

RANGE USE PLAN

The Minister, pursuant to Section 37 of the *Forest and Practices Act*, has determined that this plan is consistent with the agreement under the *Range Act* that pertains to the plan, and conforms to the *Forest and Range Practices Act*, the regulations and the standards.

This range use plan is associated with the following range agreement(s):

AGREEMENT AREA: **RAN 074948 – Twin and Whitley Lake Subunits, Montana Range Unit:**

AGREEMENT HOLDER: DUUT Management Services Inc.
c/o Centennial Law Corp.
PO Box 2169
100 Mile House, British Columbia VOK 2E0

This plan was prepared by: Tony and Trish ALLINGHAM

Agreement Holder Signature(s) – authorised signatory:

DUUT Management Services Inc. pa.

ROBERT J (TONY) ALLINGHAM
Print Name

Sign

Date

30-12-2009

This plan takes effect:

April 15, 2010

This plan expires:

December 31, 2011

Approved:

Pat Byrne
Pat Byrne
District Manager
100 Mile House Forest District

RAY RAATZ
Acting District Manager

APR 22 2010

Date

1. Map (Attachments A) containing the following information:

- Agreement boundaries
- Range Developments
- Resource Features
- Key Areas
- Plantations

2. Objectives and Strategies:

The goals stated in this section are as set by the District Manager.

2.1 Community Watershed:

Goal: Clean drinking water within the watershed.

Objective	Strategies	Actions
No established community watershed within the boundaries of the range use plan area	No grazing strategies required	No management actions required

2.2 Domestic Water Supply Intakes:

Goal: Protect water quality.

Objective	Strategies	Actions
There are no known domestic water supply intakes on this Crown Range within the boundaries of the range use plan area.	No grazing strategies required.	No management measures required.

2.3 Proper Functioning Condition (PFC) in Riparian Areas (further addressed in Section 3 and Section 5):

Goal: Healthy, functioning, riparian plant communities.

Objective	Strategies	Actions
Maintain or initiate an upward trend to properly functioning condition (PFC), in wetlands and riparian areas.	<ol style="list-style-type: none">1. Limit foraging and loafing in riparian area.2. Limit browsing of shrubs to less than 10% of the current years growth.	<ol style="list-style-type: none">1. Adhere to grazing schedule prescribed in Section 3, and the average stubble heights and maximum % browse use of shrubs prescribed in Section 4.2. Salt will be placed at least 400 metres away from wetlands lakes, and creeks.3. The range area will be ridden one day a week. If the range condition, due to drought or other natural occurrence, requires it we will ride the range more often in order to manage the Crown range forage properly.4. To discourage concentrated trampling of wetlands, lakes or stream riparian areas the following actions will be taken: herding of cattle to alternate, less used, area of range; zero placement of salt with any "at risk" riparian area.5. To limit foraging and loafing, and excessive browsing of shrubs in riparian areas the following actions will be taken: herding of cattle to alternate, less used, area of range; zero placement of salt with any "at risk" riparian area.6. There will be zero placement of salt in or near any "at risk" riparian area and cattle will be herded away from these areas.7. Herding livestock to less used ground as is required to relieve pressure on riparian areas.

2.4 Ungulate Winter Range:

Goal: A viable ungulate population within the range use plan area.

Geographic Area	Objective	Strategies	Actions
Moose winter range in the Twin Lakes Pasture	To maintain the moose winter range area in a suitable condition to help support the moose population that use this area.	<ol style="list-style-type: none"> 1. Enforce utilisation standards for browse and early spring forage so that the moose habitat is maintained. 2. New range developments must not impact known Wildlife Habitat Features. 3. Refer range developments to the Ministry of Forests prior to construction or significant rebuild (routine maintenance does not require referral). 	<ol style="list-style-type: none"> 1. Livestock will not be turned onto Crown range until range readiness criteria prescribed in Section 4 are achieved. 2. Adhere to grazing schedule prescribed in Section 3, and the average stubble heights and maximum % browse use of shrubs prescribed in Section 4. 3. This area will be ridden once a week to monitor the browse of shrubs by cattle. Cattle will be moved. This area will be monitored once a week and if cattle are browsing shrubs in this area they will be moved. 4. New range development proposals (or significant rebuilds) will be referred to the Ministry of Forests for authorisation prior to construction. 5. If we notice significant jumping of fences in any one area we will discuss ideas to prevent injury to the wildlife, with the agronomist.

2.5 Biodiversity (further addressed in Section 3):

Goal: A healthy, natural ecosystem.

