

PREScribed FIRE BURN PLAN

	Year 1	Year 2	Year 3
Reference Number			
Client Number			

Submitted by:

Company or Agency & Applicant Name: Jeff McDonnell BC Forest Service Kamloops Fire Zone 4000 Airport Drive Kamloops, BC V2B-7X2
Signature:

FIRE COMPLEXITY RATING: **2**

[CLICK HERE TO VIEW THE COMPLEXITY RATING WORKSHEET.](#)

Date: Feb 8, 2002
Certification Level: Type II

Reviewed by: (may have more than one reviewer)

REVIEWER MUST BE QUALIFIED ACCORDING TO THE COMPLEXITY RATING OF THIS FIRE.

Name: Terry Green, FPO, Kamloops Fire Zone
Signature:

Date: Feb 15, 2002
Certification Level:

PREScribed FIRE BURN PLAN ACCEPTED:
Designated Forest Official - Protection

Name: R.W. Beck, Manager, Kamloops Fire Zone
Signature:

Date: Feb 22, 2002
Certification Level: Type I

EXTENSION ACCEPTED:

Year 2	Name:	Date:
	Signature:	Certification Level:
Year 3	Name:	Date:
	Signature:	Certification Level:

THIS BURN PLAN IS SUPPORTED BY A PRESCRIPTION WHICH HAS BEEN APPROVED BY THE LAND MANAGER.

PRESCRIBED FIRE BURN PLAN

TABLE OF CONTENTS / BURN PLAN CHECKLIST

Complete (X) or N/A	Section and Title
X	COVER SHEET
X	TABLE OF CONTENTS (this page)
X	A. PROJECT OVERVIEW
X	B. FUEL/STAND DESCRIPTION
X	C. PRESCRIBED BURN OBJECTIVES AND DESIRED FIRE EFFECTS
X	D. VALUES AT RISK
X	E. PUBLIC RELATIONS AND INFORMATION STRATEGY
X	F. PRESCRIBED BURN OPERATIONS
X	G. PRESCRIBED BURN BUDGET ESTIMATES (if required)
	H. MONITORING AND DOCUMENTATION

Attached Schedules

X	1. PRESCRIBED FIRE PRESCRIPTION (either 1a or 1b)
X	2. PRESCRIBED FIRE COMPLEXITY WORKSHEET & RATING GUIDE (mandatory)
X	3. ORGANIZATION CHART (if required)
X	4. ON SITE COMMUNICATIONS PLAN (if required)
X	5. MEDICAL OPERATIONS PLAN (if required)
X	6. SAFE WORK PROCEDURES (if required)
X	7. INFORMATION PLAN - NOTIFICATION CHECKLIST (if required)
X	8. INFORMATION PLAN - PUBLIC NOTICE (if required)
X	INFORMATION PLAN - PUBLIC NOTICE - RADIO STATION (if required)
X	9. TRAFFIC PLAN (if required)
X	10. SECURITY PLAN (if required)
	11. PRESCRIBED FIRE "GO-NO-GO" CHECKLIST (mandatory)
X	12. BURN PLAN MAP (mandatory)
	13. STAND/FUELS DESCRIPTION MAP (if required)

PREScribed FIRE BURN PLAN

A. PROJECT OVERVIEW

Location:

Geographic Location	Dewdrop (North side of Kamloops Lk)	Lat/Long	120 35' x 50 45'
Base Map/ Opening	921077 / 78	Forest Region	Kamloops
Fire Centre	Kamloops	District	Kamloops
Zone	Kamloops	TSA	Kamloops

Legal:

Land Status	VCL	Tenure/ Licence	Grazing Licence RAN071488
Licencee/ Owner	Frolek Cattle Co. LTD	Phone No. (24 hr.)	
Land Description	"Heifer Pasture" of the Dewdrop Range Unit	Plan Number	

Information:

Burning Supervisor	Jeff McDonnell	Phone No. (24 hr.)	250-554-5536
Size	263 ha.	Photo Line Number	BCC 95021 Photos #44-45

General Description

This burn is scheduled for the early spring of 2002, as soon as the snow has left the area. Historically this would put the burn window anytime in the month of March but the most probable dates will be towards the end of the month.

The burn area was chosen by the Kamloops Forest District Prescribed Burn Committee as one of three candidate areas in which to begin the reintroduction of fire onto the landscape as a management tool. The burn plan area falls within the "Heifer Pasture" of the Range Unit currently grazed by the Frolek Cattle Company.

The broad treatment goals of this burn are:

- to reduce the number of live encroachment trees and shrubs
- to create and maintain a mosaic of downed woody debris, standing snags and patches of live trees.
- to stimulate the growth of native forage grasses for both domestic and wildlife use.

The location of this burn is approximately 15 km. North West of Kamloops within the Dewdrop hills along the north side of Kamloops Lake. It is bounded on the west by Doherty Creek, and roads on the North, South and East sides. The burn will consist of two areas to be ignited over two burn periods. The first is the largest unit on the east end of the burn area and is bounded entirely by roads. The second will be the portion bounded by Doherty Creek on the west and a 4x4 road on the east. Priority will be given to the larger (east) unit as soon as burning conditions permit.

The main fuel type found throughout the burn unit is grass dominated surface fuels under a variety of tree crown closure and structure. The unit falls within the PPxh2 biogeoclimatic subzone with a variety of site series represented throughout. The primary tree species is Ponderosa pine with Douglas fir more prevalent on the north and west aspects.

The burn area falls within the traditional area of the Kamloops Indian Band and will therefore require consultation with band councillors in charge of the natural resources portfolio. A field trip with interested members will be planned before the burn is carried out.

