

SITE PLAN WALDO RANGE UNIT ECOSYSTEM RESTORATION PILOT PROJECT

Rocky Mountain
TRENCH SOCIETY
NATURAL RESOURCES



A. TENURE IDENTIFICATION

CUTTING AUTHORITY LICENCE #	OPENING NUMBER	LOCATION
		Waldo Range Unit Rocky Mountain Forest District

B. AREA UNDER THE PLAN

SU	Gross Area (TAUP)	Permanent Access (PAS)	Rock	Swamp / wetland	Other Non Productive (specify)	Research Reserves ¹ ha (No.#)	WTP's	Net Area to be Reforested (NAR)
1	6.1							6.1
2	6.3	0.04				4.5 (1)		1.8
3	4.0	0.4						3.6
4	3.4							3.4
5	6.5	0.2		0.5			4.6	1.2
6	213.0	5.2				4.5 (1)		203.3
7	24.7	0.2		0.3			3.1	21.1
8	4.3							4.3
9	7.7					9.0 (2)		7.7
10	0.9							0.9
11	2.1							2.1
12	3.0							3.0
13	12.0							12.0
14	77.2	1.8				9.0(2)		66.4
15	14.5	0.4						14.1
16	1.4							1.4
17	3.3							3.3
18	144.7	2.9					3.0	138.8
19	9.7							9.7
20	24.8	0.04		5.8			2.8	16.2
21	87.4	2.1						85.3
22	47.7	0.3				4.5 (1)		42.9
23	1.5							1.5
24	39.7	0.3						39.4
25	45.7	2.1						43.6
26	216.7	3.0		24.2		4.5 (1)	56.1	128.9
27	20.9	0.4						20.5
28	268.4	3.8		6.8		13.5 (3)	49.0	195.3
29	16.4							16.4
30	35.9	0.4				4.5 (1)		31.0
31	13.2							13.2
32	33.3	0.4						32.9
33	2.8							2.8
34	44.3	0.4						43.9
35	9.8							9.8
36	7.4							7.4
37	266.2	3.5				9.0 (2)		253.7
38	40.6							40.6
TOTAL	1767.5	27.9		37.6		54.0	118.6	1529.4

SITE PLAN (CONT'D)

This Site Plan is for a Pilot Project. The holder of this plan is not a major licensee.

This Site Plan replaces all other plans, prescriptions and silviculture obligations for this project area.

Footnotes

1. Research reserves are required for post treatment monitoring (i.e., control units). These units must not be treated with any of the treatment methods prescribed for the standards unit in which they are located. Prior to commencement of any treatments, each research reserve must be marked in the field with orange & blue flagging ribbon, GPS'd and a map showing their locations must be appended to this site plan. Research reserves must be 4.5 ha in size \pm 0.5 ha.

SU Area Description	
SU	
1	Flat existing open range unit situated on a fluvial terrace adjacent to the Koocanusa Lake.
2	Flat FPy 8314-14 forested unit situated on a fluvial terrace
3	Flat existing open range unit situated on a fluvial terrace
4	Steep FPy 8314-14 forested unit situated on the face of fluvial terrace
5	Flat FPy 8314-14 forested unit situated on a fluvial terrace
6	Flat PIF(Py) 4204-12 , PIPyF 5313-14 forested unit. Subject to past selective logging management. Lacks a large tree component.
7	Flat PI dominated age class 1 forested unit.
8	Steep PIF(Py) 4204-12 semi-open forested unit situated on the face of fluvial terrace
9	Steep open range unit situated on the terrace face of fluvial plain
10	Flat existing open range unit situated on a fluvial terrace
11	Flat semi-open open range unit situated on a fluvial terrace
12	Moderately sloping PyFPI 4207-15 forested unit situated on a fluvial terrace
13	Steep PyFPI 4207-15 forested unit adjacent to Koocanusa Lake situated on the face of a fluvial terrace
14	Flat to moderate sloping Py (F) 7313-13 PI, FPy 4306-17 and PyFPI 4207-15 forested unit situated on a fluvial terrace
15	Flat to moderate sloping PyF 4201-15 forested unit situated on a fluvial terrace
16	Flat existing open range unit situated on a fluvial terrace
17	Flat to moderate sloping semi-open PIPy (At) 4202-16 open range unit located on a fluvial terrace. Recently burned over area.
18	Flat to moderate sloping semi-open PIPy (At) 4202-16 open range unit located on a fluvial terrace. Recently burned over area.
19	Flat to moderate sloping semi-open PIPy (At) 4202-16 open range unit located on a fluvial terrace. Recently burned over area.
20	Moderately sloping FPI(LPy) 5306-16 forested unit located on a margin of a fluvial terrace and moraine outwash plain.
21	Flat to moderately sloping PIFPy (At) 4204-15 forested open range mosaic unit located on a margin of a fluvial terrace and moraine outwash plain.
22	Flat FpyPI(At) 5303-16 and PIPyF 4202-16 forested unit located on a fluvial terrace
23	Steep LFPIPy 5304-16 forested unit located on the face of a fluvial terrace
24	Moderately sloping PIFPy 2100-12 forested unit located on a margin of a fluvial terrace and moraine outwash plain
25	Moderately sloping FPy(pPI) 4202-15 forested and open range unit located on a margin of a fluvial terrace and moraine outwash plain
26	Flat and rolling PIF(At) 2100-14 PIF(Py) 5314-16 forested and open range unit located on fluvial terrace.
27	Flat PyF(LPI) 5202-12 forested unit located on a fluvial terrace
28	Flat to moderately sloping FPy(PI) 5303-15, FPy (PIAt) 8313-12 and FPy(PI) 5302-15 forested unit located on a fluvial terrace.
29	Flat to moderately sloping FPy(PI) 5303-15 forested unit located on a fluvial terrace
30	Flat and rolling PIF(At) 2100-14 PIF(Py) 5314-16 forested and open range unit located on fluvial terrace
31	Steep semi-open open range unit located on the face of fluvial terrace
32	Flat and rolling FPy(p) 4202-15 forest unit located on a margin of a fluvial terrain and moraine outwash plain
33	Flat AtS (F) 43016-17 forest unit located on a fluvial terrace
34	Flat and rolling PyF(At) 6300-13 forested unit located on a fluvial terrace
35	Flat semi-open open range unit located on a fluvial terrace
36	Moderately sloping FPy(PIAt) 8313-12 forested unit adjacent to the Koocanusa Lake located on a fluvial terrace
37	Py 1106/V open range, PyFpl 5303-15, PyF6303-13 and Py 7321-12 semi-open forested-open range mosaic located on fluvial terrace. Recently burned over area.
38	Steep Py 7321-12 semi-open forested-open range mosaic located on the face of a fluvial terrace

SITE PLAN (CONT'D)