Objective	Strategies	Actions
<p>Objectives have yet to be set through the landscape unit planning process. In the meantime the objectives are:</p> <ul style="list-style-type: none"> • Maintain a natural level of biological diversity within all ecosystem types. • Where patches of range greater than 5 hectares or greater than 15% of an ecosystem type is at early to mid seral condition, we will manage the area to achieve a late seral to climax plant community. 	<ol style="list-style-type: none"> 1. Control the level of utilization of plants so as not to exceed the minimum stubble heights and browse use levels prescribed in Section 4.0.. 2. Develop and maintain a rotational grazing schedule that provides adequate time within the growing season for plants to complete a growing cycle and/or recover from grazing. 3. Control the timing, intensity, and distribution of livestock use to maintain the desired plant communities. 4. Prescribe management measure to encourage grazing in under-utilised areas. 5. Limit bare soil exposure and soil surface erosion to within natural levels. 	<ol style="list-style-type: none"> 1. Adhere to grazing schedule prescribed in Section 3, and the average stubble heights and maximum % browse use of shrubs prescribed in Section 4. 2. Placement of salt blocks and livestock herding will be used to encourage grazing in under-utilized areas and to prevent over-use of preferred areas. 3. Exposed soils caused by livestock use will be seeded with an acceptable grass seed mix to prevent the spread of noxious weeds, and erosion. 4. We will monitor and/or move our cattle at least one day per week to help achieve biodiversity within our range unit. If any one area has reached minimum stubble heights or shrub browsing is evident, the livestock will be moved immediately.

2.6 Desired Plant Communities (as described in Section 3):

Goal: A healthy, natural ecosystem.

Objective	Strategies	Actions
We will manage our livestock grazing to maintain or achieve the desired plant communities.	<ol style="list-style-type: none"> 1. Control the level of utilization of plants so as not to exceed the minimum stubble heights and browse use levels prescribed in Section 4.0. 2. Develop and maintain a rotational grazing schedule that provides adequate time within the growing season for plants to complete a growing cycle and/or recover from grazing. 3. Control the timing, intensity, and distribution of livestock use to maintain the desired plant communities. 4. Prescribe management measure to encourage grazing in under-utilised areas. 5. Limit the spread of noxious weeds by minimising exposed soil. 	<ol style="list-style-type: none"> 1. Livestock will not be turned onto Crown range until range readiness criteria prescribed in Section 4 are achieved. 2. Adhere to grazing schedule prescribed in Section 3, and the average stubble heights and maximum % browse use of shrubs prescribed in Section 4. 3. Placement of salt blocks and livestock herding will be used to encourage grazing in under-utilized areas and to prevent over-use of preferred areas. 4. Exposed soils caused by livestock use will be seeded with an acceptable grass seed mix to prevent the spread of noxious weeds. 5. The most important aspect of invasive plant control is prevention so frequent monitoring, identifying, and reporting of early signs of invasive plants on the range will be done to stop the spread of any identified invasive plant. Any established weed communities will be monitored and new infestations will be reported to the Ministry of Forest using the IAPP online web site to enter details of the new infestation in the "Report a Weed" section. 6. If we notice significant jumping of fences in any one area we will discuss ideas to prevent injury to the wildlife, with the agronomist.

2.7 Plantations - Forestry (further addressed in Section 3):

Goal: A viable forest industry.

Geographic Area	Objective	Strategies	Actions
No areas of known concerns	We will achieve, or maintain, free growing conditions on harvested cutblocks.	<ol style="list-style-type: none"> 1. Prescribe management measures so that livestock damage (trampling or browsing) to the main stem and/or leader of planted or natural crop tree seedlings does not exceed 10% of tree seedlings on any contiguous portion of a cutblock greater than one (1) hectare in size. 2. Notify the District Manager immediately if livestock damage exceeds the above criteria. 	<ol style="list-style-type: none"> 1. Adhere to grazing schedule prescribed in Section 3, and range readiness criteria, the average stubble heights and maximum % browse use of shrubs prescribed in Section 4. 2. Plantation areas will be monitored once a week: <ol style="list-style-type: none"> a. If cattle are found in new plantation areas they will be moved out of the new plantation area b. If livestock damage to planted or natural crop tree seedlings exceeds 10%. seedling livestock will be removed and kept out of that area. 3. We will not use salt or livestock attractants in or near young seedling regeneration sites. 4. At least one time per year beginning in March we will review the Forest Development Plan at either Ainsworth and/or West Fraser. We will make comments on those blocks affecting our range and cattle distribution. A copy of any comments made will be sent to 100 Mile House Forest District to attach to our RUP.

2.8 Existing Crown Range Developments:

Goal: Safe, functional Crown range infrastructure.

Objective	Strategies	Actions
To maintain Crown range developments in a functional condition.	1. To maintain the range developments to a functional condition prior to livestock turnout and throughout the grazing season.	1. In areas where two or more Range Use Plan holders share common range developments or a common border, the Range Use Plan holders are jointly responsible for maintenance of shared range developments. 2. Crown range structures (fences and water developments) will be maintained to a functional condition prior to livestock turnout within an area.