PRESCRIBED FIRE BURN PLAN

A. PROJECT OVERVIEW

Location:

Geographic Location		Lat/Long	
Base Map/ Opening		Forest Region	
Fire Centre		District	
Zone		TSA	

Legal:

Land Status		Tenure/ Licence	
Licencee/ Owner		Phone No. (24 hr.)	
Land Description		Plan Number	

Information:

Burning Supervisor		Phone No. (24 hr.)	
Size		Photo Line Number	

General Description

--

PRESCRIBED FIRE BURN PLAN

B. FUEL/STAND DESCRIPTION

1) Biogeoclimatic Subzone	PPxh2
2) Site Series	01 / 02 / 05
3) FBP Fuel Type	C-7, O-1
4) Forest Cover	Py (Fd) 822L4, Open Range, [minor component of Fd (Py)822]
5) Slope	Variable with slopes up to 50%
6) Aspect	Majority of area is south to southwest. Minor amount of east aspect.
7) Elevation	650-750 meters
8) Slope Position	Middle slope bench
9) Valley Orientation	East / West
10) Duff Depth	average is < 2.5cm
11) Soil Texture (predominant)	
12) Fuel Loading	Average load 2 kg./ m2. (taken from representative photo fuel plots)

Additional Comments

--

PRESCRIBED FIRE BURN PLAN

C. PRESCRIBED BURN OBJECTIVES AND DESIRED FIRE EFFECTS

Summary

Burn Objectives:

- 1) Reduce the number of live encroachment trees and shrubs.
- 2) Maintain a mosaic of downed woody debris, standing dead snags and patches of living trees
- 3) Stimulate the growth of bluebunch wheatgrass and rough fescue, improving forage production throughout the burn area.
- 4) Remove a moderate percentage of juniper and sagebrush encroachment.

Weather

Historical spring weather patterns and data from the Afton weather station show that the stated burn objectives could be achieved during the month of March. In this type of burn, fine fuels are the cornerstone of the prescription and therefore FFMC is the code to look at.

Temperature: 12 - 20 C

% RH : 20-60

Wind Speed: 0-20 km/hr

Fire Weather Indices/Codes

The permanent wx station (2051 Afton) will be used in conjunction with a temporary onsite wx station to generate fire weather codes and indices.

FFMC: 75 - 90

DMC: 10 - 25

DC: 250 - 350

Fuel Moisture Content

From the Burn Prescription we determine that the fuel moisture content of the fine fuels (< 0.5 - 1.5 cm) needs to be in the range of 8 - 10 %. A protimeter will be used to assess fuel moisture content in all fuel class sizes.

Fire Behaviour to Meet Desired Fire Effects

In order for the burn objectives to be met, a moderate intensity surface fire with areas of passive torching and candling will be required.

ROS: 8 - 10 m/min

Flame Length: 1-2 m

Smoke Management

The smoke management plan is to follow the MOE Open Burning Smoke Regulation.

Must meet the minimum venting index of 55 (good) on the day of ignition.

The venting must be forecast to be good into the next burning period.

The plume drift should be to the NE or NW with the majority of historic wind patterns

Smoke duration will be limited to 96 hours after ignition with aggressive mop up and patrol activities.

Venting requirements will not be adhered to for blacklining operations due to projected low emissions and

PRESCRIBED FIRE BURN PLAN

C. PRESCRIBED BURN OBJECTIVES AND DESIRED FIRE EFFECTS

Summary

Weather

Wind Direction: S, SE, SW, NE

Fire Weather Indices/Codes

Fuel Moisture Content

Fire Behaviour to Meet Desired Fire Effects

Smoke Management

duration of burn. Need successive days of work for this portion of the operations.

PRESCRIBED FIRE BURN PLAN

D. VALUES AT RISK

Threatened Areas (outside the burn area)

None in the immediate area. Ecological Reserve (Parks) to the NE of burn, low risk as area was underburnt in 1999.

Areas to be Protected: (inside the burn area)

Some range improvements within the burn area.

One fence running north/south on the eastern edge of the burn will be protected by modifying fuels along fence line. Fence in the center of the burn running north /south will not be protected as it is to be relocated west of Doherty creek before burn operations commence.

Doug Jury (wildlife biologist) WALP, has identified two areas of dense immature Fd on north aspects that contribute to wildlife thermal cover areas in the winter. These areas should not burn with the same intensity as the rest of the area because of their aspect and slope position and consequently their fuel moisture content. Ignition patterns will be designed to avoid these areas.

E. PUBLIC RELATIONS AND INFORMATION STRATEGY

Peter Lishman, assistant District Manager Kamloops Forest District, is leading the Information Team and public relations part of this burn. The residents of Frederick Siding, the closest community to the burn, will have a door to door campaign to advise them of the upcoming burn. Several public meeting will be held before the proposed burn dates. February 7 and March 6 are scheduled already as open houses. A media campaign involving both print and radio has been put in place with a variety of ads and articles scheduled for the next month.

PRESCRIBED FIRE BURN PLAN

F. PRESCRIBED BURN OPERATIONS

<p>Pre-Burn Preparations</p> <p>Public Information Plan implemented Reference number obtained Control Lines Established (see below) Safety Plan completed.</p> <p>Black lining of the West and portions of the North boundaries will be required before the main ignition occurs. These black lines will be a minimum of 5 meters in width and wider as fuel condition dictate. The road that parallels the East and South boundaries will be an adequate control line from which to light off from.</p>

<p>Ignition and Control Plan</p> <p>Ignition will be conducted by two teams of 3 persons utilizing drip torches following along the previously established blacklines and roads. The first unit to be ignited will be the larger (east) unit followed by the smaller (west)unit in the next burn window. Refer to the attached ignition plan map. The map is based on a south to southwest wind at the time of ignition. If the wind pattern is significantly different the Burn Boss will make adjustments in the Ignition pattern.</p> <p>During the ignition operations, three teams of 3 persons will be strategically located around the burn area perimeter to respond to any spot fires occurring outside the burn area.</p>
--

<p>Fire Suppression Resources at Burn Area for Ignition and Control:</p> <p>6 persons for Light-up Operations 9 persons for Holding Operations</p>
--

Adult Persons:	Hand Tools:	Pumps:	Hose:	Heavy Equipment:	Other:
15	10 - Pulaskis 10 - Hazel Hoes 10 - Shovels	3 x Type III Engines c/w pumps & 300 gal.	10,000 feet (1" x 100')	None	1 x 2500 gallon H2O tank. 10 x Backpack Tanks

PRESCRIBED FIRE BURN PLAN

F. PRESCRIBED BURN OPERATIONS (continued)

Mopup and Patrol Objectives:

All fires will be extinguished days after ignition.