C. SOIL DISTURBANCE

SU	Sensitive Soils (Y/N)	Max. Allowable Soil Disturbance (%)	Max. Amount TAS May Exceed MASD Prior To Rehab (%) for Bladed / Excavated Skid Roads	Max. Amount TAS May Exceed MASD Prior To Rehab (%) for Landings	Maximum Permanent Access Structures (%) for Roads.
1	NO	0	0	0	0.0
2	NO	10	5	7.9	0.6
3	NO	10	0	0	10.0
4	NO	0	0	0	0.0
5	NO	10	0	0	3.1
6	NO	10	0	3.1	2.4
7	NO	10	0	0	1.0
8	NO	0	0	0	0.0
9	NO	0	0	0	0.0
10	NO	10	0	0	0.0
11	NO	10	0	0	0.0
12	NO	0	0	0	0.0
13	NO	0	0	0	0.0
14	NO	10	0	3.2	2.3
15	NO	10	0	0	2.5
16	NO	10	0	0	0.0
17	NO	10	0	0	0.0
18	NO	10	0	0.7	2.0
19	NO	10	0	0	0.0
20	NO	10	5	2.6	0.2
21	NO	10	1	1.7	2.4
22	NO	10	0	1.0	0.7
23	NO	0	0	0	0.0
24	NO	10	1	1.3	0.8
25	NO	10	1	6.6	4.6
26	NO	10	0	1.8	1.4
27	NO	10	0	4.8	1.9
28	NO	10	1	1.7	1.4
29	NO	10	0	0	0.0
30	NO	10	1	1.0	1.1
31	NO	10	1	0	0.0
32	NO	10	1	1.5	1.2
33	NO	10	0	0.0	0.0
34	NO	10	1	1.1	0.9
35	NO	10	0	0	0.0
36	NO	0	0	0	0.0
37	NO	10	0	1.5	1.3
38	NO	0	0	0	0.0
SU	Rationale for exceeding PAS				
3	PAS in SU 3 exceeds 7.0 because of the small size of the unit.				
SU	Critical site conditions that affect the timing of operations, and how they affect the timing				
All	<p>All mechanized treatments are restricted to seasons with frozen soil conditions or snowpack that is suitable in depth to minimize soil disturbance.</p> <p>Trees between 12.5 and 17.4 cm dbh that are felled to meet stocking requirements must be removed from standards units where mechanized treatment is prescribed except for those trees required to meet CWD objectives.</p>				
COMMENTS	<p>Maximum landing size is 0.5 ha.</p> <p>All landings must be rehabilitated within 1 year post treatment. Rehab includes, replacing top soil, reestablishing the original slope profile, seeding, fertilizing and control of invasive plant species.</p>				

SITE PLAN (CONT'D)

D. STOCKING REQUIREMENTS

SU	Forest Development Plan Standards ID	Other Performance Standards
1	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
2	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
3	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
4	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Forest Habitat Type
5	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
6	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
7	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
8	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Forest Habitat Type
9	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
10	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
11	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
12	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Forest Habitat Type
13	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Forest Habitat Type
14	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Forest Habitat Type
15	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
16	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
17	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
18	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
19	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
20	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Forest Habitat Type
21	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
22	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
23	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Forest Habitat Type
24	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Forest Habitat Type
25	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
26	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
27	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
28	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Forest Habitat Type
29	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
30	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
31	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
32	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Forest Habitat Type
33	N/A	Kootenay -Boundary Land Use Plan Implementation Strategy Fire-Maintained Ecosystem Restoration Guidelines: Shrubland Ecosystem Component
34	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
35	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
36	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Forest Habitat Type
37	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type
38	N/A	Order - Ungulate Winter Range -U-4-006 Cranbrook TSA Open Range Habitat Type

SITE PLAN (CONT'D)

E. Assessments

KNOWN SCENIC AREA

No Required

PEST INCIDENT SURVEY

Not Required

ARCHAEOLOGICAL SITES

Required. Results of the archaeological assessment have been incorporated into this plan.

Gully Assessments

Not Required

F. ADMINISTRATION

RPF'S SIGNATURE and SEAL	RPF PRINTED NAME
	<p>L.R. Mark Hall, RPF # 2910 Majestic Resource Consulting Ltd. Box 344 Jaffray, B.C. V0B 1T0 Ph: (250) 429-3400 Email: mhall@majestic-resources.com</p>
	DATE SIGNED

Attached site plan map forms an integral part of the site plan.

PLANNING

THE FOLLOWING INFORMATION IS ATTACHED FOR INFORMATION ONLY AND DOES NOT FORM PART OF THE SITE PLAN

CUTTING AUTHORITY LICENCE #	OPENING NUMBER	LOCATION
		Waldo Range Unit Rocky Mountain Forest District

1. ASSESSMENTS

1.1 VISUAL IMPACT ASSESSMENT		
IS THE BLOCK IN A KNOWN SCENIC AREA (YES/NO)	No	DATE OF ASSESSMENT
PRE-HARVEST VISUAL ASSESSMENT		
ESTABLISHED VISUAL QUALITY OBJECTIVES		
POST HARVEST VISUAL ASSESSMENT		
COMMENTS:	No assessment required	

1.2 PEST INCIDENCE SURVEY								
SU	Pest Code	Incidence or Rating	SU	Pest Code	Incidence or Rating	SU	Pest Code	Incidence or Rating
DATE OF SURVEY								
COMMENTS:		Not Required						

1.3 ARCHAEOLOGICAL IMPACT ASSESSMENT		
DATE	CONSULTANT	RECOMMENDATIONS
June 2005	Wayne Choquette	<p>Several know archeological sites were identified in the assessment. These sites are protected within this site plan by the fact that some sites are excluded from the project area and other sites are fully contained within wildlife tree patches.</p> <p>Mechanical felling & harvesting and the timing of harvesting during winter/frozen ground conditions address further potential concerns expressed in the archeological report with respect to minimizing soil disturbance on ridge crests and terrace margins.</p> <p>All landings plus all roads requiring substantial upgrading or reconstruction must have an AIA completed on them before construction/upgrading. Road and landing locations are shown in this site plan but design requirements and measures to protect archaeological values must be specified in a road layout and design or other authority issued by the Ministry of Forests.</p>
COMMENTS:		

1.4 TERRAIN STABILITY FIELD, FLAT OVER STEEP AND AVALANCHE ASSESSMENTS				
DATE	CONSULTANT	POLYGON	CLASSIFICATION	RECOMMENDATIONS
COMMENTS: Not Required				

1.4a GRASSLAND RESTORATION ASSESSMENT		
DATE	CONSULTANT	RECOMMENDATIONS
Mar. 2005	Tim Ross - Ross Range & Reclamation	The specifications for open forest and open range area are consistent with the recommendations of the Range Conversion Plan prepared for this project.
COMMENTS: Untreated control plots are required for post treatment monitoring. These areas have been accounted for in the site plan.		