A Range Structure Maintenance Details - Twin Lakes Subunit:

The perimeter fence included two gates (labelled TG1 and TG2) and two cattle guards (labelled TC1 and TC2) (see map – Attachment A). Within the subunit there are three identified trails labelled TT1 through TT3 and these are also shown on the map. In general the perimeter fence is in reasonable repair; however there are two areas that are in urgent need of repair and/or replacement:

1. The fence line on the northern end of the range is in dire need of replacement. The section in need of replacement is marked on the Twin Lakes subunit map (see Attachment A – TF1) with a series of x's. This area is currently so overgrown that you cannot ride nor walk this part of the fence line. **A replacement fence is required here.**
2. The fence line on the southern end of the range, or the Toby Lake side, needs attention from the gate at the end of TT3 all the way to Montana Lake.

Action: Our manager, Dan LaFrance has been in communication with the adjoining range holder, s.22 to formulate a plan for addressing maintenance of this portion of the fence line. It is planned to cooperatively fix this fence line in the spring of 2010. This will be done using saddle and pack horses because of the difficulty of access and associated cost of using a machine.

Concerns:

Two events have resulted in additional time required maintaining boundary fences to ensure that our cattle stay within our range area, and that cattle from neighbouring ranges stay off our range:

1. There is significant tree loss and fall due to the advancement of the mountain pine beetle.
2. Significant logging in the range area has resulted in more tree fall due to wind.

The combination of more wind damage and increased tree loss to mountain pine beetle has resulted in a significant increase in deadfall across the fence lines. Constant monitoring is required to maintain and fix any breaches.

B Range Structure Maintenance Details – Whitley Lake Subunit:

The perimeter fence contains seven gates and two cattle guards (See map – Attachment A). Within the subunit there are four identified trails labelled WT1 through WT4 and these are also shown on the map. In general the perimeter fence is in reasonable shape but it is under stress because of the considerable amount of dead timber along the fence line that is in various stages of decay and falling over.

The Eugene Lake fence line will need maintenance in 2010.

Management of cattle movement on the Whitley Lake subunit would be significantly enhanced by the erection of a cross fence (north-west to south-east - shown as WF2 on the range map) dividing the Whitley Lake subunit in half. This would effectively split the complete grasses available within RAN 074948 into three distinct and better manageable areas for –spring, summer, fall. If, or when, we have the financial capacity to do this fencing we will discuss it with our agronomist first and apply for authority to build the fence.

Concerns:

As with the Twin Lakes Subunit, the combination of more wind damage as the area is opened open through logging and increased tree loss due to mountain pine beetle infestation has resulted in a significant increase in deadfall across the fence lines. Constant monitoring is required to maintain and fix any breaches.

In addition, there are two issues that need to be addressed in the near future to facilitate appropriate management of cattle on the Whitley Lake subunit:

1. **New fence required:** The swamp on Whitley Lake subunit which is located at the end of Eugene Lake is no longer effective as a natural barrier because it has largely dried up. At present our cattle do not frequent this area so erection of a fence line is not urgent. However logging is planned on this part of the range so stock will start using this area and the range boundary in this area will need to be fenced. The logging blocks are already laid out. Erection of a fence from the end of Eugene Lake to join up with the good fence line that exists south towards the logging slashes, and shown as WF1 on the map (Attachment A), would remedy this evolving problem. We will consult the forest licensee prior to logging to ensure that they are aware of our concerns.
2. **Automatic closing gate or cattle guard required:** The wire gate in the south end corner of the Whitley Lake subunit towards the NT Ranch (shown on the map as WG7) is a constant problem with recreational users not closing the gate behind them. Other cattle access our range through this gate and we spend considerable time rounding them up and moving them back on their own range. The gate is checked at least once a week and has to be closed each time it is checked. There is a sign on the gate requesting that it be kept closed. Installation of a cattle guard would mean that recreational users would not have to open/close gates thus eliminating the current problem. We will complete an application for this request and submit to 100 Mile House Forest District.

2.9 First Nation Concerns - Cultural Heritage Resources:

Goal: Protect known cultural heritage sites.

Geographic Area	Objective	Strategies	Actions
s.18	<p>To preserve the cultural heritage resource by :</p> <ul style="list-style-type: none"> • minimising ground disturbance • maintaining the desired plant communities. 	<p>1. Monitor cattle utilisation of the range so that cultural heritage resource sites are not disturbed.</p> <p>New range developments must not impact known or suspected Cultural heritage resource site.</p>	<p>1. Cultural Heritage Resource areas will be monitored once a week. If cattle are noticed disturbing the area they will be moved out of the area.</p> <p>2. We will not use salt or cattle attractants in or near cultural heritage resource sites.</p> <p>3. New range development proposals, or significant rebuilds, will be referred to the Ministry of Forests for authorisation prior to construction. (Routine maintenance does not require referral.)</p> <p>4. If livestock are noticed browsing and/or "camping" in this area they will be moved.</p>

2.10 Wildlife Habitat Areas (WHA) and Wildlife Habitat Features:

Goal: Prevent extirpation of identified wildlife and cattle damage to wildlife habitat features.

