

POWER PLANT RANGE UNIT

ECOSYSTEM RESTORATION PLAN

This plan outlines actions to enhance forage resource values for the Power Plant Range Unit. It is intended to be the guiding document for treatment recommendations to achieve pasture objectives.

The Treatment Units (TU) are designed to correspond to existing pasture units. Following is a list of the units by pasture name and for each; *i*) a brief description of the existing plant community, *ii*) the objective for the pasture, *iii*) the treatments proposed to achieve the objective and *iv*) the proposed scheduling of treatments.

This plan designates four areas as managed forest (15% of the range unit), two areas as open forest (10%) and the remainder as open range.(75%).

Big Bull Pasture: TU.1. Objective: Manage as Open Range

- i. This is a south-facing slope immediately above the Bull River. It is mostly vegetated by bitter brush(*Prusha tridentata*), saskatoon berry(*Amelanchier alnifolia*), and bunch grasses (*Agropyron spicatum*) with scattered Ponderosa pine and Douglas fir. This pasture contains no significant timber volume
- ii. The objective is to manage this pasture as open range.
- iii. Treatment *via* prescribed burn using the pasture boundaries will reduce the amount of decadent(tall, large diameter stems, not vigorous, unpalatable) bitter brush and saskatoon presently occupying the site and increase bunch grass component and palatable shrub growth.
- iv. The first treatment was done in May, 1998. The Trench Society, MOF and MOE prepared and carried out the burn plan. This area will be burned again to enhance species composition and forage growth. Repeat treatment when necessary and funding available (7-10 years). 2005-2008.

2.

Fontaine South Pasture:TU. 2: open forest/open range

- i. Half of this pasture is a relatively flat area with a slight south aspect that is vegetated by bitter brush, saskatoon berry and bunch grasses. Ponderosa pine, larch and Douglas fir fully occupy the north side of the pasture. A mix of aspen and birch occupy the eastern portion. The objectives of this pasture will be open forest and open range. The north west will be managed as open forest. This will provide a wildlife corridor link to Fontaine North Pasture and yield some timber volume. Merchantable volume is low, but it could be harvested in next Five Year Development Plan. Tree and brush composition in the east will be reduced to open forest category. Adjacent areas will be open range. Logging to occur in future to reduce conifer stocking. Half of this pasture is covered by an approved stand management prescription and was broadcast burned in 1998.
- iv. Log when able to place on Development Plan. 1999-2004. Reburn in 7-10 years. (2005-2008)

Big Horn Pasture:TU. 3: Open Range

- i. This is a south facing slope that rises from the Bull River. It has several small flat benches as it progresses north. The slopes are a mix of bitter brush saskatoon, and bunch grasses while the benches support dense birch, alder, aspen and willow. The latter are overgrown, providing little browse or forage value.
- ii. The objective is to manage Bighorn Pasture as open range. Prescribe reducing decadent shrubs by slashing and burning areas of heavy shrub growth on the benches. The north portion requires some slashing and fireguarding. This area could be broadcast burned with good results.
- iii. Undertake slashing and pre-burn treatments in 1998/9, followed by broadcast burn in 2000/01. East Kootenay Hunters Association/Columbia Trust are preparing a proposal for the work.

3.Fontaine North Pasture: TU.4 : Open range/open forest

- i. This area has a south facing slope that gets steep on the north end. It is vegetated by bitter brush and bunch grasses. Ponderosa pine, larch and Douglas-fir are scattered along the south side. Tree cover increases in the east portion. Present stocking is clumped ranging from 400 to 2000 stems per hectare. The timber volume averages about 25 cubic per hectare. This is not a viable economic logging situation at this time, but combined with other units may be feasible. Aspen occupies the west side and the upper slopes of this pasture.

The objective is to manage two strata as open range and open forest

- ii. There is a need to reduce the amount of decadent bitter brush and the aspen over story, particularly on upper slopes to encourage suckering. This could be done with slashing and broadcast burning. Reduce the density of coniferous trees to open range and open forest criteria with logging and slashing to prepare for a prescribed burn. Regenerating bitter brush and aspen will provide palatable browse for wildlife. Opening the forest canopy will promote the vigour of the bunch grasses. Forest cover shall be retained along the south of Fontaine North Pasture to provide a travel corridor for wildlife and maintain open forest category timber fibre production. This area is to be managed for clumped distribution to provide forage and wildlife cover requirements.
- iii. Slash in 1998, burn in 200/01.

4.

Little Bull Pasture: TU. 5: Managed forest/open forest /open range

- i. *The two aspects on this pasture consist of a gently rolling portion with a slight south aspect and a north facing slope along the south side of the hydro line right-of-way. Fairly open growing Ponderosa pine(700 per hectare) with an under story of bunch grasses and shrubs interspersed with some thickets of Douglas fir predominates the south slope. Dense Douglas fir, half of it Merchantable occupies the north facing slope.*
- ii. The Objective is manage as three strata; open range, open forest and managed forest.
- iii. Log to reduce Ponderosa pine to open forest criteria, slash some of the thickets that are inhibiting open forest forage development. Manage the Douglas-fir area through logging and stocking control to promote vigour, piece size and health of the timber community.

Log and slash to achieve open forest stocking of a maximum of four hundred stems per hectare stand density. Broadcast burn open range and open forest areas to promote forage communities.

