectares) will be looked at by Tembec as harvesting potential. If the blocks are not economic the Ecosystem Restoration program will pursue money to thin the stand with machinery. • FitzPatrick Road <ul style="list-style-type: none"> • About 156 hectares slashed south of this road in 2006. • A further 184 hectares has been laid out for a mechanical thinning of the stand with an intent to sell decked wood for pulp or hog fuel. • Tembec has looked at the stand and sees no economic pass on this block. 	<p>JOP crews have slashed Airport, Rabbit Mtn, Kikkomun Park, part of Sheep Mtn. north and small piece of Cemetery pasture. Pile burning due in fall 2010</p> <p>Cutts road has been slashed thinned ad pile burnt in 2010 by machine contract and JOP crew.</p> <p>Clear Lake 1 and 2 have been prescribed burnt.</p> <p>Field trip into Pickering Hills is due in mid June.</p> <p>Notes show as accurate by Tembec cross reference</p>

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

Document Number	Person	Organisation	Date	Pasture (Range Unit)	Comment	Result
					<ul style="list-style-type: none"> • Elko <ul style="list-style-type: none"> • Two Job Opportunity Program projects are proposed in the pastures just south of Elko. Minor hand slashing only with piling of slash accumulations. Piles should be burnt in fall 2009. • Broadcast burns due by 2012 but burn needs to be configured to safeguard residents in centre of pasture and Elko • Jaffray <ul style="list-style-type: none"> • Regrettably no firm projects are proposed in the Jaffray area,. Randy will check hillsides south of Jaffray with Perry Rammeloo for possible projects. <p>Feed back received was generally positive. Dave would like some fuel work around Jaffray specifically the ridge adjacent to the road to Tie Lake; major access concern. Not listed as Ecosystem Restoration ground but it can be thinned as a fuel management treatment if Union of BC Municipality funding is available. Heath Slee is curious if the Baynes Lake and Sand Creek Cemeteries can be treated. The Baynes Lake Cemetery is on crown Land within a prescribed area; JOP can clean up and fire proof the cemetery, we will ask for direction from Community. Sand Creek Cemetery is on private land. To action it would need written permission from the land owner.</p> <p>Meeting number two was an evening meeting at the Baynes Lake Hall on Thursday and May 21st. Meeting was called to discuss a new Senior's residence but Randy attended and discussed the two Baynes lake proposal while Ken Streloff presented Tembec harvest plans. The plans were well received and only questions asked were for clarification not opposition. There is interest in applying for Union of BC Municipality fire proofing funding.</p>	
Waldo 108	Steve Temple	Planner, Tembec, Elko	June 4 th 2009	Waldo/ Cemetery, Sheep Creek North and South, Cutts Road, Burnt Bottom, Duck, Fusee, West and North, Airport	<p>1. CP 542</p> <ul style="list-style-type: none"> - Randy is proposing works on Sheep Mountain in the vicinity of 542 002. I gave him a copy of our SP map and clarified where the block was located "on the ground". He will confine their undertakings to the south and also within the old existing CP blocks adjacent to our new block. - They have reviewed the area between Baynes Lake and the Dump Road and will avoid our block (542 001) (Fusee West pasture). He pointed out one area which surrounds the Cemetery which he has decided not to pursue ER works within because it contains a high predominance of sawlog. He asked if we would be interested in harvesting and I said that at this time we will be concentrating on pulp and would not be pursuing it in the near future. - He asked about the area where our 542 003 (Duck Lake) is located and I pointed out that most of their proposed area overlaps our block. The one exception is the strip of non-merch along the highway. This is the reason I sent maps of our blocks so they can schedule to treat the areas that are outside our block. <p>2. Nature Trust and MOE properties on east side of Sheep Mountain</p> <ul style="list-style-type: none"> - They are looking at this area and Randy had just completed some plots to determine feasibility of work in the area but it may be a bigger challenge than 	<p>JOP crews have slashed Airport, Rabbit Mtn, Kikkomun Park, part of Sheep Mtn. north and small piece of Cemetery pasture. Pile burning due in fall 2010</p> <p>Cutts road has been slashed thinned ad pile burnt in 2010 by machine contract and JOP crew.</p> <p>Clear Lake 1 and 2 have been prescribed burnt.</p>