1.5 RIPARIAN ASSESSMENTS								
SU	Riparian I.D. and Class.	Riparian Management Area (RMA) Widths (M)			BA or SPH Retained	X stream yarding Y/N	Machine Buffer Width (m)	Comments (Indicate if in a community watershed)
		(RRZ) Reserve Zone (m)	(RMZ) Management Zone (m)	Total RMA (m)				
	R1-L1A	0	0	0	N/A	N/A	N/A	Koocanusa Lake
6	R2-S6	0	20	20	All	No	N/A	RMA within WTP 1
6	R3-UC	N/A	N/A	N/A	N/A	N/A	N/A	Within WTP 2
18	R4-W3	0	30	30	All	N/A	N/A	RMA within WTP 3
28	R5-W3	0	30	30	All	N/A	N/A	RMA within WTP 5
28	R6-W1	10	40	50	All	N/A	N/A	RMA mostly within WTP 5
28	R7-W3	0	30	30	All	N/A	N/A	RMA within WTP 5
28	R8-W3	0	30	30	All	N/A	N/A	RMA within WTP 7
28	R9-W3	0	30	30	All	N/A	N/A	RMA within WTP 7
28	R10-W3	0	30	30	All	N/A	N/A	RMA mostly within WTP 8

UC = unclassified

PLANNING (CONT'D)

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1.6 SOIL ASSESSMENTS

SOIL CHARACTERISTICS							
SU	Soil Comp	Soil Erosion	Soil Disp	Depth To Unfavorable Subsoil		Type Of Unfavorable Subsoil	Comments
				Min(cm)	Max(cm)		
1	N/A	N/A	N/A				No prescribed mechanical treatments
2	M	M	H	50	60	Calc. Dense PM	
3	N/A	N/A	N/A				No prescribed mechanical treatments
4	N/A	N/A	N/A				No prescribed mechanical treatments
5	M	M	M	40	40	Calc. Dense PM	
6	M	M	L				
7	M	M	L				
8	N/A	N/A	N/A				No prescribed mechanical treatments
9	N/A	N/A	N/A				No prescribed mechanical treatments
10	M	M	L				
11	M	M	L				
12	N/A	N/A	N/A				No prescribed treatments
13	N/A	N/A	N/A				No prescribed mechanical treatments
14	M	M	M				
15	L	M	M				
16	L	M	M				
17	L	M	M				
18	L	M	M				
19	L	M	M				
20	H	H	H	30	40	Calc.	
21	M	H	H	30	40	Calc.	
22	M	M	M				
23	N/A	N/A	N/A				No prescribed mechanical treatments
24	M	H	H	30	40	Calc.	
25	L	H	H	30	40	Calc.	
26	L	M	M				
27	L	M	M				
28	H	M	M				
29	L	M	M				
30	L	M	M				
31	L	H	H	30	40	Calc.	
32	H	M	H				
33	M	M	M				
34	L	M	M				
35	L	M	M				
36	N/A	N/A	N/A				No prescribed mechanical treatments
37	M	M	M	10	15	Sands, Dense PM	
38	N/A	N/A	N/A				No prescribed mechanical treatments

COMMENTS:

PLANNING (CONT'D)

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2. BACK UP DATA

HLP/ FDP CONSIDERATIONS:	Response	Recommendation
Biodiversity Emphasis / L.U.	Low / C-34	
Connectivity Corridor	No	
Old Growth Constraints	No	Old/mature seral stands have been reserved in some of the WTP's. (i.e., WTP's, 5, 7 & 9)
Green-Up	No	
Fire Maintained Ecosystems	Yes	The focus of this site plan is to restore fire-maintained ecosystem structure and function.
Enhanced Resource Dev. Zones	No	
Grizzly Bear Habitat	No	
Wildlife/ Endangered Species	Yes	The area has potential to become habitat for Lewis's Woodpecker. A Wildlife Habitat Area located relatively nearby in the Sharptail Pasture contains known Lewis's Woodpecker nest sites. The post treatment stand structure of this block will be conducive to attract this species; therefore; dead standing wildlife trees suitable for Lewis's Woodpecker nest trees must be reserved from harvest. Refer to requirements outlined in section 3.1a under harvesting constraints. Active eagle nest trees are located in the block and protected in WTP's. Refer to requirements outlined in section 3.1a under harvesting constraints for protection of this resource value.
Sensitive Areas	Yes	Riparian areas and archaeological sites have been protected in WTP's
Watersheds/ Hydro Assessments	No	
Consumptive Use Streams	No	
Fisheries	No	
Recreation	Yes	The Trans Canada trail is located in the block. Refer to section 3.1a under harvesting constraints for requirements.
Range	Yes	Refer to requirements outlined in section 3.1a under harvesting constraints
Avalanche Assessments	No	
Other Resources	Yes	This site plan replaces all other plans, prescriptions and silviculture obligations that may have applied to the block prior to implementation of this site plan. Gas & railway company and MoTH approvals will be required for harvesting, prescribed burning and road use. Refer to section 3.1a under harvesting constraints for other requirements.

TREATMENT PLAN

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CUTTING AUTHORITY LICENCE #	TIMBER MARK	LOCATION
		Waldo Range Unit Rocky Mountain Forest District

3. SILVICULTURAL/HARVEST SYSTEMS

3.1 SILVICULTURAL SYSTEMS				
SU	NDT 4 Management Classification	System	Variant	Reserve Type
1	Open Range	Clearcut	with reserves	Single tree - long term
2	Open Range	clearcut	with reserves	Single tree - long term
3	Open Range	Clearcut	with reserves	Single tree - long term
4	Open Forest	Irregular Shelterwood	with reserves	Single tree - long term
5	Open Range	Clearcut	with reserves	Single tree - long term
6	Open Range	Clearcut	with reserves	Groups - long term
7	Open Range	Clearcut	with reserves	Single tree - long term
8	Open Forest	Irregular Shelterwood	with reserves	Single tree - long term
9	Open Range	Clearcut	with reserves	Single tree - long term
10	Open Range	Clearcut	with reserves	Single tree - long term
11	Open Range	Clearcut	with reserves	Single tree - long term
12	Open Forest	Irregular Shelterwood	with reserves	Single tree - long term
13	Open Forest	Irregular Shelterwood	with reserves	Single tree - long term
14	Open Forest	Irregular Shelterwood	with reserves	Single tree - long term
15	Open Range	Clearcut	with reserves	Single tree - long term
16	Open Range	Clearcut	with reserves	Single tree - long term
17	Open Range	Clearcut	with reserves	Single tree - long term
18	Open Range	Clearcut	with reserves	Single tree - long term
19	Open Range	Clearcut	with reserves	Single tree - long term
20	Open Forest	Irregular Shelterwood	with reserves	Single tree - long term
21	Open Range	Clearcut	with reserves	Single tree - long term
22	Open Range	Clearcut	with reserves	Groups - long term
23	Open Forest	Irregular Shelterwood	with reserves	Single tree - long term
24	Open Forest	Irregular Shelterwood	with reserves	Single tree - long term
25	Open Range	Clearcut	with reserves	Single tree - long term
26	Open Range	Clearcut	with reserves	Single tree - long term
27	Open Range	Clearcut	with reserves	Single tree - long term
28	Open Forest	Irregular Shelterwood	with reserves	Single tree - long term
29	Open Range	Clearcut	with reserves	Single tree - long term
30	Open Range	Clearcut	with reserves	Single tree - long term
31	Open Range	Clearcut	with reserves	Single tree - long term
32	Open Forest	Irregular Shelterwood	with reserves	Single tree - long term
33	Shrubland	Irregular Shelterwood	with reserves	Single tree - long term
34	Open Range	Clearcut	with reserves	Single tree - long term
35	Open Range	Clearcut	with reserves	Single tree - long term
36	Open Forest	Irregular Shelterwood	with reserves	Single tree - long term
37	Open Range	Clearcut	with reserves	Groups - long term
38	Open Range	Clearcut	with reserves	Single tree - long term

TREATMENT PLAN (CONT'D)

THE FOLLOWING INFORMATION IS ATTACHED FOR INFORMATION ONLY AND DOES NOT FORM PART OF THE SITE PLAN

1 - Primary preferred method treatment. 2 - secondary treatment. 3 - Tertiary treatment. (a) Acceptable alternative primary method.