Mop-up operations will commence on day 2 of the burn and will be carried out by contract mop-up crews under the direction of the Burn Boss.

All areas requiring mop-up operations will have a danger tree assessment completed before crews begin work. The initial mop-up operations will concentrate within the first 30 meters around the burn area perimeter. Once the outer perimeter is safeguarded it is planned to let the areas within the guards continue to burn. This will allow time for accumulations and stumps to burn out, minimizing the amount of mop-up required.

Adult Persons:	Hand Tools:	Pumps:	Hose:	Heavy Equipment:	Other:
10	Shovels Hazel Hoes Pulaskis	2 x Medium volume pumps. (Honda WHX20)	2500 feet (1"x100'). 100 feet econo	None	2 x 100 gal. porta tanks

(total resources to be available and required for mop-up and patrol for Day 2 and onward)

Patrol Plan

Once the burn area perimeter has been mopped-up within the first 30 meters the operations will move into the Patrol Stage. The length of the patrol stage will be contingent on weather conditions at the time. It is estimated that the patrol stage will last three to five days after mop-up has been completed.

Patrol operations will consist of two trained personnel on site actively patrolling the fire perimeter from the hours of 12:00 until 15:00 each day. These personnel could be Zone Protection staff, Forest District staff or local Fire Wardens.

With the proximity of the burn area to the Kamloops airport, it is directly adjacent to the flight path of arriving and departing aircraft, both private and commercial. Once the active patrol stage is complete this will be the source of reports of any smoke on the burn area. The burn is also highly visible from the TransCanada highway west of Kamloops on the Six Mile Lookout.

PRESCRIBED FIRE BURN PLAN

F. PRESCRIBED BURN OPERATIONS (continued)

<p>Escape Fire Contingency Plan</p> <p>Refer to the attached map which identifies the Burn Plan Area as well as the Burn Management Zone. This map will show the burn plan area boundary in red and the burn management area boundary in yellow.</p> <p>Any fire that escapes the burn plan area will be aggressively attacked to minimize spread, however, until a fire crosses over the burn management zone boundary it will not be called a wildfire.</p> <p>Crews will be strategically positioned along the burn area perimeter to deal with any spot fires outside the burn area as they occur.</p>					
<p>Total Resources Required in Event of a Fire Escape:</p>					
<p>Adult Persons:</p> <p>3 x 3 person crews</p>	<p>Hand Tools:</p> <p>Pulaskis, Hazel Hoes, Backpack Pumps</p>	<p>Pumps:</p> <p>3x Honda WXH20 c/w 300 gallon water tanks.</p>	<p>Hose:</p> <p>2000 feet per IA truck. (1"x100')</p>	<p>Heavy Equipment:</p>	<p>Other:</p>

PRESCRIBED FIRE BURN PLAN

G. PRESCRIBED BURN BUDGET ESTIMATES (if required)

Funding source "Terrestrial Ecosystem Restoration Plan" TERP

Prepare fire breaks any protect improvements
Ignition and Holding action
Maintenance & Repair of Fences around grazing pastures \$11,000

Prepare Burn Plan, Stand Management Prescription
Prepare maps, traverse boundaries
Establish Monitoring plots
Prepare and mail stakeholder info packages
Prepare media release info packages \$15,000

Collect Wx data to determine window for successful burn
Provide for escaped fire containment \$5000
Conduct burn ignition, mop-up and patrol
Provide information for onsite kiosk \$19,000

Total Burn Budget = \$45,000

H. MONITORING AND DOCUMENTATION

Documentation

PRESCRIBED FIRE BURN PLAN

Schedule 1 - Fire Prescription / Addendum

See attached Stand Management Prescription (SMP)
Prepared by Kamloops Forest District.

PRESCRIBED FIRE BURN PLAN

Schedule 2. PRESCRIBED FIRE COMPLEXITY WORKSHEET & RATING GUIDE (mandatory)

Complexity Element	Weighting Factor	Complexity Factor	Total Value
Safety	5	1	5
Threats to Boundaries	5	1	5
Fire Behaviour	5	2	10
Objectives	4	2	8
Size of Burn Organization	4	2	8
Improvements within or adjacent to Burn Area	3	1	3
Environmental/Timber/Cultural or Social Values	3	2	6
Air Quality Values/Issues	3	3	9
Logistic Considerations	3	1	3
Political Considerations	2	2	4
Tactical Operations	2	2	4
Multiagency Involvement	1	2	2
PROJECT TOTAL			67