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

Document Number	Person	Organisation	Date	Pasture (Range Unit)	Comment	Result
					<p>they wish to undertake.</p> <p>3. Airport Pasture (North of the Caven) - They will be setting up a slashing program (avoiding the pruned stems apparently) between the Caven and the Elko airport. The goal is to broadcast burn this area.</p> <p>4. Rabbit Mountain (and west to Highway 93) - They want to treat this area for fire interface (both for Elko and the guy who lives in the middle of it) but broadcast burning it will probably be an issue so they will slash / pile and burn the piles.</p> <p>5. Bare Mountain (at least that is Randy's name for it) - This is actually the blocks just west of Marcer's. They are CP 277 which is called Bare Mountain. They have completed slashing on the two large blocks which are adjacent to the Newgate.</p> <p>6. Fitzpatrick Road - They have laid out the area I looked at and rejected for harvest. I think the plan is to go there next winter. It will be machine treated (not hand fell) and piled for possible sale as hog or pulp.</p>	
Waldo 109	Jon Blair	Home Owner, Sheep Mtn	August 10 th , 2009	Waldo/ Sheep Mtn North	Jon lives in centre of pasture in a straw bale house, he was infoed of proposed ER operations around is house and is generally happy with fuel management around his house.	Jon received a map of the project area. In February March 2010 JOP crew slashed and pile to within 300 metres north of his house.
Wigwam 110	Mario Rocca, Bob Forbes Steve Temple Irene Teske	Fernie Rod and Gun Club Nature Conservancy of Canada Tembec Industries Ministry of Environment	April 8 th 2010	Wigwam/ All	<p>I met the Fernie Rod and Gun club on site at the Lodgepole gate to Wigwam today, some notes just to keep us all in the know.</p> <p>1) I handed over keys 7 and 8 (for the wigwam gate; MOFR will keep Key number 6) to the club along with 4 extra maps for the site and an Ecosystem Restoration sign to be posted by Elko gate so as to reduce phone calls to MOE about traffic into the area closure.</p> <p>2) Work party will proceed Saturday April 17th about 40 people to attend, Randy Harris Bob Couperus MOFR have volunteered to attend. Club will likely work under Trench Society WCB. First Aid to be set up. Remainder of project area will be put out to contract, for about \$300/ha.</p> <p>3) MOFR has rewritten schedules A, B, D (attached). As per notes from Bob Forbs clarity over the treatment is added;</p> <p>a. NCC property has been separated out as separate unit, will show on prescription map.</p> <p>b. schedule B has a possible \$1000 fine to be levied on excessive site disturbance. Schedule A includes remedial work clause for environmental damage, follow up by telling contractor to stay on</p>	<p>1) Keys to be returned MOFR keeps one</p> <p>2) MOFR to participate in work party April 17th</p> <p>3) MOFR is assised Fernie Rod and Gun club with contract</p> <p>4) MOFR will facilitate treatment of area for Invasive plants by East Kootenay Invasive Plant Council</p>

**Appendix II Summary of Stakeholder Review of Five Year Plan
Rocky Mountain Trench Ecosystem Restoration Plan
May 2010**

Document Number	Person	Organisation	Date	Pasture (Range Unit)	Comment	Result
					<p>road.</p> <p>c. Piling of slash clause is added (clause 2.09)</p> <p>d. Province and Ministry references changed to Fernie Rod and Gun club.</p> <p>e. For issuance the name of the contracting company needs to be added to header of all 3 schedules, areas and prices into schedule B</p> <p>4) Club would also like area treated for invasive plants MOFR will forward map to East Kootenay Invasive Plant Council with a request to treat area for 2 days, about \$2000, and forward invoice to Rod and Gun club for payment. So far treatment request is for spotted and diffuse knapweed, no treatment know for common St John's wort. Should we target other species.</p> <p>5) The treatment site is ribboned in pink ribbon two thickets and one WTP taken out; NCC property added in as NCC1. Randy to draft a prescription for review by Bob Forbes and Ken Strelhoff for comment before map and prescription finalised. Hopefully tomorrow</p>	<p>5) Prescription completed April 9th, 2010, comments from this field trip incorporated</p> <p>6) ER Program to amend all both prescriptions for Wigwam by June for review by MOE, NCC and Fernie Rod and Gun club. Basically break large units into smaller, add in some anomalous areas and update some clauses; look for new project opportunities. August 20190</p>
Wigwam 111	Bob Forbes	Area Manager with Nature Conservancy of Canada	April 12 th , 2010	Wigwam/ All	Prescription reviewed by NCC and Steve Temple of Tembec. Clauses held to meet management criteria for 7.9 hectares of the Mt. Broadwood Conservation property. Areato be managed as open forest, pile burning will likely be necessary.	Prescription approved work proceeded at work bee April 17 th .
Wigwam 112	Mario Rocca	Fernie Rod and Gun Club	April 21st 2010	Wigwam/ All	Report of treatment completed and forwarded to Mario for comment. Work went well, good production and enthusiasm. In future projects pay more attention to safety and emergency transportation.	Project report put on Opening file 82G025-78
Wigwam 113	Mario Rocca	Fernie Rod and Gun Club	April 21st 2010	Wigwam/ All	Contract to Purcell Resources has been let, \$10,080 of BC Wildlife Federation dollars spent to slash and pile 35 hectares of land. Mario feels work is good, contract is complete and paid out. Keys and signs returned.	Keys and sign returned to Ministry of Environment. Second report to be competed for end of project.

Rocky Mountain Trench Ecosystem Restoration Program
Five Year Plan 2010-2015 Final May, 2010

Appendix III Maps and Documentation on Maps
Maps are under separate cover

Contents

Ecosystem Restoration Projects 2009 Mid Trench
Ecosystem Restoration Projects 2009 North Trench
Ecosystem Restoration Projects 2009 South Trench

Ecosystem Restoration Projects 2010 Mid Trench
Ecosystem Restoration Projects 2010 North Trench
Ecosystem Restoration Projects 2010 South Trench

Ecosystem Restoration Projects 2011 Mid Trench
Ecosystem Restoration Projects 2011 North Trench
Ecosystem Restoration Projects 2011 South Trench

Ecosystem Restoration Projects 2012 Mid Trench
Ecosystem Restoration Projects 2012 North Trench
Ecosystem Restoration Projects 2012 South Trench

Ecosystem Restoration Projects 2013 Mid Trench
Ecosystem Restoration Projects 2013 North Trench
Ecosystem Restoration Projects 2013 South Trench

Ecosystem Restoration Projects 2014 Mid Trench
Ecosystem Restoration Projects 2014 North Trench
Ecosystem Restoration Projects 2014 South Trench

Ecosystem Restoration Projects 2015 Mid Trench
Ecosystem Restoration Projects 2015 North Trench
Ecosystem Restoration Projects 2015 South Trench