Objective	Strategies	Actions
There are no WHA's or Wildlife Habitat Features at risk from grazing in our area.	<ol style="list-style-type: none">1. No additional grazing strategies will be required.2. New range developments must not impact known Wildlife Habitat Features.3. Refer range developments to the Ministry of Forests prior to construction or significant rebuild (routine maintenance does not require referral).	<ol style="list-style-type: none">1. No additional grazing management actions will be required at this time.2. New range development proposals (or significant rebuilds) will be referred to the Ministry of Forests for authorisation prior to construction.

2.11 Known Sensitive Areas - Resource features and issues identified by the District Manager: *Riparian areas and features that are either non-functional or at risk are identified in the following table, together with goals and required actions.*

Goal: A healthy, natural ecosystem.

Geographic Area	Objective	Strategies	Actions
1. Adjacent Whitley, Montana ^{ab} , Eugene and Twin ^a Lakes 2. Shrub area along the south border of Whitley pasture	Within 5 years: 1. Recruit of multi-age browse species 2. Return areas to Proper functioning Condition.	1. Control the level of utilization of plants so as not to exceed the minimum stubble heights and browse use levels prescribed in Section 4.0.. 2. Develop and maintain a rotational grazing schedule that provides adequate time within the growing season for plants to complete a growing cycle and/or recover from grazing. 3. Control the timing, intensity, and distribution of cattle use to maintain the desired plant communities. 4. Prescribe management measure to encourage grazing in under-utilised areas. 5. Limit bare soil exposure and soil surface erosion to within natural levels.	1. The agreed grazing schedule will be adhered to. 2. Stubble heights are monitored to stay within the required average stubble heights. 3. Limit browsing of shrubs to less than 10% of the current years growth. 4. Salt block placement, plant and soil monitoring, and cattle herding will be used to limit foraging and prevent loafing and over-use of riparian areas. 5. These areas will be ridden and their use by cattle monitored once a week. If the condition of these areas requires it, we will ride the range more often in order to manage cattle utilisation of the areas properly.

^a The most fragile area on the Twin Lakes subunit is the south side of Montana hill close to the creek flowing out of East Twin Lake and entering Montana Lake. We have been successful, to date, in keeping the cattle from over grazing in this area and have a photographic record of the area taken in late August of 2009 to show this. However it would be helpful in the future to fence off this area so that the number of cattle allowed within this fenced off area to graze can be better controlled. This area is identified on the Twin Lakes subunit (see map in Attachment A) by a shaded 'rectangular' box labelled A. Recreational motor bike users have established a considerable number of trails throughout this sensitive area causing damage to the grasses. **Installation of 'no use' signs may help - if available, we will collect from 100 Mile House Forest District Office and erect them.**

s.18

2.12 Recreational Facilities:

Goal: Maintain the recreational values associated with the recreation feature.

Objective	Strategies	Actions
There are no managed recreational facilities within the range use plan area.	No additional grazing strategies will be required.	No additional grazing management actions will be required.

2.13 Research Installations, Growth and Yield Plots, Operational Trials and Range Reference Enclosures :

Goal: Protect the functional integrity of the information site.

Objective	Strategies	Actions
There are no established information sites at risk from cattle grazing within the range use plan area.	No additional grazing strategies will be required.	No additional grazing management actions will be required.

2.14 Park:

Goal: Protection and maintenance of wild, natural ecosystems.

Objective	Strategies	Actions
There is no portion of the range use plan area within the boundaries of a park.	No additional grazing strategies will be required.	No management actions will be required

3. Key Areas, Plant Communities and Strategies to achieve Desired Plant Communities

Key areas are portions of a range agreement area selected as monitoring sites for grazing use and serve to reflect the overall level of use and acceptability of current grazing management within the agreement area.

3.1 Plant Communities, range readiness criteria and utilisation levels

Of particular importance are needlegrass, pinegrass and sedge as these are plant communities that have been, or may be, significantly affected by cattle use. These plants have been targeted with range readiness criteria and required average stubble heights at the end of the grazing period.