Type III Burn Boss Required for Projects with Rating of 40-51

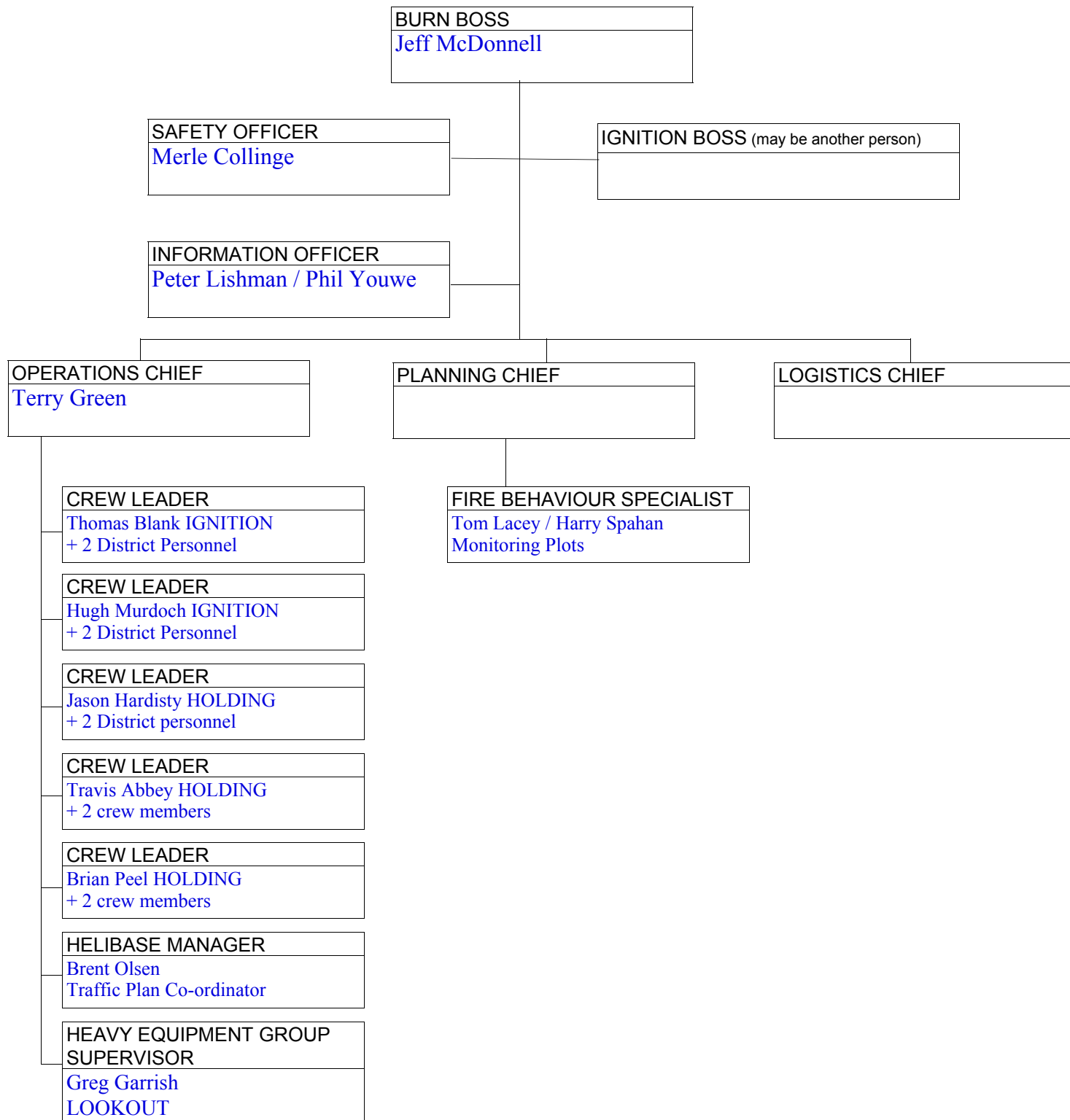
Type II Burn Boss Required for Projects with Rating of 52-84

Type I Burn Boss Required for Projects with Rating of >84

The Prescribed Fire Complexity Analysis provides a method to assess the complexity of the Planned prescribed fire project. The analysis incorporates an assigned numeric rating complexity value for specific complexity elements that are weighted in their contribution to overall complexity. The weighted value is multiplied by the numeric rating value to provide a total value for that element. All elements are then "added to generate the total project complexity value. Breakpoint values are provided for low & moderate and high complexity elements." This complexity worksheet is accompanied (on the Prescribed Fire web site - click the button below) by a guide to numeric values for each complexity element shown

PRESCRIBED FIRE BURN PLAN

Schedule 3. ORGANIZATION CHART (if required)



PRESCRIBED FIRE BURN PLAN

Schedule 4. ON SITE COMMUNICATIONS PLAN (if required)

All personnel on site will be supplied with Ministry of Forests handheld radios.

All personnel will utilize Ministry of Forests simplex radio frequencies for onsite communications.

The available duplex repeater channel (Yellow) will be used for safety checkins with the Kamloops Fire Centre or Kamloops Forest District offices.

Cellular phone coverage and is available from the burn area, and a minimum of 2 cellular phones will be on site.

.One satellite phone will be available.

Communications with First-aid personnel will be done over either simplex or duplex frequencies., one of the cell phones will also be at the first-aid post.

One vehicle on site will be designated as the "Command Vehicle" and will be able to monitor all communications.

Before burn operations commence, dead zones for radio transmissions will be assessed.

PRESCRIBED FIRE BURN PLAN

Schedule 5. MEDICAL OPERATIONS PLAN (if required)

[See attached Medical Operations plan.](#)

PRESCRIBED FIRE BURN PLAN

Schedule 6. SAFE WORK PROCEDURES (if required)

A Danger Tree Assessment will be completed before burn operations commence. The area to be assessed will be along the roads encompassing the burn and the one running north to south separating the two units. This assessment will be redone before mop-up operations commence to account for fire damaged trees.

All personnel will be briefed on known hazards, safe work standards, daily objectives and assignments, first-aid coverage, communications plan and organization structure.

DAILY BRIEFINGS: will cover organization, daily objectives, assignments, fire weather and behaviour, and any additional safety concerns

LOOKOUT / RADIO RELAY: staged south across Kamloops lake for communications and fire escapes spot fires etc. also for pictures and smoke column characteristics.

ESCAPE ROUTES: Escape route strategies should be discussed at all briefings. It is the responsibility of the Burn Boss and Crew Supervisor to identify and ensure appropriate escape routes are available at all times during the operations. All ignition will be done from the existing roads except for a small amount of blackline on the west end

SAFETY ZONES: The primary safety zone is located at the Staging/Marshalling point at east end of the burn. With ignition operations primarily along roads this will act as safety zone for crews. As well, the blackline portion on the west end will be large enough to act as a fuel free safety zone

PPE: All personnel involved in the burn are required to wear Personal Protective Equipment.

Mandatory: Long sleeved shirt, pants, or coveralls (cotton, wool, denim or flame resistant fabric).

High visibility orange or red hard hat.

Leather boots with caulked or vibram soles.

Leather gloves

FIRST AID: The burn operations will be covered by the WCB Occupational Health and Safety Regulation and will have at least the minimum required first aid coverage for the specific work being carried out. The day of ignition will require a crew large enough to require a Level III unrestricted attendant + Dressing station and ETV. This requirement will be covered by contract services.