3.1a TREATMENT REGIME

SU	Commercial sawlog harvest	Pre-commercial thin	Mechanical felling	Hand felling	Mechanical ground-based skidding	Random overland skidding to designated trails/roads	Processing at designated landings	Manual a/o mechanical spacing/thinning of excess non-merch stocking	Prescribed Burn	Timing of burn (years after completion of treatments)
1								1		
2	1	1	1	(a)	1	1	1	2	3	1 to 5
3								1		
4								(a)	1	1 to 5
5	1	1	1	(a)	1	1	1	2	3	1 to 5
6	1	1	1	(a)	1	1	1	2	3	1 to 5
7								1	2	1 to 5
8								(a)	1	1 to 5
9									1	1 to 5
10									1	1 to 5
11								1	2	1 to 5
12										
13								(a)	1	1 to 5
14	1	1	1	(a)	1	1	1	2	3	1 to 5
15	1	1	1	(a)	1	1	1	2	3	1 to 5
16								(a)	1	1 to 5
17	1	1	1	(a)	1	1	1	2	3	10 to 15
18	1	1	1	(a)	1	1	1	2	3	10 to 15
19	1	1	1	(a)	1	1	1	2	3	10 to 15
20	1	1	1	(a)	1	1	1	2	3	1 to 5
21	1	1	1	(a)	1	1	1	2	3	1 to 5
22	1	1	1	(a)	1	1	1	2	3	1 to 5
23								(a)	1	1 to 5
24	1	1	1	(a)	1	1	1	2	3	1 to 5
25	1	1	1	(a)	1	1	1	2	3	1 to 5
26	1	1	1	(a)	1	1	1	2	3	1 to 5
27	1	1	1	(a)	1	1	1	2	3	1 to 5
28	1	1	1	(a)	1	1	1	2	3	1 to 5
29	1	1	1	(a)	1	1	1	2	3	1 to 5
30	1	1	1	(a)	1	1	1	2	3	1 to 5
31		1	1	(a)	1	1	1	2	3	1 to 5
32	1	1	1	(a)	1	1	1	2	3	1 to 5
33	1		1	(a)	1	1	1	2		
34	1	1	1	(a)	1	1	1	2	3	1 to 5
35	1	1	1	(a)	1	1	1	2	3	1 to 5
36								(a)	1	1 to 5
37	1	1	1	(a)	1	1	1	2	3	10 to 15
38								(a)	1	10 to 15

<p>Silvicultural Constraints</p>	<ol style="list-style-type: none"> 1. All mechanized treatments are restricted to seasons with frozen soil conditions or snowpack that is suitable in depth to minimize soil disturbance. 2. Trees between 12.5 and 17.4 cm dbh that are felled to meet stocking requirements must be removed from standards units where mechanized treatment is prescribed except for those trees required to meet CWD objectives. 3. Upon completion of treatments, all bladed/excavated skidroads, fire control lines and landings must be rehabilitated. 4. There is an old building located in SU 11. This feature must be protected from damage. 5. All lodgepole pine must be slashed or harvested and utilized. Only "woffy" lodgepole pine trees isolated in open range areas that are used as bedding trees by cattle or wildlife can be reserved from cutting. 6. Mechanical equipment must not drive in the meadow openings of R11, R12 or R13, which are located in SU 28. 7. All treatments should adhere to the BC Timber Sales Kootenay Business Area Environmental Management System and Environmental Field Procedures 01-General, 02 Project Supervision, 05-Harvesting and 06-Fuel Handling as amended from time-to-time. Refer to www.for.gov.bc.ca/BCTC/areas/TKO_certification.htm. It is recommended all contractors executing this site plan possess the BCTS Level 3 EMS awareness certification.
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TREATMENT PLAN (CONT'D)

THE FOLLOWING INFORMATION IS ATTACHED FOR INFORMATION ONLY AND DOES NOT FORM PART OF THE SITE PLAN

Harvesting Constraints	<ol style="list-style-type: none"> 1. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce. 2. Reserve from harvesting and damage: All dead standing wildlife tree > 30cm in diameter and >5m in height. 3. Trees between 12.5 and 17.4 cm dbh that are felled to meet stocking requirements must be removed from standards units where mechanized timber harvesting is prescribed except for those trees required to meet CWD objectives. 4. Upon completion of treatments, all bladed/excavated skidroads, fire control lines and landings must be rehabilitated. 5. Mechanical equipment must not drive in the meadow openings of R11, R12 or R13 in SU 28. 6. Portions of the block are adjacent to the right-of-way of a natural gasline and compressor station for Trans Canada Gas and Foothills Pipeline. Agreements must be developed with the gas companies regarding harvesting along the right-of-way for timber that may be on the right-of-way as well as procedures for working adjacent to the gas line and compressor station. 7. An agreement and permit will be required from the gas companies for equipment, including logging trucks, to cross the gas line between SU 34 and SU 37. 8. An agreement will be required to cross the railway crossing in SU 6 from the Railway company. 9. Access permits may be required from the Ministry of Transportation & Highways for logging trucks to access the Colvalii Road 10. Sections of range fences will have to be removed to facilitate harvesting. Logging crews must work in coordination with the range tenure holder and MoF to ensure proper reestablishment of the fences prior to periods where they may be required. 11. Sections of broken and waste fence wire are scattered inside the block along existing fence lines. This wire poses a safety hazard to equipment including, felling bunchers and ground workers. A clean up effort should be coordinated with the range tenure holder prior to the commencement of harvesting. Particularly hazardous units include: east side of SU 6, and south side of SU 37 and the fence that separates Munson Slough East from Twin Lakes Pasture. 12. The Trans Canada Trail passes through SU 6, 14, 18 and 21. Roads should be posted during active logging hauling and the road must be maintained in manner that ensures public safety. 13. There is an old building located in SU 11. This site must be protected from damage. 14. Directional felling must be used to ensure that identified eagle nest trees are not damaged. 15. Additional eagle nest trees discovered during implementation of this site plan constitute a resource value that requires logging to stop and advice on how the tree should be protected must be obtained from the MoF, MWLAP and/or an RPF. 16. All lodgepole pine must be slashed or harvested and utilized. Only "wolfy" lodgepole pine trees isolated in open range areas that are used as bedding trees by cattle or wildlife can be reserved from cutting. 17. Maximum landing size is 0.5 ha. 18. All treatments should adhere to the BC Timber Sales Kootenay Business Area Environmental Management System and Environmental Field Procedures 01-General, 02 Project Supervision, 05-Harvesting and 06-Fuel Handling as amended from time-to-time. Refer to www.for.gov.bc.ca/BCTC/areas/TKO_certification.htm. It is recommended all contractors executing this site plan possess the BCTS Level 3 EMS awareness certification.
Prescribed Burning Constraints	<ol style="list-style-type: none"> 1. Prescribed burning requires the preparation and approval of a prescribed burn plan(s) prior to burning. 2. A statement must be signed by a Registered Professional Forester that the prescribed burn plan(s) are consistent with the conditions of this site plan. 3. Prescribed burn plan(s) must be designed to ensure that the recommendations and outcomes specified in the following documents are met: <ol style="list-style-type: none"> a. WALDO NORTH GRASSLAND RESTORATION PILOT PROJECT SITE PLAN prepared for: The Rocky Mountain Trench Natural Resources Society by T.J. Ross. 2005. b. ARCHAEOLOGICAL OVERVIEW ASSESSMENT OF THE WALDO NORTH GRASSLAND RESTORATION DEMONSTRATION PROJECT prepared for: The Rocky Mountain Trench Natural Resources Society by Wayne Choquette. 2005. 4. All bladed fireguards/control lines falling within the AOA polygons identified in the Archaeological Overview Assessment report must have an AIA completed on them prior to construction. 5. Prescribed burn plan(s) must be designed to ensure that the desired stocking levels of leave trees specified in section 3.2 of this plan are maintained. 6. Upon completion of treatments, all bladed/excavated skidroads, fire control lines and landings must be rehabilitated. 7. Portions of the block are adjacent to the right-of-way of a natural gasline and compressor station for Trans Canada Gas and Foothills Pipeline. Agreements must be developed with the Gas companies regarding prescribed burning along the right-of-way as well as procedures for working adjacent to the gas line and compressor station. 8. There is an old building located in SU 11. This feature must be protected from damage during prescribed burning. 9. All wildlife tree patches and research reserve units must be protected from burning. 10. All treatments should adhere to the BC Timber Sales Kootenay Business Area Environmental Management System and Environmental Field Procedures 01-General, 02 Project Supervision, 05-Harvesting and 06-Fuel Handling as amended from time-to-time. Refer to www.for.gov.bc.ca/BCTC/areas/TKO_certification.htm. It is recommended all contractors executing this site plan possess the BCTS Level 3 EMS awareness certification.