Bridge Lake Stock Range: Montana Range Unit - Whitley Lake and Twin Lakes subunits,	Current plant community (CPC)	Desired plant community (DPC)	Key areas as mapped	Range Readiness Criteria and Utilization Levels	
Open Range (SBPSmk/SBSDdw1 bioclimatic zones)	<ul style="list-style-type: none"> Kentucky bluegrass Spreading needlegrass timber oatgrass rose shrubs 	Same as CPC	Key Area #1: Montana Hill	Range Readiness Criteria (see section 4.1) - Leaf Stage	<ul style="list-style-type: none"> Kentucky bluegrass: 2.5 Spreading needlegrass: 3.0
				Average stubble height at end of grazing period	<ul style="list-style-type: none"> Kentucky bluegrass: 8cm Spreading needlegrass: 12cm
				Maximum % browse use of shrub	<ul style="list-style-type: none"> 10% of current years growth
Forested Aspen (SBPSmk/SBSDdw1 bioclimatic zones)	<ul style="list-style-type: none"> Overstory of aspen and pine Understory dominated by pinegrass with: <ul style="list-style-type: none"> blue wild rye rose shrubs thimbleberry shrubs snowberry shrubs 	Same as CPC	None	Range Readiness Criteria (see section 4.1) - Leaf Stage	<ul style="list-style-type: none"> Pinegrass: 2.5 (6" nodding)
				Average stubble height at end of grazing period	<ul style="list-style-type: none"> Pinegrass: 15cm
				Maximum % browse use of shrub	<ul style="list-style-type: none"> 10% of current years growth

Bridge Lake Stock Range: Montana Range Unit - Whitley Lake and Twin Lakes subunits,	Current plant community (CPC)	Desired plant community (DPC)	Key areas as mapped	Range Readiness Criteria and Utilization Levels	
Harvested cutblocks (SBPSmk/SBSDdw1 bioclimatic zones)	3. Understory: 1. dominated by pinegrass 2. with orchardgrass 4. On roads & landings: 1. timothy 2. clover	Same as CPC with overstory of free growing 'crop' trees	None	Range Readiness Criteria (see section 4.1) - Leaf Stage	<ul style="list-style-type: none"> • Pinegrass: 2.5 (6" nodding) • Orchardgrass: 3
				Average stubble height at end of grazing period	<ul style="list-style-type: none"> • Pinegrass: 10cm • Orchardgrass: 10cm
				Maximum % browse use of shrub	<ul style="list-style-type: none"> • 10% of current years growth
Streamside riparian (SBPSmk/SBSDdw1 bioclimatic zones)	<ul style="list-style-type: none"> • Overstory dominated by spruce and poplar • Understory of: <ul style="list-style-type: none"> ○ Pinegrass ○ Reedgrass ○ Willow ○ Black twinberry ○ Dogwood 	Same as CPC with riparian zone in properly functioning condition	None	Range Readiness Criteria (see section 4.1) - Leaf Stage	<ul style="list-style-type: none"> • Pinegrass: 2.5 (6" nodding)
				Average stubble height at end of grazing period	<ul style="list-style-type: none"> • Pinegrass: 15cm
				Maximum % browse use of shrub	<ul style="list-style-type: none"> • 10% of current years growth
Wetland/Lake riparian (SBPSmk/SBSDdw1 bioclimatic zones)	5. Sedges 6. Reedgrass 7. Willow shrubs	Same as CPC with riparian zone in properly functioning condition	Key Area #1: Montana Hill	Range Readiness Criteria (see section 4.1) - Leaf Stage	<ul style="list-style-type: none"> • Sedges: beginning to flower
				Average stubble height at end of grazing period	<ul style="list-style-type: none"> • Sedges: 20cm
				Maximum % browse use of shrub	<ul style="list-style-type: none"> • 10% of current years growth

3.2 Range Readiness Criteria prescribed by District Manager

Table 1: Range readiness as defined by Leaf Development for some Common Grass Species.

Species	Leaf Stage
Bluejoint (Canada reedgrass)	3.0
Bromes (introduced)	3.0
Needlegrass	3.03.0
Orchardgrass	3.0
Pinegrass (at nodding)	2.5
Sedges	Flowering
Timothy	3.0
Wheatgrass, bluebunch	4.0
Wheatgrass, slender	4.0
Wildrye, blue	4.0

Table 2: Range readiness as defined by Average Stubble Heights for Upland Species.

Species	Average Stubble Height	
	Cm	inches
Bluegrasses	8	3.2
Bromes (introduced)	10	4.0
Needlegrasses	12	4.7
Orchardgrass	10	4.0
Pinegrass	15	6.0
Timothy (domestic)	8	3.2
Wheatgrass, bluebunch	15	6.0
Wheatgrass, slender	15	6.0
Wildrye, blue	15	6.0

Table 3: Range readiness as defined by Average Stubble Heights for Riparian Species.