FENCE LINES: The two fence lines running north to south through the unit will be a concern for the ignition crews. The location of these fences will be clearly marked on all maps and prior to light up all crews will have a chance to walk the ignition zones.

TICKS: The location of the burn unit is within a moderate to high tick hazard area. With the timing of the burn (March-April) there is a high probability of ticks being present. All personnel will be briefed on this hazard and the precautions required to minimize tick exposure, as well as the necessary steps after exposure to tick areas.

ACCESS CONGESTION: In order to prevent congestion on the narrow roads encompassing the burn, designated parking and marshalling areas will be identified. A traffic control plan will be in effect during ignition operations and priority access will be given to medical staff, ignition and holding crews.

PRESCRIBED FIRE BURN PLAN

Schedule 8. PUBLIC NOTICE (if required)

Public Information is being coordinated through the Kamloops Forest District. Peter Lishman

A public open house is scheduled for March 5, 2002 at the Kamloops District Office.

Schedule 8. PUBLIC NOTICE - RADIO STATION

Radio NL 610 (AM)
CFJC TV7
Kamloops Daily News
Kamloops This Week

PRESCRIBED FIRE BURN PLAN

Schedule 9. TRAFFIC PLAN (if required)

The two main roads which border on the north and south sides of the burn area will be closed to traffic during the light -up operations. Traffic to the community of Frederick crossing will be escorted as required.

Traffic control will be required on the roads which run through the burn area. There will be a designated traffic coordinator assigned for the day of the burn. Once ignition operations commence no vehicle traffic, other than that directly related to operations , will be allowed through the burn area.

PRESCRIBED FIRE BURN PLAN

Schedule 10. SECURITY PLAN (if required)

If equipment is to be left overnight at the burn site, security will be done by either Kamloops District staff, Protection Zone staff or Fire Wardens.

PRESCRIBED FIRE BURN PLAN

Schedule 11. GO NO-GO CHECKLIST (mandatory)

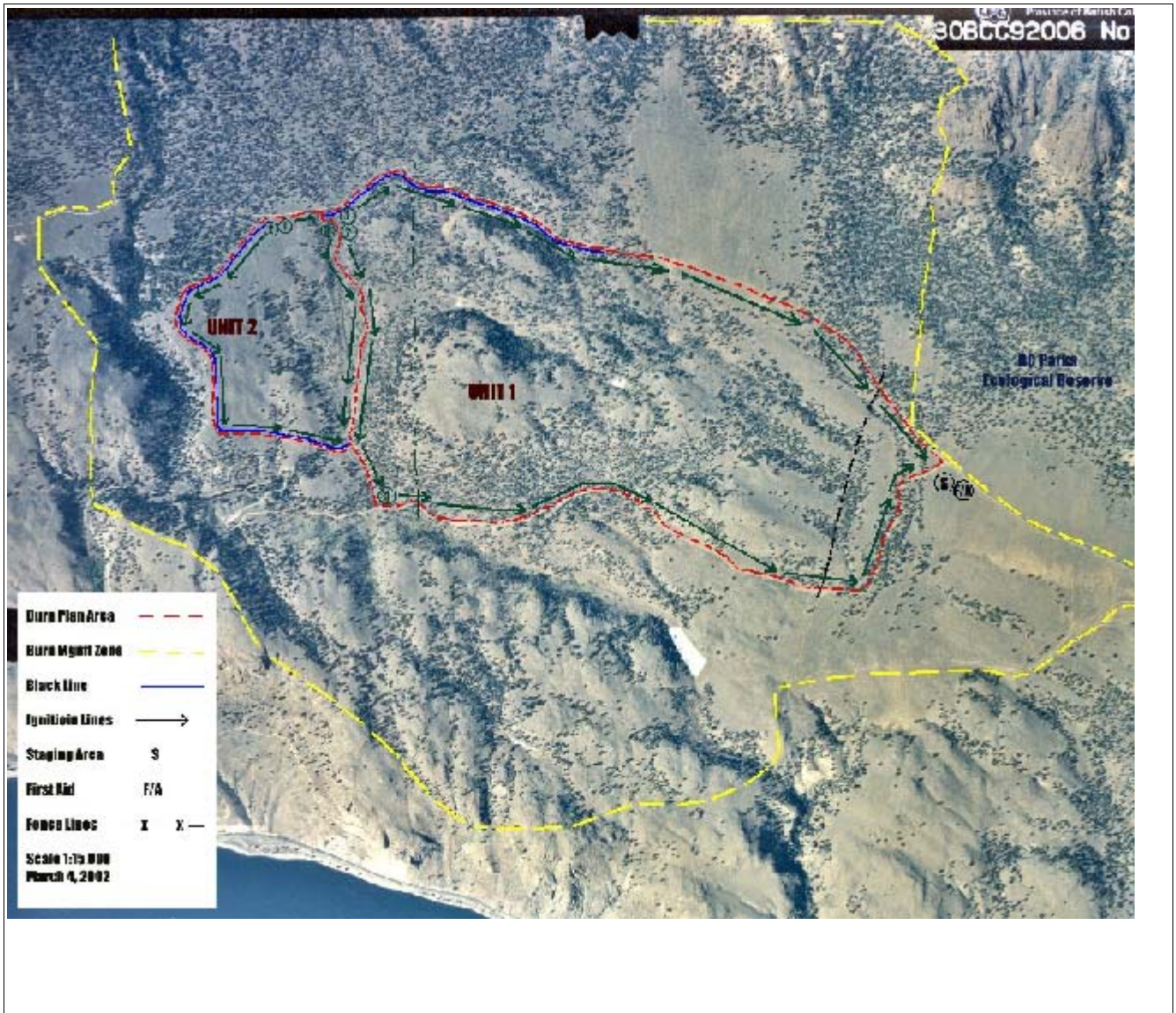
A 'NO' RESPONSE TO ANY ITEM MEANS STOP!