"Wolf" trees or "wolfy" trees are open grown trees that have irregular stem and crown form, which includes atypically large diameter branches, forked and/or twisted boles and atypically large dense crowns.

TREATMENT PLAN (CONT'D)

THE FOLLOWING INFORMATION IS ATTACHED FOR INFORMATION ONLY AND DOES NOT FORM PART OF THE SITE PLAN

3.2 LEAVE TREE SPECIES AND FUNCTIONS

SU	Species		Layer	SPH	Minimum Leave Tree Characteristics Including Form, Health And Vigour
	Pref.	Acpt			
1	Fd,Py, Lw		All	5	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, lodgepole pine "wolf" trees and spruce.
2	Fd,Py, Lw		All	5-10	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
3	Fd,Py, Lw		All	5	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, lodgepole pine "wolf" trees and spruce.
4	Fd,Py, Lw		1	400	Reserve from cutting and damage all: conifers > 17.5 cm dbh, aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
5	Fd,Py, Lw		All	5-10	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
6	Fd,Py, Lw		All	10-20	Largest diameter trees available. Reserve trees in groups of 10 to 20 trees per group at 1 to 2 groups per hectare. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
7	Fd,Py, Lw		All	5-10	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, lodgepole pine "wolf" trees and spruce.
8	Fd,Py, Lw		1	400	Reserve from cutting and damage all: conifers > 17.5 cm dbh, aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
9	Fd,Py, Lw		1	75	Reserve from cutting and damage all: conifers > 17.5 cm dbh, aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
10	Fd,Py, Lw		All	5	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, lodgepole pine "wolf" trees and spruce.
11	Fd,Py, Lw		All	5	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, lodgepole pine "wolf" trees and spruce.
12	N/A		N/A	N/A	No treatment
13	Fd,Py, Lw		1	400	Reserve from cutting and damage all: conifers > 17.5 cm dbh, aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce
14	Fd,Py, Lw		All	20-50	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
15	Fd,Py, Lw		All	5-10	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, lodgepole pine "wolf" trees and spruce.
16	Fd,Py, Lw		All	5-10	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, lodgepole pine "wolf" trees and spruce.
17	Fd,Py, Lw		All	5-10	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
18	Fd,Py, Lw		All	5-20	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, lodgepole pine "wolf" trees and spruce.
19	Fd,Py, Lw		All	5-20	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
20	Fd,Py, Lw		All	20-50	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
21	Fd,Py, Lw		All	5-20	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
22	Fd,Py, Lw		All	10-20	Largest diameter trees available. Reserve trees in groups of 10 to 20 trees per group at 1 to 2 groups per hectare. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
23	Fd,Py, Lw		1	400	Reserve from cutting and damage all: conifers > 17.5 cm dbh, aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
24	Fd,Py, Lw		All	5-10	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.

TREATMENT PLAN (CONT'D)

THE FOLLOWING INFORMATION IS ATTACHED FOR INFORMATION ONLY AND DOES NOT FORM PART OF THE SITE PLAN

25	Fd,Py, Lw		All	5-10	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, lodgepole pine "wolf" trees and spruce.
26	Fd,Py, Lw		All	5-10	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, lodgepole pine "wolf" trees and spruce.
27	Fd,Py, Lw		All	5-10	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
28	Fd,Py, Lw		All	20-50	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
29	Fd,Py, Lw		All	5-10	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
30	Fd,Py, Lw		All	5-10	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, lodgepole pine "wolf" trees and spruce.
31	Fd,Py, Lw		All	5-10	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
32	Fd,Py, Lw		All	20-50	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
33	At, Ac	Fd, Py, Sx, Lw	All	20-50	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
34	Fd,Py, Lw		All	5-20	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, lodgepole pine "wolf" trees and spruce.
35	Fd,Py, Lw		All	5-10	Largest diameter trees available. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, lodgepole pine "wolf" trees and spruce.
36	Fd,Py, Lw		1	400	Reserve from cutting and damage all: conifers > 17.5 cm dbh, aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
37	Fd,Py, Lw		All	10-20	Largest diameter trees available. Reserve trees in groups of 10 to 20 trees per group at 1 to 2 groups per hectare. Reserve from cutting and damage all: Aspen, cottonwood, Rocky Mountain juniper > 3m in height, lodgepole pine "wolf" trees and spruce.
38			1	75	Reserve from cutting and damage all: conifers > 17.cm dbh, aspen, cottonwood, Rocky Mountain juniper > 3m in height, and spruce.
COMMENTS AND CWD		<p>All lodgepole pine must be slashed or harvested and utilized. Only "wolf" trees isolated in open range areas that are used as bedding trees by cattle or wildlife can be reserved from cutting.</p> <p>Trees between 12.5 and 17.4 cm dbh that are felled to meet stocking requirements must be removed from standards units where mechanized timber harvesting is prescribed except for those trees required to meet CWD objectives.</p> <p>Retain a minimum of 4 logs per ha that are at least 2m long and 7.5cm in diameter at one end.</p>			

TREATMENT PLAN (CONT'D)