Species	Average Stubble Height	
	Cm	inches
Baltic rush	10	4.0
Bluegrasses	10	4.0
Bullrushes	Incidental use	Incidental use
Canada reedgrass (Bluejoint)	12	4.7
Sedges	20	8.0
Spikerush	15	6.0

3. Grazing Schedule

Pasture name, Montana Range Unit	Cattle Class	Number of cattle <
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[Priority of the Twin and Whitley Lake Subunits, Montana Range Unit tenure is 488 AMUs.]

Special Conditions:

1. Dates stated above are guidelines and are overridden by Range Readiness Criteria¹ or by level of utilization. There will be consultation with, and approval from, the appropriate Forest Officer before any variance, of more than five days, in the period of range use dates stated in the grazing schedule. It is our responsibility to move cattle when necessary to achieve prescribed range utilization and in considering the stated district manager objectives and strategies. Cattle will be removed from Crown range when prescribed stubble heights and maximum % browse use of shrubs are reached, or by the date noted above, whichever occurs first.
2. After consultations, turnout and removal dates may be varied or revised by the District Manager.

¹ Range Readiness Criteria refer to current year's growth. All readiness criteria must be met prior to cattle turnout.

4.1 Brands, Location and tags:

Brand: 3 bar H on left hip
Tags: Yellow tag / right ear (There are a small amount of cattle that have a "red tag")
RFID Buttons: Left Ear

4.2 Cattle Movement:

1. After pasture breeding the herd on private land, and depending on range readiness, the complete herd including bulls are turned out onto the range.
2. Cattle are turned out on 1st June, or later depending on range readiness, via the wire gate (WG1) on the west end fence off of Whitley Lake.
3. We turnout the entire herd onto the south and west of Whitley Lake Sub-Unit. We graze our entire herd in the vicinity of this area., but ensure that the herd is broken up across the area. The herd naturally breaks up into smaller groups of 10-30 cows and 1 bull. These small groups are then distributed in this area.
4. We will place salt blocks in various locations throughout the sub-unit well off the normal travelled routes of the herd.
5. We will monitor herd movements and when the herd appears to be congregating in larger groups, we separate and push smaller groups into salt areas.
6. We will conduct continual and consistent weekly range evaluation and cattle movement into optimal grazing will ensure proper stubble heights are met.
7. Salting to facilitate herd movement onto south and south-east spring slopes towards Montana Lake area, including timber grass, will take advantage of early spring forage. Salting will also be used to ensure that proper stubble heights are met.
8. As the summer progresses, into July, salting and herd movement towards the north and east of the Whitley Lake sub unit will utilize the mid-summer grasses. Salting will cease by mid to late August and the herd will naturally drift back towards the Twin Lakes subunit.
9. There are four gates dividing the Whitley Lake and Twin Lakes subunits. They will be opened and herd movement will take place to relocate the herd onto the south side of the Twin Lakes subunit. Salt will be placed in the aspen along the "Whitley Lake ridge" to hold cattle in area.
10. Pasture moves will be complete within 3 to 5 days. Legitimate strays will be actively gathered.
11. By the end of August the herd will naturally drift, and be pushed by saddle horse, into the main Twin Lakes subunit area. Strategic salting to along the bottom of the Lac Des Roches ridge down to the lake, and also high on a ridge overlooking the Twin Lakes will be used to hold the herd in this area. Salting will end By September 1st.
12. By mid-September 75 % of the cattle will drift back towards the Whitley Lake Ranch and will for the most part be on private land that we lease, or on our ranch.

13. Fall roundup will commence September 20st or there abouts, and will facilitate cattle movement off the range in accordance with the grazing schedule so that 80% of cattle will be off the range by the fall removal date (September 20), and 95% will be off within a week after the removal date. Animals on the range after this date will not exceed 5% of the herd and will be removed as soon as possible.
14. Cattle from the range they will be pushed onto private land and the ranch. We will ride daily to find stray cattle and/or bulls and to push those cattle off the range and onto our private lease land or our ranch.

5. Range Management Practices

5.1 Cattle management:

1. Cattle will not be turned onto Crown range until range readiness ensuring that the average stubble height is not criteria prescribed are achieved.
2. The agreed grazing schedule will be adhered to.
3. Stubble heights are monitored to stay within the required average stubble heights.
4. Limit browsing of shrubs to less than 10% of the current years growth.
5. Salt blocks and cattle herding will be used to encourage grazing in underused areas and to prevent over-use of preferred areas.
6. The range area will be ridden one day a week. If the range condition, due to drought or other natural occurrence, requires it we will ride the range more often in order to manage the Crown range forage properly.
7. Cattle will be herded and moved regularly onto 'solid' grazing grounds so they may access quality grasses and avoid over grazing.
8. Management actions will be taken to discourage concentrated trampling of wetlands, lakes or stream riparian areas: herding of cattle to alternate, less used, area of range; zero placement of salt with any "at risk" riparian area.
9. Management actions shall be taken to limit foraging and loafing, and excessive browsing of shrubs in riparian areas: herding of cattle to alternate, less used, area of range; zero placement of salt with any "at risk" riparian area.
10. Tree seedlings on seeded cutbacks and natural regenerated sites will be monitored and cattle removed and kept out if seedling damage exceeds 10% .