Project Name	Dewdrop Range Burn 2002	Burn Boss	Jeff McDonnell
--------------	-------------------------	-----------	----------------

Checklist Item	YES	NO
1. Is burn plan complete and approved?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Are all fire prescription specifications met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Are all smoke management prescription specifications and requirements met? Has the public information and communications plan been fully implemented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Is the current and projected fire weather forecast favourable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Are all personnel, required in the prescribed burn plan, on site and qualified for assigned positions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Have all personnel been briefed on the prescribed burn plan requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Have all personnel been briefed on the project safety plan, including known hazards, and L.C.E.S. (Lookouts, Communications, Escape Routes, and Safety Zones)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Is all the required equipment in place and in working order?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. Are available resources including backup, adequate for containment of potential escapes? Are the assigned resources in place?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. Is the test burn adequate for assessing the burn's potential?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11. In your opinion, can the burn be carried out according to plan and will it meet the planning objectives?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12. Is there an adequate contingency plan developed? Has it been communicated to assigned supervisors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13. Have notifications been completed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

PRESCRIBED FIRE BURN PLAN

Schedule 12. BURN PLAN MAP (mandatory)



Comments

[See attached burn plan map.](#)

PRESCRIBED FIRE BURN PLAN

Schedule 13. STAND/FUEL DESCRIPTION MAP (if required)



Comments

[Refer to SMP for Stand/Fuel Description Map](#)

FISHERIES/Streams - wetlands		MANAGEMENT OBJECTIVES	
THESE OBJECTIVES APPLY TO: SU <u> </u> All <u> </u>			
<u>Several incised draws are located across the prescription area. None of the draws are known to carry water but most are currently classified as S6 streams under the Forest Practices Code. Flood events may have scoured alluvial bed sections in some of these channels, which resulted in the classification of intermittent S6 streams or NCD's. Doherty Creek is a seasonal S6 stream, and has been dry during all field inspections. It is deeply incised and not known to support any fish.</u>			
RANGE	CATTLE USE? (x) Yes () No	IF 'YES,' RANGE UNIT PASTURE:	Tranquille Stock Range Dewdrop Pasture
CATTLE PRIMARY ACCESS TRAILS? () Yes (x) No	IF 'YES,' LOCATE ON ATTACHED MAP	SEEDED? () Yes (Year) (X) No	
THESE OBJECTIVES APPLY TO: SU <u> </u> All <u> </u>			
<u>To increase rangeland productivity by reducing the coarse dead grass component in the bunchgrass tussocks and stimulating tiller production. Also to improve domestic grazing by expanding the potential area through prescribed burning. The fence line running north/south through the west central portion of the treatment area will not be protected. Measures will be taken to protect the fence line traversing the eastern portion of the treatment area prior to ignition. The Range Licensee is Frolek Cattle Co. Ltd.</u>			
VISUAL LANDSCAPE (VQO)	LANDSCAPE SENSITIVITY		VISUAL QUALITY OBJECTIVE
THESE OBJECTIVES APPLY TO: SU <u> </u> All <u> </u>			
<u>The visual quality of this area will be diminished in the short term by smoke, blackening of the ground surface and tree boles, and dead and dying trees. The medium and long term visual impacts are low. There may be some smoke impacts for local residents and the city of Kamloops.</u>			
RECREATION	FEATURE SIGNIFICANCE		
KEY FEATURE			MANAGEMENT CLASS
THESE OBJECTIVES APPLY TO: SU <u> </u> All <u> </u>			
<u>No specific recreation features were noted in this treatment area. The objective is to maintain the current recreation opportunities within the treatment area.</u>			
OTHER RESOURCE VALUES/INTERESTS	MANAGEMENT OBJECTIVES		
THESE OBJECTIVES APPLY TO: SU <u> </u> All <u> </u>			
<ol style="list-style-type: none"> <u>To reduce the spacial extent and crown closure of conifers on the site, to manage conifer encroachment onto grasslands.</u> <u>To reduce the spacial extent of juniper and big sagebrush on the site.</u> <u>To assess the impact of rangeland burning open forest and grasslands in this ecosystem, and to evaluate the effectiveness of fire as a treatment in controlling forest encroachment and ingrowth in these areas through project monitoring.</u> <u>To minimize impact on any archeological values in the area.</u> <u>To protect any mineral claim stakes within the treatment area.</u> <u>To minimize inconvenience for local residents, particularly those living in areas accessed by roads within the treatment area.</u> <u>Public referrals will be carried out prior to any treatment.</u> <u>Efforts will be made to exclude fire from a small fenced enclosure located along the north west boundary of the treatment area (within the NE ¼ of Section 6). The purpose of the enclosure could not be determined.</u> <u>Efforts will be made to exclude fire from the Ecological Reserve to the NE of the burn area.</u> 			
B-3. PRESCRIPTION APPROVAL			
PREPARATION		PRESCRIPTION REVIEW	
PREPARED BY (SIGNATURE / SEAL-RPF)		MINISTRY OFFICIAL (SIGNATURE)	
PRINTED NAME Brent Olsen, RPF	DATE SUBMITTED Y / M / D 2002-03-18	DATE REVIEWED Y / M / D	
LICENSEE SIGNING AUTHORITY		FINAL APPROVAL	
SIGNATURE		DISTRICT MANAGER (SIGNATURE)	
PRINTED NAME	DATE SIGNED Y / M / D	DATE APPROVED Y / M / D	

FS68 HFP 98/6

TREATMENT AREA (TA) DESCRIPTION

SU 1 | **Area Identifier(s) Grasslands and open forests** | **TA 223 ha**

C-1. AREA DESCRIPTION

ZONE, SUBZONE, VARIANT PPxh2			SITE SERIES (RANGE) 01, 05, 03, 06 (80%) 07, 02, Rock (20%)			MOIST/NUTR. GRID (0) 1 - 5 (6) / (B) C - D		
ELEVATION Min: 540 Max: 770 Avg.: 680		ASPECT South (variable)	SLOPE DATA Min. 0%: Max. 80%: Avg. 25%:			SLOPE POSITION mid (up, low) LENGTH S UNIFORMITY U		
HUMUS FORM RD (LD)	ROOTING DEPTH > 100	SOIL DEPTH TO RESTRICTING LAYER >100		SOIL TEXTURE L - SiL		SOIL COARSE FRAGMENT 10%		DRAINAGE Well (rapid, poor)
WATER COURSES Water 0 Gullies 0		* MECHANIZED STAND TENDING () Yes (x) No		SOIL DISTURBANCE? () Yes () No (x) n/a _____ %		HIGHEST HAZARD RATING (LSD) SE		MAX. SOIL DISTURB. ALLOWANCE N/A %