THE FOLLOWING INFORMATION IS ATTACHED FOR INFORMATION ONLY AND DOES NOT FORM PART OF THE SITE PLAN

3.3 SOIL DISTURBANCE AND PAS

SU	Sensitive Soils (Y/N)	Max. Allowable Soil Disturbance (%)	Max. Amount TAS May Exceed MASD Prior To Rehab (%) for Bladed / Excavated Skid Roads	CWD (m ³ /ha)	Max. Amount TAS May Exceed MASD Prior To Rehab (%) for Landings	Maximum Permanent Access Structures (%) Roads.
1	No	0	0	≥0.1	0	0.0
2	No	10	5	≥0.1	7.9	0.6
3	No	10	0	≥0.1	0	10.0
4	No	0	0	≥0.1	0	0.0
5	No	10	0	≥0.1	0	3.1
6	No	10	0	≥0.1	3.1	2.4
7	No	10	0	≥0.1	0	1.0
8	No	0	0	≥0.1	0	0.0
9	No	0	0	≥0.1	0	0.0
10	No	10	0	≥0.1	0	0.0
11	No	10	0	≥0.1	0	0.0
12	No	0	0	≥0.1	0	0.0
13	No	0	0	≥0.1	0	0.0
14	No	10	0	≥0.1	3.2	2.3
15	No	10	0	≥0.1	0	2.5
16	No	10	0	≥0.1	0	0.0
17	No	10	0	≥0.1	0	0.0
18	No	10	0	≥0.1	0.7	2.0
19	No	10	0	≥0.1	0	0.0
20	No	10	5	≥0.1	2.6	0.2
21	No	10	1	≥0.1	1.7	2.4
22	No	10	0	≥0.1	1.0	0.7
23	No	0	0	≥0.1	0	0.0
24	No	10	1	≥0.1	1.3	0.8
25	No	10	1	≥0.1	6.6	4.6
26	No	10	0	≥0.1	1.8	1.4
27	No	10	0	≥0.1	4.8	1.9
28	No	10	1	≥0.1	1.7	1.4
29	No	10	0	≥0.1	0	0.0
30	No	10	1	≥0.1	1.0	1.1
31	No	10	1	≥0.1	0	0.0
32	No	10	1	≥0.1	1.5	1.2
33	No	10	0	≥0.1	0.0	0.0
34	No	10	1	≥0.1	1.1	0.9
35	No	10	0	≥0.1	0	0.0
36	No	0	0	≥0.1	0	0.0
37	No	10	0	≥0.1	1.5	1.3
38	No	0	0	≥0.1	0	0.0

SU	CRITICAL SITE CONDITIONS THAT AFFECT THE TIMING OF OPERATIONS, AND HOW THEY AFFECT THE TIMING
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All	All standards units are at risk of colonization from invasive plants wherever soil disturbance is created; therefore, all mechanized treatments are restricted to seasons with frozen soil conditions or snowpack that is suitable in depth to minimize soil disturbance.
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COMMENTS:	Upon completion of treatments, all bladed/excavated skidroads, fire control lines and landings must be rehabilitated.
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TREATMENT PLAN (CONT'D)

THE FOLLOWING INFORMATION IS ATTACHED FOR INFORMATION ONLY AND DOES NOT FORM PART OF THE SITE PLAN

3.4 PERMANENT AND TEMPORARY ACCESS CALCULATION SUMMARY						
Description of Access Structure	SU.	Dimensions (m) Length x Width	Temporary		Permanent	
			Area (ha)	% of NAR	Area (ha)	% Gross
Roads (existing)	All	31,301m x 8.0m			27.9	
Landings (new)	All	61 x 0.5 ha	30.5	2.0		
Bladed / Excavated Skid Roads	2	200m x 4.5m	0.1	5.0		
	20	1155m x 4.5m	0.5	5.0		
	21	1895m x 4.5m	0.9	1.0		
	24	875m x 4.5m	0.4	1.0		
	25	969m x 4.5m	0.4	1.0		
	28	4189m x 4.5m	1.9	1.0		
	30	689m x 4.5m	0.3	1.0		
	31	293m x 4.5m	0.1	1.0		
	32	731m x 4.5m	0.3	1.0		
	34	975m x 4.5m	0.4	1.0		
Total Temporary			55.5	3.7		
Total Permanent					27.9	1.6

Calculation for PAS Roads only includes those roads identified on the site plan map as main logging roads.

Where ever possible utilize existing roads for skid roads.

3.5 RIPARIAN RETENTION AREA SUMMARY						
SU	Riparian I.D. and Class.	Riparian Management Area (RMA) Widths (M)			Stream Lengths (m)	Retention (ha)
		(RRZ) Reserve Zone (m)	(RMZ) Management Zone (m)	Total RMA (m)		
	R1-L1A	0	0	0		N/A
6	R2 -S6	0	20	20	250	All
6	R3-UC	N/A	N/A	N/A		All
18	R4-W3	0	30	30		All
28	R5-W3	0	30	30		All
28	R6-W1	10	40	50		All
28	R7-W3	0	30	30		All
28	R8-W3	0	30	30		All
28	R9-W3	0	30	30		All
28	R10-W3	0	30	30		All

COMMENTS:

TREATMENT PLAN (CONT'D)

THE FOLLOWING INFORMATION IS ATTACHED FOR INFORMATION ONLY AND DOES NOT FORM PART OF THE SITE PLAN

3.6 RIBBON AND PAINT STANDARDS		
DESCRIPTION	RIBBON	PAINT
BOUNDARY	Orange & Blue	
STANDARDS UNIT (SU)	Pink & Yellow	
LANDINGS	Triple Orange	
CRUISE STRIPS	Blue	
CRUISE PLOTS	Blue and Yellow	Red
MARK to LEAVE		
RESERVES	Orange & Blue	
•		

RPF'S SIGNATURE and SEAL	RPF PRINTED NAME
	<p>L.R. Mark Hall, RPF # 2910 Majestic Resource Consulting Ltd. Box 344 Jaffray, B.C. V0B 1T0 Ph: (250) 429-3400 Email: mhall@majestic-resources.com</p>
	DATE SIGNED

SILVICULTURE PLAN

THE FOLLOWING INFORMATION IS ATTACHED FOR INFORMATION ONLY AND DOES NOT FORM PART OF THE SITE PLAN

CUTTING AUTHORITY LICENCE #	OPENING NUMBER	LOCATION
		Waldo Range Unit Rocky Mountain Forest District
<p style="font-size: small;">PROCEDURES REQUIRED BY REGULATION HAVE BEEN FOLLOWED FOR ANY ASSESSMENT THAT IS REQUIRED UNDER SECTION 36.1 OF THE OSPR AND THE SITE PLAN IS CONSISTANT WITH THE RESULTS AND RECOMMENDATIONS OF ANY ASSESSMENT REQUIRED UNDER SECTION 36.1 OF THE OSPR.</p>		