5.2 Salting:

1. Salt, or cattle attractants, will be placed at least 400 metres away from wetlands, lake, and stream riparian areas (usually well back in the Aspen).
2. We will not use salt, or cattle attractants, in at risk (soil or plant) areas. We salt no more then two consecutive times in one spot to avoid excess ground erosion.

3. We will not use salt, or cattle attractants, in or near young seedling regeneration sites on harvested cutblock sites.
4. We will not use salt, or cattle attractants, in or near any known First Nation Cultural Heritage area.

5.3 Soil Management:

1. Cattle will not be turned onto riparian areas within the Crown range until soils in those areas are dried so plants are not easily uprooted and hoof damage will not occur
2. Excessive exposed soils caused by cattle will be seeded with an acceptable seed mix to prevent the spread of noxious weeds and cattle will be moved from such areas until recovery takes place.
3. Any established weed communities will be monitored and new infestations will be reported to the Ministry of Forest.

5.4 Seeding Program:

In the Fall of 2009 we commenced a seeding program to rehabilitate grass cover in the following types of areas:

1. all salting areas
2. trails that cattle travel
3. road-side banks
4. access points to watering holes, lake-side, creek-side where cattle have packed down or eaten grasses
5. thistle areas,
6. areas where seeding will mitigate their future use.

This program will continue in future years to facilitate rejuvenation and establishment of better plant communities and ecosystems.

5.5 Pest Infestations:

The entire range area has suffered tree loss to the mountain pine beetle. The main management problem arising from this infestation is tree fall onto fence lines and trails and the resulting work required to clear and repair fence lines and to clear trails.

5.6 Proposed Developments

The following infrastructure items would enable to better management of cattle use of the RAN 074948 range:

1. **Additional fencelines:**

- a. Replacement Fence: The map of the range unit (see Attachment A) shows a section of the existing boundary fence -TF1- that is in very bad repair. If funding is available, it would be very advantageous for range management if this portion of the fence line could be replaced.
- b. New fence: A cross fence (north-west to south-east) dividing the Whitley Lake subunit in half would greatly facilitate and enhance additional grass management, by effectively splitting the complete grasses available within RAN 074948 into three distinct and better manageable areas for – spring, summer, fall. The recommended new fence is shown as WF2 on the map. If, or when, we have the financial capacity to do this fencing we will discuss it with our agronomist first and apply for authority to build the fence.
- c. New/replacement fence: It would also greatly assist cattle movement management to erect a fence from the end of Eugene Lake to join up with the good fence line that exists south towards the logging slashes. This is shown as WF1 on the map. The drying up of this previously natural barrier may cause a problem in the coming years. If this fence is put in as described above it would remedy this situation.

2. Additional waterpoints:

- a. Installation of an additional watering point at the SW corner of Montana Lake would help minimise riparian damage

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3. Additional cattle guard/automatic closing gate:

- a. The wire gate in the south end corner of the Whitley Lake subunit towards the NT Ranch (shown on the map as WG7) is a constant problem with recreational users not closing the gate behind them. Other cattle access our range through this gate and we spend considerable time rounding them up and moving them back on their own range. The gate is checked at least once a week and has to be closed each time it is checked. There is a sign on the gate requesting that it be kept closed. Installation of a cattle guard would mean that recreational users would not have to open/close gates thus eliminating the current problem.