C-2. CURRENT STAND DESCRIPTION

TA	Strata	Layer	Rank	Species Composition								Age (yrs)	Height (0.1) m	Ref. year	Site index	Density (stems/ha)	Well-spaced (stems/ha)
				Spp	%	Spp	%	Spp	%	Spp	%						
All		1		Py	8	Fdi	2					80 - 90	15.0-18.5	2001		0 - (150)	
		2		Py	9	Fdi	1					80 - 90	8.0 - 17.0	2001		0 - (100)	
		3		Fdi	9	Py	1					10 - 50	1.3 - 8.0	2001		0 - (500)	
		4		Fdi	9	Py	1					2 - 10	0.3 - 1.8	2001		0 - (800)	

C-3. SILVICULTURAL SYSTEM (WRITTEN DESCRIPTION)

This area has been described as the Thompson very dry hot Ponderosa Pine Variant. There is noticeable forest ingrowth/encroachment (Fd, (Py)) and encroachment of other species (juniper, sagebrush) that thrive in a fire-excluded environment, into these rangelands. The current structure is variable, with areas of continuous bunchgrass cover, areas with patchy grasses and heavy cover of invading shrubs, and areas in which the conifers are limiting bunchgrass survival. This area has had fire excluded for a time period well in excess of historical norms.

The strategy here is to carry out a prescribed burn under indicies that will consume dead grasses and kill a moderate percentage of invading plants such as juniper, sagebrush and conifers without excessive grass mortality. A variety of habitats exist in the current stand condition. WALP has identified two areas of dense immature Douglas-fir on north aspects located in the north central portion of the treatment area which contribute to wildlife thermal cover during winter. Fire ignition patterns will be designed to avoid these areas.

C-4. FOREST HEALTH AND PROTECTION

FOREST HEALTH				AGENT OCCURRENCE			
TA	AGENT CODE	AGENT NAME	% INCID.	TA	AGENT CODE	AGENT NAME	% INCID.

THE FOLLOWING FOREST HEALTH STRATEGIES WILL BE APPLIED:

No forest health issues were noted in this SU.

PROTECTION

THE FOLLOWING FIRE HAZARD ASSESSMENT & PROTECTION STRATEGIES WILL BE APPLIED:

Prior to ignition operations, the fenceline along the east flank will be cleared of fallen trees and any snags close to the line will need be felled. Mop-up will commence soon after ignition operations are complete. Any constructed firebreaks will be rehabilitated. A Burn Management Zone has been identified outside of the prescribed treatment area. In the event the burn escapes the prescribed treatment area, aggressive suppression action will be taken to control the escaped fire within the Burn Management Zone. The prescribed burn will not be considered to be out of prescription area until an escape exceeds the Burn Management Zone boundary. More detail on protection strategies and operational burning methodology will be contained within the burn plan document, which must be prepared and approved prior to ignition.

FS68 HFP 98/6

* only required if mechanized stand tending proposed.

C-5. TARGET STAND CONDITIONS AND STRATEGY

STAND TREATMENT REGIME — The Stand Treatment Objectives for all Treatment Areas in this standards unit must be the same. Clearly describe the average target stand condition for all Treatment Areas under this standards unit. Clearly identify how you propose to achieve the forest management objectives in Part B of this prescription. Clearly explain how the proposed treatments will achieve the stated objectives and/or mitigate impacts on non-timber forest resources listed in Part B. Where quantification is *NOT* possible, use qualitative descriptions.

The strategy here is to carry out a prescribed burn under indicies that will consume dead grasses in tussocks and kill some invading plants such as juniper, sagebrush and conifers without excessive grass mortality. Fire intensity will be variable across the area. Approximately the northwestern third of the treatment area has been designated deer winter range. Following treatment, the increase in irradiance should stimulate bunchgrass growth providing improved forage for livestock and mule deer. The fire treatment should also result in a more open conifer canopy which will more closely match historic spatial distributions on these sites. This will allow for recruitment of future veteran and snag Fd and Py to replace the aging veterans on the site.

Selection Criteria for crop trees to be retained (species preference, height, age, dbh, health, vigour, stem form, crown form, crown class, other):

No tree retention targets have been set for this SU.

D-1. POST-TREATMENT STANDARDS

Use the table below to enter the schedule of stand-level treatments and appropriate standards. Complete only the relevant columns.

TARGET				SCHEDULE		STAND STRUCTURAL ATTRIBUTES								
Year	Age/ Height	DBH	Layer	Treatment	Area (ha)	Species		Target No. Well-spaced /ha	Min. Pref. Well-spaced SPH	Min. Inter-tree Dist	Min. Total Well-spaced SPH	Max. Total Well-spaced SPH	Min. BA or Vol.	Prune Min. Lift Height
						Preferred	Acceptable							
2002				Broadcast Burn	223.0			N/A						

OTHER POST-TREATMENT STANDARDS: Describe any other post-treatment standards (type and rate of fertilizer, minimum live crown percent after pruning, maximum stump height after spacing, or other appropriate standards that apply to Forest Health, IRM, wildlife trees, etc.)

Success of this treatment will be measured against the quantifiable objectives related to fuels (herbaceous, woody, and duff), shrub and bunchgrass cover, and tree cover. Nine plots with subplots were established in fall 2001 and pre-treatment data have been collected. Additional vegetation quadrats were established within each plot. Remeasurement of these plots will aid in future burn planning.