- iv. 1999-2004 or when it can be incorporated in development plans for harvesting. Slashing/broadcasting burning 2000/01

Petarbrooke South Pasture: TU 6: Open Range

- i. The south west half of this pasture is privately owned and grazed in common with the Crown portion. The area above the private land slopes sharply (45%) and has a south west aspect. Vegetation is a mixed wood forest with areas of shrub and some small open grassland sites. Timber volume is less than 20 cubic meters per hectare. The forage and browse values are repressed by decadent shrub and aspen tree cover
- ii. Manage this pasture as open range.
- iii. Reduce mixed wood stand to Open Range criteria with a low volume logging pass and slashing. Slash the aspen on the upper slopes in preparation for a broadcast burn. Reduce shrub component to promote forage growth and palatable browse.
- iv. Slash in 1998/99 prescribed burn in 2000/01

5. Petarbrooke North Pasture: TU 7: Managed forest/open range.

- i. This area runs along the toe of the Steeples. The lower elevation, flat portion has some scattered Ponderosa pine and thick clumps of Douglas-fir that is generally low volume and will be merchantable in twenty years. Upper slopes have a forest cover of aspen and fir. There is very little forage or browse in this pasture.
- ii. The objective is for managed forest on the lower slopes and open range above.
- iii. Remove fir thickets by slashing and burning to promote forage production. Retain scattered Ponderosa pine. Rejuvenate the aspen by slashing and burning to promote browse for wildlife.
- iv. Log managed forest area in 2018 or when able to put in Development Plan. Slash aspen as soon as possible ie 2000/01 follow with burn in 2001/02

Power Plant Pasture: TU 8: Open range/managed forest

- i. The southern portion of this pasture is privately owned by Placid Oil Mining Company and BC Hydro. It is not fenced from the Crown range. Ponderosa pine and Douglas fir cover the steep slopes(40%) above the private land. There is a good under story of grasses and shrubs. The upper portions of the range unit are composed of dense aspen stands. A bench on the north east of the pasture is densely stocked with lodge pole pine. This stand is in the Montane Spruce sub-zone and will be maintained as managed forest. The west and the east sides are open range sites that should be broadcast burned.
- ii. Manage as open range and managed forest.
- iii. Log the forest type on the bench to promote better timber and interim forage values. Currently it is not economical or feasible because of the size and volume of the stand. Similarly, logging to reduce stocking on the Ponderosa pine stand on the BC Hydro land could be pursued. The aspen stands should be slashed and burned to rejuvenate the forage values.
- iv. Slash aspen 2000/01, broadcast burn 2001/2002. Log when feasible-2020

6.

Whitetail Pasture: TU 9 : open range/managed forest

- i. The land in this pasture is owned by the Wildlife Habitat Trust but the management is through MOE and the CRMP process. The south facing slope is part of an approved SMP and will have repeat burning to stimulate vigorous grass and shrub growth. The moist receiving flat portion of this pasture has a heavily stocked stand (1400 stems per ha.) of good volume Douglas Fir and Lodge pole pine.
- ii. The objective is to manage two strata- open range and managed forest.
- iii. Treatments will consist of broadcast burns to rejuvenate bunch grass and bitter brush communities. Harvesting of forested area can be incorporated into the development plan as soon as possible.
- iv. 2005-2008 for reburn. Harvest as soon as available on the development plan-2002/3.

7.

Summary:

This plan outlines treatments to restore desired forage plant communities. The majority of the Power Plant Range Unit will be managed as open range. Considerable logging, slashing and prescribed burning will be required to develop good forage capability and production potential in this Range Unit. Intervals for broadcast burning will vary from five to fifteen years depending on the rate of conifer and brush ingress and the condition of forage communities. The goal is to rejuvenate the currently unpalatable decadent bitter brush on 70-80% of this Range Unit during the next 20 year period. With the proposed treatments it is anticipated that bunch grass will also be increased by 50%. These targets can be achieved with logging, slashing and broadcast burn programs instituted on a continuous basis.

There are infestations of various noxious weeds along travel corridors and scattered throughout the range unit. A noxious weed control program needs to be maintained.

The economics for harvest are poor for the majority of the forested area on the Powerplant Range Unit because of the young age of the stands and the low volume of wood per hectare. A sale or deal to harvest all the available

merchantable timber in this unit in one pass. Insuring the logging contributes to the burn plans (subsidies) may make this feasible in the short and mid term.

TU#	Pasture	Designation	Needs	Tentative Schedule
TU.1	Big Bull	open Range	reburn 2005-2008	Work done 98
TU.2	Fontaine S	open rge/open forest	slash 98/99	burn 2000/01
TU.3	Big Horn	open rge	slash 98/99	burn 2000/01
TU.4	Fontaine N	open rge/open forest	slash 98/99	burn 2000/01
TU.5	Little Bull	open rge/open forest/ mge forest Log/Development plan (five yrs)	slash/burn	2000/01
TU.6	Petarbrook S	open range Log/Development plan (ten years)	slash/burn	2000/01
TU.7	Petarbrook N	open rge/mge forest Log/Development plan (ten years)	slash/burn	2000/01
TU.8	Power Plant	open rge/mge forest Log/Development plan (twenty years)	slash/burn	2001/02
TU.9	Whitetail	open rge/managed forest Log/Development plan (five years)	burn	2005-08