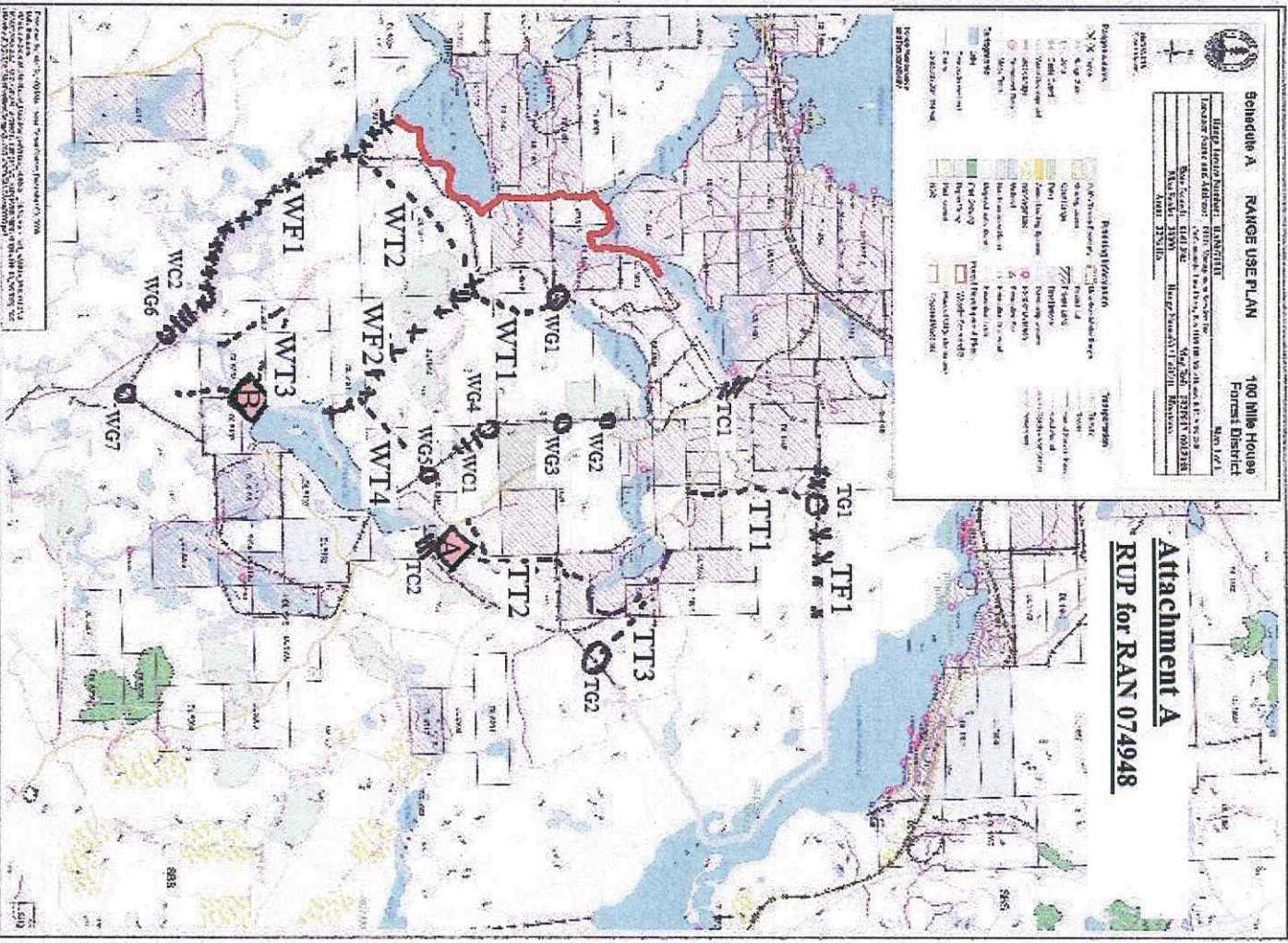
4. Additional Bridge:

- a. Building a proper bridge and fence wings at the west end of Montana Lake would enable more controlled movement of cattle through the associated riparian area / natural barrier at that of Montana Lake. In addition, a right-of way cattle movement corridor would benefit the moving of the herd into a prescribed area. This new infrastructure would facilitate better range management of the far west end of the Montana range.

5. Additional signage:

- a. There is a fragile area on the Twin Lakes subunit is the south side of Montana hill close to the creek flowing out of East Twin Lake and entering Montana Lake. This area is identified on the Twin Lakes subunit map (Attachment A) by a shaded 'rectangular' box labelled A. Recreational motor bike users have established a considerable number of trails throughout this sensitive area causing damage to the grasses. Installation of 'no use' signs (in addition to the fencing recommended above) may help reduce this problem.

If funding is available for any of the above, we would appreciate discussing the development with the appropriate range technician.



Key for Map additions:

Trails: TT1-TT3; WT1-WT4

Gates: TG1-TG3; WG1-WG7

Cattle Guards: TC1-TC2; WC1-WC2

Fragile Areas: A & B

Fencelines to be erected or replaced: TF1; WF1-WF2

Attachment A

RUP for RAN 074948

Schedule A RANGE USE PLAN

100 Mile House Forest District

Map 1 of 1

Map Scale: 1:50,000

Map Date: 1/1/2011

Map Author: J. Smith

Map Reviewer: J. Smith

Legend

Topography

Contour Lines: 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000

Spot Elevation: 1000, 900, 800, 700, 600, 500, 400, 300, 200, 100

Vegetation

Forest: 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000

Shrubland: 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000

Grassland: 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000

Water: 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000

Soil: 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000

Infrastructure

Highway: 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000

Road: 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000

Trail: 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000

Gate: 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000

Cattle Guard: 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000

Fence Line: 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000