D-2. SPECIAL AREAS

SPECIAL AREAS WITHIN STANDARDS UNIT? () Yes (x) No TYPE OF SPECIAL AREA (e.g., Riparian Reserve Zone, Riparian Mgmt Zone, Lakeshore Mgmt Zone, FENs, research installations, other)

AREA NO.	SIZE ha	Description of special area and significant features
----------	---------	--

DESCRIBE HOW MANAGEMENT ACTIVITIES DIFFER FROM THE REST OF THE STANDARDS UNIT

AREA NO.	SIZE ha	Description of special area and significant features
----------	---------	--

DESCRIBE HOW MANAGEMENT ACTIVITIES DIFFER FROM THE REST OF THE STANDARDS UNIT

COMMENTS	INITIALS			
	PREPARED BY	LICENSEE	MINISTRY OFFICIAL	DISTRICT MANAGER

FS68 HFP 98/6

TREATMENT AREA (TA) DESCRIPTION

SU_2_ | Area Identifier(s) - Open Range **TA 24.0 ha**

C-1. AREA DESCRIPTION

ZONE, SUBZONE, VARIANT PPxh2			SITE SERIES (RANGE) 01			MOIST/NUTR. GRID 4 C		
ELEVATION Min: 690 Max: 760 Avg.: 720		ASPECT S	SLOPE DATA Min. 1%: Max. 10%: Avg. 5%:			SLOPE POSITION mid (up) LENGTH L UNIFORMITY U		
HUMUS FORM ZL	ROOTING DEPTH > 100	SOIL DEPTH TO RESTRICTING LAYER >100		SOIL TEXTURE L - SiL		SOIL COARSE FRAGMENT 10%	DRAINAGE well	
WATER COURSES Water 0 Gullies 0		* MECHANIZED STAND TENDING () Yes (x) No		SOIL DISTURBANCE? () Yes () No (x) n/a _____ %		HIGHEST HAZARD RATING (LSD) SE		MAX. SOIL DISTURB. ALLOWANCE N/A %

C-2. CURRENT STAND DESCRIPTION

TA	Strata	Layer	Rank	Species Composition								Age (yrs)	Height (0.1 m)	Ref. year	Site index	Density (stems/ha)	Well-spaced (stems/ha)
				Spp	%	Spp	%	Spp	%	Spp	%						
		N/a															

C-3. SILVICULTURAL SYSTEM (WRITTEN DESCRIPTION)

Classified as open range (with occasional conifer encroachment).

C-4. FOREST HEALTH AND PROTECTION

FOREST HEALTH

AGENT OCCURRENCE

TA	AGENT CODE	AGENT NAME	% INCID.	TA	AGENT CODE	AGENT NAME	% INCID.

THE FOLLOWING FOREST HEALTH STRATEGIES WILL BE APPLIED:

No forest health issues were noted in this SU.

PROTECTION

THE FOLLOWING FIRE HAZARD ASSESSMENT & PROTECTION STRATEGIES WILL BE APPLIED TO ALL SU'S::

A Burn Management Zone has been identified outside of the prescribed treatment area. In the event the burn escapes the prescribed treatment area, aggressive suppression action will be taken to control the escaped fire within the Burn Management Zone. The prescribed burn will not be considered to be out of the prescription area until an escape exceeds the Burn Management Zone boundary. More detail on protection strategies and operational burning methodology will be contained within the burn plan document, which must be prepared and approved prior to ignition. Any constructed firebreaks will be rehabilitated.

FS68 HFP 98/6

* only required if mechanized stand tending proposed.

C-5. TARGET STAND CONDITIONS AND STRATEGY

STAND TREATMENT REGIME — The Stand Treatment Objectives for all Treatment Areas in this standards unit must be the same. Clearly describe the average target stand condition for all Treatment Areas under this standards unit. Clearly identify how you propose to achieve the forest management objectives in Part B of this prescription. Clearly explain how the proposed treatments will achieve the stated objectives and/or mitigate impacts on non-timber forest resources listed in Part B. Where quantification is *NOT* possible, use qualitative descriptions.

The strategy here is to carry out a prescribed burn under indicies that will consume dead grasses and some sagebrush without excessive grass mortality. There is minor forest encroachment into these rangelands.

Selection Criteria for crop trees to be retained (species preference, height, age, dbh, health, vigour, stem form, crown form, crown class, other):

No tree retention targets have been set for this SU.

D-1. POST-TREATMENT STANDARDS

Use the table below to enter the schedule of stand-level treatments and appropriate standards. Complete only the relevant columns.

TARGET				SCHEDULE		STAND STRUCTURAL ATTRIBUTES								
Year	Age/ Height	DBH	Layer	Treatment	Area (ha)	Species		Target No. Well-spaced /ha	Min. Pref. Well-spaced SPH	Min. Inter-tree Dist	Min. Total Well-spaced SPH	Max. Total Well-spaced SPH	Min. BA or Vol.	Prune Min. Lift Height
						Preferred	Acceptable							
2002	N/a	N/a	N/a	Broadcast Burn/Slashing	24.0			N/A						

OTHER POST-TREATMENT STANDARDS: Describe any other post-treatment standards (type and rate of fertilizer, minimum live crown percent after pruning, maximum stump height after spacing, or other appropriate standards that apply to Forest Health, IRM, wildlife trees, etc.)

Expect some of the encroaching Fd, to survive following the burn.

D-2. SPECIAL AREAS

SPECIAL AREAS WITHIN STANDARDS UNIT? () Yes (x) No	TYPE OF SPECIAL AREA (e.g., Riparian Reserve Zone, Riparian Mgmt Zone, Lakeshore Mgmt Zone, FENs, research installations, other)
--	---

AREA NO.	SIZE ha	Description of special area and significant features
----------	---------	--

DESCRIBE HOW MANAGEMENT ACTIVITIES DIFFER FROM THE REST OF THE STANDARDS UNIT

AREA NO.	SIZE ha	Description of special area and significant features
----------	---------	--

DESCRIBE HOW MANAGEMENT ACTIVITIES DIFFER FROM THE REST OF THE STANDARDS UNIT

COMMENTS	INITIALS			
	PREPARED BY	LICENSEE	MINISTRY OFFICIAL	DISTRICT MANAGER

FS68 HFP 98/6