4 ECOLOGICAL INFORMATION

Standard Unit	Ecology Unit	Area	Zone	Subzone	Variant/Phase	Site Series (series - %)	Elevation			Slope position	Soil Texture
							Min	Max	Avg		
1		6.1	IDF	dm	2	02 (02 ₉₀ 03 ₁₀)	740	760	750	Flat	SiL-fSL
2		6.3	IDF	dm	2	03 (03 ₈₀ 01 ₂₀)	740	760	750	Flat	SiL-fSL
3		4.0	IDF	dm	2	02	760	760	760	Flat	SiL-fSL
4		3.4	IDF	dm	2	02 (02-03)	740	760	750	Mid	SiL-fSL
5		1.4	IDF	dm	2	03 (03 ₆₀ 3 ₄₀)	760	760	760	Flat	SiL-fSL
6		213.0	IDF	dm	2	03(03 ₇₀ 02 ₃₀)	760	800	770	Flat	SiL-SL
7		21.3	IDF	dm	2	03(03 ₇₀ 02 ₃₀)	760	760	760	Flat	SiL-SL
8		4.3	IDF	dm	2	03 (03-02)	740	760	750	Mid	SiL-SL
9		7.7	IDF	dm	2	02	740	760	750	Mid	SiL-SL
10		0.9	IDF	dm	2	02	760	760	760	Flat	SiL-SL
11		2.1	IDF	dm	2	02 (02 ₈₀ 01 ₂₀)	780	800	790	Flat	SiL-SL
12		3.0	IDF	dm	2	03	760	800	770	Mid	SiL-fSL
13		12.0	IDF	dm	2	03 (03-02)	760	780	770	Mid	SiL-fSL
14		77.2	IDF	dm	2	01 (01-03)	760	800	780	Mid	SiL-fSL
15		14.5	IDF	dm	2	03 (03 ₆₀ 02 ₄₀)	800	820	810	Mid	SiL-fSL
16		1.4	IDF	dm	2	02	820	820	820	Flat	SiL-fSL
17		3.3	IDF	dm	2	03 (03-02)	780	780	780	Flat	SiL-fSL
18		141.7	IDF	dm	2	02 (02 ₈₀ 03 ₁₀ 01 ₁₀)	760	800	780	Flat	SiL-fSL
19		9.7	IDF	dm	2	02 (02-03)	760	770	765	Flat	SiL-fSL
20		16.2	IDF	dm	2	03 (03-01)	800	840	820	Mid	SiL-fSL
21		87.4	IDF	dm	2	02 (02 ₆₀ 03 ₄₀)	780	840	810	Mid	SiL-fSL
22		47.7	IDF	dm	2	03 (03 ₆₀ 02 ₃₀ 01 ₁₀)	760	780	770	Flat	SiL-fSL
23		1.5	IDF	dm	2	03 (03-02)	740	760	750	Mid	SiL-fSL
24		39.7	IDF	dm	2	03 (03-02)	780	820	800	Mid	SiL-fSL
25		45.7	IDF	dm	2	02 (02-03)	780	820	800	Mid	SL
26		136.4	IDF	dm	2	02 (02 ₉₀ 01 ₁₀)	780	800	790	Flat	SiL-fSL
27		20.9	IDF	dm	2	03	760	780	770	Flat	SiL-fSL
28		212.6	IDF	dm	2	03 (03 ₆₀ 01 ₃₀ 02 ₁₀)	740	800	770	Mid	SiL-fSL
29		16.4	IDF	dm	2	03 (03-02)	780	780	780	Flat	SiL-fSL
30		35.9	IDF	dm	2	02	780	820	800	Flat	SiL-fSL
31		13.2	IDF	dm	2	02	780	800	790	Mid	SiL-fSL
32		33.3	IDF	dm	2	01 (01 ₈₀ 03 ₂₀)	800	820	810	Flat	SL
33		2.8	IDF	dm	2	04	760	780	770	Flat	SiL
34		44.3	IDF	dm	2	02 (02 ₈₀ 01 ₂₀)	780	800	790	Flat	SiL-fSL
35		9.8	IDF	dm	2	02	740	780	760	Flat	SiL-fSL
36		7.4	IDF	dm	2	03(03-02)	740	760	750	Flat	SiL-fSL
37		266.2	IDF	dm	2	02(02 ₉₀ 03 ₁₀ 01 ₁₀)	780	800	790	Flat	S-SL
38		40.6	IDF	dm	2	02	740	800	770	Mid	S-SL
WTP 1		4.6	IDF	dm	2	01 (01 ₇₀ 04 ₃₀)	740	780	760	Flat	-
WTP 2		3.1	IDF	dm	2	04 (04 ₆₀ 01 ₄₀)	780	780	780	Flat	-
WTP 3		2.8	IDF	dm	2	01	780	780	780	Flat	-
WTP 4		3.0	IDF	dm	2	02	740	760	750	Mid	-
WTP 5		56.1	IDF	dm	2	01 (01 ₅₀ 04 ₃₀ 05 ₀₆ 20)	780	780	780	Flat	-
WTP 6		0.5	IDF	dm	2	01	780	780	780	Flat	-
WTP 7		36.5	IDF	dm	2	01 (01 ₆₀ 04 ₄₀)	740	780	770	Mid	-
WTP 8		7.4	IDF	dm	2	01 (01 ₆₀ 04 ₄₀)	780	780	780	Flat	-
WTP 9		4.6	IDF	dm	2	01	740	760	750	Mid	-

SILVICULTURE PLAN (CONT'D)

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RATIONALE FOR STOCKING STANDARD FDP ID SELECTION		
STANDARDS UNIT FDP ID #	CHANGE FROM STANDARD PRACTICE (for example moving Pref. to Acpt or change in MITD)	COMMENT: (for example forest health (DRA) or. rocky site)
N/A	N/A	N/A

Stocking Requirements

Assessment Dates				
Standard unit	Standards ID	Regen Delay (yrs)	Freegrow Early (yrs)	Freegrow Late (yrs)
	Open Range	7	2	15
	Open Forest	7	2	15

Open Range: Regeneration Layer

Preferred Species			Acceptable Species			Post Spacing Density (sph)				Max Coniferous (sph)
Species	Min Hgt (m)	Footnotes	Species	Min Hgt (m)	Footnotes	Min	5	Max	75	75
Fd	0.8					Well Spaced Trees (sph)				
Py	0.6					Target Pref/Acc	Minimum PrefAcc	Minimum Pref	Min Horizontal Dist. Pref/Acc (m)	
Lw	1.0					5-20	5	5	1.0	
									Height Relative to Competition (%)	
									125	

Other Required Stocking Information :

Aspen, cottonwood, Rocky Mountain juniper and spruce must be reserved from cutting; however, they do not count towards stocking and are not considered as competition to the preferred and acceptable species.

Open Forest : Regeneration Layer

Preferred Species			Acceptable Species			Post Spacing Density (sph)				Max Coniferous (sph)
Species	Min Hgt (m)	Footnotes	Species	Min Hgt (m)	Footnotes	Min	20	Max	400	400
Fd	0.8					Well Spaced Trees (sph)				
Py	0.6					Target Pref/Acc	Minimum PrefAcc	Minimum Pref	Min Horizontal Dist. Pref/Acc (m)	
Lw	1.0					20-50	20	20	1.0	
									Height Relative to Competition (%)	
									125	

Other Required Stocking Information :

Aspen, cottonwood, Rocky Mountain juniper and spruce must be reserved from cutting; however, they do not count towards stocking and are not considered as competition to the preferred and acceptable species.

Shrubland: Regeneration Layer

Preferred Species			Acceptable Species			Post Spacing Density (sph)				Max Coniferous (sph)
Species	Min Hgt (m)	Footnotes	Species	Min Hgt (m)	Footnotes	Min	n/a	Max	n/a	100
At	1.0		Sx	0.6		Well Spaced Trees (sph)				
Ac	1.0		Fd	0.8		Target Pref/Acc	Minimum PrefAcc	Minimum Pref	Min Horizontal Dist. Pref/Acc (m)	
			Py	0.6		n/a	n/a	n/a	N/A	
			Lw	1.0					Height Relative to Competition (%)	
									n/a	

Other Required Stocking Information :

SILVICULTURE PLAN (CONT'D)

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SITE PREPARATION - not required

Area	TECHNIQUE (S) / LIMITING FACTORS

PLANTING - not required

Area	SPZ	Class A	Regen Mtd	Species	Age	Stock Type	Season	Stems/Ha	Total Stems

LIMITING FACTORS / COMMENTS:
MIN-MAX ELEVATION / REGIME:

BRUSHING / STAND TENDING

Area	TECHNIQUE (S) / LIMITING FACTORS
	<p>Mechanical and/or manual slashing and thinning can be used in conjunction with timber harvesting to ensure desired conifer tree stocking levels are achieved.</p> <p>Trees between 12.5 and 17.4 cm dbh that are felled to meet stocking requirements must be removed from standards units where mechanized treatment is prescribed except for those trees required to meet CWD objectives.</p>

COARSE WOODY DEBRIS MANAGEMENT STRATEGIES

Including areas with larger accumulations of large CWD, relative to the other parts of the cutblock, into WTP's is the primary strategy for managing CWD on site.

Retain a minimum of 4 logs per ha that are at least 2m long and 7.5cm in diameter at one end.

5 Other Information

Wildlife Tree Patches (inside or attributed to the block)

The specific goals for the delineation of wildlife tree patches are:

1. To ensure the minimum percentage of wildlife tree patches are retained in the project area.
2. Protect important site-specific habitat attributes such as active eagle nest trees.
3. Maintain connective forest cover between adjacent wetlands and between upland habitats and the Kooacanusa Lake.
4. Maintain areas with interior forest conditions in close proximity to riparian areas for a variety of organisms.
5. Providing suitable habitats for ungulate security cover and forest nesting bird species.
6. Protect archaeological sites.
7. Protect areas with potential rare or endangered sub-mesic plant associations/communities
8. To ensure WTP's identified in previous plans for the area are maintained.
8. Address other biodiversity conservation considerations including:
 - a. Maintaining abundance of naturally occurring stand structural elements with a range of seral stages.
 - b. Maintaining vertical and horizontal structural variability for a range of seral stages.
 - c. Maintain standing live and dead trees having special characteristics, including: large diameter trees, trees with large branches, presence of heart rot and various stages of decay, that serve as critical habitat for a variety of organisms.
 - d. Maintain abundance and quality of clumps of trees that provide habitat including: clumps with a variety of tree species and deciduous trees.
 - e. Maintain a diversity of naturally occurring plant species including: understory plants, mature and immature deciduous trees, mixture of species and presence of rare trees species.
 - f. Maintain coarse woody debris having special characteristics, including: large diameter, recruitment and various size classes and stages of decay, that serve as critical habitat for a variety of organisms and provide important ecosystem functions.

I.D.#	HA.	Timber type label (age, height, merch class, crown closure and site index, CWD)
WTP 1	4.6	PIF 5241-15, FPy 8314-14. Contains diverse multi-story stand structural and species attributes including: mature spruce, a stream and an active eagle nest. Portions of this WTP might contain the red-listed hybrid white spruce-trembling aspen / wild sarsaparilla ecological community of the IDFdm2 05.
WTP 2	3.1	PIF(Py) 4204-12. Contains diverse multi-story stand structural attributes including: a wetland, deciduous trees, spruce, wildlife trees, CWD and conifer regeneration.
WTP 3	2.8	PIFPy (At) 4204-15. Contains wildlife recruitment trees
WTP 4	3.0	LFPIPy5304-16. Contains an active eagle nest tree.
WTP 5	56.1	PI(F At) 1101-16, PI(FPy) 7316-16FFIPy5305-18, PyFPI 8313-9, AtS(F) 7316-16. Contains diverse multi-story stand structural attributes including: wetlands, connective cover between wetlands, spruce, deciduous, regeneration-sized conifers, water birch, CWD and wildlife trees. Portions of this WTP might contain the red-listed hybrid white spruce-trembling aspen / wild sarsaparilla ecological community of the IDFdm2 05.
WTP 6	0.5	FPy(PI) 5303-15. Contains wildlife trees and diverse multi-story stand structural attributes
WTP 7	36.5	FL(PyPI) 6305-17. Contains diverse multi-story stand structural attributes including: wildlife trees, birch, spruce, connectivity between wetlands and the Kootenay River, CWD and potentially the red-listed Douglas-fir - western larch / pinegrass ecological community of the IDFdm2 04
WTP 8	7.4	FPI(LPy) 5305-16, FPy(PI) 2101-17. Contains diverse multi-story stand structural attributes including: wildlife trees, CWD and potentially the red-listed Douglas-fir - western larch / pinegrass ecological community of the IDFdm2 04
WTP 9	4.6	FPy 8213-10. Contains diverse multi-story stand structural attributes including: rock outcropping and potential eagle nest trees.

Other reserve areas inside the block

SILVICULTURE PLAN (CONT'D)

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I.D.#	HA.	Timber type label (age, height, merch class, crown closure and site index, CWD)
R11	0.2	Wet meadow - non riparian
R12	0.1	Wet meadow - non riparian
R13	0.1	Wet meadow - non riparian
SU 2	4.5	Research control plots. Location and timber type label not determined at this time. Refer to footnote 1 of pg. 2 on the Site Plan
SU 6	4.5	Research control plots. Location and timber type label not determined at this time. Refer to footnote 1 of pg. 2 on the Site Plan
SU 14	9.0	Research control plots. Location and timber type label not determined at this time. Refer to footnote 1 of pg. 2 on the Site Plan
SU 22	4.5	Research control plots. Location and timber type label not determined at this time. Refer to footnote 1 of pg. 2 on the Site Plan
SU 26	4.5	Research control plots. Location and timber type label not determined at this time. Refer to footnote 1 of pg. 2 on the Site Plan
SU 28	13.5	Research control plots. Location and timber type label not determined at this time. Refer to footnote 1 of pg. 2 on the Site Plan
SU 30	4.5	Research control plots. Location and timber type label not determined at this time. Refer to footnote 1 of pg. 2 on the Site Plan
SU 37	9.0	Research control plots. Location and timber type label not determined at this time. Refer to footnote 1 of pg. 2 on the Site Plan

WTP and Site Deg. Calculation to be retained on the first block of the permit only.								
Block	Gross Cutblock area (ha)	WTP (ha)	WTP %	target %	BEC	Gross (ha)	Perm Access (ha)	Permanent Access %
	1767.5	118.6	6.7	3.5	IDFdm2	1767.5	27.9	1.6
TOTAL	1767.5	118.6	6.7	3.5	IDFdm2	1767.5	27.9	1.6

AMENDMENT				
Amendment number	Date Typed	Initials	Map Req'd	
	Yr Mo Dy		Yes	No

RPF'S SIGNATURE and SEAL	RPF PRINTED NAME
	L.R. Mark Hall, RPF # 2910 Majestic Resource Consulting Ltd. Box 344 Jaffray, B.C. V0B 1T0 Ph: (250) 429-3400 Email: mhall@majestic-resources.com
	DATE SIGNED